

**HOW TO DESIGN FRANCHISE CONTRACTS: THE ROLE
OF CONTRACTUAL HAZARDS AND EXPERIENCE**

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HOW TO DESIGN FRANCHISE CONTRACTS: THE ROLE OF CONTRACTUAL HAZARDS AND EXPERIENCE

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Abstract

We analyze factors determining the degree of contractual completeness in franchising. We argue that heterogeneity in firms' contract design capabilities is an important factor along with different contractual hazards. Our results support these hypotheses showing that experienced franchisors draw up more complete contracts. Additionally, we observe that the effects of contractual hazards on completeness are not always positive and direct and that there may be a substitution effect between formal and relational governance mechanisms because risks of bilateral expropriations might serve as a mutual guarantee. This also suggests that contract analysis must not focus on particular clauses but on the contract as a whole.

Key words: Franchising; Contractual Hazards; Experience.

JEL classification: L14, L24, L81.

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Introduction

Although franchising is a successful method of cooperation between two different types of entrepreneur¹, franchisor and franchisee (Falbe, Dandridge, & Kumar, 1998), day-to-day management is not problem-free. Both parties share profits but their incentives are not totally aligned because “the franchisor seeks standardization and control of franchisees so as to maintain brand reputation whereas franchisees strive for autonomy in operating their own entrepreneurial ventures” (Kidwell, Nygaard, & Silkoset, 2007, p. 523)².

Literature on inter-firm relationships has identified two types of safeguard mechanism for overcoming these problems: formal contracts and relational governance mechanisms (Bradach & Eccles, 1989; Dyer, 1997; Dyer & Singh, 1998; Poppo & Zenger, 2002; Gulati & Nickerson, 2008; Mesquita & Brush, 2008). The first one requires the specification of obligations, rewards and risks, procedures and so forth through individual contractual provisions. On relational governance mechanisms, literature argues that they are largely based on trust and social identification (Dyer & Singh, 1998) suggesting that these reduce opportunism because parties are interested in preserving long term or future profitable transactions (Mesquita & Brush, 2008).

Several authors have tended to elevate the importance of trust and have questioned the value of detailed contracts (Ring & Van de Ven, 1994; Gulati, 1995), based on the idea that formal contracts may signal distrust of your exchange partner and, by undermining trust, encourage, rather than discourage, opportunistic behavior (Macaulay, 1963; Bradach & Eccles, 1989). However, it is widely observed that an increasing range of exchange activities is organized through interorganizational relationships in which complex contracting plays an important role, such as franchising (Mayer & Argyres, 2004; Argyres & Mayer, 2007). Particularly, the franchising literature broadly recognizes the relevance of the formal contract in franchise relationships (Brickley & Dark, 1987; Shane, 1998; Combs & Ketchen, 1999). This emphasis on formal contracts is puzzling because they are expensive and require more explicit knowledge than relational contracts: only experts dare to draw up formal contracts. It therefore seems reasonable to suggest that contract design capabilities influence the

¹ Franchising accounts for more than 35% of U.S. retail sales from approximately 760,000 businesses in 75 industries and employs more than 18 million people (Baker & Dant, 2008). Although the figures are smaller in Spain, franchising is growing constantly, reaching 15.2% of Spanish retail sales and employing 400,000 people (Tormo & Asociados, 2009).

² Rubin (1978), Brickley & Dark (1987), Lafontaine (1992), Combs & Ketchen (2003). A summary can be found in Blair & Lafontaine (2005).

degree of contract completeness, an argument that has been frequently disregarded by researchers (Mayer & Argyres, 2004; Argyres & Mayer, 2007).

There has been however very little research on why parties complete contracts (Luo, 2002; Mesquita & Brush, 2008) and, particularly, why franchisors devote great efforts to drawing up their contracts with their franchisees (Frazier, 1999). Therefore, the aim of this paper is to focus on franchise contract design and, more specifically, to analyze what factors determine the degree of contractual completeness. This term is defined as the extent to which all relevant terms and clauses are specified in the contract (Luo, 2002; Mesquita & Brush, 2008).

