
PLURAL FORMS OF ORGANIZATION: DOES HISTORY MATTER?¹

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Abstract

Although various studies have demonstrated the stability of plural forms over time - namely the simultaneous use of two or more organizational forms in the governance of similar transactions (Lafontaine & Shaw, 1999, 2005; Azevedo & Silva, 2001, 2007) – many theoretical advances are still required in this field, especially with respect to understanding its underlying motivations. Even though authors like Bradach and Eccles (1989), Bradach (1997), Heide (2003) and Parmigiani (2007) have made significant contributions to the understanding of the reasons driving companies to use plural forms, little attention has been devoted to analyzing dynamic aspects within this kind of decision. Therefore, in this paper, it is sought to point out the need for a more dynamic view of plural forms. More specifically, it is intended to demonstrate that history matters in the choice of a plural form. To this end, a case study conducted at Korin is presented and illustrates well our viewpoint. Three pieces of empirical evidence are analyzed and depict the phenomenon of plural forms within Korin's production of organic tomatoes and eggs and within its distribution system; in support of our proposition. We conclude with some final comments.

Key words: *plural forms, governance, dynamic, natural agriculture.*

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1. Introduction

The plural forms phenomenon – namely, the simultaneous use of two or more organizational forms in the governance of similar transactions - has been intriguing organizational economics researchers for several years. This becomes true mainly because the mainstream analytical views, defending the superiority of a single structure over the set of all feasible alternative forms, have been challenged by the various studies that demonstrate the stability of plural forms over time (Lafontaine & Shaw, 1999, 2005; Azevedo & Silva, 2001, 2007).

Even though authors like Bradach and Eccles (1989), Bradach (1997), Heide (2003), Parmigiani (2007) and Menard (2012) have made significant contributions to the understanding of the reasons driving companies to use plural forms, many theoretical advances are still required in this field, especially with respect to enhancing the understanding of its underlying motivations.

In this respect, it is worth to point out that whereas there have been numerous attempts to provide static explanations for the emergence and persistence of such an “anomaly”, very little attention has been devoted to analyzing dynamic aspects within this kind of decision.

Therefore, in this paper, it is sought to point out the need for a more dynamic view of plural forms. More specifically, it is intended to demonstrate that history matters in the choice of a plural form, especially because governance structures are unlikely to remain unchanged over time (Langlois, 1984). Moreover, we hereby argue in favor of the view that the actual emergence of some governance configurations could not be attributed solely to efficiency reasons, but rather, either to the existence of governance inseparabilities (Argyres & Liebskind, 1997) or to the path dependent nature of the governance decision. Regardless of the underlying reasons, the central message laid down in this paper is that history matters and should be accounted for when analyzing plural forms.

To this end, this paper has been structured as follows: first, we provide a brief overview of the phenomenon, highlighting the historical development of its mainstream views, along with the prevailing approaches to the understanding of plural forms. We also point out some of the deficiencies presented by those theories. Next, we argue in favor of a more dynamic view of these forms by offering some of the criticisms relative to the static analyses of governance structures that are set forth by authors like Langlois (1984) and Argyres & Liebskind (1997). In the next section, we furnish some empirical evidence in support of our proposition by presenting the case study conducted within Korin’s organic production and distribution of tomatoes and eggs. Finally, we conclude with some implications and remarks.

2. Plural forms and its mainstream views

Unlike the discriminating alignment view (Williamson, 1996), various empirical studies have revealed the governance of a set of similar transaction through the simultaneous use of two or more organizational forms (Monteverde & Teece, 1982; Bradach & Eccles, 1989; Bradach, 1997; Lafontaine & Slade, 1997; Heide, 2003; Jacobides & Billinger, 2006; Puranam, Gulati & Bhattacharya, 2006; Parmigiani, 2007). In fact, one of the first empirical evidences regarding this phenomenon dates back to the early 80’s, when Monteverde and

Teece (1982) conducted a study aimed at analyzing vertical integration decisions within the automobile industry. By conceiving of vertical integration as the in-house production of over 80% of the analyzed components, the authors implicitly recognized that such a transaction was simultaneously governed by the market and by the hierarchy, although this was definitely not their aim. After all, at that time, the logic behind the theory of the firm still relied on the dichotomy of the markets and hierarchies introduced by Coase (1937) and maintained by Williamson (1973).

Bradach & Eccles (1989) later questioned such a dichotomous conception by proposing the existence of a continuum of non-mutually exclusive organizational forms, coordinated by authority, price and trust mechanisms; between the polar modes of the market and the hierarchy. It is worth noting, however, that although this view might seem similar to that of Williamson's (1996) and Menard's (2004) relative to hybrids, an important innovation introduced by Bradach & Eccles (1989) consisted of the idea that transactions would be embedded into other transactions and into their social context. In other words, the authors introduced, for the first time, the concept of plural forms as "[...]an arrangement where distinct organizational control mechanisms are operated simultaneously for the same function by the same firm." (Bradach & Eccles, 1989: 112).

