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**PLURAL FORMS OF ORGANIZATION:
WHERE DO WE STAND¹**

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¹ Contact: menard@univ-paris1.fr. This paper is partially based on an ongoing research project that involves, beside Ménard, Sylvia Saes (USP), Vivian Lara (USP), Roberta Souza (USP), and Emmanuel Raynaud (INRA-SAD and CES). I am heavily indebted to their insights and their provision of most empirical content for this paper. The project benefits from financial support by CNRS (France; grant nr. 114621) and FAPESP (Brazil; grant nr. 10-52284-4). I am indebted to extended comments from participants to workshops in Rio-de-Janeiro (Institutions and Organization) and Limassol (EMNet) as well as from participants to several seminars in which this paper was presented. Elisabeth Farina, Geoffrey Hodgson, Kostas Karantininis, Peter Klein, Sergio Lazzarini and Josef Windsperger deserve a special mention. The usual disclaimer obviously applies.

PLURAL FORMS OF ORGANIZATION: WHERE DO WE STAND?

ABSTRACT:

This paper addresses a puzzling problem: why do parties often choose to combine alternative modes of organizations simultaneously while dealing with identical or almost identical transactions? I propose a model to capture these so-called 'plural forms' and to explain the choice of such non-standard arrangements. Three determinants are identified as playing the major role: ambiguity surrounding the fitness of a mode of organization to the transaction at stake; complexity of a transaction or a set of transactions; and strategic behavior. Propositions are derived that are confronted to empirical data coming out of the agrifood industry.

1. Introduction

The economic analysis of alternative modes of organization is now a significant part of the research agenda of economics as well as managerial sciences.² In a first step, attention focused on the now famous trade-off between 'make' or 'buy', between markets and hierarchies (Williamson, 1975). However, quite early in the development of this approach, empirical evidence suggested that very often actors operating in the same sector and monitoring similar transactions do not converge on an identical governance structure. We often have a 'mix' at the industry level, with different organizations using different mechanisms regulating basically the same type of transaction.³ This co-existence is puzzling and challenges theoreticians as well as empiricists: **why are different forms of governance often adopted for organizing similar transactions?**

Another step in the extension of organization theory also came out of empirical evidence. Not long after the publication of the classic book on *Markets and Hierarchies* by Williamson (1975), Rubin (1978) pointed out the significance of

² An important signal in that respect was the award of The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel for 2009 to Elinor Ostrom and Oliver Williamson.

³ I define a transaction as the transfer among technologically separable units of rights to use goods or services. For a slightly different definition, see Williamson 1996, p. 379.

another class of arrangements, illustrated by the increasing role of franchising but going beyond that specific form. Further empirical evidence illustrated the variety of these ‘non standard’ arrangements, tagged ‘non standard’ because they do not operate through market rules strictly speaking nor rely on hierarchical mechanisms of coordination. Franchising, strategic alliances, joint ventures and many other forms are preferred to the straightforward alternative between ‘make-or-buy’ to organize transactions, and they seem to do so efficiently. Hence, the initial trade-off was extended to include a third class of arrangements, often identified as ‘hybrids’ as suggested by Rubin.⁴ This category intends to capture the non standard modes of organizations in which parties accept to share some (often substantial) decision rights and even some property rights as when they jointly develop new assets, without merging together. It raises another puzzle: **how do we explain the persistence in the long run of modes of organization in which the allocation of rights is often blurred?**

More recently, theoreticians as well as applied economists have become increasingly aware of another puzzling element. There are numerous situations in which an integrated firm may choose a complex arrangement in which, beside its integrated activities, it develops activities transferred outside its perimeter. This can be so downward, in distribution, the classical example being dual systems in franchising (hence, *MacDonald* maintains company-owned outlets parallel to thousands of franchisees); but also upward, in production, a phenomenon already observed in the pioneering econometric study by Monteverde and Teece (1982a; 1982b) on the transaction cost explanation to integration in the car making industry. Indeed, these authors took note that even in a highly integrated firm (*General Motors* in their sample) the company maintained a subset of external suppliers. However their attention was focused on the reason for vertical integration and they paid little attention to this ‘anomaly’ (if it is advantageous to integrate, why maintain a certain level of outsourcing?), which emerged repeatedly in other studies on vertical integration. Hence a third challenging issue: **if a firm finds comparative advantages in integrating a certain type of transactions, why does it accept or**

⁴ The terminology varies significantly, with economists referring mostly to hybrids, in the williamsonian continuity, while sociologists and other social scientists tend to favor ‘networks’. Other terms (‘symbiotic arrangements’ and so forth) have also been used (see Ménard, 2004, pp. 347 sq.).

even choose to organize a subset of transactions with outside partners for the same activities? (And vice-versa: if there are comparative advantages in externalizing, why does a firm decide to maintain part of the transactions in-house?).

In this paper and in the underlying research project, I focus on this third type of arrangements, which Bradach and Eccles (1989) suggested to identify as ‘plural forms’.⁵ My investigation intends to shed light on the logic of these complex modes of organization through an extension, and in a way a significant revision, of the transaction cost model initially developed by Williamson (1985; 1991/1996). In what follows, I understand plural forms as those organizational arrangements in which for a class of transactions dealing with the same activity and within the same institutional and competitive environment a party uses simultaneously different modes of governance or relies simultaneously on substantially different types of contracts.⁶

As already mentioned plural forms can prevail downstream, as with dual distribution; or upstream, as with inputs procured by alternative modes of organization. They tend to be much more frequent than one would expect. In the distribution sector, beside the classical example of the co-existence of dual mechanisms of governance in franchising, so well illustrated by the fast food industry, there is also the example of major firms using simultaneously different channels to market products. Hence, in Brazil *Danone* distributes its products through supermarkets as well as small independent shops, but also through brokers and even door-to-door sellers. However, there is more to the story than distribution. On the production side, there are many situations of ‘tapered’ integration, as when firms combine ‘make’ and ‘buy’ (Carlton, 1979; Monteverde and Teece, 1982a,b; Heide, 2003). There are even more complex

⁵ The literature uses different terms to represent these mixed governance structures, identified for example as ‘*contractual mix*’ (Bai and Tao, 2000; Silva, 2001; Azevedo et al., 2002); ‘*dual distribution*’ (Dutta et al., 1995); ‘*multi-modal forms*’ (Grandori and Furnari, 2008); or ‘*plural forms*’ (Bradach and Eccles, 1989; Bradach, 1997; and many others!).

