

**WHY DO ENTREPRENEURS USE FRANCHISING AS A
FINANCIAL TOOL? AN AGENCY EXPLANATION**

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FUNDACIÓN DE LAS CAJAS DE AHORROS
DOCUMENTO DE TRABAJO
Nº 557/2010

De conformidad con la base quinta de la convocatoria del Programa de Estímulo a la Investigación, este trabajo ha sido sometido a evaluación externa anónima de especialistas cualificados a fin de contrastar su nivel técnico.

ISSN: 1988-8767

La serie **DOCUMENTOS DE TRABAJO** incluye avances y resultados de investigaciones dentro de los programas de la Fundación de las Cajas de Ahorros.
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WHY DO ENTREPRENEURS USE FRANCHISING AS A FINANCIAL TOOL? AN AGENCY EXPLANATION

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Abstract

When and why one type of entrepreneur (franchisor) attracts to its ventures another type of entrepreneur (franchisees) instead of passive investors is a central concern in entrepreneurship literature. Based on the informativeness principle of the principal-agent model, we claim that franchisees are not such an expensive financial capital source as has been argued in the literature because their compensation (return) is more efficiently designed: it directly depends on variables which are under franchisees' control. We therefore link agency and financial explanations for franchising. Our findings show that, once the agency argument is controlled for, the higher the cost of alternative funds for the franchisor, the more likely it is that franchisee capital will be used. We interpret this as a clue that franchising is also used as a financial capital source.

Key words: Entrepreneur, Franchising; Capital cost; Informativeness principle; Agency argument.

JEL classification: G32, L22, L26, L81.

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Acknowledgements: This paper has benefited from the support of the Spanish Ministry of Education (SEJ2007-63706/ECON) and the EU's Framework Program for Research and Technological Development through grant CIT3-513420- (Refgov).

Introduction

Attracting the most competitive resources to the venture is essential for an entrepreneur's success. The entrepreneurship literature recognizes this need for persuading resource providers (Ireland, Hitt and Sirmon, 2003; Michael, 2009). Consequently, several works have analyzed different aspects of this problem, such as how entrepreneurs signal their private information to reduce capital providers' distrust, in both R&D companies (Deeds, Decarolis and Coombs, 1997; Janney and Folta, 2003, 2006) and franchise chains (Michael, 2009). We develop this research line about the most appropriate partners for entrepreneurs in franchising but, instead of focusing on *how* to attract funds (e.g. how to solve asymmetric information problems), we turn to *when* and *why* different sources of resources are preferable (e.g. when franchisor's debt ratio is low, financial markets offer cheap funds so franchisees' capital becomes less attractive).

Franchising has been extensively analyzed in the entrepreneurship literature, suggesting that it is an entrepreneurial partnership (cooperative arrangement) made up of two different types of entrepreneur: franchisor and franchisees (Baucus, Baucus and Human, 1996; Kaufmann and Dant, 1999). Given that the new venture is launched by the franchisor, they must then attract resources to their business. Norton (1995) argues that franchisors will choose fund providers according to their costs, with franchisees' capital being just one possible option. However, franchisees, like any entrepreneur, also have a profit motivation (Spinelli and Birley, 1996). Consequently, they will joint the venture depending on the rate of return and will expect a risk premium (Phan, Butler and Lee, 1996). The relevant question is therefore when and why entrepreneurs prefer franchisees' funds to passive investors' funds.

The resource scarcity argument has offered an initial and controversial answer. It sustains that franchising is used to facilitate access to specific scarce resources, such as capital (Ozanne and Hunt, 1971; Caves and Murphy, 1976)¹. However, this argument did not initially consider the relative prices of alternative funds but just their scarcity. It was therefore highly criticized. On the one hand, Rubin (1978) argues that in terms of risk bearing it is worse to become a franchisee than a shareholder, and several scholars sustain that franchising is mainly a mechanism of governance to solve agency problems between the outlet manager and the chain owner (Caves and Murphy, 1976; Rubin, 1978; Brickley and Dark, 1987; Brickley, Dark and Weisbach, 1991; Lafontaine, 1992; Scott, 1995; Lafontaine and Shaw, 2005; Castrogiovanni, Combs and Justis, 2006a). Furthermore, Norton (1995)

¹ This argument refers not only to capital but also to other resources such as management abilities (Oxenfeldt and Kelly, 1969; Norton, 1988) and local information (Minkler, 1990, 1992).

maintains that there is no financial capital scarcity because different alternatives for financing startup businesses exist.

It comes as a surprise, however, that franchisors always emphasize in interviews the provision of financial funds as one of the most relevant reasons for using franchising, instead of the agency argument, which is the argument most widely supported by academics (Combs and Ketchen, 2003). More recently, both arguments have been linked to try to solve this empirical incongruence, claiming that the motivational and selection advantage of franchising might result in less expensive capital for the franchisor (Lafontaine, 1992; Martin and Justis, 1993; Shane, 1996a; Combs and Ketchen, 1999; Combs, Michael and Castrogiovanni, 2004).

Departing from this idea, the aim of this paper is to test if capital scarcity explains the use of franchising by showing that variations in the prices of alternative sources of capital alter the use of franchising, once the agency argument is controlled for. We use the informativeness principle (Holmström, 1979) of principal-agent models to link agency and resource-scarcity arguments and to rationalize the advantage of franchisee capital in terms of the demand for return on capital.

The informativeness principle derived from the principal-agent model suggests that agents will demand a higher expected return when their compensation depends on variables that are not directly related to their effort (Holmström, 1979). Agents will perceive that their income randomness rises when such variables are present because they have little control over them and, consequently, lose control over their returns. Assuming risk-averse agents, Milgrom and Roberts (1992: 219) show that they will demand a positive risk premium as compensation for this increased income variability.

Passive investors, such as lenders or shareholders, will therefore demand a higher return on capital because their compensation will depend on variables that are not directly related to their effort: they have very little influence over decision-making in the outlet and do not have good information about the efforts made by the agents managing the outlets, nor about their abilities (Martin and Justis, 1993; Combs and Ketchen, 1999; Combs, Michael and Castrogiovanni, 2004). Additionally, if the franchisor bankrupts, they face the financial risk of not recovering their investment. Conversely, franchisees offer low-cost capital because their compensation depends on variables that are directly related to their effort: they are active investors having the best information about the effort and abilities employed in the business and direct control over how it is run, at least from an operational point of view (Martin and Justis, 1993; Combs and Ketchen, 1999; Combs, Michael and Castrogiovanni,

2004). Furthermore, they would still own the physical assets if the franchisor bankrupts because the assets are in an independent firm, legally separate from those of the franchisor.

In sum, we argue that the franchisee disadvantage in terms of exogenous risk allocation (Rubin, 1978) may be compensated not only by the motivational and selection advantage of franchising (Combs, Michael and Castrogiovanni, 2004), but also by greater direct control over the investment and, consequently, lower perceived variability. The results obtained support this argument and show that once agency problems are controlled for, the greater the franchisors' capital costs (estimated through different variables), the more likely it is to use franchisee capital. Additionally, franchisors with financial partners as shareholders franchise fewer establishments than chains without this type of shareholder.