Following Bradach & Eccles (1989), various empirical studies have evidenced the existence of plural forms. For instance, Parmigiani (2007) found that companies operating in the tooling industry both made and bought metallic components. Downstream, Lafontaine (1992) and Lafontaine & Slade (1997) pointed out the coexistence of company owned and franchised outlets while Heide (2003) evidenced the simultaneous use of the distribution channels owned by both firms and third parties.

Hence, it is worth noting that in all the aforementioned examples, a set of similar transactions is simultaneously governed by two or more organizational forms, unlike the theoretical approaches developed in accordance with Williamson's rationale, which is not well suited to analyze this real world phenomenon.

It is worth highlighting, however, that although this restriction has already been recognized by several authors within the organizational economics literature (Jacobides & Billinger, 2006; Puranam, Gulati & Bhattacharya, 2006; Mello & Paulillo, 2010), there had been an initial resistance in admitting it. In fact, various studies sought to frame the anomaly into TCE's guidelines, namely in three different ways, directed towards distinct aspects of the Transaction Cost Economics theory.

The first theoretical stream relies on the logic that plural forms do not govern similar transactions, but rather a set of different transactions. As of this argument, plural forms would be framed into the logic of TCE since each transaction would present the three dimensions specified by Williamson (1985, 1996) – asset specificity, frequency and uncertainty - in different proportions, which would explain the discrepancies observed in the selection of the efficient organizational form (Mello & Paulillo, 2010).

In seeking to analyze plural forms as a bundle of similar transactions governed simultaneously by different organizational forms, Parmigiani (2007) developed a new approach to the explanation of the phenomenon, although still restricted to the asset specificity reasoning set forth by TCE. According to this author, the concurrent sourcing of metallic components would be reasonably justified by the indifference between two of Williamson's (1996) organizational forms, in view of the asset specificity involved in the transaction. That is, according to the model set forth by Parmigiani (2007), firms would pick plural forms if they were indifferent amongst two alternative organizational forms, in

accordance with the model developed by Williamson (1996)². Although her contribution is relevant mainly because of its understanding of plural forms as a bundle of transactions that are simultaneously governed by different structures; one could not claim this framework free of inconsistencies.

In fact, an important restriction imposed by such a theoretical formulation consists of the possible combinations of organizational forms in the composition of the plural structure. This limitation occurs because the indifference points in Williamson's (1996) model correspond to the intersections between the curves relative to the market and to hybrid forms and between those relative to hybrid forms and to hierarchy. That is, according to Parmigiani (2007), plural forms could be composed solely of the combinations of the spot market with contracting or of vertical integration and contracting, neglecting all other combinations not included in the indifference points, or still, the simultaneous use of three organizational forms.

Even if that view did not present such restraint, this approach would be unable to justify the adoption of different percentages of each organizational form, in the composition of a given transaction; that is, Parmigiani (2007) would not explain why some firms produce internally 80% of the components and hire the rest while others make only 20% and carry out contracts to supply the remaining demand. This limitation is due to the artificial framing of plural forms within the logic of TCE, whose explanatory variables are well suited to analyze pure organizational forms, but fail to provide conclusions within the context of plural forms.

In addition to the two strands discussed earlier, there is a third conceptual line of reasoning which also results into framing plural forms within TCE's guidelines. Although each author belonging to this theoretical stream presents a different argumentation relative to their peers, their expected results converge to the conclusion that plural forms constitute a transitory and short-term phenomenon, where a single organizational form should prevail in the long run³ (Caves & Murphy, 1976; Gallini & Lutz, 1992; Zylbersztajn & Nogueira, 2002).

Unlike this perception, some studies have demonstrated both empirically and through theoretical arguments that plural forms are stable over time (Bradach, 1997; Lafontaine & Shaw, 1999, 2005; Azevedo & Silva, 2001; Baker & Dunt, 2008), although the over-time stability to which most of these studies refer does not regard a dynamic perspective in the evolutionary sense, as we shall later argue; but rather, refute an ad-hoc view of these forms.

In the face of such a fact, some contemporary authors have sought to understand this phenomenon from the perspective of the firm's strategy, (Michael, 2000; Heide, 2003; Penard, Raynaud & Saussier, 2005; Jacobides & Billinger, 2006; Puranam, Gulati & Bhattacharya, 2006; He & Nickerson, 2006), although this theoretical literature has not yet reached a consensus on the reasons associated with the simultaneous adoption of multiple governance structures, both upstream and downstream (Menard, 2012).

Regardless of the explanations laid down by each of these authors, it should be noted that the vast majority of their theoretical contributions have remained essentially in line with

²Menard (2012:14) presents a very similar view by proposing that “[a]mbiguity about the fittest mode of organization with respect to the degree of specificity of assets at stake pushes towards adopting plural forms”. In different terms, Menard (2012) posits that firms would adopt plural forms if they were unable to precisely assess the degree of specificity of assets involved in the transaction and hence, they would be incapable of determining, at the outset, the best coordination mechanism.

³Therefore, this line of thought would also result in the framing of plural forms into TCE's guidelines. That becomes true because Williamson's (1996) theory could be quite useful to aid firms in the assessment of the best alternative single structure.

the “Williamsonian” static governance analysis. Despite this fact, we present below a theoretical argumentation in support of a more dynamic view of this kind of decision.

