

**Performance and Completeness in Repeated Inter-firm Relationships:
The Case of Franchising***

Vanesa Solís-Rodríguez

Manuel González-Díaz

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We analyze factors determining contractual completeness in repeated inter-firm relationships and how they influence performance. We argue that investing in completing the franchise contract is profitable when contractual hazards are high, such in the presence of asset specificity and reputational capital. We also claim that contract cannot be completed without having experienced different problems and contingencies arising from former exchange. We evaluate these hypotheses using a treatment regression model and an original sample of 74 franchising contracts. Analysis of our data broadly supports our hypotheses except for the influence of franchisor's reputation. Results suggest that completeness is not in itself profitable and its contribution could be negative unless it is related to relevant contractual hazards. Finally, contractual learning could be as important as other production factors which become the strategic resources of the firm.

Key words:

Inter-firm relationship; Franchising; Completeness; Performance.

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1. Introduction

Study has recently begun on the determinants of contractual completeness in inter-firm relationships and how it influences performance (Luo, 2002; Mezquita and Brush, 2008). Benetton, the trendy fashion-retailer, has started recently to use more developed contracts, breaking the tradition of informal relationship with owners' local stores (Clegg, 1990, p.122). Conversely, Mango, one of his main rivals, have always used highly developed contracts. It is then essential to know whether the parties should invest in developing the design of their contracts and how this might affect their performance.

However, completeness is a difficult concept to study because *complete* contracts do not exist (Williamson 1985, p.178). They are "*hypothetical* contracts that describe what action is to be taken and payments made in *every possible* contingency" (Milgrom and Roberts 1992, p. 597, emphasis added). So completeness exists only to the extent that real contracts approximate a hypothetical contract which would act as a perfect safeguard against ex post opportunism. That is probably the reason why completeness is not very well defined in the literature.¹ First, it is not still clearer how to define *all relevant* terms and clauses and, second wheather the completeness refers only to formal contract design or both formal and relational contracting are included (Luo (2002) and Mezquita and Brush (2008))².

Completeness has been analyzed in different types of contract: joint ventures (JV) (Luo, 2002), strategic alliances (Reuer and Ariño, 2002; 2003; 2007; Ryall and Sampson,

¹ Luo (2002) and Mezquita and Brush (2008) refer to the extent to which all relevant terms and clauses are *specified* in a contract as completeness. However, other authors such as Poppo and Zenger (2002), Reuer and Ariño (2002; 2003; 2007), Ryall and Sampson (2006), Barthelemy and Quelin (2006) and Reuer, Ariño and Mellewigt (2006) refer to this as complexity. From here on we refer to them both together. We have chosen the term 'completeness' because we feel it is more appropriate for the problem of contractual design which is relevant in the business world and ties in better with the economic literature about incomplete contracts.

² Irrespective of whether completeness refers to both formal and informal parts or only to the first, there does seem to be agreement on the fact that not everything can be formalized in the contract (Grossman and Hart, 1986; Williamson, 1985; Hart and Moore, 1999; Maskin and Tirole, 1999). Consequently, parties also aim to safeguard their relationships using self-enforcing devices, such as sets of informal rules for their own behavior, such as trust or reputation, generally known as relational governance (Luo, 2002; Poppo and Zenger, 2002; Gulati, 1995; Uzzi, 1997; Baker, Gibbons and Murphy, 2002; Mezquita and Brush, 2008).

2006; Reuer, Ariño and Mellewigt, 2006) and outsourcing (Poppo and Zenger, 2002; Barthelemy and Quelin, 2006; Mesquita and Brush, 2008). We turn to franchising³. The main difference between franchise contracts and other cooperation contracts (JV, alliances, outsourcing) is that they are usually more repetitive relationships: each time a franchisor signs a new contract with a franchisee he has the chance to improve the contract, that is, to complete the contract. In fact, Shane (2001, p. 138) argues that contracting in business-format franchising is a firm-level phenomenon, that is, the variation in contracts tend to occur between firms, or across time, rather than within firms at a single point in time. This provides a natural framework for seeing whether contract completeness is affected by the increase gained from experience in their contracting capabilities (Mayer and Argyres, 2004; Argyres, Bercovitz and Mayer, 2007), which should result in improved performance.

Our contribution is threefold. First, we expand the literature on the influence of contractual completeness in inter-firm relationships on contracts/transactions that recur over time, analyzing how contractual experience and organizational learning exert an influence. Second, we also contribute to the extensive literature on franchising. Most studies on franchising have focused on determining the optimum percentage of franchised establishments or on how certain contractual clauses affect different measures of performance, either in economic terms (Shelton, 1967; Norton, 1988b; Arruñada, Vázquez and Zanarone, 2009), or in terms of quality (Beheler, 1991; Bradach, 1998; Michael, 2000), survival (English and Willems, 1994; Shane, 1996; Shane and Foo, 1999) or growth (Norton, 1988a; Thompson, 1992; Martin and Justis, 1993; Sen, 1998). We are not aware of any work aiming to determine how franchise contract completeness enhances chain performance. Finally, we have improved the completeness measurement. Since we compared 74 contracts, we were able to identify all the contingencies that a complete contract should contain and to measure the distance of each real contract to that hypothetical situation so we have a measure of *completeness* that is much more accurate than that used in previous studies, which only considered certain clauses or contingencies for estimating this measure (Parkhe, 1993; Saussier, 2000; Poppo and Zenger, 2002; Reuer and Ariño, 2002, 2007).

³ Many authors have tried to define the concept of franchising. The most important definitions can be found in Stanworth and Curran (1999).

The remainder of the article is structured as follows. After this introduction, the second section discusses contract use, what factors determine their *completeness* and how the TCE shows that more complete contracts should lead to better financial performance. The third section describes the data collection process and the sources and econometric models used. The results are discussed in the fourth section and some brief conclusions are given.

2. Theoretical background and hypotheses

TCE argues that firms develop governance mechanisms in their inter-firm relationships in order to reduce transaction costs and thus to become more efficient (Williamson, 1985). A distinction is usually made between two types of contractual governance for transactions that recur over time: the market, or spot relationships, and bilateral contracts. Market governance is an efficient solution when transactions are standardized, the parties are independent and their identities are irrelevant. This is the case when the transaction does not require significant idiosyncratic investments by the parties, so that if disagreement leads to cessation of the relationship both parties can easily contract with alternative partners on similar terms, that is without any significant loss in value (Williamson, 1985). Bilateral governance become efficient when the continuity value of a relationship is significant, especially because at least one of the parties will be making idiosyncratic investments, so would lose part of its value if the relationship were to cease. The parties would therefore be in a situation of bilateral dependence.

Typically, a contract outlines the roles and responsibilities of each party, the allocation of decision and control rights, the planning for various contingencies, how the parties will communicate and how to resolve disputes (Argyres and Mayer, 2004). It is therefore possible to say that a contract is complete when all relevant terms and clauses are specified and when it accounts for unanticipated contingencies and delineates relevant guidelines for handling these contingencies (Milgrom and Roberts, 1992; Mezquita and Brush, 2008). If the parties wish to reduce the risk of opportunistic behavior, the number of contractual safeguards warranted in the contract will be greater so it will thus come as near as possible to a complete contract (Williamson, 1985, 1991; Heide, 1994; Oxley, 1997; Ariño and Reuer, 2005).