Apart from this theoretical and empirical contribution on why and when entrepreneurs prefer franchisees as partners in their ventures, the paper also contributes from an empirical perspective by shedding light on the capital scarcity controversy. Most of the studies on the financial capital argument to date are based on large North American companies that are listed on the stock exchange (for example, Combs and Ketchen, 1999; Combs, Ketchen and Hoover, 2004) because of their financial data availability (Castrogiovanni et al., 2006a is an important exception). But this type of sampling leaves out small and medium enterprises (SME), such companies being precisely the ones for which it is most difficult to gain access to resources. Our study includes SMEs, some of them unlisted and having little experience. This enables us to extend the previous empirical studies to the whole business universe. We have also introduced the dynamic nature of the franchised-owned outlet mix (Castrogiovanni et al., 2006a: 30), by applying a partial adjustment model to a panel data set. Given the relatively long-term nature of franchise contracts, franchisors cannot instantly adjust their percentage of franchisees so the adjustment is made year by year in line with the franchisor's objective, depending on their previous results and experiences.

The rest of the article is organized as follows. In the second section, we carry out a theoretical review of the reasons for franchising, focusing on the capital scarcity argument. In the third section, we describe the process followed for obtaining data, the sources used and the econometric model adopted. Finally, we state the results and conclusions of the study, in sections four and five respectively.

Theoretical review

The decision as to which type of resource provider needs to be attracted by entrepreneurs to their ventures determines the ownership structure of their chains, i.e. the

chain mix of company-owned and franchised outlets. When franchisors issue equity or debt for an expansion, they open company-owned outlets. However, if the franchisor prefers to join other entrepreneurs (franchisees), the chain's expansion is achieved through franchised outlets. Agency theory and resource scarcity (financial argument) are the two theoretical explanations for the choice of this mix (Combs and Ketchen, 2003; Combs, Michael and Castrogiovanni, 2004; Castrogiovanni et al., 2006a, 2006b)

The Classic Agency Hypothesis: Aligning Incentives

The most widely-accepted explanation for attracting franchisees to a venture is that it solves the agency problem between the franchisor and those responsible for the individual establishments. This problem means that, when the owner and the outlet manager are not the same person, the latter may pursue his own interests instead of those of the principal he represents. The reason for such behavior is that the outlet manager does not have to bear all the costs, especially when a fixed wage is paid. An agency cost is therefore generated because the manager's and the franchisor's incentives are different (Rubin, 1978; Brickley et al., 1991). By converting the manager of an establishment into an entrepreneur, granting him/her the residual rights on the establishment (such as the residual rent) (Williams, 1999), the interests of the parties are much better aligned. Franchising therefore becomes more attractive when it is costly to directly supervise the behavior of the agent, that is, the manager of the establishment. This leads us to draw up the following hypothesis:

H1. The greater the cost of direct supervision by the franchisor, the more likely it is that franchising will be adopted.

The empirical evidence supporting this argument is practically unanimous. Authors such as Brickley and Dark (1987), Norton (1988), Minkler (1990), Brickley et al. (1991), Lafontaine (1992, 1995), López and Ventura (2002), Perales and Vázquez (2003), Lafontaine and Shaw (2005) and Castrogiovanni et al. (2006a) find that the greater the cost of supervising the agent, the more likely it is that franchising will be adopted.

In spite of the clear empirical results supporting the above argument, entrepreneurs continue to insist that one of the main reasons for using franchising is that it obviates the need to search for funds. So, when franchisors are asked why they use franchising, they answer that '...the single most important reason for adopting franchised distribution would be to conserve or acquire capital, while at the same time attempting to establish an effective distribution network as quickly as possible' (McGuire, 1971: 6). Other authors have obtained similar results. Lafontaine (1992), for example, found that 76 out of the 130 franchisors questioned for her study saw franchising as a mechanism for gaining the funds needed to

grow their businesses fast. Dant (1995) also noted that lack of capital was one of the main reasons why companies started franchising, with 60 percent of the entrepreneurs interviewed stating access to capital as the reason for using the franchise system. Moreover, in a recent study, only 23 percent of Spanish chains considered it 'essential' for the franchisee to be personally responsible for the business (Sánchez, 2006: 102), thus contradicting the claim that the main reason for using a franchise is to align interests.

Financial capital argument: Capital scarcity and the informativeness principle

Access to limited resources, initially developed by Oxenfeldt and Kelly (1969), is another argument used to explain the use of franchising. These authors state that franchisors will decide to franchise some of their establishments when it is difficult to obtain different resources. Obtaining the financial capital needed for expanding the company is the typical situation (Oxenfeldt and Kelly, 1969; Ozanne and Hunt, 1971; Caves and Murphy, 1976), although management abilities (Oxenfeldt and Kelly, 1969; Norton, 1988) and local information (Minkler, 1990, 1992) have also been considered. Franchisees often provide a large proportion of the investment needed to set up the new establishment, so the franchisor's financial effort is much smaller.

Rubin (1978) states, however, that franchising is more costly than equity because of the allocation of the exogenous risk. It seems riskier for an individual to become a franchisee than a shareholder in the same franchise business. The income variability of the whole chain (that is, the relevant risk for a shareholder) is likely to be lower than that of the individual outlet (that is, the relevant risk for a franchisee) because the individual outlet risk may be balanced against other outlets (Rubin, 1978; Brickley and Dark, 1987). So, if franchises are more risky, franchisees will demand greater compensation (a risk premium), making this a very costly way of obtaining funds for the franchisor. Furthermore, Norton (1995) denies the existence of capital scarcity in new businesses and argues that close alternatives to franchisee capital are readily available and not used by franchisors, probably because they are not of interest. So, what matters is not so much scarcity of capital as the fact that franchisees may be able to provide cheaper capital than passive investors.

Incentive theory, particularly the application of the informativeness principle (Holmstrom, 1979), may explain why franchisees will demand a lower return on their capital contributions. The principal-agent model suggests that agents will demand a higher expected return when their compensation depends on factors that are not directly related to their effort. Agents will perceive that such factors increase their income randomness because these variables contaminate the relationship between the agent's effort and the output: increased

effort is less likely to raise output. Assuming risk-averse agents, Milgrom and Roberts (1992: 219) show that agents will demand a positive risk premium as compensation for this increase in their income variability. Similarly, when the agents' effort directly affects performance (and consequently their remuneration), their risk premium will be lower because the random variability in their income is small.

Translating this idea into franchising, the factors affecting the franchisee's return on investment (outlet profits) are the market success of the franchised business concept and the franchisee's abilities and effort at running their outlets. The former is an economic risk and is mostly exogenous to a particular franchisee. Franchisees are more exposed than passive investors to this economic risk, as has been argued above, because of the franchisees' investment concentration in only one (or a few) outlet(s). However, the other factor involves other organizational, motivational and selection hazards to which franchisees are probably less exposed than passive investors. First, franchisees possess privately held information about their abilities (Martin and Justis, 1993; Combs and Ketchen, 1999; Combs, Michael and Castrogiovanni, 2004) and effort (Lafontaine, 1992). Second, they do not have to deal with the adverse selection problem because they put their own money at stake (Shane, 1996a). Third, they do not face an important agency problem because there is no separation of ownership and control at outlet level (Combs and Ketchen, 1999). Fourth, they do not only contribute with financial capital, but also with local knowledge which facilitates direct supervision of operations and predictions about the local market response (Minkler, 1990, 1992)². Finally, they have direct control over the financial risk because they decide the level of debt of their own firms. Similarly, if the franchisor were to become bankrupt, they would still own their physical assets and outlet and might be able to terminate the contract and change their investment to a new (sometimes business-related) chain (brand name). All these hazards together may compensate for the exogenous risk, resulting in a lower demand for returns on their investments.