Our results support the idea that the chain's experience determines the degree of contractual completeness. This gives empirical backing to the thesis of Mayer & Argyres (2004) and Argyres & Mayer (2007) that firms differ in their contract design capabilities and that they learn how to contract and manage their relationships. Moreover, we find another interesting result. We observe that the presence of investments in assets, both physical and intangible (reputational capital), leads directly to more complete contracts (to avoid expropriation of quasi-rents), but there is an interactive effect between them which moderates the trend towards formal contracts. This is either because some clauses employed to protect each contractual hazard are redundant or because the risks of bilateral expropriations might serve as a mutual guarantee. So the vulnerability of the franchisor's reputational capital seems to moderate the need for explicit safeguards for the franchisees' specific investments.

We therefore contribute to the interorganizational relationship literature, particularly franchising literature, by claiming that the development of franchise contracts does not depend only on contractual hazards but also on the franchisor's contract design capabilities. Furthermore, we show that the effects of contractual hazards on completeness are not always direct and that the existence of some hazards (the vulnerability of the franchisor's reputational capital) reduces the need for explicit safeguards for others (the franchisees' specific investments). This indicates, as stated by Goldberg & Erickson (1987) and Argyres, Bercovitz, & Mayer (2007), that the clauses included in a contract are chosen simultaneously and may interact, so empirical studies should analyze the whole of the contractual provisions. Our measure of completeness follows this criterion, covering the contract as a whole. This overcomes the limitations of previous studies, which mostly considered only certain clauses or contingencies for estimating this measure (Parkhe, 1993; Saussier, 2000;

Poppo & Zenger, 2002; Reuer & Ariño, 2002, 2003, 2007; Luo, 2002; Reuer, Ariño, & Mellewigt, 2006; Ryall & Sampson, 2006; Mesquita & Brush, 2008). Finally our contribution to entrepreneurship literature is that entrepreneurs interested in franchising their business should use their experience and day-to-day problem knowledge to design contracts. This capability may promote their competitive advantage in that this can help them avoid potential conflicts, reducing any transaction costs involved in their relationships.

The remainder of the article is structured as follows. After this introduction, the second section discusses contract use and, more specifically, what factors determine contract completeness, distinguishing between contractual hazards and contractual learning factors. 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.

Theoretical background and hypothesis

Transaction cost theory of contracting

Transaction cost economics (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 becomes 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 & Mayer, 2007). 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 & Roberts, 1992; Mesquita & 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).

All contracts, however, are incomplete in practice because of the contract writing costs, the bounded rationality of the parties, which makes it impossible to anticipate all contingencies that might affect the transaction, and the inability to verify all the relevant variables (Williamson, 1985; Grossman & Hart, 1986; Schwartz, 1992). This means that even if parties were able to anticipate all contingencies and to verify all behaviors, they still might be not interested in fully completing the contract because of the cost of drafting it.

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 & Dark, 1987; Shane, 1998; Combs & Ketchen, 1999). However, as with other contracts, they are always incomplete and the parties have to make an effort to achieve the optimum level of completeness. Taking TCE into account, when parties are bilaterally dependent, contractual partners will make greater efforts to identify potential contractual hazards and to incorporate safeguards into their contracts (Williamson, 1985; Klein, Crawford, & Alchian, 1978) in order to minimize the costs and performance losses arising from such hazards (Macneil, 1978; Joskow, 1988; Heide, 1994). We consider two categories of exchange hazards affecting the level of contractual completeness: asset specificity and expropriation of brand name value.

Investments in specific assets.

Specific assets are those resources which cannot be readily deployed in other relationships or businesses, so that their current value is always above what it would be in alternative uses (Klein et al., 1978; Williamson, 1991). In franchising, both

franchisor and franchisee 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 and hiring of workers, all of which are specific investments³.

Under these circumstances, partner identity and continuity are especially important for two reasons. On the one hand, because of the specific investments made by the parties, both franchisor and franchisee can have incentives to behave in an opportunistic way in order to appropriate the quasi-rents from these specialized investments. This is known as the hold-up problem (Williamson, 1975, 1985; Klein et al., 1978). On the other hand, because, given the presence of these investments, the threat of termination of the relationship would involve, first, that most of the specific investments would not be recovered and, second, a potential capital loss equal to the discounted value of the quasi-rents from these investments (Klein, 1996).