3. Adding a dynamic perspective

Richard Langlois, the conceiver of the so-called Dynamic Transaction Costs, has offered several criticisms relative to the “traditional” transaction cost framework. Interestingly, many of his observations have been clearly and specifically addressed to the (static) comparative analysis of governance structures laid down mostly, but not exclusively, by Williamson (1985). The first of these problems, as Langlois (1984) argues, concerns the concept of efficiency which underlies the choice of the optimal governance structure; since it “[...] is necessarily defined relative to the environment in which the firm is operating.” (Langlois, 1984:38)⁴.

In the real world, however, it would be too heroic to assume that such an environment remains unchanged over time. As a matter of fact, according to Langlois (1984), the environment is actually likely to change and, consequently, the once optimal organizational mode might become maladapted in some larger sense to the new and modified context in which the transaction takes place. As a result, “[t]o the extent that an organized structure faces a range of environments, the “efficient” mode will vary with time.” (Langlois, 1984: 38).

Hence, it is worth noting that perhaps the most important contribution derived out of the afore-mentioned observation is the notion that governance structures should not remain unchanged over time, but rather, evolve in order to comply with the new efficiency standards required by the novel environmental conditions.

Langlois himself later furthered this line of thought by proposing a second level of explanation, the so-called “originary level” (Langlois, 1984: 39). Such a definition consists of nothing other than a proper clarification of the matter which needs to be addressed. Although the efficiency of each governance mode may certainly be assessed under every specific environmental situation; explaining why a particular mode actually emerged in the real world constitutes a completely different endeavor (Langlois, 1984). In fact, “[w]hich mode we observe will depend not only on its a priori superiority over other known modes but also on the specific historical sequence that the evolutionary process followed” (Langlois, 1984: 39).

To put it differently, not only does Langlois (1984) defend the thesis that governance structures do change over time, but he also argues that the understanding of the actual choices goes far beyond efficiency reasons: it should also account for the historical path undergone by the organization⁵.

Various theories of the firm have then been originated from the previously mentioned ideas, including that of Langlois’ (1992; 2006) and others based on the Knowledge View of the Firm (Teece, 1996; Nelson & Winter, 1982). Despite this fact, it is important to point out that even though all the afore-mentioned theories certainly do provide consistent governance

⁴ Even though Williamson (1985, 1996) himself does not explicitly address the latter observation, it is implied in his work that he in fact seems to favor it; although his framework tends to assess the governance decision in a static equilibrium setting.

⁵ This notion is closely related to the economic concept of path dependence which was first introduced by Paul David (1985) and Brian Arthur (1988, 1989) in order to analyze the path of competing technologies. Since then, David’s (1985:1932) original proposition that in “[a] path-dependent sequence of economic changes [...]; the dynamic process itself takes on an essentially historical character” has been widely employed in various fields of economic thought, including the process of institutional change (NORTH, 1991), firm growth (PENROSE, 1959), and others.

explanations that differ relative to the “traditional” transaction cost theories; it was Argyres & Liebskind (1997) who developed Langlois’ (1984) argumentation in an very interesting manner; perhaps even closer to his original cornerstones than any other theoretical stream.

This becomes true mainly because the basic notion set forth by these authors is based on the fact that “[...]over time, the governance of some transactions that a firm seeks to engage in may become inseparably linked with the governance of other transactions [...]” (Argyres & Liebskind, 1997:2). As a result, some transactions might constrain the establishment of others and consequently, some governance configurations might never emerge; even if they in fact constituted the most efficient choice under Williamson’s (1985; 1996) framework.

In other words, Argyres & Liebskind’s (1997) theory is not purely limited to efficiency arguments, but rather, it is reasonably well fitted into Langlois’ (1984) “originary” level explanation; given that it attributes the actual existence of some governance configurations to the constraints imposed to them by other transactions over time – the so-called governance inseparabilities (Argyres & Liebskind, 1997). Moreover, by admitting the linkages and constraints of some transactions on others, the authors implicitly assume that governance structures do evolve over time (Langlois, 1984).

Despite this crucial and valuable fit of their overall mind-sets, there is also a very notable distinction that should not remain overlooked. While on the one hand Langlois (1984:39) submits that “[a] mode must not only be efficient now; it must also have been efficient throughout its history”; on the other hand, it is implied in Argyres & Liebskind’s (1997) theory that the governance configurations that are actually observed do not necessarily constitute the most efficient choices, but rather, the best feasible alternatives given the constraints imposed by the historical path of the firm’s governance designations on the latter decisions.

Regardless of this observation, perhaps the central argument to which both theories subscribe is that it is the “originary level” explanation that should prevail, and for this reason, history does matter in properly analyzing governance structures; which do not remain unchanged over time. In line with such a proposition, we provide below some empirical evidence in support of the view that history matters when it comes to plural forms, just as it does with respect to the “traditional” pure governance configurations. To this end, the case study conducted at Korin illustrates well our viewpoint, as we shall later discuss.