Conversely, passive investors will demand a higher return on capital because they have very little influence over other hazards apart from the economic one. They can only influence decision-making through the board of directors, which is a very indirect and slow system, especially when the company is a closed corporation (not a public company). Furthermore, they do not have such good information about the efforts made by the agents managing the outlets, nor about their abilities. Company managers may also hide information from shareholders and lenders. Finally their investment is directly linked to the franchisor's

² It could also be argued that this informative advantage attenuates the franchisee's risk regarding the success of franchised product in the local market (Williams, 1999).

financial risk so that, if the franchisor were to become bankrupt, the shareholders would be among the last to recover their investments.

We can therefore conclude that franchising allocates exogenous risk worse (Rubin's argument) but this does not make it a more expensive capital source. It offers better tools to control and influence returns on the investment and consequently to reduce return variability (informativeness principle). So, franchising may serve as an alternative to other methods of financing and will be chosen depending on the relative prices of other capital alternatives:

H2. The higher the capital cost of expanding with debt/equity (company-owned outlets), the more likely it is that franchising will be adopted.

Academics have not reached a consensus about the relevance of this argument. Table 1 lists some of the studies that have analyzed the scarcity resource argument in which the financial capital argument is included, showing that empirical findings are puzzling. The right-hand side columns show that even when explanatory variables are similar, results are seldom contradictory.

Table 1
Effect of Capital Scarcity on the Probability of Franchising (Percent of Franchisees)

Author(s)	Year	Data	Measurement	Predicted	Result
Caves and Murphy	1976	Sector data	Age	(-)	(-)
Brickley and Dark	1987	1. Companies in different sectors	1. Initial investment	+	-
		2. Establishments in 36 chains in different sectors	2. Initial investment	+	-
Brickley, Dark and Weisbach	1991	1. Sector data on a national level	1. Size	(-)	(+)
		2. Establishments in 36 chains	2. Initial investment	+	-
Carney and Gedajlovic	1991	128 Canadian companies in different sectors	1. Size	(-)	(+)
			2. Age	(-)	(+)
			3. Initial investment	+	+
Thompson	1992	Franchises in different sectors	1. Initial investment	+	+
			2. Growth	+	+
Lafontaine	1992	Business franchises in all sectors	Initial investment	+	-
Lafontaine and Kaufmann	1994	130 surveys amongst Presidents of franchise systems in the US	1. Age	(-)	(-)
			2. A dummy variable with value 1 if the franchisor is a subsidiary of a larger company.	(-)	(-)

Note: The brackets in the last two columns indicate that the variable used for estimating difficulty of access to funding is inversely related to the size of funding, so the sign is likely to be the opposite of what was expected.

Table 1
Effect of Capital Scarcity on the Probability of Franchising (Percent of Franchisees)
(Cont.)

Author(s)	Year	Data	Measurement	Predicted	Result
Minkler and Park	1994	Data panel 1975-1989	1. Real interest ratio	+	-
			2. Growth	+	-
			3. Age	(-)	(+)
Combs and Castrogiovanni	1994	558 franchise chains	1. Size	(-)	(+)
			2. Age	(-)	(-)
			3. Growth	+	+
Norton	1995	25 franchise and 25 non-franchise chains	Debt ratio in books and on market	+	+
Combs and Ketchen	1999	91 restaurant chains	1. Price-to-earnings	(-)	(-)
			2. Debt ratio	+	+
			3. Liquidity	(-)	(-)
			4. Return on assets	(-)	(-)
Alon	2001	361 franchise chains	1. Size	(-)	(+)
			2. Growth	+	-
			3. Initial investment	+	-
Roh	2002	33 franchise chains	1. Size	(-)	(-)
			2. Growth	+	+
López and Ventura	2002	270 franchise head offices operating in Spain	1. Initial investment	+	-
			2. Age	(-)	(-)
			3. Growth	+	-
Combs and Ketchen	2003	44 papers (meta-analysis)	1. Size	(-)	(+)
			2. Age	(-)	(+)
			3. Growth	+	-
Dant and Kaufmann	2003	152 surveys on fast food chains	1. Size	(-)	(-)
			2. Age	(-)	(-)
			3. Internal access to funding	(-)	(-)
Castrogiovanni, Combs and Justis	2006a	439 franchise chains	1. Size	(-)	(-)
			2. Age	(-)	(+)
Castrogiovanni, Combs and Justis	2006b	102 franchise chains	Age ³	(-)	(-)
Barthélemy	2008	119 surveys on French chains	Seven-point Likert scale: "Compared to your competitors and over the past three years, you had adequate access to funds to open and operate new outlets on your own".	(-)	(-)

Note: The brackets in the last two columns indicate that the variable used for estimating difficulty of access to funding is inversely related to the size of funding, so the sign is likely to be the opposite of what was expected.

A slightly different capital source would be to attract partners who provide liquidity to the entrepreneur through private equity placement (Janney and Folta, 2003, 2006). Similarly, it is increasingly frequent for a franchisor to invite participation from professional investors as shareholders (Franquicias hoy, April 2007: 34). They offer a substantial amount of funds,

which will be invested in developing the chain according to a strategic growth plan (Marks, 2007). Such plans are usually agreed with franchisors and allow them to open new outlets according to competitive and marketing criteria instead of being limited to places in which franchisees are available. Private equity companies and financial partners demand strict fulfillment of the growth plan in order to achieve the long-run expected revaluation (4 or 5 years) of their assets (Dawson, 2009). They are not usually interested in managing the company, preferring to just control the financial results, leaving the day-to-day management to the entrepreneur (Cable and Shane, 1997)³. Once the chain has reached an expansion target, they usually sell their positions to obtain liquidity which they then invest in a new starting business. Given that they provide funds for expansion irrespective of franchisee availability, they only use franchisees in places in which it was formerly decided to open according to the strategic plan and in which franchisees are available. The use of franchising should therefore be lower, so:

H3. When chains have financial partners among their shareholders, franchising is less likely to be adopted.

Franchise package appeal: maturity and initial investment

Maturity in an entrepreneurial venture favors the attraction of resource providers, particularly in franchising (Carney and Gedajlovic, 1991; Minkler and Park, 1994; Combs and Ketchen, 2003; Castrogiovani et al., 2006a). The reason is that maturity reveals information about the franchisor's experience, knowledge and past success to potential investors. On the one hand, a franchisor's maturity suggests that it has developed a business concept which has been successful in different locations and over several years and it has probably learnt to manage franchisees effectively (Bradach, 1997), developing abilities in control and contractual design. These skills may constitute part of the franchisor's competitive advantage (Castrogiovani et al., 2006a). Similarly, the survival of franchisors signals their skills and probably improves their reputation as a franchisor because this demonstrates, at least, that they have offered enough returns to retain resource owners. This helps attract franchisees because it is proof of the present returns and also because reputational capital works as a guarantee of the franchisor's behavior (Arruñada, Garicano and Vazquez, 2001). This positive relationship between maturity or experience and the use of franchising has received empirical support in several papers (Carney and Gedajlovic, 1991; Minkler and Park 1994; Combs and Ketchen, 2003; Castrogiovani et al., 2006a) (See Table 1).