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 & Erickson, 1987; Dyer, 1997; Poppo & Zenger, 2002; Reuer & 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 & Argyres, 2004).

In consequence, the presence of specific assets tends to raise the number of clauses inserted in the contract explicitly by the parties to minimize opportunistic behavior. The empirical evidence supports this idea (Goldberg & Erickson, 1987; Crocker & Masten, 1988; Joskow, 1988; Dyer, 1997; Saussier, 2000; Poppo & Zenger, 2002; Reuer & Ariño, 2003, 2007). Therefore, we establish the following hypothesis:

Hypotheses 1: The contractual completeness of a franchising relationship will be positively related to asset specificity.

³ All these investments, while falling into standard categories, are specific to the individual outlet so, once made, they cannot be redeployed to a second-best use without a significant loss in value (Bercovitz, 2000).

Franchisor reputation.

The relationship between franchisor and franchisee may also be damaged if the franchisee decides to engage in opportunistic behaviors which result in reducing franchisor brand reputation (Kidwell et al., 2007). First, franchisee's remuneration with the residual rights from its particular units generates high-powered incentives which may lead it to maximize its owned gains at the expense of the overarching system by, for example, cutting costs by lowering product or service quality. This is because the cost of such behavior is borne primarily by other units, which lose the customer patronage, and by the franchisor, who will have a less valuable trademark to franchise in the future. Second, franchisees can hurt the franchise system not only by using lower cost products, but also by not making the efforts expected of them. As stated by Lal (1990, p. 312), "if the service level cannot be specified in the contract and accurately verified with certainty subsequently, the franchisee has incentives to shirk since it does not capture all the benefits from delivering the higher service level". Yet another way of behaving opportunistically would be by not following the franchisor's requirements for decorating the establishment, following its method, supplying products, etc. (Kaufmann, 1987). All such behavior would damage the chain's uniformity, which is essential for attracting customers and keeping them loyal⁴.

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, unlike franchisors, 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 franchisees' 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 (Mellewigt, Madhok, & Weibel, 2007). In other words, the greater the reputation of the franchisor, the more complete its contracts will be. We therefore establish the following hypothesis:

Hypotheses 2: The contractual completeness of a franchising relationship will be positively related to franchisor reputation.

⁴ Chain uniformity is essential because customers want to be certain about the service they are receiving (Klein & Saft, 1985; Rubin, 1990) and because they will become loyal to a brand if their experience in other establishments in the same chain routinely meet their expectations (Kaufmann & Eroglu, 1998).

However, reputation may also act as a guarantee of the lack of opportunistic behavior by the franchisor. The success of a chain mainly depends on the franchisor because he provides the brand image and ensures that its value persists or increases over time (Perales & Vázquez, 2003). For this to be possible, it will centralize any promotion of its products/services, update the know-how needed to manage the business (López & Ventura, 2002) and train and assist franchisees in order to maintain chain uniformity. But the franchisor does not receive the full benefit of its efforts since it has franchised a certain percentage of its establishments. It therefore bears all the costs but only receives some of the profit. This may lead the franchisor to neglect its obligations, trying to obtain maximum benefit in the short term through the royalties and fees it charges franchisees and allowing the chain and the brand to completely lose their value. Moreover, the franchisor may have incentives to terminate the contract and/or not renew it in order to take control of the most profitable franchise establishments (Dant, Kaufmann, & Paswan, 1992). From the franchisees' viewpoint, this is an important problem because, if the franchisor were to behave this way, they would lose their specific investments. Therefore, as proposed in the first hypothesis, potential franchisees will demand to incorporate safeguards into the contract to protect their investments from opportunistic expropriation (Goldberg & Erickson, 1987; Joskow, 1988; Dyer, 1997; Poppo & Zenger, 2002; Reuer & Ariño, 2003, 2007).