4. Empirical evidence - the Korin case

This section presents three pieces of empirical evidence to illustrate the phenomenon of plural forms within Korin. The presentation of the case has been divided into two parts. We begin by briefly describing the company and by providing an overview of its products and processes. Next, we describe the governance structures and decisions relative to the different products analyzed: tomatoes and eggs.

4.1. Natural agriculture and the establishment of Korin

Korin was founded in 1994, based on the principles of natural farming established by Mokiti Okada (Korin, 2011). Instead of pursuing the goal most commonly associated with the emergence of new companies—that of profit maximization—the establishment of Korin was motivated by the spread of the food ideals advocated by the Messianic Church, which in turn followed the precepts of Mokiti Okada’s natural agriculture.

It is a philosophical model which originated in Japan in the twentieth century, aimed at understanding the forces of nature and maintaining health, mainly through the consumption of natural foods (Demattê Filho, 2004). According to the natural agriculture model of Mokiti Okada, consumption of adequate food, free of toxins from pesticides and other chemicals, is essential to ensure human health (Demattê Filho, 2004).

In Brazil, this philosophy was introduced in 1954 by Japanese immigrants, members of the Messianic Church, who produced natural legumes and vegetables as a result of their beliefs. This production was intended both for their own consumption and for marketing among the members of the church, which sought to continually invest in this model of agriculture, including through the acquisition of properties.

Accordingly, an area of 174 hectares was acquired in the mid-1990s in Ipeúna, in the interior of São Paulo state (Demattê Filho, 2004), and the Mokiti Okada Foundation farm was established. It initially produced the following crops: lettuce, watercress, rocket, carrots, and eggplant.

It is important to stress that, in addition to the production and distribution of vegetables to the Messianic Church members, the Foundation has always tried to invest in research and experiments aimed at better understanding the forces of nature and at turning Mokiti Okada's ideals into actions.

In this context, one of the main challenges overcome by the Foundation was the development of organic chicken in 1994, insofar as conventional chicken meat is one of the foods most affected by chemicals that are toxic to human health. At that time, there was still a need to secure broader access for the natural products to the market, which required a company rather than a foundation. The creation of the Korin company in 1994 was thus an evolution of the Foundation Mokiti Okada farm in Ipeúna, with a new farm located in Atibaia. It is worth noting that despite the fact that the Foundation has been succeeded by the company, its encouragement of agricultural experimentation and testing has been maintained and remains rooted in the culture of Korin.

4.2. Korin and its sustainable production

Since its establishment in mid-1994, Korin has provided consumers with the results of its ongoing investment in research and technological development, to better operationalize the ideals of Mokiti Okada. One of the most visible results so far is its pioneering creation of chicken free from antibiotics and artificial growth hormones (Demattê Filho; Mendes, 2001; Demattê Filho, 2004), which increased both the recognition of the brand and the company's market (Korin, 2011).

Since then, other "alternative" varieties of chicken have been developed, such as organic and free range, produced strictly in accordance with the norms and standards required by certification bodies that regulate the company (Korin, 2011). It is important to note that in addition to meeting the guidelines required by these entities, the company has earned the Humane Farm Animal Care (HFAC) certification (Korin, 2011), since the practice of Okada's ideals corresponds exactly to the humane farming requirements imposed by the certification body.

This natural, pesticide-free agriculture (Korin, 2011), in keeping with Mokiti Okada's legacy, does not only bring its livestock into compliance with the guidelines of certifying bodies. In fact, Korin's natural production of vegetables, which anticipated its chicken farming activity, meets the requirements of law 10.831, which regulates the production of organic foods. In other words, although the differentiated production of vegetables had been

motivated by the goal of following Okada’s teachings, it received organic certification because its practices meet the legal framework of the guidelines for organic products.

Korin produces and markets a wide range of organic products in addition to chicken, including eggs, fruit, vegetables, mineral water, microbiological fertilizers, coffee, and honey and derivatives. The legumes and vegetables, produced in a traditional manner in Brazil since the 1950s by Japanese immigrants following Okada’s ideology, include: lettuce, broccoli, cauliflower, endive, spinach, zucchini, potatoes, eggplant, beets, carrots, corn, cucumber, tomato and green beans; while fruit production comprises mainly strawberry, mango, yellow melon, and “pear” oranges (Korin, 2011).

It is important to emphasize that, in addition to the certification of production, an important legacy inherited from the Mokiti Okada Foundation is the promotion of the ideology of natural production. To that end, Korin fosters and offers technical guidance to 36 farming families, particularly through the transfer of technologies used in natural production methods (Korin, 2011). This stimulation results in the development of sustainable farmers (Korin, 2011) and is reflected in the governance structures adopted by the company, as will be discussed in subsequent sections of this study.

4.3. Plural forms: empirical evidence

As mentioned earlier, the analysis of this case has been segmented into the different products analyzed: tomatoes and eggs. Also, it worth pointing out that while the first two of the following descriptions relate to transactions that occur between the production and processing of different products, the third refers to the distribution system.

Although each product analyzed presents a different contractual mix in the composition of plural forms in terms of the transactions that occur between production and processing, in general all the supply chains studied are similar because they share the same phenomenon in these transactions. For this reason, all the chains can be generically represented by Figure 1.