⁶ I specify the fact that plural forms develop within the same environment to exclude situations in which a party would choose different forms in different environment because of different rules, laws, etc. (as, for example, in Oxley, 1999). For a related definition, although limited to franchising, see the seminal paper from Bradach and Eccles (1989: 112), in which they defined plural form as an “*arrangement where distinct organizational control mechanisms are operated simultaneously for the same function by the same firm. For example, companies often make and buy the same part; companies frequently franchise units and own units in the same restaurant or hotel chain; and companies sometimes use a direct sales force and third party distributors.*”

situations, as when plural forms upward AND downward are endorsed by the same firm. For example, many chain stores (e.g., *Carrefour*) buy some products directly from producers with whom they implement contracts and from wholesalers as well as from brokers for the provision of exactly the same products; and they similarly adopt plural forms (company-owned, franchisees, even independent sellers), for their marketing activity. *Korin*, a major provider of organic chicken, among many other products, mixes house-made inputs with similar inputs bought directly from farmers, while its retailing activity combines its own stores with franchised units and distribution through large retailers. In other terms, there is a wide variety of forms used by unified entities, typically a firm,⁷ to organize transactions supporting identical activities, horizontally as well as vertically. Notwithstanding their variety, I shall argue in this paper that these plural forms share similar structural characteristics (see also Ménard, 2012).

The paper is organized as follows. Section 2 reviews briefly the existing explanations, emphasizing that they are both diverse and very incomplete, which is not to say that they are irrelevant. Section 3 develops a framework, which intends to embed the variety of plural forms within a unified explanatory model, enriching the now standard transaction cost model initiated by Williamson (1991/1996). Section 4 turns to an extensive sample of ongoing case studies in order to confront this theoretical framework to facts –although at this point one cannot speak of a “test”- and to discuss its relevance. Section 5 concludes.

2. Existing explanations.

Since it emerged explicitly as a puzzle in the literature on organizations, which goes back to the seminal paper by Bradach and Eccles (1989), many alternative explanations have been proposed to the existence and resilience of plural forms. However, I shall argue that these explanations are not satisfactory, partially because they tend to concentrate on a specific facet of the gem and partially because they depend so much on ad hoc assumptions. The quick review below of what I consider

⁷ It can also be a cooperative, a joint venture, etc. Hendrikse and Jiang (2011) provide a rich sample of plural forms and show conditions under which these arrangements can be an efficient mode of organization. See also Ménard (2012) for an analysis of the general characteristics shared by hybrids, notwithstanding their variety.

the main explanations does not intend to discard these views, but to put them in perspective in hope of integrating them in a unified theoretical framework.

2.1: Pieces of the puzzle.

A: Technological diversity.

One possible reason why economic entities might simultaneously address different modes of governance to organize similar transactions could be the co-existence of alternative technologies. For example, a firm or a cooperative may engage in activities using different technologies at some point in time, either because of a changing technological environment as with information and communication technologies (the so-called ICT) or because of path dependence, with investments spread over time on different technologies that continue to coexist. However, this approach is better at explaining the existence of different organizational solutions operating in the same sector, which makes General Motors different from Toyota, then to explain why the same firm, say Ford, uses simultaneously and for identical technologies both in-house and outsourcing solutions.

B: Innovation-oriented solution.

A variation and extension of the previous explanation focuses on the need to motivate partners in an innovative environment. When a sector is facing important technological changes or a significant evolution in demand, one party might have an incentive to experiment with new technologies or new products in order to convince partners, for example franchisees, that there are gains at stake. This would mitigate asymmetric information with respect to new processes or new products. For example, a franchisor can introduce new products and test their reception by customers in his own outlets in order to convince franchisees to adopt the same strategy ('I have tested this technology or this product and it works: it is profitable'). The explanation has its own merits, but it does not cover the numerous plural forms that develop in a stable environment, without significant changes in technology or demand.

C: Financial motivation.

A leading and early explanation provided to the existence of plural forms, and more specifically to dual distribution in franchising, is that financial constraints would be the central motivation. As the story goes on, franchisors wishing to expand might

face scarce financial resources, imposing limitation on their development if they would rely solely on their own outlets. This constraint could provide a strong incentive to outsource the brand name to franchisees, thus expanding without much investment. However, as already pointed out by Rubin (1978), if financial markets are working efficiently a successful franchisor should be able to borrow money needed to expand. So why turn to independent franchisees and expose oneself to the risk of loss of control? This skepticism has been confirmed by empirical evidence suggesting that finance may play a role but is most of the time not the leading factor in the development of franchisees (Lafontaine and Shaw, 1999). Actually, in many cases the franchisor supports financially the franchisee to facilitate his development. Moreover, the financial constraint could hardly explain the continuation and stability over time of dual distribution for a mature and successful franchisor.

D: Benchmarking.

A more convincing explanation that has also attracted a lot of attention, again mostly about franchising, is that franchisors use dual distribution to solve moral hazard problems through benchmarking (Brickley, 1999; Lafontaine and Slade, 2007; the intuition was already in Anderson, 1985). When there is significant asymmetry of information among parties to an agreement, say, because the franchisor does not know very well the local conditions within which a franchisee will operate (e.g., MacDonald operating in China), problems of control and adequate incentives emerge. Keeping part of the activity in-house would then work as an information revealing mechanism. An extension of this argument is that holding its own facilities (own plants or own outlets) gives a party a comparative advantage in negotiating with partners, increasing his capacity to appropriate the value generated in the relationship (Matthewson and Winter, 1991; Bai and Tao, 2000; Heide, 2003). Another possible extension relates to transaction costs: holding part of the activities could diminish the costs of monitoring contracts with external parties. This argument was already in Monteverde and Teece (1982a, b), when they referred to the reason why car makers who develop outsourcing still maintain part of the production in-house. The problem with the benchmarking explanation is that it focuses on problems of control that incentives could hardly overcome, while many plural forms develop even in situations in which control is not a key problem.

E: Credibility of termination.

A possible variation on the theme of control raises the issue of credibility among parties exposed to the risk of opportunistic behavior. In keeping part of the activity in-house and/or in diversifying organizational solutions to procurement or distribution, the initiator would put pressure on his partners or on his own employees, thus reducing risks of opportunism since it makes breach of the relationship a credible threat. This strategy could explain the development of plural forms when a party faces a weak institutional environment, e.g., underdeveloped property rights, or missing devices to implement these rights as when competent and efficient courts are absent. Plural forms could then make credible the risk of termination if some parties deviate, without relying on external institutions. In a sense, this is similar to organizing a tournament among alternative solutions.⁸ It can also be interpreted as a buffer strategy, particularly when specificity of assets, typically brand names, is at stake: the risk for an opportunist party to lose the brand name value when the other party disposes of alternative solutions might help disciplining partners. However, risk of opportunism and the adoption of solutions making threat credible could hardly cover the variety of situations in which plural forms develop.

F: Knowledge-based perspective.

