

NBER WORKING PAPER SERIES

INTERNATIONAL FRANCHISING: EVIDENCE FROM US AND CANADIAN  
FRANCHISORS IN MEXICO

Francine Lafontaine  
Joanne Oxley

Working Paper 8179  
<http://www.nber.org/papers/w8179>

NATIONAL BUREAU OF ECONOMIC RESEARCH  
1050 Massachusetts Avenue  
Cambridge, MA 02138  
March 2001

The views expressed herein are those of the authors and not necessarily those of the National Bureau of Economic Research.

© 2001 by Francine Lafontaine and Joanne Oxley. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

International Franchising: Evidence from US and Canadian Franchisors in Mexico  
Francine Lafontaine and Joanne Oxley  
NBER Working Paper No. 8179  
March 2001  
JEL No. L2, L8

### **ABSTRACT**

The contracting practices of franchisors outside of their domestic markets have received limited attention in the empirical literature on franchising, mostly due to data limitations. We exploit a newly assembled data set that allows us not only to describe the contracting practices of US and Canadian franchisors in Mexico but, most importantly, to compare them to their domestic counterparts. We briefly but systematically review the two theoretical frameworks that have been used most to study franchisors' domestic and international operations, namely agency and internationalization theory, and use implications derived from these to guide our analyses. We focus in turn on franchisors' decision to operate in the Mexican market, their propensity to enter via company-owned versus franchised units as compared to the same decision domestically, and finally the financial contract terms they adopt (royalty rate, franchise fee and advertising fee) for their franchise agreements in Mexico compared to their home market. Our empirical results confirm hypotheses derived from the theories, particularly with respect to the decision to operate in Mexico. But we also find some surprises - for example, the vast majority of US and Canadian franchisors employ *exactly* the same financial contract terms in Mexico as in their home market. We argue that this tendency is probably best explained by the same arguments used in the franchising literature to explain contract uniformity within domestic markets. Further implications for future research and practice are also discussed.

Francine Lafontaine  
University of Michigan Business School  
701 Tappan Street  
Ann Arbor, MI 48109-1234  
[laf@umich.edu](mailto:laf@umich.edu)

Joanne Oxley  
University of Michigan Business School  
701 Tappan Street  
Ann Arbor, MI 48109-1234  
[oxley@umich.edu](mailto:oxley@umich.edu)

## Introduction

---

The importance of franchising in the US economy is well documented: It is estimated that more than a third of retail sales occur through franchised chains, and that the value of goods sold through these chains represented 13.4% of GDP in 1986 (US Department of Commerce (DOC), 1988).<sup>1</sup> Consistent with its economic importance, a growing theoretical and empirical literature has sought to explain franchising, in terms of the ownership structure and contract terms adopted, most often using agency theory or transaction cost arguments.<sup>2</sup>

Franchising has also become a more global phenomenon in recent years, with US franchisors in particular expanding abroad aggressively. For example, Gilman (1992) reports that “almost 50 percent of US franchisors without foreign units plan to grow internationally, and 93 percent of the franchise operations that have already expanded abroad plan to increase their presence overseas” (quoted in Zietlow and Hennart, 1996, p.1). Unfortunately, because there has been little systematic data collection on overseas franchising operations, the extant empirical literature on the practices of US franchisors overseas is very sparse. What prior research exists is limited in focus to the decision to expand internationally or not (e.g., Shane 1996) and the type of governance structure (joint venture, company ownership, direct franchising, etc.) adopted in foreign markets (e.g., Fladmoe-Lindquist & Jacque, 1995; Shane, 1996, Contractor and Kundu, 1998a and 1998b).

In this paper we exploit a newly assembled data set on US and Canadian franchisors’ operations in Mexico, along with comparable data on US and Canadian domestic franchising, to provide new evidence on international franchising decisions. These data provide a rich “snapshot” of US and Canadian franchisors’ contracting practices in Mexico and their home countries in

---

<sup>1</sup> Though more recent Department of Commerce data on the extent of franchising are not available, estimates suggest that these percentages may now be higher.

<sup>2</sup> Examples of theoretical contributions include Caves and Murphy, 1976; Rubin, 1978; Blair and Kaserman, 1982; Mathewson and Winter, 1985; Lal, 1990; Gallini and Lutz, 1992, and Bhattacharya and Lafontaine, 1995. For reviews of the empirical literature, see in particular Dant, Kaufmann and Paswan, 1992; Dnes, 1996; Lyons, 1997; and Lafontaine and Slade, 1997 and 2000.

various industries in 1994 which allows us not only to describe the contracting practices adopted in the Mexican market, but also to compare them to franchisors' domestic choices of the same. The data include information on the number of franchised and corporate units as well as on the main financial terms of the franchise contracts (i.e., franchise fees, royalty rates, and advertising fees). We use the theoretical framework most often applied to the study of franchise contracts, namely agency theory, as well as the framework most often used to study entry modes in international markets, namely internationalization theory, to guide our analyses. Specifically, we use these theories to develop hypotheses regarding US and Canadian franchisors' decision to enter the Mexican market, their propensity to use company-owned versus franchised units in Mexico compared to domestically, and the financial contract terms they employ in their Mexican franchise agreements compared to their domestic choices.

As little is known about practices of US/Canadian franchisors outside their domestic markets, our work is necessarily exploratory. Still, our results confirm some of the hypotheses derived from the theories, particularly with respect to franchisors' decision to operate in Mexico. In particular, we find that large geographically dispersed chains with other international operations and prior experience with master franchising are more likely to have entered Mexico by 1994. However, we also find, somewhat surprisingly, that the extent of franchising (versus company owned units) of these firms in Mexico is not systematically different from that observed in their domestic market or worldwide. Moreover, the financial contract terms set by US and Canadian franchisors for their Mexican franchisees are, in the vast majority of cases, exactly equal to those set in their home market. We argue that these similarities in practices between the two markets are best explained by the type of arguments used in the franchising literature to explain the uniformity of contract terms domestically. Finally, consistent with theory, we find that the few firms that use a differentiated contractual structure tend to be those with more international experience and a more delegated approach to franchising in Mexico.

The paper is organized as follows. In the next section, we review the prior empirical literature on international franchising, and derive hypotheses from theoretical approaches that speak

to the issues at hand – that is, whether a franchisor has a presence in the Mexican market, the extent to which it relies on franchising in Mexico compared to the same tendency domestically, and the financial contract terms it employs in its Mexican v. domestic franchise agreements. Our data and empirical analysis are described in subsequent sections. The concluding section summarizes our findings and presents implications for future research.

## **Empirical and Theoretical Foundations**

---

### EMPIRICAL STUDIES OF INTERNATIONAL FRANCHISING

The extant empirical literature on international franchising is very sparse. The few prior studies that exist have focused on one or other of the following issues: (1) the initial decision to expand franchising operations overseas; or (2) the choice between company-owned and franchised units in overseas markets. This focus reflects the scarcity of reliable data on international franchising activity. These extant studies have nonetheless yielded some useful insights on the international operations of US-based franchisors.<sup>3</sup>

Early studies of the initial international expansion decision focused on external factors driving franchisors to pursue overseas opportunities, such as domestic market saturation (Hackett, 1976; Aydin and Kacker, 1990) or inquiries from potential franchisees in foreign markets (Walker 1989). More recently it has been argued that overseas expansion requires the development of a specific set of capabilities to cope with the increased management challenges associated with dispersed geographic operations and multiple cultural and institutional contexts (e.g., Fladmoe-Lindquist, 1996). Shane (1996), for example, finds a positive relationship between a stated intent to expand overseas, and experience, in terms of years in franchising or number of franchised units

---

<sup>3</sup> All of the studies discussed below involve US franchisors. This reflects the pre-eminence of US firms in this field.

operating. He interprets this finding to suggest that such firms have a “learned monitoring capability” that facilitates overseas expansion.

Increased monitoring difficulties and greater potential for opportunism in international markets are also motivating factors in studies of the choice between company-owned and franchised units in US franchisors' overseas operations (e.g., Fladmoe-Lindquist and Jacque, 1995; Zietlow and Hennart, 1996, Contractor and Kundu, 1998a and 1998b). Although these prior studies tend towards theoretical eclecticism, they provide some evidence that the choice of organizational form is driven by the need to provide appropriate incentives to the local operator, as suggested by agency theory and related perspectives (discussed in further detail below). For example, Fladmoe-Lindquist and Jacque (1995) find that the likelihood that a company will enter a franchising arrangement (rather than establishing a company-owned unit) is higher in countries that are at a greater geographic or cultural distance from the US. There are, nonetheless significant inconsistencies in the findings of these studies: Fladmoe-Lindquist and Jacque (1995), for example, find that greater experience (years since initial international expansion) is positively related to the choice of a franchise arrangement, while Contractor and Kundu (1998a and 1998b) and Zietlow and Hennart (1996) find the reverse effect.<sup>4</sup> These inconsistencies may be explained in part by the small samples of franchisors in each of these studies and their particular industry focus.<sup>5</sup>

Our study extends the prior empirical literature in several ways. First, we draw out implications of the theories for several decisions involved in a franchisor's configuration of its overseas operations. These include whether to operate in a particular market, but also whether to

---

<sup>4</sup> Similarly, political risk has a negative association with the choice of a franchise arrangement in Fladmoe-Lindquist and Jacque, (1995) but a positive association in Contractor and Kundu (1998b). Other results include a positive association between advertising intensity and company-owned units (Fladmoe-Lindquist and Jacque, 1995) and between the value of the reservation system and brand and the use of franchising (Contractor and Kundu, 1998a, 1998b).