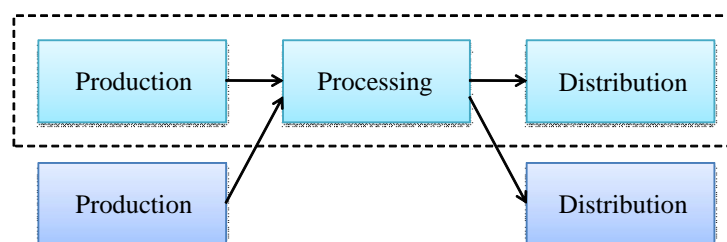


Figure 1 – Simplified schematic representation of plural forms in Korin’s supply chain segments

The dotted line denotes the boundaries of Korin, represented by a light blue color, while the dark blue rectangles express supply and distribution external to the firm.

4.4.1. Production

4.4.1.1. Tomatoes

Tomatoes are one of the vegetable crops that typically carry the highest amount of pesticides and chemicals. It is for this reason that certain consumers value this product so highly: the organic variety is sold by retailers at a price twice as high as that of the conventional.

Besides being valued by consumers, the price differential of organic tomatoes compared to the conventional can be attributed to the peculiarities and difficulties associated with its production. More specifically, an important limitation on the production of organic tomatoes is the technology required to enable a yield comparable to that of the conventional variety, despite climatic variations.

Therefore, it is necessary to invest in greenhouses, which characterize the so-called "sheltered cultivation". A fully-equipped greenhouse costs on average R\$150,000.00 per hectare, and is usually sold in two sizes: 0.25 ha or 0.5 ha, for the composition of areas up to 5 ha. As already presented, the price of this technology is reflected in productivity gains: while sheltered cultivation provides an average yield close to 4kg/plant, the traditional organic yields 2kg/plant on average, compared to 5 kg/plant of conventional tomato farming.

It is important to note that much of the additional productivity afforded by the use of greenhouses, which allow it to approach that of the conventional crop, comes through the mitigation of the effects of climatic factors on production. In fact, what causes the low average productivity of traditional organic tomato in relation to the sheltered are losses due to climatic factors: under favorable conditions, the productivity of traditional organic is 4kg/plant, identical to that of sheltered farming. Investment in production technology becomes indispensable in organic production for achieving a productivity level comparable to that of conventional farming.

Nevertheless, such an investment is too great to be done individually by small producers of organic tomatoes, such as those associated with Korin who employ traditional organic methods. These tomatoes were initially sold to Korin on the spot market, albeit at the cost of both a low average productivity and loss of production due to weather. As a result, the company decided to invest in certification and in helping to finance the greenhouses of the twenty smallholders closest to the company headquarters in Ipeúna, who own properties with an average area of 5 ha; it offered similar incentives to twelve other similar properties at a greater distance.

Through such combined investment, the supply of organic tomatoes to Korin was no longer performed on the spot market, but became characterized by hybrid arrangements. In addition to providing improvements in productivity, a new organizational form allowed the expansion of new agricultural techniques developed by the company based on the philosophy of Mokiti Okada, which is one of the main reasons for Korin's existence.

Although the hybrid configuration of the supply of tomatoes has provided significant improvements in the production process, it was not able to solve the supply problem still facing the company: the absence of product. While producers justified the frequent breaches of contract by alleging loss of production due to weather, Korin became aware that they had in fact produced, but had reserved the organic tomatoes to be sold to other agents at higher prices.

Faced with this problem, Korin saw the need to seek a solution through a new change in the governance structure of the transaction, even though this presented a major dilemma: maintaining the current structure would not solve its problem, but vertical integration would violate the guiding philosophy of the company, that of spreading the teachings of Okada. It was in this context that it was decided to internalize part of the production and characterize the transactions for the supply of tomatoes by means of plural forms. Figure 2 shows the evolution of the governance structure of Korin's tomato production, from the spot market to the plural forms.

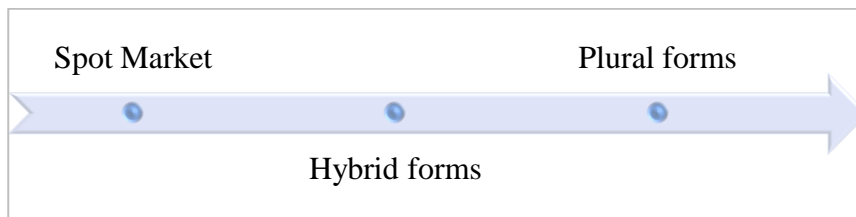


Figure 2- Changes in the governance structure of tomato production

Plural forms were so successful in solving the company's problem and ensuring the supply of the product that a goal was established of expanding its own production from supplying 10% of its needs to at least 30%.

This decision was also due to other benefits to Korin's tomato production provided by plural forms. As shown above, the company originated from the Mokiti Okada Foundation, aimed at experimentation and disseminating Okada's teachings. The legacy of the Foundation is reflected in company policies and practices that encourage technological development and expansion of its production methods to local farmers. This practice is possible by configuring the supply of tomatoes by means of plural forms, which allows the spread of Korin's methods and educating growers in techniques based on the company's ideology, while ensuring the supply of product, a mix of objectives that could not be realized by pure vertical integration.