³ Sapienza, Manigart and Vermeir (2002) show that this specialization is particularly true in continental Europe, more than in English-speaking countries.

Furthermore, it seems likely that a mature chain is more likely to use franchisees than any other type of financial resource providers. Maturity is a credible signal for the present business or for slight incremental changes, such as opening a new franchised outlet. This reduces franchisees' main source of demand uncertainty, the business concept, because the remaining uncertainty is due to the outlet location, which is the franchisee's main entrepreneurial contribution and is probably reduced because of his/her local knowledge (Williams, 1999, pp. 107-108). However, a chain's maturity does not necessarily favor the attraction of passive investors. Debt and equity issuance are appropriate instruments for raising large amounts of funds because they allow for relevant economies of scale (Lee et al., 1996). Consequently, such financial tools are only used by entrepreneurs who are considering a high-growth-oriented strategy, such as adding new products or services, expanding advertising and promotion (Gundry and Welsch, 2001). This expansion is riskier and is not necessarily related to previous success in a different market and/or with a different product. That is probably why most private investors, when deciding on their investments, do not pay as much attention to the experience of the new venture as to its human capital, organizational and educational capabilities (Shepherd, Ettenson and Crouch, 2000; Dawson, 2009)⁴. We therefore pose the following hypothesis:

H4. The greater the franchisor experience, the more likely it is that franchising will be adopted

Finally, another factor affecting the appeal of the franchisor's venture is the initial investment. The argument is, as stated by Alon (2001, p.9), that "lower levels of investment will attract more prospective franchisees, increasing the potential proportion of franchising", other things being equal. This is particularly relevant in the case of franchising because investors interested in running their own businesses are not usually large, specialized firms which might be considered risk-neutral due to their portfolio diversification (Brickley and Dark, 1987; Lafontaine, 1992). On the contrary, franchisees are entrepreneurs who invest an amount of money in their businesses which usually represents an important percentage of their total wealth (Combs and Castrogiovanni, 1994). This suggests that an increment in the start-up investment will reduce the availability of franchisees either because there are less potential investors with enough money (or people interested in borrowing money from a financial institution) and/or because the expected return does not compensate the perceived risk due to the size of the investment. This is not the case with other passive investors, however. Shareholders might even contribute with just one share in many different and

⁴ Clearly other factors are considered such as high industry-related competence, low competitive rivalry, high key success factor stability, long lead time, and pioneering (Shepherd et al., 2000).

unrelated companies, and lenders are usually big companies with highly-diversified investments and are specialized in bearing risks. We therefore pose the following hypothesis:

H5. The higher the initial investment required from a franchisee, the lower the probability that franchising will be used.

This relationship has been broadly supported in empirical studies (Brickley and Dark, 1987; Brickley et al., 1991; Lafontaine, 1992; Alon, 2001; López and Ventura, 2002) except for Carney and Gedajlovic (1991). The latter authors explain their findings by arguing that initial investment is an indicator of capital scarcity, thus they expect that the higher the initial investment, the higher the capital scarcity which could be overcome using franchisees' financial capital.

Methodology

Data Compilation

The above hypotheses were tested using a data panel with information on Spanish franchise chains during the period 1996-2005. The process followed to draw up the data panel was the following. The first step was to identify all the chains that were franchising in Spain during the period of the study. However, it is very difficult to accurately establish this population because the official franchise registers did not work particularly well, so many chains either do not appear in them or the information given is out-of-date. Therefore, in order to obtain general information on chains (for example, percentage of franchised establishments or experience), the Professional Franchise Guide published by Tormo&Asociados was used. Other guides such as the Professional Franchise Guide published by Barbadillo&Asociados, the Spanish Yearbook on Franchising, published by Franchisa, and the Official Book on Franchises in Spain, published by the Spanish Association of Franchisors, were also used to complement the Tormo&Asociados' one. We started out with the guides giving data for 1996 and gradually added all the chains that appeared year by year. However, not all the chains continued to franchise throughout the observed period. Some of them disappeared while others decided to give up franchising, so that no further information is available on them. Moreover, some chains did not give information some years, leading to omissions in the available information.

We triangulated the information taken from the above-mentioned guides with that from other sources such as franchisors' web sites, annual reports and press items, with a view to resolving three problems. First, some data were inconsistent amongst the different

guides. Second, when data on new chains were added, it was found that several chains had changed their name from one year to the next, giving rise to duplicities. Third, some chains reported as Spanish in fact were not. By the end of this process, 1,636 chains had been identified.

The following step was to obtain financial information about identified chains. This was obtained from the SABI data base, which informs on all companies operating in Spain. Because there are chains whose annual accounts were not included in this data base, the number of chains considered valid for the study dropped to 1,149. Furthermore, it is important to note that because there are chains which (a) began to franchise their business after 1996, (b) stopped franchising within the study period and/or (c) did not provide full information on their businesses, the panel is incomplete and unbalanced⁵.

Variables

The dependent variable is defined as the percentage of franchised establishments in the total (PFEES). The independent variables used to measure financial arguments and agency problems are described below. Table 2 shows the descriptive statistics and Table 3 the correlation amongst the variables.

Agency argument:

a) Establishments in foreign countries (FEST) estimate the effort required and difficulty involved in supervising the manager by measuring the number of establishments held by each chain in foreign countries⁶. It broadly approximates outlet dispersion.

b) Minimum population (MPOP) measures the outlet agent effort needed to achieve success for that establishment. It covers the minimum population required by the chain in a specific town for a franchisee to open an establishment there. Chains offering more specialized products or services will require a larger minimum population, because demand is small and they have to achieve returns on the investment made. So, if a small percentage of the population is interested in the product, each customer is very important for the business and the manager of the establishment has to make a greater effort to attract and retain each one.

⁵ In order to check that our sample is representative of the population being studied, we ran a test of means, the aim being to analyze if there are significant statistical differences between the population, comprising 1,636 chains, and our sample, comprising 1,149 chains. The results show that there are no significant statistical differences between them, so we can conclude that our sample is representative.

⁶ Lafontaine (1992) and Castrogiovanni et al. (2006a) also use this variable as a proxy for the cost of supervision.

Financial argument:

c) Cost of capital. As established in hypothesis 2, we consider that the higher the capital cost of expanding with debt / equity, the more likely it is that franchising will be adopted. For this reason, we include in the model some variables that might estimate the cost of capital. These variables are the following:

1. Fixed assets / Total assets (FA/TA). Asset backing may make the business more secure, hence reducing the cost of capital (Omran and Pointon, 2004). Therefore, the higher this ratio, the less likely it is that franchising will be used.

2. Interests / long-term liabilities (CDEBT1). This ratio is an overestimation of the cost of long term debt⁷. Therefore, the higher this ratio, the higher the cost of capital, so the more likely it is that franchising will be adopted.

3. Interests / (Total assets-Shareholder's equity) (CDEBT2). This ratio is an estimation of the cost of debt (short and long term). So, as in the previous case, the higher this ratio, the higher the cost of capital, so the more likely it is that franchising will be used.

4. Debt ratio (DEBT), defined as ((Total Liabilities – Shareholders' Equity) / Total Liabilities) x 100. This reflects the weight of short and long-term debt over the company's total liabilities⁸. As the level of debt in a company grows, its capacity for obtaining further funding for expansion decreases because debt financing becomes increasingly expensive and difficult to locate (Hambrick and D'Aveni, 1988). It is therefore a proxy for either capital scarcity or debt cost.