All contracts are however incomplete in practice. The contract writing costs, the bounded rationality of the parties, which make impossible the anticipation of all contingencies that might affect the transaction and the inability to verify all the relevant variables pertaining to contract are the main reasons why contracts are always incomplete (Williamson, 1985; Grossman and Hart, 1986; Schwartz, 1992). This means that even if parties were able to anticipate all contingencies and to verify all behaviors, they might be not interested in developing the contract because of the cost of writing and developing the contract.

Franchise contracts can be considered a special type of bilateral contract, being the basic tool governing the business-to-business relationship between franchisor and franchisee. The literature sees them as an essential mechanism for regulating methods of control and potential solutions for conflicts of interest, enabling them therefore to reduce opportunistic behavior (Brickley and Dark, 1987; Brickley, Dark and Weisbach, 1991; Shane, 1998; Combs and Ketchen, 1999a). However, as with other contracts, they are always incomplete and the parties have to make an effort to achieve the optimum level of *completeness*.

2.1. Determinants of completeness

Taking as a starting point studies carried out for other types of cooperation agreements, three factors can be considered to determine contractual completeness: investments in specific assets, the market reputation and the experience of the chain franchising its business.

Investment in specific assets

Specific assets are understood as being those resources which cannot be readily deployed to other relationships or business, so that their current value is always above what it would be in alternative uses. This can lead to a hold-up problem and potential conflict in the relationship (Klein, Crawford and Alchian, 1978; Williamson, 1985). In franchising, both franchisor and franchisee are called upon to make specific investments in support of the franchising relationship. Franchisees not only pay the franchise fee but also invest in setting up the business - designing and decorating the outlet, purchasing trademark equipment and accoutrements for the outlet, etc. Franchisors, in turn, are

obligated to supply franchisees with training and assistance in the opening of franchised outlets, and even advice on the selection and location of the establishment, which are also specific investments (Bercovitz, 2000).

When a contract is used to govern a transaction in which the consequences from hold-up are significant due to the presence of relationship-specific investments, the parties will incorporate safeguards into the contract to protect these investments from opportunistic expropriation (Joskow, 1988; Goldberg and Erickson, 1987; Dyer, 1997; Poppo and Zenger, 2002; Reuer and Ariño, 2003, 2007). These mechanisms include, for example, provisions and administrative procedures aimed at dispute prevention and resolution, the distribution of costs and benefits under various contingencies or information disclosure (Mayer and Argyres, 2004). In consequence, the presence of specific assets tends to raise the number of clauses inserted explicitly by the parties in the contract to minimize opportunistic behavior. The empirical evidence supports this idea (Goldberg and Erickson, 1987; Crocker and Masten, 1988; Joskow, 1988; Dyer, 1997; Saussier, 2000; Poppo and Zenger, 2002; Reuer and Ariño, 2003, 2007). Therefore, our hypothesis is the following:

H1: The larger the investment in specific assets, the more complete the contract designed by franchise chains should be.

Franchisor reputation

The market reputation of a chain may have a dual effect on contractual completeness. On the one hand, if a franchisor has developed a large network over several years, its image amongst potential franchisees will be good and most of them will be willing to join the network because they know it is a business that has been tried. Under these circumstances, potential franchisees will not require a very detailed contract from the franchisor describing all the obligations in detail. They are aware that the probability of opportunistic behavior by the franchisor is very small (Eggleston, Posner and Zeckhauser, 2000), because such behavior would damage its reputation and limit the possibility of attracting new franchisees in the future (Klein, 1980; Klein and Murphy, 1997; Arruñada, Garicano and Vázquez, 2001). Therefore, with regard to its obligations, the franchisor uses what are called relational governance mechanisms instead of a

detailed contract. Such mechanisms are largely based on trust and social identification (Dyer and Singh, 1998).

The franchisor's reputation and, therefore, the trust (described by Williamson (1985) as 'calculative') it inspires in its franchisees act as a mechanism for replacing more detailed contracts. This idea that relational mechanisms and formal contracts substitute each other has been sustained by many authors (Bradach and Eccles, 1989; Crocker and Reynolds, 1993; Parkhe, 1993; Gulati, 1995; Dyer and Singh, 1998; Holmstrom and Roberts, 1998; Ciccotello and Hornyak, 2000; Adler, 2001).

On the other hand, the franchisor will seek greater protection against potential opportunistic behavior on the part of franchisees as its brand image gains in value because its image may be very sensitive to such opportunism. Franchisees, on the other hand, are usually small entrepreneurs whose reputational capital is very limited and does not serve as a guarantee for the franchisor, so the only way for the latter to limit franchisee's opportunism is by including clauses in the contract to ensure that its instructions are followed. So, since the franchisor needs to exert greater control over franchisees in order to protect its reputation and brand image, it will draw up more detailed contracts (Mellewig, Madhok and Weibel, 2007). In other words, the greater the reputation of the franchisor, the more complete its contracts will be⁴.

Since it is the franchisor that designs the contract and has much greater negotiating power than the franchisees (Klein, 1980; Al-Najjar, 1995; Spencer, 2008), we believe that a greater reputation will lead to a more complete contract in order to gain greater protection from potential attacks against their reputational capital. Likewise, when reputational capital is high, the only way for the franchisor to gain protection against opportunism is by developing the contract. We therefore establish the following hypothesis:

H2: The greater the franchisor's market reputation, the more complete the contract drawn up by the franchise chains will be.

⁴ This different way of treating franchisor's and franchisee's obligations, with those of the franchisee being formalized in greater detail, can be observed in reality. As stated by Klein (1980, p. 360): "[...] when both parties can cheat, explicit contractual restraints are often placed on the smaller, less well-established party (the franchisee), while an implicit brand name contract-enforcement mechanism is relied on to prevent cheating by the larger, more well-established party (the franchisor)".

Chain experience

Chain experience franchising may also influence contract completeness. In fact, there is a large literature suggesting that learning in general within and between organizations is an important phenomenon (Lieberman, 1984; Darr, Argote and Epple, 1995).

The literature on organizational learning (Lieberman, 1984; Argote, 1999; Mayer and Argyres, 2004; Ryall and Sampson, 2006) and, to a lesser extent, transaction cost theory (Williamson, 1985) maintain that learning within and between firms affects both the design of the contract and the performance in exchanges. As firms gain experience, they learn to design more complete contracts. They learn about potential contingencies and hazards slowly and incrementally, introducing them in the contract as they experience these contingencies (Cyert and March, 1963). In other words, rather than anticipating such contingencies, the parties have to actually experience an adverse situation before addressing it in a new contract because attempts to address contracting hazards and incentive problems in contracts are inadequate, requiring elaboration to be added in subsequent contracts (Mayer and Argyres, 2004). Therefore, as firms gain experience not only become better at understanding the kinds of contingencies that could threaten the relationship but they identify those contingencies with more accuracy and at lower cost and become better at understanding how to efficiently adapt if those contingencies occur (Argyres, Bercovitz and Mayer, 2007).

In the field of franchising, to our knowledge the only study that directly analyzes the influence of learning is Cochet and Garg (2008). These authors study the evolution of formal contracts used by three German chains reaching the conclusion, amongst others, that the elements of the contract which were redesigned, added or removed clearly served the aim of improving control over franchisee behavior and therefore reducing costs for the franchisors. However, although this study considers a large number of contractual clauses it omits many others, so much information on contractual design is then missing (Argyres, Bercovitz and Mayer, 2007). In other fields, Ryall and Sampson (2006) note that the existence of prior relationships and, therefore, of experience, increases the level of detail in contracts. Similar results were obtained by Mayer and Argyres (2004) and Argyres, Bercovitz and Mayer (2007).