However, if the franchisor has a well-known brand name and a good reputation in the market, 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 and tested and that the franchisor will lose its reputational capital if it does not comply with the agreement (Arruñada, Garicano, & Vázquez, 2001). Under these circumstances, potential franchisees will not be afraid of the franchisor expropriating the quasi-rents from their investments in specific assets. They are aware that the probability of opportunistic behavior by the franchisor is smaller (Eggleston, Posner, & Zeckhauser, 2000) because such behavior would damage its reputation and limit the possibility of attracting new franchisees in the future (Klein, 1980; Klein & Murphy, 1997; Arruñada et al., 2001). In other words, franchisees trust the franchisor. Therefore, in this case, the franchisor can use what are called relational governance mechanisms instead of a detailed contract. Such mechanisms are largely based on trust and social identification (Dyer & 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. Since trust implies an expectation of a lower probability of opportunistic behavior in the trusted partner (in this case, the franchisor) (Bradach & Eccles, 1989), there is less need for the other party to exert control (in this case, the franchisees) (Zand, 1972) and to establish formal governance mechanisms by way of protection (Cusumano, 1985). Therefore, in this case, reputation acts as a self-enforcement mechanism, which is more effective and less costly than drawing up a more detailed contract (Jarillo, 1988; Bradach & Eccles, 1989; Hill, 1990; Zaheer & Venkatraman, 1995; Dyer, 1997; Uzzi, 1997; Gulati, 2007). Therefore, we establish the following hypothesis:

Hypotheses 3: Franchisor reputation in the market negatively moderates the relationship between contractual completeness and asset specificity.

Contract Design Capabilities

A second aspect with certainty to be considered when analyzing completeness is franchisor's contract design capabilities. Even though, as stated by Argyres & Mayer (2007, p. 1065), "when parties are bilaterally dependent and then the contract involves complex technology or other kinds of task complexity, properly specifying roles and responsibilities is not always a trivial matter", economic theories of contracting have not considered this.

Therefore, chain experience in 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; Lyles, 1988; Darr, Argote, & Epple, 1995; Argote, 1999). This learning tends to occur through a relatively slow process of environmental selection of faster learners (Alchian, 1950), or error detection and correction in "theories-in-use" (Argyres & Schon, 1978), or both. In other words, firms tend to learn through the repeated practice of routines, which gradually come to embody the fruits of prior learning (Mayer & Argyres, 2004).

In this way, the literature on organizational learning (Lieberman, 1984; Argote, 1999; Mayer & Argyres, 2004; Ryall & Sampson, 2006) and, to a lesser extent, transaction cost theory (Williamson, 1985) maintain that learning affects contract design. More specifically, as firms gain experience, they develop contract design capabilities, thus learning to manage and solve the conflicts that are always present in channel relationships and designing more complete contracts. They learn about

potential conflicts and hazards slowly and incrementally, introducing them in the contract as they experience these contingencies (Cyert & March, 1963). That is, rather than anticipating such conflicts, 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 & Argyres, 2004). Therefore, as firms gain experience, they not only become better at understanding the kinds of conflicts and contingencies that might threaten the relationship but they identify such conflicts and contingencies with greater accuracy and at lower cost and become better at understanding how to efficiently adapt if they occur (Argyres et al., 2007).

In the field of franchising, there are not many studies on how contracts develop as chains gain experience in the market, and no studies have considered the contract as a whole. What has been studied most are the clauses relating to financial terms and contract duration, and the conclusion reached is that these remain more or less unchanged over time (Lafontaine, 1992; Sen, 1993; Lafontaine & Shaw, 1999; Seaton, 2003; Lafontaine & Oxley, 2004). Azoulay & Shane (2001), after interviewing 16 founders of new franchises, note that some of those who initially had not included clauses relating to territorial exclusiveness did so subsequently.

To our knowledge, the only study that directly analyzes the influence of learning is Cochet & 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 that were redesigned, added or removed clearly served the aim of improving control over franchisee behavior, thus 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 missing (Argyres et al., 2007). In other fields, Ryall & 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 & Argyres (2004) and Argyres et al. (2007).