<sup>5</sup> Fladmoe-Lindquist and Jacque's (1995) sample included twelve companies (with 10,302 overseas units) in the hotel, restaurant and retail services industries. The number of companies in the final sample in Contractor and Kundu (1998a and 1998b) is not reported; the usable sample comprises 723 and 720 overseas units in the hotel industry respectively.

use a different mix of company-owned or franchised units overseas compared to domestically, and whether to use different financial contract terms as well. Further, by empirically examining these questions using data on the Mexican operations of a large, diverse sample of US and Canadian franchisors, and comparing them to their domestic equivalents, we provide a more complete picture of overseas franchise operation decisions, at least for this particular market. This includes, for the first time, analysis of the structure of actual contracts adopted in international franchise arrangements.

## THE DECISION TO OPERATE IN MEXICO

Entry into new international markets is a primary focus of "internationalization theory" (Johanson and Vahlne, 1977, 1990), a framework developed to explain the dynamic process by which firms gradually increase their commitment to foreign markets. Based on empirical observation of Swedish firms' international expansion, and grounded in the behavioral theory of the firm (Cyert and March, 1963), internationalization theory asserts that firms have imperfect access to the knowledge necessary for successful entry into new markets. The theory suggests that it is only through gradual acquisition, integration and use of context-specific knowledge about foreign markets that a firm will successively increase its commitment to foreign operations. This is postulated to hold in terms of successive establishment of operations in new countries, as well as for increasing involvement in (and commitment to) any individual foreign market.

With respect to the sequence of entry into new markets, the argument advanced by internationalization theory is quite straightforward. The model postulates that when the "psychic distance" between markets is large, it is more difficult for firms to collect and assimilate context-specific information. Psychic distance is defined as "the sum of factors preventing the flow of information from and to the market" (Johanson and Vahlne, 1977, p. 24); it is perhaps more usefully defined by example, with relevant factors including differences in language, education, business practices, culture and industrial development. Internationalization theory argues that the value of a firm's experiential knowledge derived from the domestic market is of more limited value

in a new market when there is a large distance between the home and the target foreign countries, in terms of these factors. As a consequence, firms with little experience of foreign markets prefer those that are similar to their own domestic market (i.e. those that are at a short "psychic distance"). This pattern of internationalization has been confirmed in several studies of manufacturing firms (e.g., Vernon, 1966; Hornell, Vahlne and Wiedersheim-Paul, 1972; Kogut and Singh, 1988) and of service firms (Weinstein, 1977; Erramilli and Rao, 1990; Erramilli, 1991). An extension of the internationalization logic that has also found empirical support (Davidson, 1980) is that the influence of psychic distance on entry decisions diminishes with greater international experience. The argument here is that as firms accumulate experiential knowledge in international operations they gain confidence in their ability to gauge customer needs and evaluate the economic potential of "distant" markets.

What are the implications of these arguments for US and Canadian franchisors operations in Mexico? By most measures, Mexico is not psychically very "close" to the US or Canada: not only are there significant differences in terms of language, education and income levels, but there are also important cultural differences.<sup>6</sup> On the basis of the above arguments, we would therefore not expect Mexico to be chosen as the first – or indeed an early – target for internationalization by US and Canadian franchisors, based on cultural or "psychic distance" considerations.

From an agency-theoretic perspective, distance of a more conventional kind may have an effect on monitoring costs and thus be of importance in determining entry into a particular overseas market. Where markets are geographically proximate, entry is likely to be more attractive, *ceteris paribus*. Not only is pre-entry information gathering less costly for a neighboring country, but the costs of running an overseas operation and/or regularly monitoring the activities of agents (i.e. of regularly travelling there) will be reduced in this case (Brickley and Dark, 1987). From that

---

<sup>6</sup>For example, based on a composite of Hofstede's (1980) four dimensions of national culture - power distance, uncertainty avoidance, individuality and masculinity – Kogut & Singh (1988) measure the "cultural distance" between the US and Mexico to be 3.13. This compares with distances from the US of 0.08 for the UK, 0.11 for Canada, 1.63 for India, 1.77 for Spain, 3.22 for the Philippines and 3.60 for China.



perspective, we expect the Mexican market to be particularly attractive to US franchisors, thereby counteracting the effect of “psychic distance.” And indeed, according to survey results obtained by Hopkins (1992) for US franchisors, Mexico was among the first eight countries chosen for foreign entry by 27% of respondents – much below the 75% obtained for Canada, but close to the 31% obtained for the United Kingdom which, though much closer to the US in terms of psychic distance, is of course geographically much farther than Mexico.<sup>7</sup>

In this study, we go one step further in our consideration of the impact of geography. If physical proximity matters, we would expect that firms headquartered in US states that are contiguous with Mexico (i.e., California, Arizona, New Mexico, and Texas) will be more likely to consider Mexico an attractive target for expansion. Not only will such firms enjoy the advantages of geographic proximity, but the presence of large Mexican immigrant populations in these states effectively reduces the psychic distance with Mexico. By contrast, Canadian-headquartered firms should be less likely to operate in the Mexican market because of the greater physical distance from headquarters. Thus we have the following hypotheses:

- H1: The probability that a US or Canadian firm is active in the Mexican market is positively related to its level of international experience.
- H2a: Because of geographic proximity, the probability that a franchisor is active in Mexico is greater for firms headquartered in US states contiguous with Mexico, relative to other US firms.
- H2b: Because of greater geographic distance, the probability that a franchisor is active in Mexico is lower for Canadian-headquartered firms, relative to US firms.

---

<sup>7</sup> In recognition of this phenomenon, Fladmoe-Lindquist and Jacque (1995) explicitly exclude firms whose only international operations are in Canada or Mexico in their study of market entry mode choices of US service firms, – “otherwise the geographical contiguity of both Mexico and Canada and the cultural proximity of Canada would seriously bias a large scale study of the propensity to franchise” (Fladmoe-Lindquist & Jacque, 1995, p. 1245).

Agency theory also implies that domestic franchising experience has some relevance for operating a similar system in Mexico, despite the context-specificity of experiential knowledge emphasized by the internationalization school. This is because franchisors with more domestic experience have had the opportunity to better develop their monitoring and incentive systems, which in a agency-theoretic framework, implies lower monitoring costs. Therefore we would expect a positive relationship between the total level of experience (either in number of years in franchising, and/or number of units operated) of a franchisor and the likelihood that it has a presence in Mexico. Similarly, experience in operating units in various parts of the US and Canada may facilitate expansion to other markets; after all, geographic dispersion within the US and Canada already requires that a firm adapt to local market preferences and develop mechanisms to oversee geographically distant operations. We therefore expect such capabilities to increase the likelihood of expansion abroad generally, and into Mexico in particular.

Finally, entry into foreign markets can be facilitated by the use of some form of master franchising – either an area development agreement or a sub-franchising agreement. In an area development agreement, the franchisor grants a territory to the franchisee who then develops all the units in the territory directly, according to some prearranged schedule. The sub-franchising agreement also entails an exclusive territory and a prearranged schedule, but in this case the master franchisee is responsible for finding franchisees who will purchase and operate the units. (See Lowell (1991) for more on these contractual forms.) Prior experience in the use of either type of these agreements may make entry into new markets easier because a local master franchisee brings with him/her some of the context-specific knowledge necessary for successful entry. Thus we have:

H3a: The probability that a firm is active in Mexico is positively related to its overall franchising experience.

H3b: The probability that a firm is active in Mexico is positively related to the geographic dispersion of its units within North America.

H3c: The probability that a firm is active in Mexico is positively related to its experience with master franchising agreements.