We can therefore establish that the chain's experience franchising allows it to learn from past mistakes, so that matters (or contingencies) leading to problems and not initially considered important enough to be included in the contract can gradually be included in new contracts in order to avoid such problems in the future (Argyres, Bercovitz and Mayer, 2007; Cochet and Garg, 2008). This ability to make contract design more efficient means that the greater the experience of the chain in franchising, the fuller the contracts (Baker, Gibbons and Murphy, 2002; Poppo and Zenger, 2002; Ryall and Sampson, 2006), the more sophisticated and therefore the more complete. Moreover, given the potential for more efficient design as well as the ongoing framework value of contracts (Macneil, 1978), contracts may be expanded as a relationship develops (Baker, Gibbons and Murphy, 2002; Poppo and Zenger, 2002; Ryall and Sampson, 2006). The hypothesis is therefore as follows:

H3: The greater the experience of the chain in franchising, the more complete contracts drawn up by franchise chains will be.

2.2. Franchising and chain performance

TCE establishes that there are discriminating alignments between forms of governance and exchange hazards that are chosen according to efficiency criteria (Williamson, 1991). In the same way that the literature finds different influences on performance when the right governance mechanisms for exchange hazards are chosen (Armour and Teece, 1978; Anderson, 1988; Silverman, Nickerson and Freeman, 1997; Nickerson and Silverman, 2003), it is reasonable to assume that choosing the right level of completeness should affect transaction performance. For the particular case of franchising, the optimal level of completeness should help improve the chain's performance.

Many studies analyze the influence de decision of franchising on chain performance in economic-financial terms (Shelton, 1967; Norton, 1988b; Arruñada, Vázquez and Zanarone, 2009), or in terms of quality (Beheler, 1991; Bradach, 1998; Michael, 2000), survival (English and Willems, 1994; Shane, 1996; Shane and Foo, 2001) or growth (Norton, 1988a; Thompson, 1992; Martin and Justis, 1993; Sen, 1998). We are not aware of any work that considers the influence of the actual franchise contract on chain performance. Yet this is of special importance because, as has been determined by the

literature on inter-firm relationships, the agreement design and structure play an important role in determining the performance of the relationship (McFarlane and Nolan, 1995; DiRomualdo and Gurbaxani, 1998; Barthelemy, 2001; Poppo and Zenger, 2002; Gulati and Nickerson, 2008; Mezquita and Brush, 2008).

In this work we go a step further and argue that the link between contract completeness and chain performance is positive only if there are contractual hazards to solve. As franchise chains become able to draw up more complete contracts, they gradually include in them a larger number of possible contingencies that might occur subsequently, thus establishing greater control over the parties, basically over the franchisee. This all reduces the possibility of opportunistic behavior and therefore helps to increase the success of the chain.

More specifically, and taking into account the factors determining contractual completeness mentioned in the previous section, we consider that franchise chains must design more complete contracts when *a)* relationship-specific investments are made in support of the franchising relationship, *b)* when they have a good reputation in the market to protect and *c)* when they have experience franchising their business. Therefore, a direct implication is that profitability generated by the design of a contract will be higher when any of these factors is present and the contract is completed. In other words, under these three circumstances, the design of a complete contract should have a positive effect on chain's performance.

First, asset specificity moderates the effect of completeness on performance. If the hold-up problem is irrelevant, we do not need to introduce clauses in the contract to solve this problem. On the contrary, as asset specificity increases, contractual inter-firm mechanisms must be introduced to solve this hazard and we expect that they will have an increasing and positive effect on performance. Thus, the effect of completeness on performance is contingent upon the levels of asset specificity (Artz and Brush, 2000).

Second, it is probable that the influence of completeness on the chain's performance will be greater the higher the reputational capital to be protected. A franchisor who has invested in a reputation for a long time has incentives to protect his brand and, therefore, avoid the tarnishing of his reputation. Franchisees are the ones who can jeopardize the franchisor's reputation, because if a franchisee behaves in an

opportunistic way, not following the instructions of the franchisor, the costs will not be met solely and exclusively by him, but by the others establishments in the chain, in terms of loss of customers, and by the franchisor, in terms of loss of value of the brand in future (Brickley and Dark, 1987; Williamson, 1989). Therefore, under these circumstances, the design of a complete contract allows the franchisor to achieve a higher profitability because the more detailed the franchisees' obligations in the contract, the less likely will be that the latter behave in an opportunistic way and, therefore, jeopardize the franchisor's reputation in the market.

Finally, contracting experience might sensitize managers and their organizations to potential disturbances to contractual relationships about which they were previously unaware, enabling them to better foresee such contingencies in future contractual relationships. Contracting experience may also help managers and their firms to better understand the implications of contingencies for the relationship, for the firm's performance, and for its future contractual relationships. Such experience may also help firms to more effectively use contracts to facilitate adaptation to disturbances or how to craft agreements that better safeguard vulnerable assets (Mayer and Argyres, 2004).

The hypotheses are therefore as follows:

H4a: Asset specificity positively moderates the relationship between contract completeness and performance.

H4b: Reputational capital positively moderates the relationship between contract completeness and performance.

H4c: The greater the experience of the chain in franchising, the higher the performance of complete contracts.

3. Methodology

3.1. Data collection

On the one hand, the necessary data to measure contractual completeness were drawn from contracts between franchisors and franchisees. We contacted 805 Spanish franchise chains by telephone and e-mail in March 2006 and asked for collaboration in our study. We requested information about the company and particularly about the franchise contract. 293 franchisors agreed to collaborate. We followed several standard

recommendations in the literature to increase the response rate.⁵ Despite our efforts, many of them they did not send the information requested on the contract. We doubled our efforts over the following months and finally closed the request for information in December 2007, having received information on 84 contracts. 74 companies sent us the whole contract. This represents a response rate of 9.2%.

On the other hand, we complemented the contract information with secondary information about the chains. In this case, we used different sources of data. First, general information about the chains was obtained from the dossier package sent by the franchisors, franchisor's web sites or from the Professional Franchise Guides, being the last one only used when the first two were not available. Second, financial information about the franchisor was obtained from the SABI data base (Bureau van Dijk), which gives the net income statement and balance sheet for all companies operating in Spain.

To test for a potential response bias in our sample, we followed the Armstrong and Overton (1977) procedure. We compared several variables in early-returned questionnaires and late-returned questionnaires. This comparison assumes that late respondents share similar characteristics and response biases with non-respondents. Analyses indicated that no significant mean differences existed between early and late respondents regarding completeness. Furthermore, we compared the industries represented in the sample to the population (Poppo and Zenger, 2002). The sample and population did not appear to differ by industries.

3.2. Description of model and variables

An important concern in evaluating the effect of completeness choice on performance is sample selection bias. This is a recurrent problem in similar studies (Gulati and Nickerson, 2008; Mesquita and Brush, 2008) and several authors have emphasized the relevance of controlling for it because completeness choices are likely to be chosen systematically, not randomly (Masten, 1996; Shaver, 1998; Hamilton and Nickerson, 2003). Chain managers self-select into completeness categories. In other words, they make their decision based on which option they expect to be more profitable for the

⁵ See, for example, Dillman (2000) and Fowler (1993). These steps include calling key informants prior to asking for information, following up with repeated reminder mails or calls, promising a final survey report contingent upon their participation, signing confidentiality agreements and guaranteeing anonymous participation.

chain in the future. This bias implies that a simple OLS of performance as a function of completeness leads to biased estimates.