A more recent explanation emphasizes the learning advantages of diversifying arrangements. When dealing with different modes of governance simultaneously, a party might benefit directly from the experience of outsiders. For example, franchisors with independent franchisees often organize periodic meetings or seminars, participate to professional organizations etc. in which franchisees share their experience, but also in which franchisor benefits in internalizing the positive aspects of these experiences into his own outlets (Saes et al., 2011; see also Windsperger et al., 2009⁹). Positive externalities can be expected from varying modes of organization for similar transactions. However, one wonders why so many economic entities (firms, cooperatives) would have to go through these complex and risky arrangements to learn: if information circulates relatively well, why not learn

⁸ Knoeber (1989) developed a similar argument to explain the introduction of incentives based on a tournament in the poultry industry in the US.

⁹ In their paper, Windsperger et al. (2009) combine a knowledge perspective with incentive issues, arguing that joint ownership improves knowledge while providing superior incentives.

from others and imitate them, without sharing rights with the associated risk of losing control over expected benefits?

2.2: Theoretical background.

Notwithstanding their diversity, all these explanations, with the possible exception of the technological one, share some underlying reference either to agency theory, focusing on problems of control and incentives, or to transaction cost economics, focusing on choices among alternative organizational solutions to find the right alignment with the properties of transactions at stake while overcoming risks of opportunism.

This theoretical background emerged only progressively in the literature on ‘non standard’ modes of organization, i.e., forms that correspond neither to market solutions nor to integrated entities (‘hierarchies’). Indeed, it took a while for theoreticians in organization studies to appreciate the significance of these arrangements. In his pioneering paper, Rubin (1978) rightly emphasized the empirical importance of arrangements such as franchising and how they differ from standard forms, without proposing a clear theoretical explanation to their existence and sustainability. This was about the time when Williamson published his influential *Markets and Hierarchies* (1975), in which he considered such forms as transitory, with a limited time span when operating in a competitive environment, a view he abandoned thereafter (Ménard, 2009).

However, it is only in the 1990s that empirical investigations as well as theoretical insights on non standard arrangements took off, and considerations on plural forms developed only at the margin of this literature.¹⁰ Early contributions focused on dual distribution in franchising, with the co-existence of company-owned outlets and the development of independent franchisees. A dominant view at the time, synthesized by Bradach (1997) was that this duality responded to incentive problems. However empirical evidence did not correspond to the prediction that contracts should be tailored to meet the variety of situations at stake. On the contrary, contracts in franchise systems tend to be standardized. A different argument opposed the initial

¹⁰ For an overview of the development of the literature on non standard modes of organization, see Ménard (2004; 2012).

view of Williamson and acknowledged the ‘stability’ of non standard modes of organization, including plural forms, explaining the persistence of such ‘sub-optimal’ arrangements by *path dependence*. This *ad hoc* argument hardly found convincing support in empirical evidence since cross-sector as well as cross-country data attest the resilience of similar plural forms operating in many different industries and in various environments. Another interesting contribution interpreted the adoption of many different arrangements by the strategic behavior of heterogeneous players looking for quasi-rents and how to capture them (Gosh and John, 1999). One problem with this approach is that it provides no clear explanation to why markets or hierarchies do not offer proper means to capture profits, and offers weak predictive power about why to choose one plural form rather than another.

Retrospectively, we can argue that the most significant breakthrough with respect to organizational choices came out of the williamsonian hypothesis about efficient governance, understood as the quest for the right alignment between transactions and modes of organization. Initially focused on the now classical trade-off between ‘make’ or ‘buy’ (1985, chap.4), the model was later extended to include ‘hybrid’ arrangements, which Williamson characterized as “long term contractual relations that preserve autonomy but provide added transaction-specific *safeguards*, compared with the *market*” (1996, p. 378). The efficient alignment hypothesis fed the predictive power of Transaction Cost Economics, giving it a comparative advantage over Agency Theory in the analysis of alternatives modes of organization (Lafontaine and Slade, 2007). Agency Theory assumes actors benefiting from an extended rationality so that its core prediction with respect to the variety and selection of organizational arrangements (essentially contracts) refers to information asymmetry and/or risk aversion of agents, shaping the trade-off between incentives and insurance. In a context of asymmetric information, it is the degree of risk aversion and the opportunity costs involved in participating to a contract that provide the rationale guiding the choice of ‘a well defined and unique’ optimal contract (*ex ante*). The problem of course is that if agents are rational and an optimal contract can be reached, it is hard to understand why they would maintain parallel contracts or different arrangements for similar actions.

Transaction cost economics differ in that it does not require assumptions about rationality or attitude towards risk. The alignment hypothesis proposed by Williamson (1996, chap. 4) relies on the objective adequacy (or inadequacy) between the attributes of transaction at stake and organizational choices available. Let us assume that a transaction can be characterized by the attributes already identified and tested for the ‘make-or-buy’ model, that is: its frequency, the specificity of investments required, and the uncertainty surrounding the transaction. Within rules that shape their interactions (the institutional parameters of the model), parties operating in a competitive environment have a strong incentive to select the mode of organization comparatively more efficient at mitigating transaction costs coming out of the attributes mentioned above. Following Williamson, if we focus on asset specificity as the key attribute in that it is central in exposing parties to contractual hazards, efficient organizational solutions will remain on the inferior frontier of costs, equilibrium varying according to the degree of specificity of investments and the associated contractual hazards. Assuming the existence of three leading modes of organization: going through markets (with spot markets the purest form), internalizing the transaction within an integrated structure (typically a firm), or relying on inter-firm agreements (the so-called hybrid forms), the decision faced by parties is to find the **one form** that fits best the characteristics of the transaction at stake. Figure 1 summarizes the main lessons from this model.