Added to this is the increase in control that Korin gained over the production of its partners, insofar as the company's relationship with the producers for the dissemination of technology ensures that production is carried out as desired. This practice helps ensure the maintenance of quality standards, which in turn allows a degree of product standardization.

Finally, the plural forms used by Korin to govern tomato production allowed it to monitor the costs of their producers in order to prevent cheating. Korin's industrial manager goes so far as to state: "We use our own production and mark out and know the costs of other producers". Upon noting that a producer's cost was higher than his own, he was able to argue "If we managed to achieve [that particular cost], why can't you?".

4.4.1.2. Eggs

As in the case of tomatoes, organic egg production requires several peculiarities in its process. The major difference between the production of organic eggs and conventional practice is in the way chickens are raised, with a focus on the animals' welfare.

A laying hen in a conventional cage is generally confined to a footprint the size of A4 bond paper, with a surface that can cause lesions in the bird's feet over time. These cages are usually installed indoors, with little sunlight, and concentrate a high density of animals. Many instinctual natural behaviors of chickens—such as movement—are inhibited.

These conventional raising practices cause high levels of stress in the animals, which is reflected in their health conditions. The most direct consequences of stress on chickens' health and behavior are: (i) the animals develop aggressive behavior and seek to peck themselves and their partners; (ii) the immune system of these birds becomes progressively weaker, which increases the incidence of various diseases.

Both consequences of this stress on the birds' health require preventive and corrective practices. First, the birds are usually debeaked as soon as they are acquired, before they become aggressive, a procedure which itself harms their health. Secondly, as a consequence of the effects of stress on the immune systems of fowl, high dosages of antibiotics are applied to eliminate the pathologies which develop.

Although antibiotics are intended to specifically combat the microorganisms present in birds, chickens receiving them tend to transmit traces to their eggs. As a result, conventional eggs that are consumed by humans contain small doses of animal antibiotics.

It is mainly for this reason that some consumers are willing to pay a higher price for organic eggs, free of antibiotics: while a dozen organic eggs is sold in supermarkets in São Paulo for an average of about R\$7.00, in September 2011 conventional eggs sold in São Paulo's supermarkets for an average of R\$3.15 (Mercado do Ovo, 2011).

Unlike in conventional poultry farming, organic laying hens are not confined in cages. Instead, they are kept loose in a delimited run which is segmented into two interconnected environments: one internal and one external. The inner area comprises a large and relatively spacious chicken house, where eggs are laid. The external area consists of an uncovered field where the animals can roam freely, moving naturally while receiving sunlight.

Moreover, care is taken to avoid a very high density of animals, which are fed with natural feed prepared from organic corn instead of the conventional diet.

These alternative practices prevent the birds from becoming stressed, resulting in healthier chickens. There is no need to debeak them as they do not develop the aggressive behavior observed in conventional poultry raising.

Also, the immune system of these animals does not become so vulnerable, both because of their low stress level and the differentiated feed they eat, which eliminates the need for indiscriminate use of antibiotics. Instead, any pathologies are treated by natural chemical compounds from vegetables.

It is important to note, however, that this differentiated process of organic egg production requires special care, which can lead to the same higher costs seen in the raising of alternative poultry (Demattê Filho, Mendes, 2001; Demattê Filho, Mendes, 2002; Garcia et al., 2002). More relevant than the cost barrier, the sustainable production of eggs requires knowledge about these different techniques, which is often not available to producers or is not easily understood, and serves as a barrier to producers adopting the natural method of egg production.

Given the difficulty in finding suppliers of eggs which are organic, highly specified, and produced according to Okada's teachings, Korin opted to keep its egg production in-house until mid-1999, when it found a local producer willing to employ the natural method.

At the time, Korin provided the necessary knowledge to enable the implementation of the new production model in its vendor facilities, which met the company's mission of spreading the teachings of Okada and providing technological development for the local producer.

However, the following year Korin noted that the production cost of its external supplier was lower than its own, and so chose to end its own egg production and supply all its needs only through the purchase of the product.

With the growing demand for organic eggs, the supplier's production capacity was insufficient to ensure the availability of the product. As a result, the company began a search for other local suppliers who were willing to produce in the manner desired by Korin, but was unsuccessful.

Thus, with the initial goal of expanding production capacity, the company decided to restart its own production of eggs in 2007, configuring this transaction using plural forms. Figure 3 briefly lays out the evolution of the governance structure of Korin's organic egg production over time, from vertical integration to plural forms.