The suggested method of correction and testing is based on Heckman (1979). This consists in running a two equations model in which the first equation is a “treatment” model to describe the self-selection decision. The second equation, the performance regression in our case, is then estimated being adjusted for self-selection from the first equation. Maddala (1983, p. 122) and Stata manual (v.4, p. 282) show the likelihood function of this model. This method is usually more efficient than two-stage estimation.

In our case, the treatment equation was specified as follows:

$$C_i = \beta_0 + \beta_1 SPECIFICITY + \beta_2 EXPERIENCE + \beta_3 INTANGIBLES + \beta_4 SERVICES_i + v_i \quad (1)$$

where v_i is the normal error term, and C_i is the type of completeness, which may be $C_i = 0$, for chains that draw up simple contracts; and $C_i = 1$ for chains with more complete contracts.

The main equation (performance) is as follows:

$$ROA_{it} = \alpha_0 + \alpha_1 COMPLETENESS_{it} + \alpha_2 EXPERIENCE_{it-1} + \alpha_3 INTANGIBLES_{it-1} + \alpha_4 COMPLETENESS \times SPECIFICITY + \alpha_5 COMPLETENESS \times INTANGIBLE + \beta_5 SERVICES + \mu_i \quad (2)$$

This means that we analyze the average effect on performance, profitability in our case, of designing a complete contract, conditioned on the other regressors and controlling for self-selection.

Operationalization variables

Dependent variables. We considered two dependent variables, one for each stage. First, in order to measure completeness we constructed a dummy variable (COMPLETENESS) which takes value 1 for chains using complete contracts and 0 otherwise. Previous studies in other fields have only considered certain clauses or contingencies for estimating this measure (Parkhe, 1993; Saussier, 2000; Poppo and Zenger, 2002; Reuer and Ariño, 2002, 2007). However, we were able to create a much

more accurate measure of contractual completeness because we had direct access to the contract text. First, we processed all the literal clauses in the 74 contracts in order to identify all the contingencies or contractual problems that were considered at least once. This way, 157 different potential contingencies to be solved in the contract were identified⁶. It is important to note that the number of literal clauses does not have to coincide with the number of contingencies. A contingency can be detailed in several literal clauses or only in part of one. Therefore, the number of literal clauses formalized in the contract is not relevant in order to analyze contractual completeness, but the number of contingencies or contractual problems which are considered in the contract.

On the other hand, we created a second variable called *DETAIL*. This variable tries to measure the degree of detail of each contract with regard to the rest of the contracts in the sample. In order to build this variable, first we counted the number of words in the literal clauses which refer to each contingency. Second, we identified the contract that, for each contingency, was the most detailed, so this contract, for this contingency, took value 1. This value indicates that, for this contingency, this is the more detailed contract, in comparison with the rest of the contracts in the sample. Then, we proportionally valued, for each contingency, the rest of the contracts which had not obtained the maximum punctuation. In this way, we divided the number of words in the contract for each contingency between the number the words in the most detailed contract for that contingency (that is, with value 1). Finally, in order to obtain a global punctuation for each contract, we added the partial punctuation of each contingency.

These two variables (number of contingencies and *DETAIL*), with the number of words and the number of pages, were employed in order to carry out a cluster analysis. The analyses carried out allowed us to identify the existence of three groups of contracts according to their completeness: simple, complete, and intermediate. In order to facilitate use of the treatment model and so that no category ended up with very few observations, we placed them in two groups. To do this, we first carried out several mean tests to ensure we were including in the same category contracts that were relatively similar, then we joined up the complex and intermediate categories (mean

⁶ An average contract has over 6,000 words and 60 contingencies.

differences were not significant)⁷. So, $C_i = 0$ covers all the chains present in the first of the groups identified using cluster analysis, while $C_i = 1$ covers those in the second and third groups.

Second, we took as the performance indicator the franchisor's ROA, defined as Operating results / Total assets. This indicates the company's performance achieved as a result of its investment in assets, irrespective of its financial structure. This variable has been used previously in similar studies (Combs and Ketchen, 1999a; 1999b; Combs, Ketchen and Hoover, 2004; Arruñada, Vázquez and Zanarone, 2009). The descriptive statistics and correlations between it and other variables are given in Tables 2 and 3 respectively.

Regressors. We operationalized the determining factors of contractual completeness using the following variables. First, we used two different variables to estimate asset specificity. FEE is the up-front fee paid by the franchisee to join the chain (expressed in thousands of euros), and INVESTMENT (initial investment) is the amount, in thousand of euros, that the franchisee must pay to set up the business. These two variables can give us an idea of the investments made by the franchisor and franchisee that are specific to their relationship. The entry fee can be defined as a "payment to reimburse the franchisor for the incurred costs of setting the franchisee up in business – from recruiting through training and manuals" (Bond 2001, p. 29). It is therefore an investment in system specific assets which generates quasi-rents, motivates hold-up and makes the franchisee reluctant to invest (Lafontaine, 1992). On the other hand, although it is true that not all the initial investment is specific, the two magnitudes are closely correlated (Brickley and Dark, 1987; Bercovitz, 2000).

The up-front fee is a contractual clause decided simultaneously along with with other clauses and consequently the degree of completeness (Drahozal and Hylton, 2003). FEE may be then an endogenous variable. A solution for this problem is to instrument this variable with other variables which are both highly correlated with FEE and at the same time uncorrelated with the error term in the equation (Greene, 1993, p. 284-6). Previous empirical studies have suggested that the up-front fee will be highly correlated

⁷ From an empirical perspective, this methodology is similar to splitting the sample at the mean of our measure of completeness into two groups (Leiblein and Miller, 2003; Mesquita and Brush 2008).

with investment requirements, control costs and brand name (Lafontaine, 1992, 1993; Sen, 1993; Vázquez, 2005a, b). We have proxied these concepts with initial investment (INVESTMENT), geographical dispersion (DISPERSION) and experience (EXPERIENCE). Given that there is an instrument, the geographical dispersion, that is relevant for explaining the up-front fee but is not apparently related with completeness, we can replace FEE with the fitted value of this model in the equation.⁸

Second, in order to estimate chain experience, the EXPERIENCE variable was used. This covers the number of years that the different chains have been working as franchises. This same variable was used by Lafontaine and Kaufmann (1994), Dant and Kaufmann (2003), Perales and Vázquez (2003), Pénard, Raynaud and Saussier (2003) o Castrogiovanni, Combs and Justis (2006). Regarding its effect on performance, the literature on organizational learning emphasizes the link between experience and performance (for a review see, for example Argote 1999, pp. 1-28), and many studies state that there is a direct link between them (Mitchell, Shaver and Yeung, 1992; Stuart and Podolny, 1996; Haleblan and Finklestein, 1999; Macher and Boerner, 2006). In franchising, as chains acquire experience and knowledge on contract design, they are able to gradually develop a competitive advantage over other chains that do not have such experience and this will result in improved performance. Chain experience also has problems of endogeneity. Given that there is no a clear theoretical model explaining this experience, this problem was solved by including this variable with a one year time lapse.