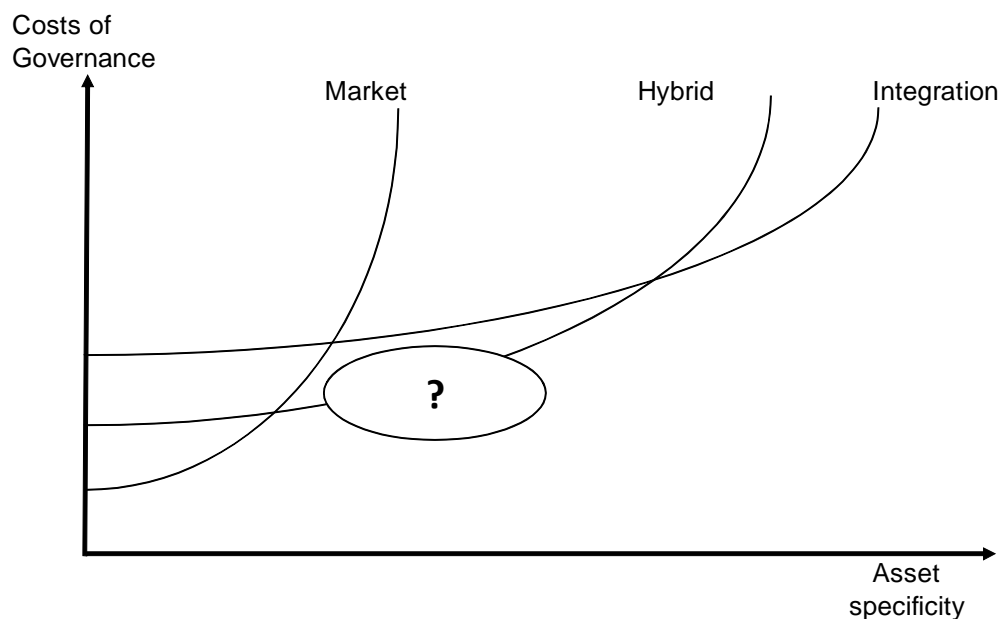


Fig. 1: Williamsonian approach to alternative modes of organization

However, I have introduced in the figure a question mark pointing two underlying problems with this model. (1) Although numerous empirical tests have shown the strong explanatory power of asset specificity as a determinant to the choice of one of the three modes of organization, its predictive power remains less convincing when it comes to the various forms that one specific mode of organization, say hybrids, can take. (2) And what about situations in which a party organizes simultaneously similar transactions under two, even the three modes of organization identified in the model?

In sum, both theories in their existing versions face a dilemma when it comes to explaining the existence as well as the characteristics of plural forms. Indeed, both theories converge on the idea that under competitive pressure a single structure should be the most efficient to govern a particular transaction or set of transactions. In Transaction Cost Economics, this is exemplified by the trade-off between “make”, “buy”, or “go hybrid”. In Agency Theory, it is exemplified by the quest for the ex-ante design of a single optimal contract solving the trade-off between incentives and insurance.

3. An Extensive Framework.

I do not deny the relevance of the explanations listed above. The point I want to make in this section is that they provide partial views that can be integrated in a coherent and unified framework, so that we can make sense of the existence and variety of plural forms. The proposed model is a substantially revised version of Williamson’s transaction cost model from 1991/1996, with a change in the determinants (the independent variable). It is also a generalization that intends to answer three questions. (i) Under what circumstances do we expect the combination of different governance structures to organize transactions with identical attributes? (ii) When confronted to the dilemma of choosing among different modes of organization, what forces determine the choice a party makes? (iii) What are the returns from these plural forms in comparison to arrangements built on a unified governance structure? The first question has to do with the existence of plural forms, the second one with the selection process, the third one with the comparative value and therefore the stability of plural forms. In this paper I focus mainly on the first question, with some insights on the two others.

Let us assume the existence of an economic entity (a firm, a cooperative, etc.) – let us call it an organization-- with well defined property rights as well as decision rights. Let us also assume that in order to develop its activity this entity has to organize transactions with one or more other entities, either upstream to acquire needed inputs or downstream to market its products or services efficiently. It means that there are benefits to be expected for this entity in finding ways to coordinate with other entities. According to the standard transaction costs model, illustrated by figure 1, there are three possible choices for this entity, to which are associated distinct costs: it can organize the transactions needed through the market mechanism, dealing with a set of competitive firms without sharing any substantial rights; it can do it in acquiring property rights that will put control over inputs or outputs in the hands of a unique Board that usually delegates a substantial part of decision rights to an integrated management; or it can find that holding and using some assets jointly with other entities, e.g., through a joint venture, is an important source of benefits. In other terms, this economic entity can benefit from coordination and can do so in using markets, in integrating, or in going hybrid, thus deciding how interdependent activities with overlapping rights should be governed, at what level it should be implemented (upstream or downstream), and with what intensity of control. The core of Williamson’s argument is that these choices involve different transactions costs and that in a competitive environment actors are pushed towards the solution minimizing these costs, which happens when the mode of organization chosen is “aligned” with the properties of the transaction at stake. It is so when the choice made keeps costs on the inferior frontier in figure 1.

Now let us assume that this choice is not obvious, because transaction costs cannot be identified that easily and/or cannot be measured rigorously and/or that there is no clear answer with respect to their minimization. In a sense we are in a situation in which the sub-additivity in merging entities involved in a transaction, merging only part of their activity, or keeping them separate remains undetermined. If V is the value associated to merger or acquisition between two entities, 1 and 2, we have the undetermined relation:

$$V(1,2) \begin{matrix} \leq \\ > \end{matrix} V(1,0) + V(0,2)$$

With respect to the transaction at stake (how to obtain a specific input and/or how to market a specific output) and the comparative benefits from alternative ways to coordinate assets required for this transaction, I see three possible determinants pushing towards the diversification of organizational responses: (1) ambiguity in the advantages expected from a more or less intense coordination/control over key assets; (2) complexity plaguing the governance of the assets involved in the transaction, thus creating uncertainties about the adequate mode of organization; or (3) strategic behavior with respect to modalities of coordinating the use of assets in relation to partners that can also be competitors. Let us examine with some details these possible determinants of plural forms and how they can be embedded in a revised version of the model proposed by Williamson (figure 1).

3.1: Dealing with Ambiguity

First, there can be **ambiguity** plaguing the choice among alternative means of coordination, typically because the degree of specificity of assets involved cannot be assessed precisely so that the expected benefits from coordinating these assets and controlling their usage through one or the other arrangement can hardly be evaluated at the time the mode of organization is chosen. From this, I derive the following proposition:

Proposition 1: Ambiguity about the fittest mode of organization to obtain the expected benefits from coordinating specific assets pushes towards plural forms.

We are at the intersection of the curves in figure 1, within ranges (C_1 or C_2) in which there is a blurred connection between benefits expected from the coordination of the specific investments required and the adequate mode of organization, with the marginal advantages of one mode of organization over the other almost impossible to assess.¹¹ This situation can be illustrated by the case of cooperatives, e.g. consumers' cooperatives confronted downstream to positioning themselves on markets or making

¹¹ Note that on the horizontal axis I substitute 'benefits of coordination // control' over assets to the direct measurement of asset specificity suggested by Williamson. I suggest this cost/benefit analysis helps overcoming measurement problems that the williamsonian approach has faced.

hybrid agreements with other entities (see the shaded area corresponding to C_1 in figure 2); or producers' cooperatives mixing upstream quasi-integration by imposing strict standards to their partners with full integration on other segments of the same activity, thus getting entire control over decision rights (see shaded area C_2 on the same figure).