## THE MODE OF OPERATION DOMESTICALLY AND IN MEXICO

Agency theory is the theoretical lens that has been most frequently applied to the question of how firms choose between franchised and company-owned units in the domestic context (see Lafontaine and Slade, 2000, and the references therein). The main trade-off identified in this literature is between providing the agent (i.e. the franchisee or manager of a company-owned unit) with sufficient incentives to work hard and providing appropriate risk sharing and/or preventing free-riding on the brand name reputation of the principal. Simply put, the argument with respect to incentives is as follows: Managers employed to run company-owned units are compensated to a large degree via a fixed salary.<sup>8</sup> Because there is noise in the relationship between the financial performance of a unit and managerial effort, employed managers must be monitored more intensely to ensure that they are not shirking or performing sub-optimally. In contrast, franchisees are compensated by residual claims on their own units (i.e. unit profits, net of royalties and franchise fees). As a result, they have explicit incentives to maximize revenues and minimize costs through effective management and promotion of the franchise. Consequently, the need to monitor franchisees is reduced relative to employed managers as the franchisees' effort level is largely self-enforced.

Franchising itself imposes some “costs” on the system, however: agency theory generally assumes greater risk aversion on the part of an agent (franchisee) than for the principal (franchisor), based on the franchisor's greater size and ability to reduce risk via diversification. This means that it is suboptimal to shift all of the risks associated with residual claimancy onto the franchisee, all else equal. Furthermore, because of the relatively high-powered incentives of franchisees (as residual claimants), there is the possibility that they will maximize their unit's

profits by free-riding on the brand name reputation of the chain while not upholding the standards in their own unit. Alternatively, a franchisee may simply want to implement policies or processes in his/her unit that, though beneficial in terms of that unit's profits, may be detrimental to the overall chain. These are important considerations for franchisors since the brand name reputation is arguably their most important intangible asset and it can be negatively affected by these behaviors. Free riding on the brand name is reduced in the chain overall through the use of company-owned units, since a salaried manager has lower incentives to free ride. Furthermore, in company units, quality control and other standard maintenance procedures can be more finely tuned, as they are managed through internal policies and routines, rather than via contract and legal rules. Finally, a number of authors have suggested that franchisor effort is also central to the success of franchised chains, and that such effort is also not perfectly observable – nor easily inferred - by the franchisees or third parties. (See for example Rubin, 1978; Mathewson and Winter, 1985; Lal, 1990; and Bhattacharyya and Lafontaine, 1995.) Thus there is a potential moral hazard problem on the franchisor's as well as the franchisee's part. Royalty payments and company units can, in such a context, be used to balance the incentives of franchisees and franchisors.<sup>9</sup>

As a result of these trade-offs, we expect to see a lower use of company-owned units in situations where the franchisees' effort is most central to the success of the franchise, and monitoring this effort is most problematic. By contrast, we should find higher use of company-owned units in situations where the franchisor has greater brand equity or other reputational assets at stake, or, equivalently, where the franchisor's effort is most valuable yet difficult to assess. Factors that have been identified as increasing the value of franchisee effort or the cost of monitoring it in previous studies have included geographic distance, outlet density, the capital/labor ratio, outlet-level value added, and the type of business or services offered (e.g., Brickley and

---

<sup>8</sup> See Bradach, 1999, for some evidence.

<sup>9</sup> Empirical analyses of contract terms *across* franchisors in the US (e.g., Lafontaine, 1992a, Sen, 1993, Wimmer and Garen, 1997, Lafontaine and Shaw, 1999) have provided results that are broadly consistent with models featuring double-sided moral hazard (i.e. models that emphasize the need to give incentives to both franchisor and franchisee).

Dark, 1987; Norton, 1988; Carney and Gedajlovic, 1991; and Lafontaine, 1992a). Factors that have been associated with increasing the value of the franchisor's assets or effort have included the market minus book value of equity, franchisor advertising, weeks of training provided, the number of years in business prior to franchising, and finally the chain's age and size (e.g., Lafontaine, 1992a; Minkler and Park, 1994; Thompson, 1994; Scott, 1995; Bercovitz, 1998, and Lafontaine and Shaw, 1999, 2000).

The choice between company-owned and franchised units is thus driven by a combination of factors connected to characteristics of the firm, the type of business in which it operates, the geographic markets that it serves, and the kind of product or service provided. The impact of these factors on inter-firm differences in the propensity to franchise has been treated extensively elsewhere (for example in many of the studies cited above). What concerns us here is rather what factors affect the use of company-owned versus franchised units in the Mexican market *relative to* that in the US (or Canadian) market, for any given firm. We can draw some inferences relevant to this question by considering the geographic and cultural (psychic) distance between the US, Canadian, and Mexican markets.

First, the cost of monitoring franchisee behavior is likely to be greater for US and Canadian franchisors' Mexican operations than for their domestic units: despite the use of new communications technologies, it is still difficult and costly to gather reliable and timely information about foreign operations. Furthermore, without a full understanding of local market conditions, the attribution problem (tying financial and operational results to managerial effort) will be exacerbated.

Second, there may be a reduced risk of free-riding on the value of the brand by Mexican franchisees, as compared with their US or Canadian counterparts. Not only is the value of the brand name likely to be lower in the Mexican market (so that the appropriable benefits of free riding are reduced), but all of the franchisors in our data have a much lower number of outlets in

Mexico as compared to their home market.<sup>10</sup> Thus the negative externality associated with service degradation at any individual outlet is reduced.<sup>11</sup> Both of these features serve to indirectly realign the incentives of the franchisee with those of the franchisor. In combination with the difficulties in monitoring international managers, this leads to the prediction that US and Canadian franchisors will tend to favor a greater proportion of franchised arrangements (relative to company-owned units) in their Mexican operations, as compared with the domestic market. Note, however, that the differential monitoring cost will be less pronounced for franchisors headquartered in US states contiguous with Mexico, because of the reduced disparity in geographic and psychic distance between these franchisors' operations in the US and Mexico. By contrast, the differential should be greatest for Canadian headquartered franchisors. Finally, we would expect that there would be a greater risk of free-riding by Mexican franchisees where there is a greater density of units in the Mexican market – a factor that will serve to attenuate the differential effect identified.

The preceding arguments lead to three hypotheses:

H4a: For a given US or Canadian franchisor, the ratio of franchised units to company-owned units will be higher in Mexico than in the domestic market.

H4b: The ratio of franchised units to company-owned units in Mexico will be more similar to that in the home market for companies based in US states contiguous with Mexico than for those based elsewhere.

H4c: The ratio of franchised units to company-owned units in Mexico will be more similar to that in the home market for companies that have established more units in Mexico.

---

<sup>10</sup> See descriptive statistics in Table 2, below.

<sup>11</sup> It is possible that free-riding by Mexican franchisees could have some negative impact on US operations, but this is likely to be minimal. In addition, lower unit density in Mexico will have the effect of increasing direct monitoring costs (e.g. Minkler, 1990, Brickley, Dark and Weisbach, 1991, and Bercovitz, 1998) thereby reinforcing the preference for franchise arrangements over company-owned units.

An additional factor differentiating the organizational mode decision in international markets versus domestic markets is the role of international experience and the process of internationalization. In addition to the order or timing of market entry, internationalization theory seeks to explain the "establishment chain" of a firm's engagement in a particular country market. Observing that many firms initially enter a foreign market via exports through an independent representative, followed by establishment of a sales subsidiary, and eventually (perhaps) by manufacturing operations, Johanson and Vahlne (1977, 1990) postulate a pattern of increasing commitment of resources to the market. This process is again driven by the accumulation of experiential knowledge. In their model, experiential knowledge is assumed to generate business opportunities and to reduce market uncertainty. Thus, in a specific country, "the firm can be expected to make stronger resource commitments incrementally as it gains experience from current activities in the market" (Johanson and Vahlne, 1990, p. 12). Of course the "end point" of this process will depend on the underlying characteristics of the franchising firm that together determine the inherent monitoring costs, free-riding risk, etc., discussed earlier. The logic of internationalization theory thus does not contradict the hypothesis from agency theory that firms are more likely to favor franchising over company-owned units in Mexico, compared with their domestic market (H4a). Rather, it suggests that this effect will be magnified for inexperienced firms that are reluctant to make large resource commitments to the Mexican market because of their lack of experiential knowledge, and the resulting high level of market uncertainty.<sup>12</sup>

Thus we have:

H5: The ratio of franchised units to company-owned units in Mexico will be most divergent from that in the home market for companies with limited international experience.