We can therefore establish that the chain's experience in franchising allows it to learn from past mistakes, so that matters (or contingencies) leading to unanticipated problems and not initially included in the contract can gradually be included in new contracts in order to avoid such problems in the future (Argyres et al., 2007; Cochet & 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, &

Murphy, 2002; Poppo & Zenger, 2002; Ryall & 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 et al., 2002; Poppo & Zenger, 2002; Ryall & Sampson, 2006). The hypothesis is therefore as follows:

Hypotheses 4: The contractual completeness of a franchising relationship will be positively related to franchisor experience in franchising.

Methodology

Data Collection

On the one hand, the necessary data to measure contractual completeness were drawn from contracts between franchisors and franchisees. We contacted 805 franchise chains with headquarters located in Spain by telephone and e-mail in March 2006 to ask them 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 rate⁵. 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 different companies (franchisors) sent us the whole contract, which represents a response rate of 9.2 percent. All these contracts belong to companies that are operating today in Spain in both the services and retail sectors. The former include real estate agencies, hairdressers, travel agencies or consultancies, and the latter include catering and clothing establishments or vending operations.

On the other hand, we complemented the contract information with secondary information about the chains which we obtained from the dossier package sent by the franchisors and from franchisors' web sites or, when neither of these were available, from the Professional Franchise Guides.

⁵ See, for example, Fowler (1993) and Dillman (2000). 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.

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 & Zenger, 2002). The sample and population did not appear to differ by industries.

Description of Model and Variables

Based on the theoretical model described in the previous section, the empirical model used to analyze determining factors for contract completeness was multiple least square regression, structured as follows:

$$COMPLETENESS = \beta_0 + \beta_1 SPECIFICITY + \beta_2 REPUTATION + \beta_3 SPECIFICITY \times REPUTATION + \beta_4 EXPERIENCE + \beta_5 SERVICES + \varepsilon$$

In order to measure contractual completeness we use CONTINGENCIES as the dependent variable. Taking into account the definition of completeness presented above, what we have to measure is the degree to which all potential contingencies are covered. To that purpose, we read the contracts and processed all the literal clauses included in them in order to identify all the contingencies or contractual problems that were considered at least once⁶. 157 different potential contingencies to be solved in contracts were identified⁷. Obviously, the contracts did not all include either the same number or the same kind of contingencies, so the reading of the different contracts involved a learning process by which we progressively adjusted the real number of contingencies. It is important to note that the number of literal clauses does not have to tally with the number of contingencies. A contingency can be detailed in several literal clauses or only in part of one. Therefore, it is not the number of literal clauses formalized in the contract that is relevant for analyzing contractual completeness, but the number of contingencies or contractual problems which are considered in the contract. We believe this is the most appropriate variable for measuring completeness. Each of these contingencies refers to a specific aspect or contractual problem in the

⁶ For instance, one contingency refers to franchisee's obligations with regard to the franchisor's method and know-how, another about how the franchisor has to promote the chain, etc.

⁷ An average contract has over 6,000 words and 60 contingencies.

franchise relationship so, considering the definition of completeness, the greater the number of contingencies in the franchise contract, the more complete it will be. Previous studies in other fields only considered certain clauses or contingencies for estimating this measure (Parkhe, 1993; Saussier, 2000; Poppo & Zenger, 2002; Reuer & Ariño, 2002, 2003, 2007; Luo, 2002; Reuer et al., 2006; Ryall & Sampson, 2006; Mesquita & Brush, 2008). We were able to create a much more accurate measure of contractual completeness because, instead of using a survey, we had direct access to the contract text.

On the other hand, the independent variables we used to proxy the determinants of contractual completeness were as follows.

a) Asset specificity. 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. First, the fee is wholly an investment in system-specific assets which generates quasi-rents (Lafontaine, 1992) because it 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). However, although the fee is an investment in system-specific assets, it is not the only one. Second, the initial investment⁸ is closely correlated to the size of specific investments (Bercovitz, 2000). However, not all the initial investment is specific. Consequently, these two magnitudes together can approximate the real value of specificity. Therefore, as is suggested in the first of the hypotheses posed, the greater the value of these variables, the more complete the contract designed by the chains can be expected to be.

b) Reputation. In order to proxy franchisors' market reputation, we used the SIZE variable, that is, the total number of establishments held by each chain both in Spain and abroad⁹. We consider that the higher the value of this variable, the more complete the contract designed by the franchisor will be because, as suggested in the second hypothesis, the greater the franchisor's reputation, the more complete the contracts will be.