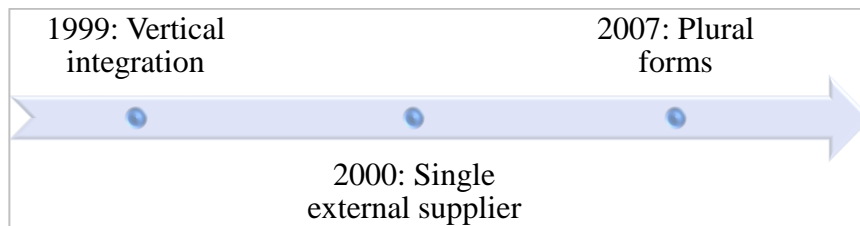


Figure 3 - Evolution of governance structure in egg production

Besides expanding Korin's production capacity, the use of plural forms for the supply of eggs enabled an improvement in the control exercised by the company over its suppliers, which produce the same amount of produce as the company: in September 2011, each unit produced an average of about 275,000 eggs per month. That is, when it restarted its own egg production, Korin opted to replicate the amount produced by the supplier. This decision allowed the company to request a license from the Ministry of Agriculture aimed at the provision of information on the product label, designed to inform consumers about the differences offered by organic products, although this request has not yet been authorized.

Such authorization requires that the Korin exercise high levels of control over the processes employed by the supplier, especially with regard to compliance with the standards required by the Ministry of Agriculture. According to the company's industrial manager, it would be impossible to determine the producer's adherence to these standards if the company did not also engage in its own production; this renders the license application viable.

Another advantage provided by plural forms in Korin's egg production was an improvement in the quality control exercised over its supplier. In this sense, it can be inferred that Korin's own production acts as a benchmark to the supplier, encouraging it to produce as desired.

Finally, according to the company's industrial manager, the plural forms contribute to guarantee product supply because they mitigate health risks that could cause the loss of the entire production if it were concentrated only in the pure forms initially used by Korin: first total vertical integration, and then acquisition from a single vendor.

4.4.2. Distribution

Plural forms of governance are present not only in Korin's production, but also in its distribution functions. As of September 2011, the company supplies its products to consumers through the simultaneous use of multiple distribution channels: direct local sales, sales to third parties, own stores, and franchised stores.

It is interesting to note that the choice of this configuration was not the fruit of a single decision, but resulted from a process of identifying opportunities over time.

As seen above, the Mokiti Okada Foundation, Korin's forerunner, was operating on the site of the current company headquarters even before its establishment, producing vegetables intended for trading among members of the Messianic Church. During that period, production was distributed exclusively through direct sales.

In mid-1994, when the Foundation overcame the challenge of producing organic chickens, there was a need for a change in its distribution system so as to enable the supply of products to a wider market than that served by direct sales. It was in this context that the decision to found Korin emerged, replacing the Mokiti Okada Foundation of Ipeúna.

Once established as a company, Korin began distributing its products through sales to supermarket chains, both regional or national, and continued selling its natural products

directly to local members of the Messianic Church; this remains one of the main objectives of the company.

Since then, Korin's distribution of products has been governed by plural forms, ranging from the various means of direct sales to the supply of supermarket chains, the latter being responsible for the distribution of the greater part of the production throughout the country.

This was made possible mainly by the supply of products to large retailers, such as Pão de Açúcar, Carrefour, and Zona Sul, besides other points of sale with less territorial coverage, but with great sales representation due to their specialization in differentiated products, such as the Casa Santa Luzia. This combination of distribution channels has enabled Korin to spread the supply of its products throughout Brazil, while never failing to meet the needs of local Messianic Church members.

After over fifteen years of coexistence of these two arrangements, Korin found that retailers placed very high margins on the sale of organic products. These came to exceed 60%, a reflection of the low price elasticity of the demand for these products. In other words, retailers are able to set prices much higher than their cost of acquiring organic products, in a context where price increases are reflected in the loss of only a small amount of consumers.

Although this scenario is certainly favorable to the supermarket chains that Korin supplies, one could not say it favors Korin. In practical terms, it shows the capture of a large part of the price differential of organic foods by retailers. In other words, a considerable portion of the value generated by Korin is appropriated by supermarkets, which do not transmit much of this higher price to their suppliers.

Aware of this fact, Korin opted to complement the existing distribution channels by establishing its own stores. It is possible to infer that the decision to supplement these channels, rather than replace them, was based on the great importance of retailers in distribution. This is due not only to the large geographic dispersion of the stores, but also to the fact that supermarkets offer Korin's products along with other food and consumer goods that are often purchased in conjunction with those of the company. This practice certainly also contributes to a greater diffusion of the brand; Korin believes that the availability of products in a supermarket constitutes a critical factor.

The company's first store was duly opened in 2011, located in Vila Mariana in São Paulo. As of September 2011 this was the only sales point of the enterprise, although it aims to open new units soon, since at that store Korin sees margins approaching 40%.

Although the difference between the sales price and the cost of the products is about 30% lower than that found in supermarkets, the strategy of selling food in its own shop allowed this difference to be entirely appropriated by Korin. In other words, it allowed the appropriation of the additional value generated by the differentiated production to be retained in the company instead of being dissipated in the final link of the supply chain.

Despite this important advantage, the investment required for setting up shop, amounting to R\$400,000.00, was too high to allow expansion of the number of stores to be financed with equity alone. It was mainly for this reason that the company chose to franchise Korin outlets, also in 2011. Figure 4 summarizes developments in the governance structure of Korin's distribution over time.