---

<sup>12</sup> In reality, franchising and company units are not the only options. See for example Zietlow and Hennart (1996) and Contractor and Kundu (1998a and 1998b) for more on these. Most notably, the franchisor may select a master franchisee, as discussed above. These arrangements are included with other franchises in our data. Alternatively, the

## FINANCIAL CONTRACT TERMS

The insights gleaned from agency theory, and summarized above in the analysis of governance structure, are also quite relevant to a consideration of what contract terms will be adopted in franchise arrangements. Typically, franchisors charge a franchise fee ( $F$ ) – a lump sum, paid only once at the beginning of the contract – and a combination of royalty rate ( $r$ ) and advertising fee ( $adv$ ) calculated as a percentage of sales.<sup>13</sup> Agency theory suggests that franchisors select these fees taking into account the need to prevent shirking by the franchisee (and by the franchisor, if unit profitability depends crucially on unobserved franchisor inputs) while providing adequate insurance against risk for the franchisee. (See, for example, Lafontaine and Slade, 2000, for a very simple model illustrating these effects). Interestingly, while models of optimal contract terms in this tradition typically imply a different optimal royalty rate for each franchisor-franchisee pair, in practice, we generally observe only one standard franchise contract in the domestic market. More specifically, we see only one royalty rate and franchise fee combination per franchisor, at any particular point in time, at least within the US or Canadian market (Lafontaine, 1992a, p. 266). This suggests that franchisors may choose to accommodate outlet-level differences in risk, monitoring costs, and the like, by relying on franchising to varying degrees, rather than by opting for different contract terms. Franchisors justify their reliance on a single franchise contract by saying that developing and enforcing a variety of contracts would be too costly. In addition, federal and state disclosure requirements in the US may influence franchisors towards adopting this practice (Lafontaine, 1992b).<sup>14</sup>

This contract uniformity in the home market poses an intriguing empirical question for our examination of US and Canadian franchisors' operations in Mexico: are Mexican operations

---

franchisor may enter into a joint venture with a local partner. Whether units operated under such joint ventures are considered company owned or franchised in our data depends on the specific terms of the joint venture.

<sup>13</sup> Franchise contracts in the US last an average of 15 years according to the Dept. of Commerce (1988).

<sup>14</sup> See also Bhattacharyya and Lafontaine (1995) for an explanation for contract uniformity based on the notion that the benefit from tailoring contract terms may be quite small under double-sided moral hazard.



viewed as mere extensions of home market operations – in which case we might expect the same contract terms to be extended to prospective Mexican franchisees by franchisors in our sample – or is the operation of the Mexican market sufficiently separate that a different contract structure is adopted? If the Mexican market is in fact operated relatively independently, we would expect US and Canadian franchisors to choose different contract structures for the Mexican market as units in this market are unlikely to face exactly the same mix of risk profiles, shirking, and free-riding hazards experienced domestically. However, it is difficult to derive definitive predictions from theory concerning exactly how the contracts would differ. For example, the increased monitoring costs for cross-border management would suggest that contracts should be adjusted to mitigate the need to monitor franchisees. This would imply a lower royalty rate and higher franchise fee in Mexico, as compared with the US, so that the franchisee keeps more of the returns from her own efforts, and monitoring required by the franchisor is reduced as a result. On the other hand, this effect may be mitigated or even reversed if the Mexican market is considered more risky by potential franchisees. In this case, the presumed lower risk aversion of the franchisor would lead to the adoption of a higher royalty rate and lower franchise fee, thus providing greater insurance to the franchisee. As a result of these combined effects, we cannot conclusively sign the expected difference in contract terms; we simply note that the contracts are likely to be different.

Writers on the evolution of the multinational corporation (e.g., Perlmutter, 1969; Stopford and Wells, 1972; Bartlett and Ghoshal, 1995) have argued that when firms initially enter international markets, they often adopt an “ethnocentric” orientation, where the company regards itself fundamentally as a domestic company with some secondary overseas operations. In this case, control tends to be concentrated in the domestic headquarters, and management of overseas operations involves a simple extension of home country standards and processes. With experience, this ethnocentric attitude may shift, as managers recognize the heterogeneity of national environments and see the need for more tailored approaches to both internal and external management practices. The eventual level of country-specific tailoring will depend on the characteristics of the industry – and particularly, on what degree of “local responsiveness” is

required (Prahalad and Doz, 1987). We would nonetheless expect that, in general, firms with a higher level of international experience will be more likely to have a differentiated policy regarding franchise contract terms such as royalty rates and franchise fees. Furthermore, we would expect that firms that approach the Mexican market from a more delegated perspective, by choosing for example to develop this market with a master franchisee rather than doing so from their home base, will be more likely to allow a differentiated approach. Thus we have,

H6a: The contract terms adopted in Mexico will be more likely to differ from those adopted in the home market for franchisors with a greater level of experience in Mexico and other foreign markets.

H6b: The contract terms adopted in Mexico are more likely to differ from those adopted in the home market for franchisors that enter Mexico using a more delegated approach, namely with some form of master franchise.

## **The Data**

---

The equations to be estimated relate the decision to operate in the Mexican market (hypotheses H1 to H3), the choice between company-owned and franchised units (hypotheses H4 and H5) and the contract terms adopted (hypothesis H6), to various characteristics of the franchised firm, including experience, geographic location, and domestic contracting practices. This section describes how these constructs are operationalized and measured. But first, we introduce the data.

### **DATA SOURCES**

Two main data sources are used in this study. The first, *Bond's Franchise Guide*, 1995 edition, provides data on US franchisor operations in the US and Canada in 1994. More specifically, this directory contains detailed information on 1120 US and Canadian franchisors, out

of a total population estimated by most to be around 2500 to 3000 in the US, and 1000 in Canada.<sup>15</sup> For 1104 of the 1120 franchisors surveyed, we have full information on 1) the worldwide number of outlets, company-owned and franchised, 2) the royalty rate, advertising fee, and franchise fee (or ranges thereof), 3) the number of years since the franchisor began its operations and the number of years since it started franchising in the US or Canada, 4) the average size of the units in the chain, measured by the expected number of employees, the square footage of the premises, or the amount of capital required to open a unit, 5) the total number of outlets outside the US or Canada, and some information on the geographical distribution of units within the US and Canada, 6) a detailed product description, 7) whether the franchisor offers area development or sub-franchising agreements, and finally, 8) the US or Canada headquarters' address.

Our second main source of data is the *Entrepreneur* magazine's 1995 survey, "500 Franquicias en Mexico" ("500 Franchises in Mexico"). This source provides data on 470 franchised chains in Mexico, a significant proportion of which are US or Canadian companies. The survey includes franchised companies with established outlets in Mexico as well as franchises that are actively seeking franchisees in Mexico but do not yet have established outlets. Information reported for each chain includes the royalty rate, franchise fee, and advertising fee (or ranges thereof), and the number of existing company-owned and franchised outlets in Mexico in 1994. A Mexican contact address for the franchisor also is provided, if one exists. Otherwise, the home country office address is listed. In addition, the survey lists the number of company-owned and franchised units outside of Mexico, countries or regions in which it is seeking new franchisees, a product description, and the amount of capital required to open an outlet. In the same issue, the

---

<sup>15</sup> In 1988, the US Department of Commerce stopped producing *Franchising in the Economy*, which was the only source of census-type data on franchising. At that time, the number of US franchisors was estimated to be 2177. Since then, estimates of the number of US franchisors have varied widely in the trade press, but listings from directories suggest that 2500 to 3000 is a reasonable estimate. Furthermore, because many Canadian franchisors are Canadian subsidiaries of US franchisors, these would not appear as Canadian firms in our data, so that the total potential population in 1994 that we are sampling from is probably about 3000 for the US and Canada combined.

magazine also lists 279 “other franchises” with name, address and product description only. These are companies that *Entrepreneur* believed to be franchising in Mexico in 1994, but that did not respond to the magazine’s survey.

While we cannot be certain that our Mexican data source covers all US and Canadian franchising operations in Mexico, we believe that the vast majority is in fact included. For example, in a recent study of worldwide franchising, Arthur Anderson & Co (1995) identified a total of only 375 franchisors (of all nationalities) operating in Mexico, while our source includes many more such franchises.

When we matched franchisor names and descriptions from the “500 Franquicias en Mexico” (hereafter, the “Mexican survey”) with those in the 1995 *Bond’s Franchise Guide*, our source of data on US and Canadian franchisors, we found that 288 of our sample of 1120 US franchisors were involved in franchising in Mexico. Of these, 277 were included in the section with detailed data for Mexican operations.<sup>16</sup>

As we are interested not only in whether US or Canadian franchisors operate in Mexico, but also in comparing the terms of the contracts they use in Mexico relative to those used at home, we have to address potential differences in reporting protocols between the two data sources for the 277 chains with detailed Mexican operations. We did this primarily by using a third data source – the *Entrepreneur* magazine’s 1995 “Franchise 500” survey of US franchisors. This survey provides data on US franchisors, and is compiled by the same organization as the Mexican survey. Where we found data inconsistencies between the two US data sources, we replaced the Bond data on royalty rates and franchise fees in the US or Canada with those reported in the US *Entrepreneur* survey. In that sense, we are in fact using the *Entrepreneur* magazine as our source of data on

---

This is also compatible with the estimates obtained by Arthur Andersen & Co (1995) from their survey of franchise associations around the world. See Lafontaine and Shaw (1998) for more on this.