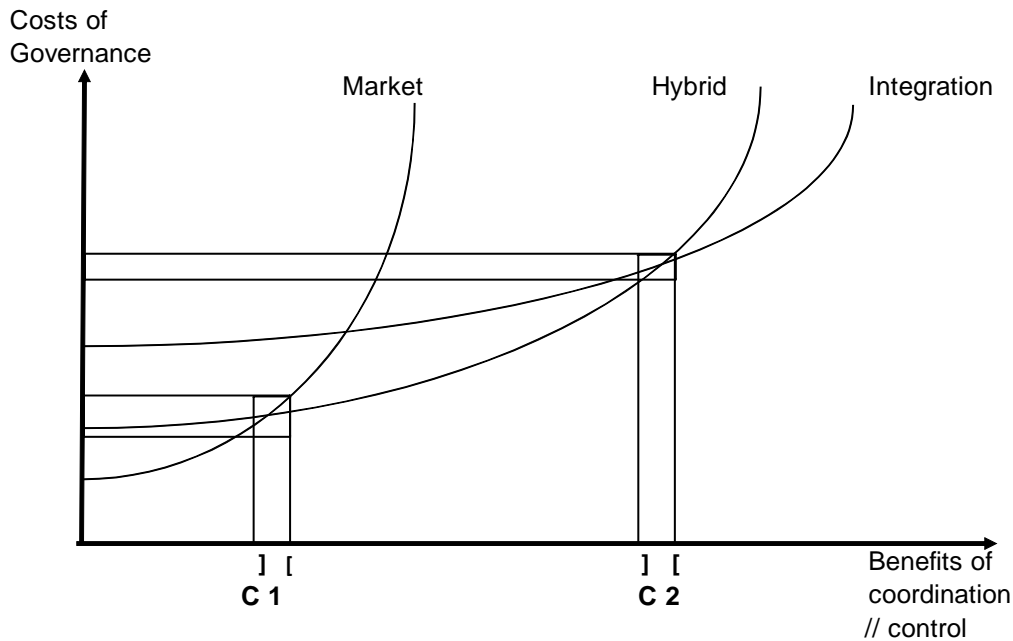


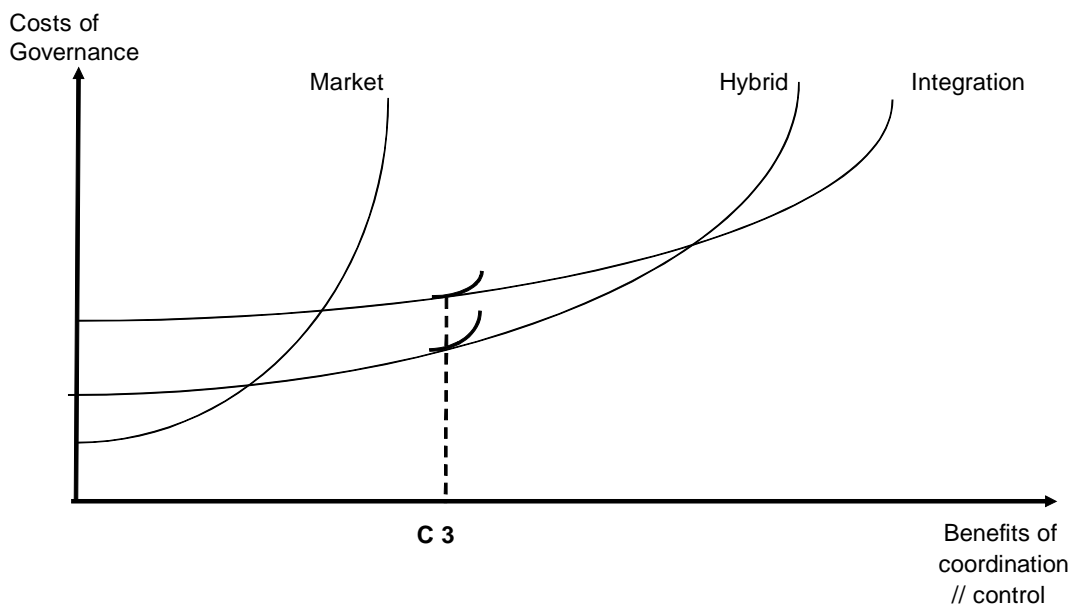
Figure 2: Ambiguities in benefits/costs among alternative modes of coordinating/controlling specific assets.

3.2: Monitoring Complexity:

There are also situations in which a transaction (and, even more so, a set of interdependent transactions) becomes so **complex** that it generates uncertainties about the most efficient mode of organization. This situation is different from the previous one in that the problem here is not primarily assessing the exact degree of specificity of assets involved, but rather a problem regarding the adequate way to monitor the transaction(s) at stake, with the risk that reversing the course of action if a single form was chosen might involve high transaction costs. This might push an entity to endorse simultaneously two different arrangements for transactions sharing quite similar characteristics. Hence the following proposition:

Proposition 2: *Complexity coming out of uncertainty about the adequate monitoring of transaction(s) at stake pushes towards plural forms.*

One can identify different sources to this complexity, which comes out of the nature of transaction(s). To illustrate, think about the possibility that two quite distinct technologies are available, one that requires tight central coordination, the other that do better when operated in a decentralized fashion. Let us assume that the level of investments required is quite similar and it is not clear at the time the investment is made which technology will be the most beneficial, although both require a similar intensity of control. An organization might then have an incentive, for the same level of expected benefits, to maintain two modes of governance simultaneously. Another example is when the adoption of a single technology has complex effects difficult to evaluate at the time of the adoption. An illustration is provided by the impact of the introduction of Information and Communication Technology in the trucking industry: on the one hand it facilitates centralized control over truckers, which motivates integration; on the other hand it facilitates decentralized coordination among independent units operating as a network. There is no obvious answer to what the optimal solution would be, and an organization might have an incentive to go both ways. One last example is that of a firm simultaneously engaged in the production of relatively similar goods using the same technology, but with output of different quality justifying different organizational arrangements.¹² The point C₃ in figure 3 represents such situations.



¹² Ménard and Raynaud (2011) analyzed a group of producers (millers) who market the highest quality of their production through franchisees tightly controlled while they sell the rest of their production through standard market mechanisms.

Figure 3: Complexity making the choice of the most efficient mode of coordination//control highly uncertain.

3.3: Strategizing.

Strategic behavior might also push towards the adoption of plural forms. Here we are not concerned by strategies generally speaking but with strategies about how to organize specific transactions. Typically such behavior develops when a party (often the ‘initiator’ of an agreement) intends to take the lead of the relationship by determining the governance structure of the arrangement but faces problems of coordination or control that could challenge his capacity to reap the benefits. A solution can be to overcome these difficulties by decoupling modes of governance, using different organizational forms simultaneously in order to facilitate monitoring and control and, in last resort, to capture a more significant part of the rent. From this, I derive the following proposition:

Proposition 3: Strategic behavior oriented towards ripping benefits while confronted to problems of control over parties to a transaction pushes towards plural forms.