⁸ Many previous authors (e.g., Brickley & Dark, 1987; Scott, 1995) have used initial investments to proxy specific investments.

⁹ Lafontaine (1992), López & Ventura (2002) or Perales & Vázquez (2003) have used this variable.

c) Experience. 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 franchises¹⁰. As suggested in the fourth hypothesis, companies learn to design more complete contracts as they gain experience (Klein et al., 1978; Williamson, 1985; Mayer & Argyres, 2004; Ryall & Sampson, 2006), so it can be expected that the longer the chain has been franchising its business, the greater the number of contingencies it will include in its contracts.

d) Sector. Finally, 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. The descriptive statistics and correlations between variables are given in Tables 1 and 2 respectively.

Table 1: Descriptive statistics

Variable	Mean	Std. Dev.	Min.	Max.	N
CONTINGENCIES	60.676	19.100	13.000	103.000	74
FEE	11.356	9.391	0.000	35.000	73
INVESTMENT	82.227	86.176	3.000	450.000	74
EXPERIENCE	9.405	6.523	1.000	31.000	74
SIZE	80.667	101.681	4.000	487.000	72
SERVICES	0.622	0.488	0.000	1.000	74

¹⁰ This same variable was used by Caves & Murphy (1976), Lafontaine & Kaufmann (1994), Minkler & Park (1994), López & Ventura (2002), Dant & Kaufmann (2003), Perales & Vázquez (2003) or Castrogiovanni, Combs, & Justis (2006).

Table 2: Correlations

	CONTINGENCIES	FEE	INVESTMENT	EXPERIENCE	SIZE	SERVICES
CONTINGENCIES	1.0000					
FEE	0.3375***	1.0000				
INVESTMENT	0.3919***	0.3616***	1.0000			
EXPERIENCE	0.2563**	-0.1219	0.2252*	1.0000		
SIZE	0.1994*	-0.0790	0.1069	0.4138***	1.0000	
SERVICES	-0.0031	0.1441	0.1155	-0.2953**	-0.1236	1.0000

An important concern in this model is the endogeneity in some variables, namely, FEE, INVESTMENT, SIZE and EXPERIENCE. This meant that estimation by ordinary least squares (OLS) could be biased¹¹.

To solve this problem, we estimated these endogenous variables using instrumental variable regressions for them. On the one hand, for FEE, studies show that the value of this variable will rise the greater the chain's needs for capital, the greater the cost of controlling managers and the less important the franchisor's effort is and the lower the strength of the brand (Lafontaine, 1992, 1993; Sen, 1993; Vázquez, 2005). The variables used to estimate each of these concepts were, respectively, initial investment, geographical dispersion, size and experience. Since we have an instrument, geographical dispersion, which explains FEE but does not seem to affect contract completeness, it is possible to estimate the pre-set value of FEE.

On the other hand, the problem of endogeneity in INVESTMENT, SIZE and EXPERIENCE was resolved by lagging these variables.

We estimated the model using two-stage least squares (2SLS). In the first stage, we used OLS for each of the endogenous variables, using as independent variables the chosen instrumental variables, thus generating a pre-set value for each observation. In the second stage, we used the instrumental values of FEE, INVESTMENT, EXPERIENCE and SIZE from the first-stage models to estimate the completeness equation.

So, the model used can be expressed as follows:

¹¹ The following example illustrates this problem. If the model is as follows:

$$Y_i = \beta_0 + \beta_1 X_i + \mu_i$$

when β_1 is estimated by OLS, with X_i being endogenous, it would be biased because X_i correlates with the error term in the function μ_i . We would therefore be violating one of the key assumptions of OLS, the independence of the regressors for the error term.

$$CONTINGENCIES_{it} = \beta_0 + \beta_1 P_FEE_{it} + \beta_2 INVESTMENT_{it-1} + \beta_3 SIZE_{it-1} + \beta_4 P_FEE_{it} \times SIZE + \beta_5 INVESTMENT_{it-1} \times SIZE + \beta_6 EXPERIENCE_{it-1} + \beta_7 SERVICES + \mu_{it}$$