<sup>16</sup> Follow-up phone calls revealed that of the 11 US firms listed in the Mexican Survey but for which detailed data were not given, eight had operating outlets in Mexico at the time of the survey and two had zero units. One franchisor declined our request for information. Because we were unable to ascertain the actual *number* of units in Mexico for any of these firms (or the terms of the franchising contracts offered) they are not included in the analyses below, with the exception of the probit models on the decision to operate in the Mexican market or not.

domestic royalty rates and franchise fees. Unfortunately, since the US *Entrepreneur* survey did not report advertising fees that year, we were unable to “correct” the *Bond* data on these which, as we note below, probably explains most of the differences in advertising fees that we found between the two markets.<sup>17</sup>

Finally, none of the main data sources used in the study indicate whether Mexican operations are governed by a master franchise agreement. Since the existence of such an agreement may be an important indicator of autonomy of operations for the Mexican market (with implications for contract structure, as suggested by H6b), we made efforts to obtain this information. First, we were able to use the reporting of a separate Mexican contact address in the Mexican data source as an indicator that there may be a master franchise agreement in effect. We then contacted the 23 franchisors with such addresses and asked whether this address was that of a master franchisee, or of a wholly-owned subsidiary of the US company. We were able to obtain this information for all but three of the firms contacted.

## DEPENDENT VARIABLES

### **Presence in Mexico:**

A feature of the *Entrepreneur's* Mexican franchising survey is that it includes data on US franchisors who are actively seeking Mexican franchisees in 1994, even when they do not currently have any operating units. This allows us to operationalize whether firms are active in Mexico in two different ways for our tests of hypotheses H1 to H3. First, we use a dichotomous variable (“In Mexico”) that takes a value of one if a firm in our large US sample appears in the Mexico survey, and zero otherwise. Second, we use a count of the total number

---

<sup>17</sup> Initially, we chose *Bond's Franchise Guide* over the *Entrepreneur's Franchise 500* for the US data precisely because the *Entrepreneur* magazine stopped reporting advertising fees that year. However, the *Bond* data was preferred also because it covered more US franchisors that year, and gave more detailed data on each franchised chain, including data on foreign operations.

of units currently operating in Mexico for each firm ("Mexico Units").<sup>18</sup> Thus we can distinguish between characteristics that lead firms to actively consider entry into the Mexican market and those that are related to the "extent" of their operations in this market.

**Percentage of franchised units in Mexico versus home market:**

Hypotheses H4 and H5 are concerned with the difference between the ratio of franchised to total units that a firm operates in Mexico in 1994 ("Mexico % Franchised") and the equivalent ratio in the home market. Unfortunately, we do not have this information available for the home market in isolation so we must use the worldwide ratio as a proxy.<sup>19</sup> Thus our dependent variable, "Difference in % Franchised," is defined as % Franchised in Mexico - % Franchised Worldwide. Because the % Franchised is not meaningful for firms with very few (or zero) operating units in Mexico, the analysis is limited to the 39 (21) firms in our data with at least 5 (10) operating units in Mexico (of the 74 franchisors that have at least one such unit).

**Financial Contract terms:**

We compare franchise fees, royalty rates and advertising rates adopted by a franchisor in the US and in Mexico (to test hypothesis H6). Because in some cases a range of fees is reported in both data sources (e.g., minimum and maximum franchise fee charged), we code dummy variables to indicate if the range for a particular fee in the two countries is identical, if the average of the reported range is higher or lower in Mexico, or if the average is the same, but the range of fees is wider in one of the countries. Since royalty rates and advertising fees are usually fixed at a given percentage of sales, the data in the US and Mexican sources are directly comparable. However, franchise fees are reported in local currency so we converted the

---

<sup>18</sup> In some of our analyses, this variable is also used as a measure of outlet density in Mexico, and hence of incentives to free-ride on the brand name (see below).

<sup>19</sup> In most instances, this is a reasonable approximation for the franchise ratio in the home market, since the average firm in our sample has only 3.16% of units overseas (see descriptive statistics in Table 2, below). To ensure that our results were not affected by outliers on this dimension, we also repeated the analysis after removing firms with greater than 25% of their units overseas (i.e. one standard deviation above the mean % of overseas units). We found equivalent results for this subsample.

Mexican fees into US dollars using the Peso/USD exchange rate at the end of the 2<sup>nd</sup> quarter, 1994, as reported by the International Monetary Fund (1999).<sup>20</sup>

## INDEPENDENT VARIABLES

### **International experience:**

Ideally we would like to measure international experience along multiple dimensions, such as the number of years operating abroad, the location of overseas operations, and the number of units established in foreign markets; any one of these factors may influence the experiential knowledge accumulated and, in turn, influence a franchisor in its decisions regarding the Mexican market. Unfortunately, we only have data on some of these dimensions of international involvement. We measure the extent of international experience first by whether or not the firm has expanded into Canada (the US) from the US (Canada), captured by a dummy variable, "Expansion in North America." Second, we calculate the proportion of total units in the chain – both franchised and company-owned – that are located completely outside of the US and Canada in 1994 ("% Units Overseas").<sup>21</sup>

### **Geographic proximity:**

We code a dummy variable ("Near Mexico") which takes a value of 1 if the franchisor is headquartered in one of the US states contiguous to Mexico (i.e. California, Arizona, New Mexico or Texas), zero otherwise. In addition, we include a dummy variable ("Canadian") that takes on a value of 1 for firms headquartered in Canada, and zero for US headquartered firms. This reflects the "handicap" of Canadian firms relative to their US counterparts, in terms of geographic proximity to the Mexican market.

---

<sup>20</sup> The Peso/USD exchange rate is used for both US and Canadian firms in the sample because this is the currency used for data compilation in each of our US sources. We have confidence that our choice of exchange rate is correct, since this value produces exact equivalence in the franchise fees reported for the US/Canada and Mexico for 89% of our sample firms (see discussion on pp. 29-30).

<sup>21</sup> It could be argued that the total number of overseas units is a more appropriate measure of the experiential knowledge accumulated. However, we also include the total number of units in the franchise chain as a measure of experience (see below) and this is highly correlated with the number of overseas units. Therefore, the proportion of overseas units is a more appropriate measure of international experience.

**Overall franchising experience:**

We measure other relevant experience along two dimensions: the number of years since the company started franchising (“Years in Franchising”), and the total number of units in the chain in 1994 (“Total Units”).<sup>22</sup>

**Geographic dispersion in US and Canada:**

We measure this as the number of US states plus the number of Canadian provinces in which a firm has established units (“Total Dispersion in US and Canada”).<sup>23</sup>

**Number of units in Mexico:**

To capture the effect of incentives of Mexican franchisees to free-ride on the brand, which would affect the proportion of owned units in Mexico, we include a count of operating units in Mexico in 1994 (“Mexico Units”).

**Master franchising:**

As noted under H3c, the franchisor's experience with master franchising may facilitate entry into the Mexican market. Although the relevant information is not available for all firms in our sample, we nonetheless include, in our entry equation, a dummy variable (“Master Franchise Experience”) set equal to one if the firm reports that it offers either area development or subfranchising agreements in some of its markets, domestically or abroad. Furthermore, as noted under H6b, one general indication of autonomous operations for a foreign market in franchising is the actual establishment of a master franchise agreement in that market. We therefore include, in our analyses of the proportion of units franchised in Mexico and of the contract terms chosen in Mexico, a dummy variable (“Mexico master franchise”) that is set equal to one if our inquiries indicated that a master franchise agreement was in effect in Mexico in 1994. We also create an alternative dummy variable that is set to one (“Mexican Address”) if

---

<sup>22</sup> We verified that years in franchising and years in business (which includes a number of years firms operate some units before they begin franchising) gave equivalent results. This is not surprising as these two variables are highly correlated.

<sup>23</sup> Unfortunately this information is not available for our full sample of firms; we thus show results with and without this explanatory variable in what follows.



there is a separate Mexican address listed for the franchisor in the Mexican survey, as this may by itself be an indicator of greater autonomy for Mexican operations.

**Controls for unobserved firm and sector effects:**

We control for unobserved sector effects by including a series of 22 sector dummies.<sup>24</sup> We also use the ratio of franchised units to total units operated by the franchisor in 1994 worldwide (" % Franchised Worldwide") to control for other unobserved firm and/or sector effects that may influence the desirability of franchising for the firm generally, and thus also in Mexico.

Table 1 gives a summary of the variables described above, along with sources and expected empirical effects. Table 2 shows descriptive statistics for the variables, first for the 1104 US and Canadian franchisors for which we have data on all of the primary variables of interest and then for the sub-sample of 275 for which the Mexican survey also provided all necessary data.