Third, we used the INTANGIBLE variable, which represents the value of the brand name in the company balance sheet. This variable is not frequently used because it is only available when the companies are listed in stock exchange markets. The Spanish case is different because it is compulsory for all companies to provide financial information to the Registry, which includes an assessment of the intangible assets. Clearly this variable is more accurate for listed companies but this is a second best. Given the potential endogeneity of this variable, we proceed as in EXPERIENCE and the variable was also included with a one year time lapse.

⁸ The regression model is

$$FEE = \delta_0 + \delta_1 INVESTMENT + \delta_2 DISPERSION + \delta_3 EXPERIENCE + \tau$$

Control variable. We controlled for the sector effect using the SERVICES variable, a dummy taking value 1 for chains in the services sector and 0 for chains in retail.

TABLE 2: Descriptive statistics

| Variable | Mean | Std. desv. | Min. | Max. | N |
|--------------|-----------|------------|--------|------------|----|
| ROA | 0.044 | 0.217 | -0.536 | 0.962 | 67 |
| COMPLETENESS | 0.581 | 0.497 | 0.000 | 1.000 | 74 |
| EXPERIENCE | 9.405 | 6.523 | 1.000 | 31.000 | 74 |
| INTANGIBLE | 939,817.5 | 3,257,535 | 0.000 | 23,800,000 | 65 |
| SERVICE | 0.622 | 0.488 | 0.000 | 1.000 | 74 |
| FEE | 11.356 | 9.391 | 0.000 | 35.000 | 73 |
| INVESTMENT | 82.227 | 86.176 | 3.000 | 450.000 | 74 |

TABLE 3: Correlations

| | ROA | COMPLETENESS | EXPERIENCE | INTANGIBLE | SERVICES | FEE | INVESTMENT |
|--------------|---------|--------------|------------|------------|----------|-----------|------------|
| ROA | 1.0000 | | | | | | |
| COMPLETENESS | 0.2073* | 1.0000 | | | | | |
| EXPERIENCE | 0.1711 | 0.2053* | 1.0000 | | | | |
| INTANGIBLE | 0.0155 | 0.2186* | 0.3633** | 1.0000 | | | |
| SERVICES | 0.1047 | 0.0717 | -0.2953** | -0.0859 | 1.0000 | | |
| FEE | 0.1175 | 0.3052*** | -0.1219 | -0.0481 | 0.1441 | 1.0000 | |
| INVESTMENT | 0.1979 | 0.4183*** | 0.2252* | 0.6279*** | 0.1155 | 0.3616*** | 1.0000 |

4. Results

Table 4 shows the results of the regression analysis. The left-hand side of the table shows the treatment equation estimations and the right-hand side the performance equation estimations. We have estimated four different models. Models 1 and 2 consider the interactive effects, and models 3 and 4 show only the basic model. The difference between model 1 and model 2 is the variable we have used to estimate specificity. Model 1 uses the up-front fee (FEE) while model 2 considers the initial investment (INVESTMENT). We only present two different models of the treatment equation because models 1 and 3 and models 2 and 4 share, respectively, the same treatment equation. The Wald test measures the global significance of the regressions, and shows that estimations for all models except model 3 are statistically significant. Rho estimates are also statistically different from zero in three models out of four,

suggesting that equations are not independent since bias selection is statistically significant. Therefore, Heckman's correction is appropriate. A similar conclusion is obtained from the likelihood ratio test results which tests the null hypothesis that rho is equal to zero.⁹

The sign and magnitude of the control variable (SERVICES) remain broadly similar and insignificant, so we focus discussion on our independent variables. The coefficients for FEE and INVESTMENT in the first equation are positive and significant ($p < 0.01$), which provides support for the hypothesis that appropriability concerns increase the likelihood of formal development of the contract (H1). The coefficients for EXPERIENCE in the first equation are also positive and significant ($p < 0.05$ and $p < 0.10$) which provides support for the hypothesis (H3) that more expertise franchisors ex ante introduce more clauses and details in their contracts, probably because their experiences have taught them how to contract for solving contractual hazards and what they have learnt is then included in subsequent written contracts. Given that EXPERIENCE SQUARED is not statistically significant, it seems that the influence of experience on completeness is linear. Finally, the estimations of INTANGIBLE are not statistically significant, which suggests that the hypothesis (H2) that reputational capital increases the likelihood of a complete contract is not supported.

We now move on to our analysis of profitability (second equation). Hypothesis 4a, which suggests that asset specificity positively moderates the association between completeness and profitability, is supported. The coefficients of the interaction term between the two variables estimating specificity (FEE and INVESTMENT) and completeness are positive ($\beta = 1.7 \times 10^{-5}$ and $\beta = 1.28 \times 10^{-6}$) and significant ($p < 0.01$ for both cases). Hypothesis 4c (that experience in contracting will enhance profitability) is partially supported. The coefficients in the main models are statistically significant ($p < 0.05$ and $p < 0.10$) and suggest a non-linear effect. This means that experience increases profitability but only up to a threshold. Hypothesis 4b is not supported. This means we cannot say that reputational capital positively moderates the relationship between contract completeness and performance.

⁹ These tests are equivalent to the significance of the inverse Mills ratio in the typical, two-step approach.

It is also interesting to note that the coefficients for completeness are negative and significant when interactive effects are controlled for, but positive and significant in the basic models. This shows the relevance of controlling for interactive effects. When direct effects only are present, completeness increases profitability, probably because it solves different contractual hazards, including the risk of appropriability. However, once we have controlled for the latter contractual hazard (related to specificity), completeness reduces profitability. This is because of the costs associated with development of the contract, but no advantages are to be gained from writing down clauses which do not attend to real hazards. In our case, specificity clearly seems the most relevant.

TABLE 4: Results of Regression Analysis

| | Completeness | | ROA | | | |
|-----------------------------------|------------------------------|------------------------------|-------------------------------|-------------------------------|------------------------------|------------------------------|
| | Model 1 and 3 | Model 2 and 4 | Model 1 | Model 2 | Model 3 | Model 4 |
| EXPERIENCE | .18514503** (9.18E-02) | .14824602* (8.55E-02) | .03691693** (1.44E-02) | .03412253** (0.0140567) | 0.0177 (0.01219394) | 0.0174 (1.23E-02) |
| EXPERIENCE SQUARED | -0.00264788 (3.15E-03) | -0.00441795 (3.12E-03) | -.0008967* (5.10E-04) | -.00090361* (0.00050987) | -0.0005 (0.00043977) | -0.0005 (4.44E-04) |
| INTANGIBLE | -2.82E-06 (2.55E-06) | -1.84E-07 (1.84E-06) | 1.91E-07 (2.77E-07) | 4.37E-07 (3.09E-07) | -2.37E-08 (2.35E-08) | -2.50E-08 (2.34E-08) |
| INTANGIBLE SQUARED | 3.62E-12 (4.78E-12) | 2.08E-13 (1.20E-12) | 5.50E-16 (1.30E-15) | 9.72E-16 (1.29E-15) | 8.80E-16 (1.05E-15) | 9.29E-16 (1.05E-15) |
| COMPLETENESS | | | -.43062075*** (0.10284741) | -.31413705*** (0.06533352) | .16227362* (0.08777563) | .17541283** (0.0799697) |
| COMPLETENESS X FEE | | | .00001784** (8.46E-06) | | | |
| COMPLETENESS X INVESTMENT | | | | 1.289e-06*** (4.67E-07) | | |
| COMPLETENESS X INTANGIBLE | | | -2.07E-07 (2.80E-07) | -4.73E-07 (3.07E-07) | | |
| INVESTMENT | | .00001378*** (3.50E-06) | | | | |
| FEE | .00023013*** (0.00006419) | | | | | |
| SERVICES | 0.10235525 (0.33356057) | 0.09707432 (0.34820743) | 0.0665 (5.78E-02) | 0.0474 (0.05905775) | 0.0528 (0.05047493) | 0.0520 (5.09E-02) |
| CONSTANT | -3.6234442*** (1.0704605) | -1.5183806** (0.60964446) | -0.1141 (0.09632009) | -0.0949 (0.0909374) | -.18450154** (0.08173945) | -.18888864** (0.08158848) |
| N | 65 | 65 | 65 | 65 | 65 | 65 |
| Wald test | | | 35.58*** | 31.10*** | 9.15 | 10.43* |
| rho | | | .9423772*** (.0459456) | .9480009*** (.0489133) | -.5134041 (.2596654) | -.563817** (.2166109) |
| LR test of indep. eqns. (rho = 0) | | | 9.67*** | 9.84*** | 1.68 | 2.73* |