5. Liquidity ratio (LIQUID), defined as (Working assets - Stocks) / Liquid liabilities. This is inversely related to debt and consequently to resource scarcity. It seems reasonable that when a company has cash or high-liquidity assets to invest, one option is to use them to finance the company's growth, so there is a tendency towards greater company ownership of outlets (Dant and Kaufmann, 2003).

6. Return on assets (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 structure⁹. We use it as an estimator of the facility for attracting external funds (debt or equity) because, with greater returns on investment, the likelihood of finding passive investors interested in the business rises.

Franchise package appeal:

⁷ There is no information about the interest paid for the long-term liabilities so we use total interest.

⁸ Norton (1995) and Combs and Ketchen (1999) used this variable.

⁹ Combs and Ketchen (1999) use this variable, amongst others, to test the financial argument.

d) Initial investment in the establishment (ININV), defined as the amount that the franchisee must pay to set up the business, including the franchise fee. We use this variable as a proxy for the risk borne by franchisees¹⁰.

e) The EXP variable covers the number of years that the different chains have been working as franchises in Spain¹¹. It is a proxy for the franchisor's experience and reputation.

Table 2
Descriptive statistics

Variable	Mean	Std. Dev.	Min.	Max.	N
PFEES	0.657	0.304	0.000	1.000	3047
ININV	90310.97	116442.9	0.000	2000000	4055
FA/TA	0.366	0.253	0.000	1.000	6302
CDEBT1	5.552	101.042	0.000	3885.500	5643
CDEBT2	0.261	13.578	0.000	1038.000	6014
DEBT	82.924	59.024	0.000	993.220	6387
LIQUID	13.037	571.396	-2.230	38435.170	6342
ROA	-0.046	0.985	-33.761	4.816	6313
EXP	6.276	7.111	0.000	87.000	6555
FEST	18.063	219.016	0.000	7000.000	3413
MPOP	55080.53	60212.79	0.000	750000	2473

Table 3
Correlations

	PFEES	ININV	FA/TA	CDEBT1	CDEBT2	DEBT	LIQUID	ROA	EXP	FEST	MPOP
PFEES	1.0000										
ININV	-0.1411***	1.0000									
FA/TA	-0.1547***	0.1941***	1.0000								
CDEBT1	-0.0291	0.0155	0.0188	1.0000							
CDEBT2	-0.0217	-0.0111	-0.0229*	0.0003	1.0000						
DEBT	-0.0056	-0.0371**	-0.0535***	-0.0177	-0.0275**	1.0000					
LIQUID	-0.0338*	-0.0101	-0.0305**	-0.0012	0.5131***	0.0229*	1.0000				
ROA	0.0987***	0.0119	0.0027	0.0026	-0.0238*	-0.4972***	0.0010	1.0000			
EXP	0.1655***	0.0477***	0.0271**	-0.0042	-0.0016	-0.1188***	-0.0013	0.0426***	1.0000		
FEST	0.0423**	-0.0123	-0.0231	-0.0040	-0.0024	-0.0465**	0.0028	0.0135	0.0696***	1.0000	
MPOP	-0.1600***	0.3540***	-0.0034	-0.0125	-0.0135	0.0175	-0.0156	-0.0262	-0.0661***	-0.0390*	1.0000

* indicates significance at the 10% level, ** at the 5% level, and *** at the 1%.

¹⁰ This variable has been used by many authors including Brickley and Dark (1987), Brickley et al. (1991), Thompson (1992), Lafontaine (1992), Martin and Justis (1993) and López and Ventura (2002).

¹¹ This same variable was used by Caves and Murphy (1976), Combs and Castrogiovanni (1994), Lafontaine and Kaufmann (1994), Minkler and Park (1994), López and Ventura (2002), Dant and Kaufmann (2003) and Castrogiovanni et al. (2006a).

Estimation Method

We used the panel data methodology to estimate our model. This choice was motivated by the importance of considering a significant problem that arises when studying the impact of financial and agency arguments on the percentage of franchised establishments, namely unobservable heterogeneity. Unlike cross-sectional analysis, panel data allows us to control for individual heterogeneity. This issue is very important in our analysis since it is clear that companies are heterogeneous, each has its own particular behavior and management style. Therefore, there are always characteristics, such as system quality or management-team expertise, that influence organizational governance form (Kogut and Zander, 1992; Mitsuhashi, Shane and Sine, 2008) but that are difficult to measure or hard to obtain and, consequently, not entered in the models. As a result, failure to control for such effects can bias regression estimates (Heckman, 1981).

Although any panel data estimation either with fixed effects or random effects models (static linear models) solves this problem, we have not used these techniques because they are based on the assumption that all the independent variables are strictly exogenous. This is not the case in our model because we have problems of endogeneity in most of the regressors. On the one hand, the variables used can be determined simultaneously with the percentage of franchise establishments (initial investment is a clear example) and, on the other hand, a delay may arise between the decision to change the ownership structure and its actual execution, as far as the influence of the remainder of the explanatory variables is concerned. Consequently, endogeneity may be a problem that has to be controlled in our models. Hence, to avoid this problem, our model has to be estimated by using instrumental variables models.

Moreover, the empirical model has to take into account the potential dynamic nature of the ownership structure of franchise chains suggested in the results obtained by Pénard, Raynaud and Saussier (2003) and Lafontaine and Shaw (2005). In these two studies, the graphs show that franchise chains seem to develop until they achieve a target ownership structure, after which they remain more or less stable. Franchise chains will therefore readjust their structure periodically towards what they consider to be the target proportion of owned and franchised establishments, which they are not prepared to depart from. Since the estimation was carried out graphically in previous studies, we needed to analyze whether this target level really exists and, if so, at what rate the company moves towards it. Partial-adjustment models suit this approach (Greene, 1999: 688-690), as has been tested in the financial literature about capital structure (Pindado and de Miguel, 2001; Flannery and Rangan, 2006), which is more or less equivalent to our dependent variable (percentage of

franchised establishments). This type of model establishes that changes in the percentage of franchised establishments ($PFEES_{it} - PFEES_{it-1}$) partially absorb the difference between the target percentage of franchised establishments for period t ($PFEES_{it}^*$) and this percentage for period $t-1$ ($PFEES_{it-1}$):

$$(PFEES_{it} - PFEES_{it-1}) = \alpha(PFEES_{it}^* - PFEES_{it-1}) \quad [1]$$

where coefficient $\alpha, \in [0, 1]$, measures the speed of adjustment, and is inversely related to the costs of the adjustment (e.g. costs of contract termination) that prevent them from reaching the desired structure. We thus obtain:

$$PFEES_{it} = \alpha PFEES_{it}^* + (1 - \alpha)PFEES_{it-1} \quad [2]$$

If the adjustment costs are zero, that is, $\alpha=1$, $PFEES_{it} = PFEES_{it}^*$, then franchise chains automatically reach their target for franchised establishments. If, on the other hand, $\alpha=0$, $PFEES_{it} = PFEES_{it-1}$, the transaction or adjustment costs are so high that the chains never reach their target proportion. The process of adjustment is a balance between the costs of adjustment towards the target proportion of franchised establishments and the costs of not being in balance.