\*\*\*\* Tables 1 and 2 about here \*\*\*\*

A first look at the descriptive statistics suggests that there are indeed systematic differences between franchisors that appear in the Mexico survey and the overall set of US/Canadian firms in our data. Most notably, firms in the Mexico survey tend to be larger and more experienced, with more dispersed operations (domestically and internationally). Moreover, Canadian firms are under-represented in the Mexican sub-sample relative to the overall sample. We explore these relationships in more detail in what follows.

---

<sup>24</sup> The 23 sectors are: Automotive Products & Services, Business Services, Business Supplies, Contractors, Cosmetic Products & Services, Eating Places - Full Service, Eating Places - Limited Service, Education Products & Services, Health & Fitness Products & Services, Hotels & Motels, Maintenance, Personal Services, Real Estate Services, Recreation Products & Services, Rental Services, Repair Services, Retail - Building Materials, Retail - Clothing, Retail - Food, Retail - Home Furnishings, Retail - Used Products, Retail - Other, and Travel Services. The excluded dummy variable was for the Automotive sector.

## **Empirical Methods and Results**

---

### **MARKET PRESENCE**

Regression results for US and Canadian franchisors' decision to operate in Mexico are shown in Table 3. The first three columns summarize results obtained when market presence is assessed using the dichotomous entry variable defined earlier, and thus a probit estimator is used. The last three columns show results for our continuous measure of market presence, namely the number of operating units in each chain in Mexico in 1994. In this last case, we use a tobit estimator as we have many observations at 0, and all values are positive. For each dependent variable, we run the regression first for our full sample. We then add, in turn, the "previous master franchise" and "dispersion in US and Canada" variables, each of which reduces our sample sizes due to missing data on these variables.

\*\*\* Table 3 about here \*\*\*

Overall, our results for market presence are quite consistent with both our internalization and agency-theory hypotheses. More specifically, for the former, the positive effect of "% Units Overseas" in all regressions in Table 3 supports H1, as firms with greater international experience have an increased propensity to operate in Mexico. This is true for the dichotomous measure of market presence as well as for the measure based on the actual number of units operating in Mexico.<sup>25</sup>

The results on the effect of geographic proximity are particularly interesting in light of our two measures of market presence. Firms with headquarters in US states neighboring Mexico, while no more likely to appear in the Mexican survey, are much more likely to actually operate units in Mexico in 1994 (suggesting greater success in establishing the franchise there). This is

---

<sup>25</sup> This is despite the fact that the vast majority of firms in the Mexican Entrepreneur survey in fact operate no units in Mexico.

consistent with H2a. Canadian franchisors, on the other hand, are much less likely to appear in the survey (consistent with H2b), but not significantly less likely to actually operate units in Mexico than their US counterparts. This implies that the greater geographic distance between Canada and Mexico affects the likelihood that firms will consider expanding there, but not the number of units they choose to establish when they have decided to operate there. Finally, a chain's total franchising experience, measured by its number of units, or its number of years of franchising experience, tends to increase the likelihood of Mexican presence (by both measures), as suggested in H3a. Similarly, increased geographical dispersion in North America and greater experience with master franchising both have positive effects on the propensity to operate in Mexico, as suggested in H3b and H3c.<sup>26</sup> All these results support the agency-theoretic arguments relating lower geographic distance and greater experience to lower monitoring costs.

#### FRANCHISED VERSUS COMPANY-OWNED UNITS IN MEXICO

Our first hypothesis on the ownership structure of franchised chains in Mexico (H4a) states that, in general, the ratio of franchised to company-owned units in Mexico will be higher in Mexico than in the home market, in part because of greater monitoring difficulties in Mexico. However, Table 4a shows that for the sub-sample of 39 US and Canadian firms with five or more units operating in Mexico, the average percentage of units that are franchised in Mexico is virtually identical to that for the franchising systems as a whole – 89.12 and 88.36, respectively: not a statistically significant difference. Looking at the sub-samples with 10 or more units (21 firms) or 3 or more units (48 firms) produces very similar results.

\*\*\* Tables 4a and 4b about here \*\*\*

---

<sup>26</sup> Note that the results above are robust to the inclusion or omission of the series of sector dummy variables and of various other control variables, as well as to the use of different measures for some of the constructs, and of different functional forms, particularly log transformations of explanatory variables or of the number of units in Mexico.

To investigate this issue further, we regress "Differences in % Franchised" (between Mexico and worldwide) on firm-specific characteristics, such as experience and headquarters location. Table 4b shows the results of the OLS regressions. These results also fail to provide any support for our hypotheses. *None* of the coefficients is significant, for either the sub-sample of firms with five or more units in Mexico, or for those having ten or more units. Furthermore, the adjusted R-square is very low in each case (-0.09 and -0.14, respectively).

In sum, we find no significant difference in the extent to which firms operate their units as franchises or company units in Mexico versus their home market (or, more specifically, the world), on average. Furthermore, we are unable to find any firm characteristics that relate significantly to differences in the extent of franchising in the two markets. In other words, we find no support for hypothesis H4a and, largely as a result of this lack of significant differences, we are also unable to find support for H4b or H4c.

We must exercise some caution in interpreting these results regarding ownership structure. Most of the firms in our sample have very few units operating in Mexico – although we should note that this reflects the reality of franchising in Mexico, rather than idiosyncrasies of our particular sample.<sup>27</sup> Even so, though we restrict our analysis to firms with some minimal presence (5 or 10 units), one could argue that such small franchise networks have yet to reach their equilibrium proportion of franchised units.<sup>28</sup> Thus we may need to wait until a larger number of chains have established a more significant presence in Mexico before concluding on this issue.

It is of further interest here to note that similar effects of "immature" operations may also explain the inconsistent results obtained in previous studies of the effect of general international experience on the propensity to franchise,<sup>29</sup> since most prior studies do not control for the total number of units in each country in the sample. If there are a significant number of countries in

---

<sup>27</sup> As discussed earlier, our sample includes most US and Canadian franchisors with operations in Mexico.

<sup>28</sup> Lafontaine and Shaw (2000) for example, provide evidence that franchised networks attain their "equilibrium" proportion of company-owned and franchised units in the US only after about 7 years in franchising.

<sup>29</sup> See discussion on pp. 6-7, above.

which franchised chains have yet to reach equilibrium, and this number is related to the extent and speed of international expansion, then this may skew observed results.

Still, it is noteworthy that, according to our data, there is no systematic variation in the extent to which US and Canadian franchisors rely on franchising in Mexico as compared with other operations worldwide. This result suggests that the fundamentals that lead franchisors to adopt a particular mix of company and franchised units domestically have the same effect in other markets.<sup>30</sup> In other words, the effect of these fundamental factors might dominate any other consideration. Further work on markets other than Mexico will be needed before we can reach a final conclusion on this issue.

## FINANCIAL CONTRACT TERMS

Tables 5 and 6 show the characteristics of franchisors with identical and with differentiated royalty rates and franchise fees in Mexico and the home market. One striking feature of these data is the overwhelming tendency for the franchisors to have uniform policies regarding royalties and franchise fees for their domestic and Mexican franchisees. Of the 255 franchisors for whom we have revenue-based royalty rate information for operations in Mexico, 239 (94%) use the *exact* same level or range of royalty rates as in their home market. Among the 16 franchises that do have different royalty policies for Mexico, 12 charge a higher royalty in Mexico and 2 charge a lower royalty. The remaining 2 franchises have the same average royalty rate in the two countries, but with a wider range of possible rates in Mexico.<sup>31</sup> Overall, the level of uniformity between the domestic and Mexican royalty rate is quite striking.

\*\*\* Tables 5 and 6 about here \*\*\*

---

<sup>30</sup> See Lafontaine and Shaw (2000) for an empirical analysis that suggests that franchisors target a certain proportion of company units in their chain, and that they actively manage their units to maintain this proportion once achieved.

<sup>31</sup> In addition, 20 franchisors charge an ongoing fixed fee in place of revenue-based royalties in both their domestic market and in the Mexican market. In each of these cases, the fee charged in Mexico is different than in the home market, but there does not appear to be any systematic pattern to these differences.

Interestingly, franchise fee policies are only slightly less uniform than royalty rate policies. Of the 270 franchises for which we have franchise fee information in both country of origin and Mexico, 241 (89%) use the same range of franchise fees in both markets, 8 charge a higher fee in Mexico, and 15 charge a lower fee there. The remaining 6 franchises have the same average fee in the two countries but with a wider reported range of possible fees in Mexico.