Note: ***, **, * = 99%, 95% and 90% significant, respectively. Standard errors are in parentheses

5. Discussion and conclusions

The analysis allows us to conclude that the performance of franchise chains is determined, amongst other factors, by their ability to draw up complete contracts only when contractual problems are present. Completeness seems then a helpful safeguard against contractual hazards. As contracts become more complete, they are likely to cover a larger number of possible contingencies that might take place subsequent to signature. This allows chains to establish greater control over action by the parties, basically the franchisee, which reduces the probability of opportunistic behavior and allows chains to improve their performance (profitability in our case). It can therefore be asserted that the formal terms of franchise contracts are key aspects for franchisor performance (Lafontaine, 1992).

The results on the determinants of completeness are theoretically appealing. First, the risk of appropriability due to the presence of specific investments positively influences contractual completeness in the different models. This is totally consistent with previous empirical research (Joskow, 1988; Goldberg and Erickson, 1987; Dyer, 1997; Poppo and Zenger, 2002; Reuer and Ariño, 2003, 2007). The reason for this finding is that the most important risk for both parties in case of contractual breach is that they might lose the sunk costs. They are unlikely to recover their relationship-specific investments because they have less value in any alternative use. Parties are aware of this problem *ex ante* and solve it when designing the contract.

Second, franchising experience is an important explanatory variable in both the completeness model and the performance model. This suggests that a contract cannot be completed without having experience of different problems and contingencies arising from former exchanges (Cyert and March, 1963; Mayer and Argyres, 2004). This fits in with the organizational learning literature which states that firms, probably the franchisor in this case because it is mainly he who draws up the contract, learn to contract: they *a)* become better at understanding the kinds of contingencies that could threaten the relationship; *b)* identify such contingencies with more accuracy and at lower cost; and *c)* become better at understanding how to efficiently adapt if such contingencies occur (Mayer and Argyres, 2004; Ryall and Sampson, 2006; Argyres, Bercovitz and Mayer, 2007). Our results suggest that this “contractual technology” may be as important as other production factors which become the strategic resources of the firm. Given that experience positively affects learning up to a threshold, reaching that knowledge may be a source of profitability and differentiation from other chains.

On the other hand, franchisor reputation does not seem to be as important as was initially supposed in either completeness or chain performance. These results may be due to its dual effect. On the one hand, franchisor's reputation inspires calculative trust in franchisees which acts as a mechanism for replacing more detailed contracts (Bradach and Eccles, 1989; Gulati, 1995; Dyer and Singh, 1998). On the other hand, the franchisor will seek greater protection against potential opportunistic behavior as its brand image becomes more relevant, which leads to a more complete contract. We have not found any statistical support for these arguments. A plausible explanation is that the two effects balance each other out. This could justify our empirical results but opens up a new area for research. Solving this question requires separate analysis of how franchisor's reputation affects the design of the clauses regarding the franchisee's and franchisor's behavior.

Last but not least, it should be noted that completeness it is not in itself of interest. In fact, its contribution to profitability could be negative unless it is related to relevant contractual hazards. In our sample, complete contract are more profitable than simple contract. However, once we take into account the typical problem which the contract should attend to, the completeness effect turns negative, probably because of the cost of writing and designing the contract. Our results suggest that solving the risk of appropriability due to asset specificity by means of a complete contract enhances profitability but, once this effect is controlled for, completeness may even be harmful for profitability.

6. References

- Adler, P. (2001):* "Market, hierarchy, and trust: The knowledge economy and the future of capitalism". *Organization Science* 12: 214-234.
- Al-Najjar, N. (1995):* "Incomplete Contracts and the Governance of Complex Contractual Relationships", *American Economic Review* 85: 432-436.
- Anderson, E. (1988):* "Strategic implications of Darwinian Economics of selling efficiency and choice of integrated or independent sales forces". *Management Science* 34: 599-618.
- Argote, L. (1999):* *Organizational Learning: Creating, Retaining and Transferring Knowledge*. Kluwer Academic Publishers, Boston, MA.
- Argyres, N. and K. Mayer (2004):* "Contract design capability and contract performance by high technology firms: Implications for the roles of managers, engineers and lawyers". Documento de trabajo, Boston University School of Management.

- Argyres, N., J. Bercovitz and K. Mayer (2007):* “Complementarity and evolution of contractual provisions: An empirical study of IT services contracts”. *Organization Science* 18: 3-19.
- Ariño, A. and J. Reuer (2005):* Alliance contractual design, en *Handbook of Strategic Alliances*, pp. 149-167.
- Armour, H. and D. Teece (1978):* “Organization structure and economic performance: A test of the multidivisional hypothesis”. *Bell Journal of Economics* 9: 106-122.
- Armstrong, J. S. and Overton, T. S. (1977):* “Estimating nonresponse bias in mail surveys”. *Journal of Marketing Research*, 16: 396-402.
- Arruñada, B., L. Garicano and L. Vázquez (2001):* “Contractual allocation of decision rights and incentives: The case of automobile distribution”. *Journal of Law, Economics and Organization* 17: 256-283.
- Arruñada, B., L. Vázquez and G. Zanarone (2009):* “Institutional constraints on organizations: The case of Spanish car dealerships”. *Managerial and Decision Economics* 30: 15-26.
- Artz, K., and T. H. Brush (2000):* “Asset specificity, uncertainty and relational norms: An examination of coordination costs in collaborative strategic alliances”. *Journal of Economic Behavior and Organization* 41: 337–362.
- Baker, G., R. Gibbons and K. Murphy (2002):* “Relational contracts and the theory of the firm”. *Quarterly Journal of Economics* 117: 39-84.
- Barthelemy, J. (2001):* “The hidden costs of IT outsourcing”. *Sloan Management Review* 42: 60-70.
- Barthelemy, J. and B. Quelin (2006):* “Complexity of outsourcing contracts and ex post transaction costs: An empirical investigation”. *Journal of Management Studies* 43: 1775-1797.
- Beheler, R. (1991):* Control in various organizational forms: An empirical study of company-owned and franchisee-owned units’ health inspections, en J. Nevin (ed.), *Franchising: Embracing the Future*, Fifth Annual Proceedings of the Society of Franchising, University of St-Thomas.
- Bercovitz, J. (2000):* “An analysis of the contract provisions in business-format franchise agreements”. Mimeo, Fuqua School of Business, Duke University.