Results

Table 3 presents the results of our estimation, using the Stata 9.0 statistical program. We show eight different model specifications for two reasons. The first is that, taking into account correlations among variables, there may be problems of multicollinearity between them. In this way, when we use the entry fee as a measure of investments in specific assets, it seems best not to include initial investment in the models. Moreover, when the chain's franchising experience is considered, chain size should not be included for the same reason. The same applies with initial investment and experience. We therefore preferred to estimate different models to prevent distortions in the results and to guarantee robust results.

On the other hand, the first four models show the basic model, without interactive effects, while models five to eight contain interaction terms for the exchange hazards in order to test hypothesis 3. Interpretation of the results follows.

Firstly, it must be stressed that the parameters for both entry fee (FEE) and initial investment (INVESTMENT) are significant and, as expected, positive. Since these variables approximate the investment in specific assets to be made by franchisor and franchisee, the first of the hypotheses is supported, that is, the greater the value of relationship-specific investments the more complete the franchise contract drawn up by the franchisor will be. This is because, as established in the literature on specific assets, when franchisor and franchisee make relationship-specific investments, the identity of the partner and continuity of the relationship are especially important (Williamson, 1985). On the one hand, both franchisor and franchisee may be especially likely to behave opportunistically in order to appropriate the quasi-rents generated by such specific assets (Klein et al., 1978; Williamson, 1991) and, on the other, if the contract were to be terminated, most of the investments would be lost. Therefore, in the presence of specific assets, contracts can be expected to be more complete in order to attenuate the consequences of possible termination and of opportunistic behavior (Dyer, 1997; Poppo & Zenger, 2002; Reuer & Ariño, 2007).

Secondly, the SIZE variable which indirectly measures franchisor reputation has the expected sign in all the models (except the first one) and is significant in most of

them. This result therefore supports the second hypothesis, that is, the greater the chain's reputation in the market, the more complete its contracts will be. 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' reputational capital, unlike franchisors', is very limited and does not serve generally as a guarantee for the franchisor, so the only way for the latter to limit franchisees' opportunism is by including clauses in the contract to ensure their correct behavior. Detailed instructions and subsequent penalties are then included in the contract, explaining the estimated positive effect.

The interaction of reputation and asset specificity has also a significant, but negative, effect on contract completeness. Furthermore this result is robust across all model specifications, which supports hypothesis 3 that reputation negatively moderates the relationship between asset specificity and completeness. The fact that the franchisor has a good market reputation reduces the probability that it will behave opportunistically because such behavior would jeopardize its reputation. Therefore, franchisees are aware that the franchisor has no incentives to expropriate the quasi-rents generated by their specific assets, so they will require less formal safeguards to protect their specific investment. The franchisor's reputation serves as a guarantee of its good behavior. So, under these circumstances, relational governance mechanisms replace detailed contracts, which explains the negative effect of the interactive variable.

The chain's experience variable, EXPERIENCE, also shows the expected sign in all the models and is significant in three of the six models in which it was included. This supports hypothesis 4 suggesting that the longer a chain has been using the franchise formula as a means of expanding its business, the more complete the contracts it draws up will be. This seems logical because, as stated in the literature on organizational learning and, to a lesser extent, TCE, firms learn to design contracts over time as they gain experience (Klein et al., 1978; Williamson, 1985; Mayer & Argyres, 2004; Ryall & Sampson, 2006). The reason is that experience allows franchisors to a) become better at understanding the kinds of contingencies that might threaten the relationship, b) identify such contingencies with more accuracy and at lower cost and c) learn to adapt efficiently if such contingencies occur (Argyres et al., 2007). We can therefore establish that the chain's experience franchising allows it to learn from past mistakes, so contingencies leading to unanticipated problems can gradually be included in new contracts in order to avoid such problems in the future (Argyres et al., 2007; Cochet & Garg, 2008).