This is typically the case with benchmarking strategies, so well illustrated by dual distribution in franchising. If A is the ‘driver’ of the relationship (the franchisor) and $B = \{B_1, B_2, \dots, B_n\}$ the outlets, A might combine company-owned outlets with independent franchisees in order to minimize the possibility of ex-ante as well as ex-post opportunism of agents involved and to facilitate control over the rent. Benefits captured might slightly differ among these two forms and may correspond to apparently sub-optimal combinations in the short run, as suggested by the domain C_4 in figure 4, but might carry gain in the long run if control is facilitated.

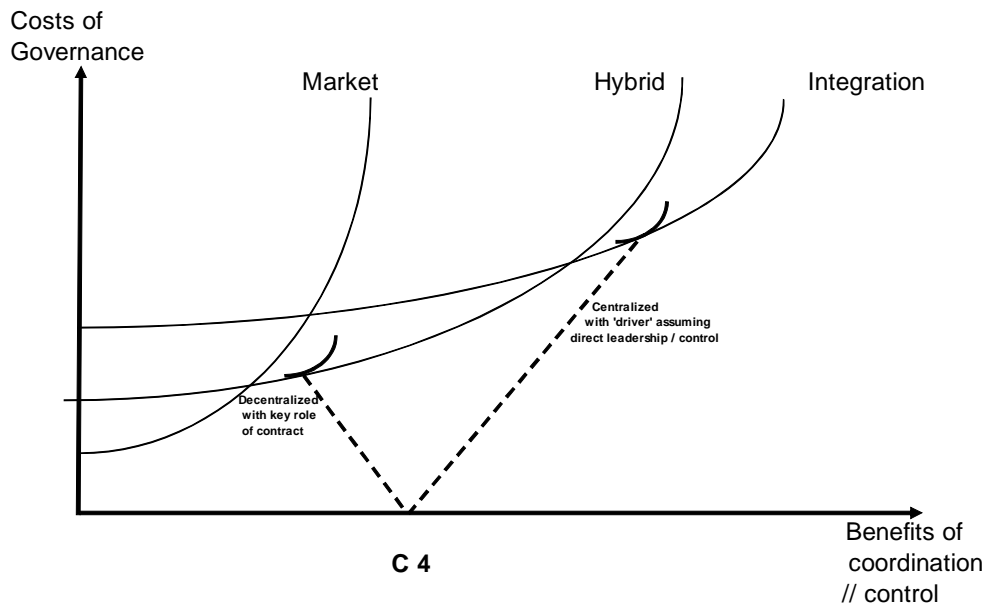


Figure 4: Plural forms resulting from strategic behavior facing problems of coordination / control

3.4: Multiple equilibrium.

To sum up, this model hypothesizes that modes of governance and their capacity to fit properties of the transactions they intend to organize can be submitted to ambiguities due to difficulties in assessing precisely the specificity of assets at stake and/or the costs of alternative solutions for dealing with these transactions; to complexity in the characteristics of the transaction that generates uncertainties about the adequate mode of organization; or to strategic behavior from some partners committed to the arrangement, pushing them to endorse various means of control. I went a step further in suggesting that these three determinants: ambiguity, complexity, and strategic behavior, posit themselves differently along the axis of benefits according to their role in the benefits expected from varying degrees of coordination and control in the transaction(s) at stake.

In doing so, I was able to embed these determinants, which subsume the different explanations reviewed in 2.1, into an extended version of the Williamsonian model summarizing the trade-offs among alternative modes of organization. At the same time, I showed that the model differs from Williamson (1996, chap. 4) in that it deals with a problem that can hardly be grasped in the standard version of this model, namely the possibility that an organization selects simultaneously different ways to

organize similar transactions. On the one hand, as in the trade-off among the three broad families of organizations studied in the williamsonian tradition, I maintained the fruitful assumption that agents tend to endorse cost-minimizing solutions when they operate in a competitive environment. On the other hand I have exhibited the possibility that an organization might face different solutions without the capacity to clearly discriminate among them, so that this organization might have an incentive to operate different arrangements simultaneously, actually implementing a multiple equilibrium identified as ‘plural forms’ in the literature.

4. Empirical test.¹³

The empirical strategy associated to the model above and its related propositions relies on an in-depth exploration of first-hand case studies that, in my view, go further than casual evidence. Although they almost all come out of the agro-food industry, and almost entirely from Brazil, they cover many different subsectors, along the entire supply chain, and they involve many different technologies and various actors. As such, I suggest that they carry lessons going far beyond the specific agro-food industry.

However, at this stage data in relation to our model are still being collected and data already available are still being processed. Therefore, preliminary elements reported here remain incomplete and do not allow to “test” the propositions derived from the model above and summarized in figures 2, 3 and 4. What we have, on which I am building the insights below, is a set of detailed information on 22 case studies¹⁴ that cover fresh products (tomatoes, eggs, corn, grapes, and sugar cane), processed products (corn, wine, yoghurt, flour, sugar, and cellulose), and distribution of food products. Data are both qualitative, about the types of existing arrangements and how they connect to our model; and quantitative, providing rich information about the performance of these arrangements. In what follows I essentially focus on the first aspect, which is about the determinants of the choice of plural forms, putting aside the issue of their performance. Although our sample is too narrow to deliver

¹³ This section is a very preliminary report based on an ongoing extensive study of several plural forms, mainly in Brazil. I am deeply indebted to the leaders of this project, Sylvia Saes, Vivian Lara and Roberta Souza for their insights and for having shared the data with me.

¹⁴ In what follows for sake of simplification I report on 17 cases since the 6 cases of franchising have been put together because with respect to our topic, they belong to the same family

confirmation of our propositions, not to speak about testing them, it already carries a non negligible set of data that strongly support the approach developed in section 3.

4.1: Case Studies: Supportive to the Propositions.

As mentioned above, almost all the empirical material that I rely upon so far comes out of detailed case studies developed by my Brazilian partners in this project. It is also partially inspired and controlled by another set of empirical studies on the organization of several sectors of the agri-food industry in Europe (Raynaud et al., 2009; Ménard and Raynaud, 2011). For the purpose of this contribution, let me stick to a very simplified table (Table 1)¹⁵ summarizing the main lessons learned from the case studies completed so far, about the different types of plural forms we can observe and how they relate to the propositions developed above.