- Bond, R. (2001):* The Source Book of Franchise Opportunities. Richard D. Irwin Publishing.
- Bradach, J. (1998):* Franchise Organizations. Harvard Business School Press, Boston.
- Bradach, J. and R. Eccles (1989):* “Price, authority and trust: From ideal types to plural forms”. *Annual Review of Sociology* 15: 97-118.
- Brickley, J. and F. Dark (1987):* “The choice of organizational form: The case of franchising”. *Journal of Financial Economics* 18: 401-420.
- Brickley, J., F. Dark and M. Weisbach (1991):* “An agency perspective on franchising”. *Financial Management* 20: 27-35.
- Castrogiovanni, G., J. Combs and R. Justis (2006):* “Resource scarcity and agency theory predictions concerning the continued use of franchising in multi-outlet networks”. *Journal of Small Business Management* 44: 27-44.
- Ciccotello, C. and M. Hornyak (2000):* “Cooperation via contract: An analysis of research and development agreements”. *Journal of Corporate Finance* 6: 1-24.
- Clegg, S. (1990):* Modern organizations: organization studies in the postmodern world. London: Sage.
- Cochet, O. and V. Garg (2008):* “How do franchise contracts evolve? A study of three German SMEs”. *Journal of Small Business Management* 46: 134-151.
- Combs, J. and D. Ketchen (1999a):* “Can capital scarcity help agency theory explain franchising? Revisiting the capital scarcity hypothesis”. *Academy of Management Journal* 42: 196-207.
- Combs, J. and D. Ketchen (1999b):* “Explaining interfirm cooperation and performance: Toward a reconciliation of predictions from the resource-based view and organizational economics”. *Strategic Management Journal* 20: 867-888.
- Combs, J., D. Ketchen and V. Hoover (2004):* “A strategic groups approach to the franchising-performance relationship”. *Journal of Business Venturing* 19: 877-897.
- Crocker, K. and S. Masten (1988):* “Mitigating contractual hazards: Unilateral options and contract length”. *Rand Journal of Economics* 19: 327-343.
- Crocker, K. and K. Reynolds (1993):* “The efficiency of incomplete contracts: An empirical analysis of air force engine procurement”. *Rand Journal of Economics* 24: 126-146.

- Cyert, R. and J. March (1963): A Behavioral Theory of the Firm. Prentice Hall, Englewood Cliffs, NJ.*
- Dant, R. and P. Kaufmann (2003): "Structural and strategic dynamics in franchising". Journal of Retailing 79: 63-75.*
- Darr, E., L. Argote and D. Epple (1995): "The acquisition, transfer and depreciation of knowledge in service organizations: Productivity in franchises". Management Science 41: 1750-1762.*
- Dillman, D. A. (2000): Mail and Internet Surveys: The Tailored Design Method. New York: Wiley.*
- DiRomualdo, A. and V. Gurbaxani (1998): "Strategic intent for IT outsourcing". Sloan Management Review 39: 115-116.*
- Drahozal, C. and K. Hylton (2003): "The Economics of Litigation and Arbitration: An Application to Franchise Contracts", Journal of Legal Studies 32: 549-584.*
- Dyer, J. (1997): "Effective interfirm collaboration: How firms minimize transaction costs and maximize transaction value". Strategic Management Journal 18: 535-556.*
- Dyer, J. and H. Singh (1998): "The relational view: Cooperative strategy and sources of interorganizational competitive advantage". Academy of Management Review 23: 660-679.*
- Eggleston, K., E. Posner and R. Zeckhauser (2000): "Simplicity and complexity in contracts". Documento de Trabajo John M. Olin Law & Economics No. 93.*
- English, W. and J. Willems (1994): "Franchise vs. non-franchise restaurant attrition: Year four of a yellow pages longitudinal analysis". Proceedings of the Eighth Conference of the Society of Franchising, Nevada.*
- Fowler, F. J. (1993): Survey Research Methods. Sage. Beverly Hills.*
- Goldberg, V. and J. Erickson (1987): "Quantity and price adjustment in long term contracts: A case study of petroleum coke". Journal of Law and Economics 30: 369-398.*
- Greene, W. (1993): Econometric Analysis. Prentice-Hall, Nueva York.*
- Grossman, S. and O. Hart (1986): "The costs and benefits of ownership: A theory of vertical integration and lateral integration". Journal of Political Economy 94: 691-719.*

- Gulati, R. (1995):* “Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances”. *Academy of Management Journal* 38: 85-112.
- Gulati, R. and J. Nickerson (2008):* “Interorganizational trust, governance choice and exchange performance”. *Organization Science* 19: 688-708.
- Haleblian, J. and S. Finklestein (1999):* “The influence of organization acquisition experience on acquisition performance: A behavioral learning theory perspective”. *Administrative Science Quarterly* 44: 29-56.
- Hamilton, B. and J. Nickerson (2003):* “Correcting for endogeneity in strategic management research”. *Strategic Organization* 1: 51-78.
- Hart, O. and J. Moore (1999):* “Foundations of incomplete contracts”. *Review of Economic Studies* 66: 115-139.
- Heckman, J. (1979):* “Sample Selection Bias as a Specification Error”. *Econometrica*, 47: 153-61
- Heide, J. (1994):* “Interorganizational governance in marketing channels”. *Journal of Marketing* 58: 71-85.
- Holmstrom, B. and J. Roberts (1998):* “The boundaries of the firm revisited”. *Journal of Economic Perspectives* 12: 73-94.
- Joskow, P. (1988):* “Asset specificity and the structure of vertical relationships: Empirical evidence”. *Journal of Law, Economics and Organization* 4: 95-118.
- Klein, B. (1980):* “Transaction cost determinants of “unfair” contractual arrangements”. *American Economic Review* 70: 356-362.
- Klein, B. and K. Murphy (1997):* “Vertical integration as a self-enforcing contractual arrangement”. *American Economic Review* 87: 415-420.
- Klein, B., R. Crawford and A. Alchian (1978):* “Vertical integration, appropriable rents and the competitive contracting process”. *Journal of Law and Economics* 21: 297-326.
- Lafontaine, F. (1992):* “Agency theory and franchising: Some empirical results”. *Rand Journal of Economics* 23: 263-283.
- Lafontaine, F. (1993):* “Contractual Arrangements as Signaling Devices: Evidence from Franchising”, *Journal of Law, Economics and Organization* 9: 256- 289.

- Lafontaine, F. and P. Kaufmann (1994):* “The evolution of ownership patterns in franchise systems”. *Journal of Retailing* 70: 97-113.
- Leiblein M.J. and D. J.M iller (2003):* “An empirical examination of transaction- and firm-level influences on the vertical boundaries of the firm”. *Strategic Management Journal* 24(9): 839–859.
- Lieberman, M. (1984):* “The learning curve and pricing in the chemical processing industries”. *Rand Journal of Economics* 15: 213-228.
- Luo, Y. (2002):* “Contract, cooperation and performance in international joint ventures”. *Strategic Management Journal* 23: 903-919.
- Macher, J. and C. Boerner (2006):* “Experience and scale and scope economies: Trade-offs and performance in development”. *Strategic Management Journal* 27: 845-865.
- Macneil, I. (1978):* “Contracts: Adjustments of Long-Term Economic Relations under Classical, Neoclassical and Relational Contract Law”, *Northwestern University Law Review* 72: 854-906.
- Maddala, G. (1983):* *Limited-Dependent and Qualitative Variables in Econometrics*. Cambridge: Cambridge University Press.
- Martin, R. and R. Justis (1993):* “Franchising, liquidity constraints and entry”. *Applied Economics* 25: 1269-1277.
- Maskin, E. and J. Tirole (1999):* “Unforeseen contingencias, property Rights and incomplete contracts”. *Review of Economic Studies* 66: 83-115.
- Masten, S. (1996):* Empirical research in transaction cost economics: Challenges, progress, directions, en J. Groenewegen (ed.), *Transaction Cost Economics and Beyond*, Kluwer, Amsterdam.
- Mayer, K. and N. Argyres (2004):* “Learning to contract: Evidence from the personal computer industry”. *Organization Science* 14: 394-410.
- Mayer, K. and J. Nickerson (2005):* “Antecedents and performance implications of contracting for knowledge workers: Evidence from information technology services”. *Organization Science* 1: 225–242.
- McFarlane, W. and R. Nolan (1995):* “How to manage an IT outsourcing alliance”. *Sloan Management Review* 36: 9-24.