Since the desired (target) level of franchised establishments cannot be observed, the literature predicts, as we stated above, that it can be modeled as a linear function of franchisors' incentive systems (agency argument), the financial capital argument and franchise package appeal. This leads us to the following equation:

$$PFEES_{it}^* = a_0 + a_1 AGENCY_{it} + a_2 FINARG_{it} + a_3 APPEAL_{it} + \mu_{it} \quad [3]$$

where $PFEES_{it}^*$ is the target level for franchised establishments in chain i in year t , and its explanatory variables are the agency argument (AGENCY), comprising establishments in foreign countries (FEST) and minimum population (MPOP), the financial argument (FINARG), comprising fixed assets/total assets ratio (FA/TA), interests / long-term liabilities ratio (CDEBT1), interests / (total assets-shareholder's equity) ratio (CDEBT2), debt ratio (DEBT), liquidity ratio (LIQUID) and return on assets (ROA) and the franchise package appeal argument (APPEAL), including initial investment (ININV) and experience of the chain (EXP).

If we include equation (3) in equation (2), considering that the estimators were calculated using panel data, we obtain:

$$PFEEES_{it} = \alpha a_0 + (1 - \alpha)PFEEES_{it-1} + \alpha a_1 AGENCY_{it} + \alpha a_2 FINARG_{it} + \alpha a_3 APPEAL_{it} + \sum_{t=1996}^{2005} Y_t + \gamma_i + \mu_{it}$$

where $\sum_{t=1996}^{2005} Y_t$ is a set of dummy time variables for each year including any invariant time effect for the company that is not included in the regression. We also include γ_i , which is the company effect and which we assume to be constant for company i over year t , and μ_{it} , which is the error term.

We apply the difference generalized method of moments (GMM)¹² drawn up for dynamic panel data models by Arellano and Bond (1991) (see also Greene, 1999: 554-556). The reason is that this methodology was specifically devised to resolve the three econometric difficulties we mentioned above that are relevant in this study, namely unobservable heterogeneity, the endogeneity problems and the potential dynamic nature of the ownership structure of franchise chains. So first, the presence of unobservable heterogeneity is controlled by modeling it as an individual effect (in this case, company effects), γ_i , which is then eliminated by taking first differences of the variables. Second, the GMM estimator allows us to control for any endogeneity in some of the independent variables by using instruments. Since it is quite difficult to choose good contemporaneous instruments, we follow the suggestion made by Arellano and Bond (1991) to use all the endogenous right-hand-side variables in the model lagged from $t-1$ as instruments. More specifically, we consider as endogenous the different proxies for the cost of capital (Verrecchia, 1999; Nickerson and Silverman, 2003; Eisfeldt, 2004; Campello, 2006; Brav, 2009), initial investment (Bhattacharyya and Lafontaine, 1995; Brickley, 2002) and the presence of foreign establishments (Shane, 1996b). Finally, the potential dynamic nature of decisions on the ownership structure of chains, that is, the autoregression process in the data on behavior of the target level of franchised establishments is controlled by using a model with lagged dependent variables¹³.

¹² We decided to use difference GMM instead of system GMM because the validity of system GMM depends on the assumption that changes in the instrumental variables are uncorrelated with the unobservable heterogeneity (stationarity assumption) (Arellano and Bover, 1995; Blundell and Bond, 1998; Roodman, 2009). In our model, we consider this assumption does not apply because, for instance, changes in capital structure can be correlated with the unobservable heterogeneity, such as the franchisor's management style. Therefore, difference GMM is more suitable because, although the estimators are weaker, the model is equally consistent.

¹³ Our sample is considerably smaller when estimates are made because a) we have an incomplete and unbalanced panel, so for some chains we were not able to find the required information for all the dependant and explanatory variables over all consecutive years and b) the GMM model takes first differences of all the independent variables to control for unobservable heterogeneity, uses all the

In order to check for potential misspecification of the models, we used two tests suggested by Arellano and Bond (1991). First, we used the Sargan statistic of over-identifying restrictions in order to test for the absence of correlation between the instruments and the error term. Table 4 shows that the instruments used were valid in all the models. Second, we used the m_2 statistic, developed by Arellano and Bond (1991), in order to test for the lack of second-order serial correlation in the first difference residual. In our models, this hypothesis of second-order serial correlation is always rejected, as shown in Table 4 (see m_2).

Results

Table 4 gives the results of the econometric model obtained using the Stata 9.0 program. As we mentioned in the above section, the method for calculation uses instruments, including lags on variables, to solve the problem of endogeneity in some variables. The coefficients for these instruments are not presented, this being a convention in this methodology, and also to simplify the table (e.g. Pindado and de Miguel, 2001).

The first column shows a saturated model in which the six estimators for the cost of capital are considered. These estimations indicate when franchising is more attractive as an alternative way of gathering funds for growth. They are gradually introduced, separately, in models two to seven. The reason is that although the variance inflation factor test does not show any problems of collinearity between them, because it does not exceed the cut-off point at 10 (Hair et al., 1995), they all aim to approximate the same concept and are closely correlated with the cost of capital concept. We therefore chose to present separate estimations for each of them in order to check the robustness of our results. In addition, in all the models we also considered the variables that measure the franchise package appeal, namely, initial investment (ININV) and experience (EXP). Finally, we introduced agency arguments by means of the minimum population (MPOP) and the presence of establishments in foreign countries (FEST). We also consider a group of dummy variables by year, in an attempt to estimate time effects.

Firstly, regarding H2, it should be noted that, of the 6 estimators of capital cost, 3 show the expected sign in all the models in which they were included. First, we obtain a significant, negative parameter for the fixed assets/total assets ratio (FA/TA), suggesting that the higher this ratio, the lower the use of franchising. Asset backing may make the raising of funds easier because physical assets value work as a guarantee for the stakeholders,

endogenous explanatory variables lagged from t-1 as instruments to control for endogeneity and introduces the lagged dependent variable to control for the dynamic nature of the ownership structure.

reducing the cost of capital (Omran and Pointon, 2004). Consequently, franchisors do not need to resort to other entrepreneurs (franchisees) in order to attract resources to the venture. Second, we observe that the higher the cost of total debt ratio (CDEBT2), the higher the rate of franchising. In this case, the higher this ratio, the higher the cost of capital, so the more likely it is that franchising will be adopted. Finally, the higher the liquidity of the franchisor (LIQUID), the lower the use of franchising. In such a situation, the franchisor is likely to use such internal funds rather than franchisees' capital to open new outlets. Based on the 'pecking order theory' (Myers and Majluf, 1984), internal sources of funds are preferable because it is not necessary to persuade investors as to the profitability of the investment (Bhaduri, 2002).

On the other hand, we also observe in models three, five and seven, respectively, that a) the higher the interest / long-term liabilities (CDEBT1) and debt (DEBT) ratios and b) the lower the franchisor's return on assets (ROA), the higher the use of franchising. These results also support hypothesis H2. As with the CDEBT2 ratio, the higher the CDEBT1 ratio, the higher the cost of capital, so the more likely it is that franchising will be used. In addition, it is likely that companies with a high debt ratio would have to pay more for additional funds (Hambrick and D'Aveni, 1988), so they will prefer to obtain them from franchisees. Finally, the ROA variable indicates that the better the company's performance, the lower the rate of franchising. This is consistent with the idea that franchising is not chosen when other sources of capital are available and cheap. The higher the ROA ratio, the higher the appeal of investing in the company. Consequently, the owner will invest its own funds in the company or may even increase the debt if the cost is lower than the expected ROA.