For sake of clarity, and maybe also with the implicit goal of trying to identify if certain activities are more prone to specific types of plural forms, I have arranged the sample according to the determinants, with cases dominated by ambiguity at the top of the table, those dominated by complexity in the middle, and those in which strategic purposes prevail listed at the bottom of the table.

| | Arrangements (types of plural forms) | Activity | Ambiguity | Complexity | Strategy |
|---|--|------------|-----------|------------|----------|
| KORIN: Tomatoes (Upstream) | VI (10 %; target 30 %) and Variety of contracts | Purchasing | ++ | + | + |
| KORIN: Tomatoes (Downstream) | VI and Variety of Contracts | Selling | 0 | ++ | + |
| KORIN: Eggs (Downstream) | VI (50 %) and Variety of contracts | Selling | 0 | ++ | + |
| KORIN: Corn (Upstream) | VI (60-70 %) and Variety of contracts | Purchasing | 0 | ++ | + |
| KORIN: Corn (Downstream) | VI And Variety of contracts | Selling | 0 | ++ | + |

¹⁵ A more detailed version with motivation for the different values is provided in ANNEX 1.

| | | | | | |
|--|---|-----------------------------|---|---------|----|
| CORDELIER: Wine (upstream) | VI (60 % in-house) and Variety of contracts with outside suppliers | Purchasing grapes | 0 | ++ | + |
| DON LARINDO: Wine (upstream) | VI (60 % in-house) and Variety of contracts with outside suppliers | Purchasing grapes | 0 | ++ | + |
| DANONE: Yogourt (downstream) | Variety of contracts: - with major supermarkets; - with retailers; - with independent door-to- door sellers | Selling | 0 | ++ | + |
| NESTLE: Yogourt (downstream) | Variety of contracts: -with major supermarkets -with retailers -with independent door-to- door sellers | Selling | 0 | ++ (| + |
| COSAN/ESSO/ SHELL Sugar Cane (upstream) | VI and Spot market and contracts | Buying cane | 0 | ++ | + |
| COSAN/ESSO/ SHELL Sugar Cane (downstream) | VI and Franchising | Selling ethanol | 0 | ++ | + |
| KLABIN Wood supply (upstream) | VI (+/- 65 %) and extensive set of contracts (with 18,000 producers) (+/- 35 %) | Buying Input (wood) | 0 | ++ | + |
| KORIN: Eggs (Upstream) | VI (50 %) and Hybrid (with same contract) | Purchasing inputs (eggs) | 0 | + | ++ |
| BANETTE: Millers -> Bakers (downstream) | Hybrid (franchise) and market (they sell directly) | Selling flour | 0 | + | ++ |
| MOEMA Sugar Cane (Upstream) | VI (in-house) and Spot market and Variety of contracts and partnerships | Buying cane | 0 | + | ++ |
| MONTE ALEGRE Sugar cane (Upstream) | Spot market And Contracts | Buying cane | 0 | + | ++ |
| SET OF FRANCHISORS (McDonad's, Grill | VI And | Selling products | 0 | + | ++ |

| | | | | | |
|---|--|--|--|--|--|
| Courtepaille, La Boucherie, Comtesse du Barry, Jeff de Bruges, Segafredo Zanetti) (Downstream) | Franchising (with portfolio of contracts) | | | | |
|---|--|--|--|--|--|

In this table, 0 means that the relevant variable does not seem to play a significant role in the choice of the arrangement, + signals that the related variable has a moderate influence, ++ indicates a major determinant.

(VI is for ‘vertical integration’)

Table 1: Sample of plural forms according to the leading determinant.

4.2: Preliminary observations and discussion.

The main propositions derived from the model introduced in section 3 were that plural forms develop when parties are confronted to ambiguities in the degree of coordination and/or control required at certain levels of specific investments; to complexity with respect to the characteristics of the transaction(s) a party has to monitor; or to strategic behavior developed by a party intending to capture as much rent as possible but confronted to monitoring/control problems. In all cases the economic entities at the origin of the plural arrangement face measurement problems that make incentives a non-trivial issue. In other terms, transactions at stake have characteristics that make the choice among alternative arrangements an open issue; and the problems of coordination and control from which benefits are expected are such that the ‘driving’ party has an incentive to diversify its organizational portfolio.

A first striking fact coming out of our sample is that plural forms by far exceed the case of franchising. It concerns upstream relationships as well as downstream transactions. In their search to secure their inputs and/or to coordinate their suppliers in order to avoid disruption (in quantities) or discontinuity (in quality), economic actors often diversify the arrangements on which they rely. They do so upstream in forms comparable to those downstream, the later having been more systematically explored in the literature, particularly through the case of dual franchising.

A second noticeable element suggested by our table is that for different activities, the same economic entity might choose different organizational solutions. For example,

KORIN, on which we have relatively dense information with respect to different products, chooses different types of plural forms according to the type of constraints the product at stake imposes on coordination (e.g., among a large set of suppliers) and control (e.g., over quality, freshness etc.) in the transaction. In this case, as in several others still under investigation (e.g., Carrefour), it goes even further: the same company might even adopt different arrangements for the same product at different stages along the supply chain, which means that there are transactions with distinctive characteristics at these stages. This strongly supports the central Williamsonian proposition that it is the adequacy between the organizational solution and the type of transaction in relation to the activity at stake that really matters when it comes to explaining organizational choices.

A third observation coming out of our sample, and I am fully aware that this sample remains limited, is that it is the complexity of transactions, when it is an issue, that is the predominant factor pushing towards the adoption of plural forms. In my view there are two possible explanations to this prevalence of complexity. One is that confronted to complex transactions, either because of the type of investment needed or because of uncertainties surrounding the transaction (upstream: supply is a problem with respect to quantity or with quality; downstream: marketing is a problem, whether competition creates uncertainties and potential volatility and/or because there is a variety of different niches to occupy), actors use plural forms as a way to keep these factors under control. Another possible explanation is that using plural forms opens room for a learning process that may concern different dimensions of governance, that is: learning about the behavior of partners so as to check more efficiently risks of opportunism; learning about the technological alternatives when they exist; and/or learning about contractual hazards associated to different organizational solutions.

Last but not the least a main lesson from the data collected so far, which partially sums up all of the above, is that governance problems are really at the core of the explanation to the existence of plural forms. Indeed, in our detailed surveys, and this shows through their absence in table 1, traditional factors that have been considered as key explanations to the existence of plural forms do not seem to be that significant. For example, technology is quite well known for most of the sectors we

have explored and does not provide a discriminating criterion among the possible organizational solutions. Similarly, financial constraints do not appear as a leading factor in the decision to go plural. Actually they were rarely mentioned in our interviews and they did not show up in our surveys or case studies.

This significance of governance is closed to what Hendrikse (2007; also Hendrikse and Jiang, 2011) has exhibited repeatedly as the key issue for understanding the characteristics and performance of cooperatives. Finding ways to control risks of opportunistic behavior among partners and to develop a more efficient coordination, which may require forms of cooperation notwithstanding the competitive environment, while keeping the powerful incentives that full integration could hardly provides are issues at the core of the governance problems that the adoption of plural forms intend to solve.