For advertising fees, the picture is somewhat less clear. Of the 249 franchises for which we have data on revenue-based advertising rates, 79% report that they use the same rate domestically and in Mexico. Of those that use different rates, 21 report a lower rate for Mexico, while 29 report a higher rate and 1 reports a wider mean-preserving range of rates for Mexico. However, these results almost certainly overstate the difference in advertising rate policies between the two countries: because *Entrepreneur Magazine* did not report advertising rates for the US in 1994, we were unable to check the *Bond's* data against this source. For royalty rates and franchise fees, we eliminated 70% of the cases where the *Bond's* and *Entrepreneur's* Mexico survey indicated differences in US and Mexican contract terms simply by using the *Entrepreneur* magazine as the source of the US data. Assuming a similar rate of discrepancy in advertising rate data between the two sources of US/Canadian data, we can conjecture that in fact around 94% of franchises in our sample have uniform policies regarding advertising rates in Mexico and their home country.

The small number of franchises adopting different financial contract terms limits the range of feasible methods for analyzing the circumstances that lead to the adoption of a differentiated fee structure.<sup>32</sup> Table 5 shows the results of a series of two-sample t-tests of the hypotheses that the mean characteristics of franchises with a uniform royalty structure for Mexico and the home country are equal to those setting different rates in the two countries. Table 6 displays the results of similar analyses of franchise fee policies.<sup>33</sup>

---

<sup>32</sup> Attempts to distinguish differentiated from undifferentiated contract terms using logit analysis were unsuccessful because of the very small number of differentiated contracts, and the high degree of multicollinearity among the explanatory variables.

<sup>33</sup> We do not analyze advertising rate discrepancies in this way because, as noted above, we cannot be sure that the differences we observe in our data are real.

The two sets of results are quite similar, reflecting the high overlap between franchises with differentiated policies for royalties and for franchise fees (ten of the sixteen franchises with differentiated royalty rate structures also charge a different franchise fee in Mexico compared with the home country). Consistent with our hypothesis H6a, more experienced firms are more likely to adopt a differentiated contract structure. Franchisors with a different royalty rate and franchise fee for their Mexican operations tend to have been franchising longer, have more overseas units, and operate more units in Mexico. Organization of the Mexican market through a master franchise is also strongly associated with franchisors having a differentiated fee structure. We should stress, however, that the adoption of a master franchise arrangement is endogenous, and no causal link to market autonomy (and differentiated contract terms) is implied. It is likely that factors leading a franchisor to treat the Mexican market differently would also increase the benefit of establishing a master franchise arrangement. Indeed, it is interesting to note that simply having a separate Mexican address (as indicated in the Mexican survey) is the strongest indicator of the relative autonomy (and differentiated contract structure) of the Mexican market – of 23 franchisors that have a separate contact address in Mexico, 17 have a differentiated policy for either royalties, franchise fees, or both.

In sum, we find that the overwhelming majority of US and Canadian franchisors that have operations in Mexico rely on the exact same financial contract terms there as they do in their domestic market. This surprising result is particularly interesting as it suggests that most US/Canadian franchisors treat the Mexican market as an extension of their home market, where contract uniformity across franchisees is also the norm. A number of arguments have been proposed in the franchising literature to explain the uniformity of contracts domestically, including notably the need for two-sided incentive provision (Bhattacharyya and Lafontaine, 1995), franchisor opportunism problems in a dynamic contracting setting (McAfee and Schwartz, 1994) and the high transaction costs of writing and enforcing a large number of different contracts. These arguments also might well explain why franchisors do not often adjust the financial terms of their contracts as they move outside their home market. Having said that, it is important to note that

the data in Tables 5 and 6 support hypotheses H6a and H6b in that more experienced firms and firms that organize their Mexican operations under a more delegated approach are more likely to use a different contract in Mexico.

## **Conclusion**

---

The goal of this paper was to examine the details of US and Canadian franchisors' contracting practices in Mexico and determine how they compare to franchisors' choices domestically using arguments from agency theory and from internationalization theory to guide our analyses. Consistent with our expectations, we found that large geographically dispersed chains with international operations and prior experience with master franchising were more likely to be present in Mexico in 1994. We also found, somewhat surprisingly, that the extent of franchising (versus company owned units) of these firms in Mexico is not systematically different from that observed in their domestic market or worldwide. Moreover, the financial contract terms set by US and Canadian franchisors for their Mexican franchisees are, in the vast majority of cases, exactly equal to those set in their home market. We argued that these similarities in practices between the two markets can probably be explained by the arguments already used in the franchising literature to explain the uniformity of contract terms domestically, and by the fact that US and Canadian franchisors might be treating their Mexican operations as an extension of their domestic operations. However, we also noted that, consistent with agency-theoretic arguments, the few firms that do use a differentiated contractual structure tend to be those with more international experience and a more delegated approach to franchising in Mexico.

Our analysis suffers from some obvious limitations. Foremost among these is the "snapshot" character of our data, which covers a single market in a single year. Thus we are unable to examine questions related to the order of entry into different international markets, or to the evolution of the organizational form adopted in any particular market. Our result that those few firms with differentiated contract structures were those with more international experience and with separate Mexican headquarters suggests that an investigation of the evolution of the contractual



practices of individual franchisors over time, as they become established in specific markets, would be especially worthwhile. Finally, since our sample covers franchisees in Mexico alone (with its own, perhaps idiosyncratic, set of institutional and economic characteristics), an examination of franchising practices of US/Canadian franchisors in other markets may reveal different patterns and thus prove most useful.

## References

---

- Arthur Andersen & Co. 1995. *Worldwide Franchising Statistics*, Arthur Andersen & Co. Pub.
- Aydin, N. and Kacker, M. 1990, "International Outlook of US-based Franchisors," *International Marketing Review*, 7(2), 43-53.
- Bartlett, Christopher A. & Sumantra Ghoshal. 1992. *Transnational management*. 2<sup>nd</sup> Edition. Chicago, IL: Irwin.
- Bercovitz, Janet.E.L. 1998, "An Analysis of Contractual Provisions in Business-Format Franchise Agreements," mimeo, Fuqua School of Business, Duke University.
- Bhattacharyya, Sugato and Francine Lafontaine, 1995, "Double-Sided Moral Hazard and the Nature of Share Contracts," *RAND Journal of Economics*, 26, 761-781.
- Blair, Roger D. and David L.Kaserman, 1982. "Optimal Franchising," *Southern Economic Journal*, 494-504.
- Bond, Robert E. 1995. *The Source Book of Franchise Opportunities*. Homewood, Ill.: Richard D. Irwin Publishing Co.
- Bradach, J.L. (1999), *Franchise Organizations*, Harvard Business School Press.
- Brickley, James A. and Frederick H. Dark. 1987. "The choice of organizational form: The case of franchising." *Journal of Financial Economics*, 18: 401-20.
- \_\_\_\_\_, \_\_\_\_\_, and Michael S. Weisbach (1991), "An Agency Perspective on Franchising," *Financial Management*, 20, 27-35.
- Carney, M. and E. Gedajlovic (1991), "Vertical Integration in Franchise Systems: Agency Theory and Resource Explanations," *Strategic Management Journal*, 12, 607-629.
- Caves, R.E. and W.F. Murphy, 1976. "Franchising: Firms, Markets, and Intangible Assets," *Southern Economic Journal*, 42, 572-586.
- Cochran, W.G. and C.W. Cox. 1950. *Experimental designs*. New York: John Wiley and Sons, Inc.
- Contractor, F.J. and S.K. Kundu. 1998a "Franchising Versus Company-Run Operations: Modal Choice in the Global Hotel Sector," *Journal of International Marketing*, 6, 28-53.
- Contractor, F.J. and S.K. Kundu. 1998b. "Modal Choice in a World of Alliances: Analyzing Organizational Forms in the International Hotel Sector." *Journal of International Business Studies* 29, (2): 325-357.
- Cyert, Richard M. and James G. March. 1963, *A behavioral theory of the firm*. Englewood Cliffs, N.J.: Prentice-Hall.
- Dant, Rajiv.P., Patrick J. Kaufmann and Audesh K. Paswan (1992), "Ownership Redirection in Franchised Channels," *Journal of Public Policy and Marketing*, 11, 33-44.
- Davidson, William H. 1980. The location of foreign direct investment activity: Country characteristics and experience effects. *Journal of International Business Studies*, 11 (2): 9-22.
- Dnes, A. W. (1996), "The Economic Analysis of Franchise Contracts," *Journal of Institutional and Theoretical Economics*, 152, 297-324.
- Entrepreneur Magazine. 1995. *500 franquicias en Mexico* ("500 Franchises in Mexico"). Vol. \*\* (January): 56-98.