All these results, when taken together, clearly support the main argument of this paper (hypothesis H2), confirming our idea that as the price of alternative sources of capital increases, the use of franchising becomes more intense. However, estimates related to CDEBT1, DEBT and ROA ratios are not robust because, when these variables are estimated in the fully saturated model, we observe that the sign of the relationship changes. Consequently, the results for these three estimators should be taken with caution.

Table 4
Factors determining the probability of franchising

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Predicted sign
PFEES t-1	0.0832*** (30.08)	0.2896*** (24.19)	0.1586*** (51.25)	0.2454*** (33.56)	0.2549*** (35.73)	0.2314*** (28.35)	0.2459*** (57.90)	+
ININV	-2.29e-07*** (-16.97)	-3.07e-07*** (-6.36)	-6.20e-08*** (-3.59)		-3.28e-07*** (-5.41)	-3.14e-07*** (-6.95)	-4.05e-07*** (-8.85)	-
FA/TA	-0.1481*** (-28.17)	-0.1005*** (-7.67)						-
CDEBT1	-0.0000*** (-6.82)		0.0001*** (11.76)					+
CDEBT2	0.0498*** (6.95)			0.0186*** (9.49)				+
DEBT	-0.0012*** (-27.76)				0.0004*** (6.50)			+
LIQUID	-0.0051*** (-11.03)					-0.0031*** (-5.15)		-
ROA	0.0289*** (5.82)						-0.0141*** (-1.60)	-
EXP	0.0154*** (4.77)	0.0057 (1.63)	dropped	0.0009 (0.41)	0.0057* (1.70)	0.0037 (1.23)	0.0057* (1.84)	+
FEST	-0.0000 (-1.62)	0.0001*** (2.35)	0.0001*** (2.70)	-0.0000*** (-8.78)	0.0001 (1.45)	-0.0000 (-0.72)	-0.0000 (-0.97)	+
MPOP	-5.10e-07*** (-21.37)	-5.12e-07*** (-5.53)	-2.15e-07*** (-19.45)	-4.21e-07*** (-6.27)	-6.82e-07*** (-8.73)	-2.83e-07*** (-3.80)	-4.57e-07*** (-9.17)	+
dy98	0.0194*** (3.05)	0.0105 (1.58)	0.0134** (2.05)	0.0063 (0.54)	0.0119** (2.00)	0.0135** (2.38)	0.0089 (1.57)	
dy99	0.0052 (1.61)	-0.0062 (-1.59)	-0.0026 (-0.72)	-0.0015 (-0.15)	-0.0057 (-1.33)	-0.0082** (-2.33)	-0.0089** (-2.55)	
dy00				0.0109 (1.12)				
dy01	-0.0407*** (-11.10)	-0.0313*** (-5.53)	-0.0367*** (-10.65)	-0.0115 (-1.60)	-0.0269*** (-5.06)	-0.0265*** (-6.27)	-0.0324*** (-7.77)	
dy02	-0.0669*** (-10.07)	-0.0433*** (-5.01)	-0.0545*** (-8.53)	-0.0221*** (-4.81)	-0.0448*** (-5.12)	-0.0376*** (-4.98)	-0.0431*** (-6.20)	
dy03	-0.0915*** (-9.18)	-0.0506*** (-4.27)	-0.0718*** (-7.62)	-0.0209*** (-9.51)	-0.0517*** (-4.43)	-0.0411*** (-4.05)	-0.0482*** (-4.89)	
dy04	-0.0818*** (-6.24)	-0.0314** (-2.08)	-0.0524*** (-4.20)		-0.0343** (-2.33)	-0.0203 (-1.58)	-0.0317** (-2.44)	
dy05	-0.0609*** (-3.75)	0.0035 (0.19)	-0.0169 (-1.09)	0.0328*** (12.05)	-0.0023 (-0.13)	0.0149 (0.94)	0.0062 (0.38)	
m_1	-1.54	-2.11**	-1.71*	-1.79*	-2.06**	-2.05**	-2.10**	
m_2	0.94	1.66	1.11	0.55	1.48	1.31	1.36	
Sargan Test	148.17 (243)	112.59 (113)	125.40 (113)	90.46	110.54 (113)	105.64 (113)	114.22 (113)	
Observations	457	560	463	637	571	569	568	
Chains	197	227	200	246	231	231	228	

Notes: (i) t statistics are in parentheses; (ii) * indicates significance at the 10% level, ** at the 5% level, and *** at the 1% level; (iii) m_i is an i -order serial correlation test using residuals in first differences, asymptotically distributed as $N(0,1)$ under the null of no serial correlation; (iv) Sargan is a test of the over-identifying restrictions, asymptotically distributed as χ^2 under the null of no correlation between the instruments and the error term, with degrees of freedom in parentheses.

A related hypothesis, H3, is that the presence of financial partners among chains' shareholders reduces the use of franchising because such partners finance the chain's expansion. We tested this argument using the variable SHAREHOLDER, which is a dummy taking value 1 when the chains have financial shareholders and 0 otherwise. This variable was obtained from the SABI database, but it was not possible to directly insert it in the model. The reason is that information regarding shareholder type was included in the SABI database as from December 2003, and our panel refers to the period 1996-2005. Moreover, most of the chains in SABI do not give information on shareholders because they consider it to be confidential. Consequently, after analyzing all the information uploaded since December 2003, we obtained a total of 587 observations on 331 different chains, which amounts to just over one observation for each chain. Therefore, because it was not possible to establish a panel for this variable, in order to test hypothesis 3, we decided to run a test of means (independent samples), the aim being to analyze any significant statistical differences in the use of franchising between two different groups of chains: those which have financial shareholders and those which do not. Given that the data are not normally distributed, we ran a Mann-Whitney test. The results are shown in Table 5. They indicate that chains with financial shareholders on average franchise 54.91% of their outlets. This percentage rises to 68.76% in chains that do not have financial shareholders. We cannot conclude from this finding that the difference in the franchising rate is exclusively due to the financial shareholders because we do not control for other related effects, but it is a clear possibility.

Table 5
Test of means (SHAREHOLDER)

PFEES mean (SHAREHOLDER= 1) <i>n</i> =23	PFEES mean (SHAREHOLDER = 0) <i>n</i> =564	Mann-Whitney test, independent samples	
		Mann-Whitney	Sig
0.5491	0.6876	4383.500	0.008

Entrepreneur experience and initial investment required of franchisees also seem to be factors that exert an influence when attracting another type of resource, namely, franchisees. On the one hand, experience, EXP, is positive in all the models in Table 4 and significant in half of them. This suggests that the greater the franchising experience, the more franchised establishments there will be. Therefore, this refutes the traditional idea of using franchising as a financial tool for the early stages of a business because of the difficulty of accessing capital markets (capital scarcity argument) (Oxenfeldt and Kelly, 1969; Hunt, 1973). Based on this capital scarcity argument, the hypothesis was that the greater the experience of the franchisor, the less likely it would be to use franchisees because access to capital markets would become increasingly easy (Caves and Murphy, 1976; Lafontaine and Kaufmann, 1994; Combs and Castrogiovanni, 1994; Dant and Kaufmann, 2003). Our result

suggests the contrary, that franchisors tend to use franchising more as they acquire experience, so experience is more likely to act as an attraction mechanism for franchisees. As chains survive and consolidate their competitive position in the market, they improve their market reputation, which serves as a guarantee of their good behavior (Arruñada et al., 2001). Consequently, they will be able to attract other entrepreneurs (franchisees) who will wish to collaborate because of these guarantees of success. (Past profitability does not guarantee future profitability but it is a good signal).