5. Conclusion

Providing models that include modes of governance that are neither of the market form nor integrated organizations has been a major step in the development of organization theory over the last two decades. It allowed the enrichment of the basic ‘make-or-buy’ approach, which in itself was already a breakthrough in the field of industrial organization, particularly because it reintroduced issues of organization theory that have been forgotten or put aside with the relative decline of the marshallian perspective.

However, a more complex picture is now emerging with respect to the variety of arrangements once captured under the three generic forms of ‘market’, ‘hierarchy’ or, more recently, ‘hybrids’. We have known for a while that market arrangements are diversified (with different structures and different properties). Similarly, there has been a growing literature, particularly in the vein of Chandler, about the variety of integrated organizations. We are now becoming aware that there is also a puzzling diversity of hybrid arrangements.

As a result, our representation of the ‘real’ world of organizations is becoming more diversified, at the risk of becoming messy if we do not develop a general theory to structure and explain this rich material. We need to better understand this diversity of

modes of organization and the determinants of the trade-offs among them. Transaction cost economics and, to a lesser degree, agency theories have helped us making major steps in this direction. On the normative side, developing adequate models can shed light on those factors that motivate actors to prefer one type of arrangement to another one, or to prefer a combination of various forms.

This paper, and the underlying dataset we are beginning to explore, goes a step further in the effort to propose a unifying theoretical framework to explain this variety of forms. In exploring the possible logic behind plural forms, my main concern was not to contribute to the already abundant literature about why a party chooses vertical integration, market solutions, or a hybrid arrangement in organizing a transaction. What I did was to focus on this specific and puzzling problem: why do actors often choose to **address and combine alternative modes of organizations simultaneously?**

I have argued that understanding this puzzling fact does not fit well with most explanations developed to explain the trade-off among the three main families of organization that dominate the literature so far. It is necessary to push further and to propose a more adequate analytical framework in order to explain solutions that are not trivial and by far exceed the case of dual franchising. The model sketched above and the empirical observations and data already collected for substantiating the propositions it suggests can be viewed as a step in this direction. However, I am fully aware that it remains at a very preliminary stage on the theoretical side, since the model remains relatively crude, as well as on the empirical side, since our sample remains limited and too narrow to allow systematic tests.

One can expect that further exploration in this direction will contribute significantly to this puzzling and important fact in organization theory, the existence of plural forms.

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ANNEX 1¹⁶

| | Arrangements (types of plural forms) | Activity | Ambiguity | Complexity | Strategy |
|---|--|------------|---|--|----------|
| KORIN: Tomatoes (Upstream) | VI (10 %; target 30 %) And Variety of contracts | Purchasing | ++ (because farmers are not familiar with greenhouse Same investment required, but variety of arrangements possible –e.g. VI, contracts-with uncertain comparative costs of governance | + | + |
| KORIN: Tomatoes (Downstream) | VI And Variety of Contracts | Selling | 0 | ++ (because of fragility of product and difficulty to coordinate/control this variable) | + |
| KORIN: Eggs (Downstream) | VI (50 %) And Variety of Contracts | Selling | 0 | ++ (because of difficulties in controlling freshness at market level) | + |
| KORIN: Corn (Upstream) | VI (60-70 %) And Variety of contracts | Purchasing | 0 | ++ (because of uncertainties in supply for the 30 % that is not produced ‘in-house’) | + |
| KORIN: Corn (downstream) | VI And Variety of contracts | Selling | 0 | ++ (because corn is a seasonal product and feeding organic chicken, an important activity at Korin, depends on this source -60 % with corn) | + |

¹⁶ The content of this table owes much to interactions with Vivian Lara, Emmanuel Raynaud, Sylvia Saes and Roberta Souza. I am most grateful to them for what is really a joint venture.

| | | | | | |
|--|---|----------------------|---|---|---|
| CORDELIER: Wine (upstream) | VI (60 % in-house) and Variety of contracts with outside suppliers | Purchasing grapes | 0 | ++ (because volatility in quantity and important variations in quality require the flexibility of contracts as complement to in- house production) | + |
| DON LARINDO: Wine (upstream) | VI (60 % in-house) and Variety of contracts with outside suppliers | Purchasing grapes | 0 | ++ (Same problem as above) | + |
| DANONE: Yogourt (downstream) | Variety of contracts: with major supermarkets; - with retailers; with independent door-to-door sellers | Selling | 0 | ++ (because problems in penetrating new markets, targeting specialized niches, thus increasing demand while keeping quality under control) | + |
| NESTLE: Yogourt (downstream) | Variety of contracts: with major supermarkets -with retailers -with independent door-to-door sellers | Selling | 0 | ++ (because problems in penetrating new markets, targeting specialized niches, thus increasing demand while keeping quality under control) | + |
| COSAN/ESSO /SHELL Sugar Cane (upstream) | VI And Spot market And contracts | Buying Cane | 0 | ++ (because of necessity to have product available at exact dates, places, with exact volume) | + |
| COSAN/ESSO /SHELL Sugar Cane (downstream) | VI And Franchising | Selling ethanol | 0 | ++ (because necessity to market extensively to many different collations and to deliver on time the right quantity) | + |

| | | | | | |
|---|---|-----------------------------|---|--|--|
| KLABIN Wood supply (upstream) | VI (+/- 65 %) And extensive set of contracts (~18,000 producers) (+/- 35 %) | Buying Input (wood) | 0 | ++ (because of need to have regular supply while keeping into account local specificities) | + |
| KORIN: Eggs (Upstream) | VI (50 %) and Hybrid (with same contract) | Purchasing inputs (eggs) | 0 | + | ++ (because key problems are incentives and quality control) |
| BANETTE: Millers -> Bakers (downstream) | Hybrid (franchise) and market (they sell directly) | Selling flour | 0 | + | ++ (because of dual circuit: (1)Millers (Banette) and their franchised bakers (2)Millers (direct) and other customers (restaurants, industrial bakeries etc.) With problems of control over quality |
| MOEMA: Sugar cane (upstream) | VI And spot market and variety of contracts and partnerships | Buying cane | 0 | + | ++ (because of competition among plants, due to local specificities) |
| MONTE ALEGRE: Sugar cane (upstream) | Spot market And Contracts | Buying cane | 0 | + | ++ (because of competition among plants, due to local specificities) |
| SET OF FRANCHISORS (McDonald's, Grill Courtepaille, La Boucherie, Comptesse du Barry, Jeff de Bruges, Segrado Zanetti) (Downstream) | VI And Franchisees And Master franchisees (with portfolio of contracts) | Selling products | 0 | + | ++ (because of well- known problems in franchising of monitoring franchisees and keeping control over brand name value) |