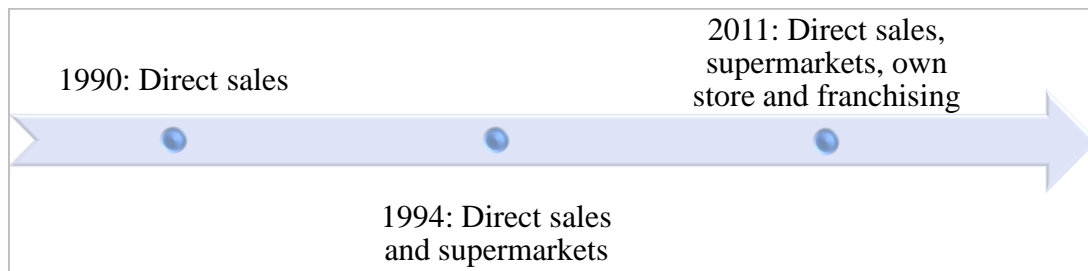


Figure 4 - Evolution of the governance structure of Korin's distribution

Until September 2011, Korin's only franchised store was located in Natal, Rio Grande do Norte, although the head office already has a huge list of investors interested in opening Korin stores. Managing this demand, however, is still a challenge to be overcome by the company.

On the one hand, the franchised stores allow the expansion of Korin's network because the required investment is shared between head office and its franchisees, which contributes positively to the spread of the brand throughout Brazil. On the other hand, the franchising strategy requires a sophisticated management and coordination system in order both to avoid cannibalism of Korin's products that are sold in supermarkets and to model contractual relationships to provide incentives that maximize the head office's appropriation of the value generated through the brand.

Regardless of the challenges to be overcome, it is interesting to note that Korin's decision to distribute its products simultaneously through multiple channels was the result of a process of adaptation of the distribution governance structure to meet the different needs identified by the firm over time. That is, the option for concurrent use of different organizational forms is the result of a process of adaptation of the distribution system, which was reflected in the different combinations chosen.

As already discussed, the needs identified by Korin over time were composed mainly of the goals of expanding the scope of the distribution system, expanding brand awareness, sharing investments in the firm's growth, and finally, maximizing the capture of margins, the viability of which required the establishment of the different organizational forms adopted.

5. Final remarks

The Korin case illustrates well the fact that governance structures do not remain unchanged over time, but rather, evolve in order to comply with the new environmental conditions. In spite of this, the choice of a plural form seemed to remain stable over time; although its composition might have become slightly different. This has been demonstrated in all of the three pieces of empirical evidence herein provided.

In the first case, plural forms have been chosen in order to govern the production of organic tomatoes as a result of the evolution of the multiple contractual misalignments over time. As mentioned earlier, while both spot market and hybrid modes have been inefficient to govern this particular transaction, plural forms were proven stable and cost efficient, since they seemed to greatly diminish or even cease the incidence of contractual breaches, while enhancing control over the cost and price charged by Korin's external suppliers.

It becomes particularly clear that, in this case, history does matter in explaining why this puzzling organizational mode has been selected; however, seeming to refute Langlois' (1984) defense of the efficiency of the governance choice throughout its historical path.

Despite this fact, it is fairly reasonable to note that each of the governance configurations that were selected by the company through time has exerted important influences over the next choices, principally through a trial and error process of learning by doing. Moreover, both the vertically integrated transactions and the hybrid modes of governance, simultaneously held by Korin and its suppliers, seem to be closely akin. In this sense, Argyres & Liebskind's (1997) theory has proven much more useful to explain why each particular mode actually emerged.

This has been demonstrated in an even more accurate manner, in a larger sense, in the next two pieces of empirical evidence provided above: the production of organic eggs and the company's distribution system. Plural forms have been selected in the former case mainly because the external supplier became unable to satisfy the growing demand for the company's specialized product: given that the organic production of eggs requires differentiated production techniques, no other external supplier would agree to comply with those unusual practices. As a result, Korin found no other feasible alternative than that of restarting the in-house production of these goods, albeit at a significantly higher cost. Nevertheless, this option has increased the company's control over the supplier's production, allowing for the eventual development of marketing advantages.

It is, thus, quite apparent that just as in the case of the production of organic tomatoes, both vertically integrated transactions and contracting are closely related and mutually influenced, either promptly or through time; although such a governance configuration might not constitute the most efficient choice, in terms of economizing on production costs.

Finally, the distribution system comprises the case which might have better illustrated our viewpoint, since it seemed to aggregate both Langlois' (1984) and Argyres & Liebskind's (1997) discourses. First, not only, did it clearly demonstrate that historical circumstances do matter in the choice of a plural form, but also, evidenced the changes undergone by the distribution method in order to satisfy environmental mutations. Moreover, it specifically addressed the fact that the benefits provided by each particular organizational mode complement the others, in a much more unequivocal fashion.

To summarize, all the three pieces of empirical evidence presented in this paper illustrated well our central argument: that history matters when analyzing plural forms, even though they remain stable over time. In view of the fact that organizational theories devoted to solving this specific puzzle are still incipient, future studies seeking to further develop this line of investigation need to advance particularly into the dynamic aspects within this decision. Regardless of the path yet to be trailed, the discussion herein presented constituted an initial attempt to further advance the existing theories of the firm into the dynamic understanding of plural forms.

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