On the other hand, the coefficient of the initial investment (ININV) is negative and significant in all the models in Table 4, which indicates that the higher the franchisee start-up investment, the less likely it is that a chain will franchise establishments. This is the expected result because we believe that initial investment is more related to the appeal of the franchisor's venture than to resource scarcity. Although authors such as Carney and Gedajlovic (1991) argue that the reason why they found that the greater the initial investment needed to open a new establishment, the greater the use of franchising was resource scarcity, we believe that the initial investment is not a good estimator for financial difficulties because the essential argument is not the amount of capital needed but the cost of capital. If an entrepreneur (franchisor in this case) is ready to pay the market price of capital, the amount is not usually the problem, especially in typical franchise businesses (retail outlets requiring an investment lower than 500,000 euros). On the contrary, initial investment is a good estimator, other things being equal, for the franchise package appeal for franchisees. The higher the initial investment, the more difficult is to find franchisees to join the network because they do not have enough money and/or perceive it as too risky to invest most of their wealth in a single establishment (Combs and Castrogiovanni, 1994).

The time trend estimations seem cyclical (dy98-dy05). Most of the time variables in Table 4 are significant and show that, from 1999 to 2004, the influence on the franchising rate was negative in comparison with the reference year 1997. However, although this negative influence grew at the beginning, it then became weaker in 2004 and might even have become positive in 2005. This seems to indicate the existence of a cyclical trend in the use of franchising, perhaps related to the economic cycle, which is consistent with the graphical analysis of Pénard et al. (2003) and Lafontaine and Shaw (2005).

Regarding the agency argument (H1), our results, in general, do not support the traditional hypothesis. Although the FEST variable, which aims to measure the costs of supervising the manager of the establishment by means of the dispersion of the establishments, is positive, as expected, and significant in two models, in most of them it is not significant, indicating that this variable seems not to influence the franchising decision. In addition, MPOP coefficients are significant and negative in all the models (a positive

parameter was expected). This variable aims to proxy the effort needed for achieving success because, if the establishment requires a large population, it is because it offers highly specialized products or services, making each consumer really important for success. In this situation, a high-powered incentive system may help overcome a potential opportunism problem on the part of the outlet manager, but empirical findings do not support this idea. One explanation for this is that our proxy variables for these concepts are very poor. That is true but these variables are not different from others used in previous empirical studies in which the positive parameter expected was found. Another alternative explanation might be that franchisors offering highly specialized products find it very difficult to persuade franchisees because the latter know little about the business and cannot properly assess its possibilities by themselves. Franchisors may have to take on a large agency cost to solve this problem of asymmetric information or may expand using other capital sources. Internal financing and professional investors would be less costly because, first, there is hardly any asymmetrical information in the case of internal financing and, second, professional investors are used to this problem so have developed appropriate tools to obtain the hidden information.

Finally, we verify the partial adjustment model for ownership structure. The coefficient of the lagged dependent variable is very significant and gives an adjustment speed of 92-71 percent. Such a high speed is to be expected because franchisors are able to use new openings and ownership redirection to adjust it. But it should be remembered that they cannot always find the franchisees they are looking for, especially not in the towns in which they are interested. This may force them to open up owned establishments in order to preserve their competitive edge or to occupy premises that are available because good premises are not easy to find in the centre of large towns, particularly in the short run.

Conclusions

This study analyses if capital scarcity explains the use of franchising by showing that variations in the prices of alternative sources of capital alter the use of franchising, once agency argument is controlled for. We use the informativeness principle (Holmstrom, 1979) of principal-agent models to rationalize the advantage of franchisee capital in terms of risk premium. We claim that using franchising as a financial tool is not as expensive as has been claimed (Rubin, 1978) because the disadvantage in terms of exogenous risk allocation may be compensated by greater direct control over the investment so that the franchisees perceive lower variability. Franchisees have better information about managers' effort and

skills and also have more chances of recovering their investment in the case of the franchisor's bankruptcy than shareholders and lenders.

We apply a partial adjustment model, borrowed from the financial and capital structure literature, because it fits with the theoretical model and the empirical evolution of the percentage of franchised outlets. The results indicate that franchisors choose capital sources for financing their expansion according to the relative prices of capital: if equity/debt is more expensive (estimated by the fixed assets to total assets ratio, the cost of debt, the chain's liquidity, debt ratio and ROA), the use of franchising will be more intense and, if franchise package appeal from the franchisee perspective increases (estimated by a high franchisor experience and a low up-front investment), the use of franchising is higher. Additionally, franchisors with financial partners as shareholders franchise fewer establishments than chains without this type of shareholder. Finally, we verified the partial adjustment of the ownership structure, obtaining a high adjustment speed (78-69 percent). This was to be expected because franchisors have good tools (new openings) for reaching the target level of franchising.

Entrepreneurs may draw some interesting lessons from these results. First, the results support that entrepreneurs become franchisors in order to attract financial resource providers, probably because, by becoming franchisees, fund providers may demand lower return on capital than more conventional providers such as shareholders and lenders. However, the emphasis should be on carrying out a cost-benefit analysis when deciding between franchising and other conventional formulae because franchising is neither good nor bad but depends on relative prices. Highlighting some costs and benefits which are not explicit payments or incomes, particularly for unlisted companies, we help practitioners carry out this analysis and ask for the relevant variables. An example of such benefits is, as the literature had indicated, the best incentive alignment which leads to lower capital cost (Lafontaine 1992; Combs and Ketchen, 1999; Combs, Michael and Castrogiovanni, 2004). We now add that, in comparison with other passive investors, franchisees have better tools to influence the return on their investments which also leads them to accept a lower return on capital.

The results also show which variables influence franchising or other funding costs, offering clues to entrepreneurs about how to reduce these costs. For chain expansion, it is important to attract potential franchisees to the business, so it is necessary to act on the variables that make the franchise package attractive. Whatever the potential profit from the outlet, it is important to keep the initial investment as low as possible and to offer guarantees that the business will be successful, for which prior experience and brand reputation are essential. For attracting shareholders and lenders, whatever the explicit price of such

resources, the key lies in offering good guarantees to stakeholders in the form, for example, of low borrowing rates or good real guarantees.

Finally, from a more research-oriented perspective, our results show that attracting cheap financial resources is a reason for franchising. But if franchisees do not perceive lower risk and/or less agency problems they will not be prepared to accept a lower return on assets and will not be cheap fund providers. This suggests that the idea of franchising as a collaboration among entrepreneurs is essential and we need to know much more about how franchisees and franchisors match each other. What do they look for in their partner? Unless we know the reasons for both decisions, we cannot know the real nature of franchising, an argument that could be extended to other types of alliance. Not only is it interesting to consider the psychological profiles of the different types of franchising entrepreneur (Grünhagen and Mittelstaedt, 2005) or the reasons why they might prefer to collaborate rather than remain independent (Kaufmann, 1999; Williams, 1999) but we should also find the determinants of the partner's choice. Knowing how a franchisee decides between two potential chains and how a franchisor selects its franchisees might clarify what parties are looking for in such alliances and the nature of their collaboration.

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