TABLE 3: Determinants of contractual completeness

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
P_FEE	1.566*** (2.98)	1.182** (2.55)			2.342*** (3.46)	2.354*** (3.39)		
INVESTMENT			0.072*** (2.89)	0.078*** (3.20)			0.119*** (3.64)	0.123*** (3.74)
SIZE	-0.001 (-0.05)	0.046** (2.14)	0.019 (0.87)		0.139* (1.69)	0.139* (1.68)	0.057** (2.04)	0.065** (2.35)
EXPERIENCE	1.014*** (2.75)		0.398 (1.07)	0.518 (1.61)	1.099*** (3.00)	1.092*** (2.90)	0.514 (1.41)	
SERVICES		-0.149 (-0.03)	-0.011 (-0.00)			-0.412 (-0.09)	-1.467 (-0.33)	-3.228 (-0.74)
P_FEExSIZE					-9.79e-07* (-1.78)	-9.85e-07* (-1.76)		
INVESTMENTxSIZE							-4.16e-07** (-2.14)	-3.75e-07* (-1.94)
N	72	72	72	74	72	72	72	72
R ² adjusted	0.1478	0.0852	0.1341	0.1603	0.1741	0.1617	0.1782	0.1661
F	5.11***	3.20**	3.75***	7.97***	4.74***	3.74***	4.08***	4.54***

Note: ***, **, * = Significant at 99%, 95% and 90%, respectively.

Finally, the SERVICES variable is not significant in any of the models used, so we can conclude that whether the chains belong to the services or the retail sector has no influence on contract completeness.

Conclusions

This paper analyzes which factors determine the degree of contractual completeness in franchise chains. We emphasize that the influence of contractual hazards (asset specificity and expropriation of brand name value) on the degree of completeness is not always direct because, depending on the type of problems present, there may be interactions that tend to reduce the use of complete contracts. We also argue that, along with contractual hazards, franchisor's contract design capabilities are an important factor, a consideration that has often been disregarded (Argyres & Mayer, 2007). Firms learn over time how to design their contracts and how to make them more effective in order to protect their contractual relationships.

Instead of carrying out a survey on different contractual provisions or developing a checklist of contractual safeguards based on public information, as in previous studies, we asked the chains for the whole contract, obtaining 74 different contracts. In this way, first, we were able to identify all the different contingencies included in the contracts, so we have a much more accurate measure of completeness than in previous studies, which only considered certain contingencies for estimating this measure. This allows us to take into account the fact that the clauses included in a contract are chosen simultaneously and may interact (Goldberg & Erickson, 1987).

Our results support both hypotheses. First, we observe that the effects of contractual hazards on completeness are not always direct, but there may be negative interaction between them with regard to the need to formalize the contract. We found that the vulnerability of franchisor's reputational capital moderates the need for explicit safeguards for franchisees' specific investments. In addition to corroborating a negative interactive effect, this finding suggests that the analysis of contracts must be carried out globally and bilaterally, taking into account the problems for both parties. Balance between the risks run by the two parties may reduce the need for formalizing the contract.

We also found support for the argument that the chain's experience determines the degree of contractual completeness. To our knowledge, this is one of the few cases of

empirical support for the theses of Mayer & Argyres (2004), Argyres & Mayer (2007) and Argyres et al. (2007). The fact that experience leads to the use of more complete contracts suggests that firms' contract design capabilities are relevant and that entrepreneurs who wish to franchise their business have to find out how to design balanced contracts. On the one hand they have to learn how to translate their experiences and knowledge about day-to-day problems into new provisions and safeguards which attenuate the conflicts and, on the other, they have to understand that bilateral contractual hazards, if properly balanced, may attenuate mutually opportunism, reducing the need for formal contracts and their inherent costs.

This study is not without limitations. Firstly, we studied only a small number of contracts because it was really difficult to get companies to collaborate and grant direct access to their contracts. Secondly, the empirical part is not as accurate as it might be. Some variables are only proxies for real effects and, in the case of completeness, although we consider we have notably improved this measure, it is not perfect because we had to omit operating manuals. This does not seem a particularly relevant problem because such manuals contain technical instructions about how to perform the operations instead of explaining how to react when parties depart from their commitments.

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