- Mellewigt, T., A. Madhok and A. Weibel (2007):* “Trust and formal contracts in interorganizational relationships – substitutes and complements”. *Managerial and Decision Economics* 28: 833-847.
- Mesquita, L. and T. Brush (2008):* “Untangling safeguard and production coordination effects in long-term buyer-supplier relationship”. *Academy of Management Journal* 51: 785-807.
- Michael, S. (2000):* “The effect of organizational form on quality: The case of franchising”. *Journal of Economic Behavior and Organization* 43: 295-318.
- Milgrom, P. and J. Roberts (1992):* *Economics, Organizations and Management*. Prentice-Hall International Editions: Homewood.
- Mitchell, W., J. Shaver and B. Yeung (1992):* “Getting there in a global industry: Impacts on performance of changing international presence”. *Strategic Management Journal* 13: 419-432.
- Nickerson, J. and B. Silverman (2003):* “Why firms want to organize efficiently and what keeps them from doing so: Inappropriate governance, performance and adaptation in a deregulated industry”. *Administrative Science Quarterly* 48: 433-465.
- Norton, S. (1988a):* “An empirical look at franchising as an organizational form”. *Journal of Business* 61: 197-217.
- Norton, S. (1988b):* “Franchising, brand name capital, and the entrepreneurial capacity problem”. *Strategic Management Journal* 9: 105-114.
- Oxley, J. (1997):* “Appropriability hazard and governance in strategic alliances: A transaction cost approach”. *Journal of Law, Economics and Organization* 13: 387-409.
- Parkhe, A. (1993):* “Strategic alliance structuring: A game theoretic and transaction costs examination of interfirm cooperation”. *Academy of Management Journal* 36: 794-829.
- Pénard, T., E. Raynaud and S. Saussier (2003):* “Dual distribution and royalty rates in franchised chains: An empirical analysis using French data”. *Journal of Marketing Channels* 10: 5–31.
- Perales, N. and L. Vázquez (2003):* “Determinantes de la intensidad franquiciadora: Un enfoque de agencia”. *Investigaciones Económicas*, nº 27: 151-172.
- Poppo, L. and T. Zenger (2002):* “Do formal contracts and relational governance function as substitutes or complements?”. *Strategic Management Journal* 23: 707-725.

- Reuer, J. and A. Ariño (2002):* “Contractual renegotiations in strategic alliances”. *Journal of Management* 28: 51-74.
- Reuer, J. and A. Ariño (2003):* “Strategic alliances as contractual forms”. *Academy of Management Best Paper Proceedings*.
- Reuer, J. and A. Ariño (2007):* “Strategic alliance contracts: Dimensions and determinants of contractual complexity”. *Strategic Management Journal* 28: 313-330.
- Reuer, J., A. Ariño and T. Mellewigt (2006):* “Entrepreneurial alliances as contractual forms”. *Journal of Business Venturing* 21: 306-325.
- Ryall, M and R. Sampson (2006):* “Do prior alliances influence contract structure?”, en A. Ariño and J. Reuer (eds.), *Strategic Alliances*, Houndsmills: Palgrave MacMillian.
- Saussier, S. (2000):* “Transaction costs and contractual incompleteness: The case of electricité de France”. *Journal of Economic Behavior and Organization* 42: 189-206.
- Schwartz, A. (1992):* Legal contract theories and incomplete contracts, en L. Werin and H. Wijkander (eds.), *Contracts Economics*, Blackwell.
- Sen, K. (1993):* “The Use of Initial Fees and Royalties in Business Format Franchising”, *Managerial and Decisions Economics* 14: 175-190.
- Sen, K. (1998):* “The use of franchising as a growth strategy by US restaurant franchisors”. *Journal of Consumer Marketing* 15: 397-407.
- Shane, S. (1996):* “Hybrid organizational arrangements and their implications for firm growth and survival: A study of new franchisors”. *Academy of Management Journal* 39: 216-234.
- Shane, S. (2001):* “Organizational incentives and organizational mortality”. *Organization Science* 12: 136-160.
- Shane, S. (1998):* “Making new franchise systems work”. *Strategic Management Journal* 19: 697-707.
- Shane, S. and M. Foo (1999):* “New firm survival: Institutional explanations for new franchisor mortality”. *Management Science* 45: 142-159.
- Shaver, J. (1998):* “Accounting for endogeneity when assessing strategy performance: Does entry mode choice affect FDI survival?”. *Management Science* 44: 571-585.

- Shelton, J. (1967):* “Allocative efficiency vs. ‘X-efficiency’: Comment”. *American Economic Review* 57: 1252-1258.
- Silverman, B, J. Nickerson and J. Freeman (1997):* “Profitability, transactional alignment and organizational mortality in the U.S. trucking industry”. *Strategic Management Journal* 18: 31-52.
- Spencer, E. (2008):* “Balance of Power, Certainty and Discretion in the Franchise Relationship: An Analysis of Contractual Terms”, artículo presentado en el 22nd Annual Conference of ISOF, Saint-Maló (Francia).
- Stanworth, J. and J. Curran (1999):* “Colas, burgers, shakes and shirkers: Towards a sociological model of franchising in the market economy”. *Journal of Business Venturing* 14: 323-344.
- Stuart, T. and J. Podolny (1996):* “Local search and the evolution of technological capabilities”. *Strategic Management Journal* 17: 21-38.
- Thompson, R. (1992):* “Company ownership versus franchising: Issues and evidence”. *Journal of Economic Studies* 19: 31-42.
- Uzzi, B. (1997):* “Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness”, *Administrative Science Quarterly* 42, pp. 35-67.
- Vázquez, L. (2005a):* “Up-front Franchise Fees and Ongoing Variable Payments as Substitutes: An Agency Perspective”, *Review of Industrial Organization* 26: 445-460.
- Vázquez, L. (2005b):* “Las Compensaciones en las Relaciones de Franquicia”, *Revista de Economía Aplicada* 38: 111-122.
- Williamson, O. (1985):* *The Economic Institutions of Capitalism*. Nueva York Free Press.
- Williamson, O. (1989):* “Transaction Cost Economics”, in *The Handbook of Industrial Organization*, R. Schmalensee and R. Willing (eds.), Elsevier Science Publishers B.V., Nueva York.
- Williamson, O. (1991):* “Comparative economic organization: The analysis of discrete structural alternatives”. *Administrative Science Quarterly* 36: 269-296.