- Entrepreneur Magazine. 1995. *Annual franchise 500*. (January): 136-237.
- Erramilli, M Krishna. 1991. The experience factor in foreign market entry behavior of service firms. *Journal of International Business Studies*, 22 (3): 479-501.
- \_\_\_\_\_ and C. P. Rao. 1990. Choice of foreign market entry mode by service firms: Role of market knowledge. *Management International Review*, 30 (2): 135-50.
- Fladmoe-Lindquist, Karin. 1996. "International Franchising: Capabilities and Development." *Journal of Business Venturing* 11, 419-438.
- Fladmoe-Lindquist, Karin and Laurent L. Jacque. 1995. Control modes in international service operations: The propensity to franchise. *Management Science*, 41 (7): 1238-1249.
- Gallini, Nancy T., and Nancy A. Lutz. (1992), "Dual Distribution and Royalty Fees in Franchising," *Journal of Law, Economics, & Organization*, 8, 471-501.
- Gilman, Alan L. 1992. Franchising: An international frontier. *Chain store Age Executive*, 68 (2): 70.
- Hackett, D. (1976), "The International Expansion of US Franchise Systems: Status and Strategies," *Journal of International Business Studies* 7: 65-75.
- Hofstede, Geert. 1980. *Culture's consequences: International differences in work related values*. Beverly Hills, CA: Sage.
- Hornell, Erik, Jan-Erik Vahlne and Finn Wiedersheim-Paul. 1972. *Export och utlandsetableringar* (Export and foreign establishments). Uppsala, Sweden: Almqvist and Wicksell.
- Hopkins, David M. 1992. *Franchising Survey Results*, mimeo, Department of Management, University of Denver.
- Johanson, Jan and Jan-Erik Vahlne. 1977. The internationalization process of the firm – A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8 (1): 23-32.
- Johanson, Jan and Jan-Erik Vahlne. 1990. The mechanisms of internationalization. *International Marketing Review*, 7 (4): 11-24.
- Kogut, Bruce and Harbir Singh. 1988. The effect of national culture on the choice of entry mode. *Journal of International Business Studies*, 19 (4): 411-32.
- Lafontaine, Francine. 1992a. Agency theory and franchising: Some empirical results. *RAND Journal of Economics*, 23 (2): 263-283.
- \_\_\_\_\_. 1992b. How and why do franchisors do what they do: A survey report. In P. Kaufmann, editor, Sixth Annual Proceedings of the Society of Franchising, International Center for Franchise Studies, University of Nebraska.
- \_\_\_\_\_ and Kathryn L. Shaw. 1998, "Franchising Growth and Franchisor Entry and Exit in the US Market: Myth and Reality," *Journal of Business Venturing*, 13,95-112.
- \_\_\_\_\_ and \_\_\_\_\_. 1999. "The Dynamics of Franchise Contracting: Evidence from Panel Data." *Journal of Political Economy*, 107, 5, 1041-1080.
- \_\_\_\_\_ and \_\_\_\_\_. 2000. Targeting Managerial Control: Evidence from Franchising, Mimeo, University of Michigan Business School.
- \_\_\_\_\_ and Margaret E. Slade, 1997, "Retail Contracting: Theory and Practice," *Journal of Industrial Economics*, 45, 1-25.
- \_\_\_\_\_ and \_\_\_\_\_. 2000, "Incentive Contracting and the Franchise Decision," in *Advances in Business Applications of Game Theory*, K. Chatterjee and W. Samuelson (eds.) Kluwer Academic Press, forthcoming.

- Lal, Rajiv. 1990, "Improving Channel Coordination through Franchising," *Marketing Science*, 9, 299-318.
- Lowell, H. Bret. 1991. *Multiple-unit franchising: The key to rapid system growth*. Washington D.C.: Brownstein, Zeidman and Schomer.
- Lyons, B.R. (1996), "Empirical Relevance of Efficient Contract Theory: Inter-Firm Contracts," *Oxford Review of Economic Policy*, 12, 27-52.
- Mathewson, Frank and Ralph Winter. 1985, "The Economics of Franchise Contracts," *Journal of Law and Economics*, 28, 503-526.
- McAfee, R.P. and M. Schwartz, (1994), "Multilateral Vertical Contracting: Opportunism, Nondiscrimination, and Exclusivity," *American Economic Review*, 84, 210-230.
- Michael, S. C.(2000) "Investments to Create Bargaining Power: The Case of Franchising." *Strategic Management Journal*, 21 (4): 497-514.
- Michael, S.C. (1996) "To Franchise or Not to Franchise: An Analysis of Decision Rights and Organizational Form Shares," *Journal of Business Venturing*, 11, 57-71.
- Minkler, A. (1990), "An Empirical Analysis of a Firm's Decision to Franchise," *Economics Letters*, 34, 77-82.
- \_\_\_\_\_ and T. A. Park (1994), "Asset Specificity and Vertical Integration," *Review of Industrial Organization*, 9, 409-423.
- Norton, S.W. (1988), "An Empirical Look at Franchising as an Organizational Form" *Journal of Business*, 61: 197-217.
- Perlmutter, H. 1969. The tortuous evolution of the multinational corporation. *Harvard Business Review*.
- Prahalad, C.K. and Yves L. Doz. 1987. *The multinational mission*. New York: Free Press.
- Rubin, Paul. 1978, "The Theory of the Firm and the Structure of the Franchise Contract," *Journal of Law and Economics*, 21, 223-233.
- Scott, F.A. (1995), "Franchising vs. Company Ownership as a Decision Variable of the Firm," *Review of Industrial Organization*, 10, 69-81.
- Sen, Kabir C. 1993, "The Use of Initial Fees and Royalties in Business Format Franchising," *Managerial and Decision Economics*, 14, 175-190.
- Shane, Scott A. (1996), "Why Franchise Companies Expand Overseas," *Journal of Business Venturing*, 11, 2, 73-88.
- Steel, R. G. D. and J. H. Torrie. 1980. *Principles and procedures of statistics*. 2<sup>nd</sup> Edition. New York: McGraw Hill.
- Stopford, John M. and Louis T. Wells. 1972. *Strategy and structure of the multinational enterprise*. New York: Basic Books.
- Thompson, R.S. (1994), "The Franchise Life Cycle and the Penrose Effect," *Journal of Economic Behavior and Organization*, 24, 207-218.
- US Department of Commerce, 1988. *Franchising in the Economy, 1986-1988*, prepared by Andrew Kostecka.
- Vernon, Raymond. 1966. International investment and international trade in the product cycle. *Quarterly Journal of Economics*, 80 (2): 190-207.
- Walker, B. 1989. *A Comparison of International vs. Domestic Expansion of US Franchise Systems*. Washington DC: International Franchise Association.

- Weinstein, Arnold K. 1977. Foreign investment by service firms: The case of multinational advertising agencies. *Journal of International Business Studies*, 8 (1): 83-91.
- Wimmer, B.S. and John E. Garen 1997, "Moral Hazard, Asset Specificity, Implicit Bonding, and Compensation: The Case of Franchising," *Economic Inquiry*, 35, 544-55
- Zietlow, Dixie S. and Jean-Francois Hennart. 1996. The international distribution of franchises by US Franchisors. CIBER Working paper 96-102, University of Illinois at Urbana-Champaign.

**Table 1: Variables, Sources and Expected Effects**

Variable name	Enter Mexican market?	Franchised % in Mexico greater than in home country?	Contract terms in Mexico differ from home country?	Source
In Mexico	dep. var.			Mexico survey
Mexico Units	dep. var.	H4c: -		Mexico survey
Difference in % Franchised		dep. var.		Mexico survey
Expanded in US or Canada	H1: +			Bond's
% Units Overseas	H1: +	H5: -	H6a: +	Bond's
Near Mexico	H2a: +	H4b: -		Bond's
Canadian	H2b: -			Bond's
Years Franchising	H3a: +			Bond's
Total Units Worldwide	H3a: +			Bond's
Dispersion in US and Canada	H3b: +			Bond's
Previous Master Franchise	H3c: +			Bond's
Mexico Master Franchise			H6b: +	Phone inquiries
Mexican Address			control	Mexico survey
% Franchised Worldwide	control			Bond's
Sector Dummies	control			Bond's

**Table 2: Descriptive statistics**

Variable name	Full sample of firms (n=1104)			Firms in Mexico survey (n=275)		
	Mean (Std. Dev.)	Min.	Max.	Mean (Std. Dev.)	Min.	Max.
In Mexico	0.26 (0.44)	0	1	na	na	na
Mexico Units	0.85 (5.95)	0	95	3.41 (11.57)	0	95
Expanded in US or Canada	0.22 (0.41)	0	1	0.39 (0.49)	0	1
% Units Overseas	3.16 (11.60)	0	97.9	6.36 (15.41)	0	97.9
Near Mexico	0.19 (0.40)	0	1	0.23 (0.42)	0	1
Canadian	0.15 (0.35)	0	1	0.06 (0.25)	0	1
Years Franchising	11.56 (9.87)	1	68	13.78 (12.00)	1	68
Total Units	200.5 (840.5)	1	14162	417.45 (1293.4)	1	14162
Dispersion in US and Canada (n=1029 and 261 respectively)	13.75 (15.35)	1	60	21.71 (17.98)	1	60
Previous Master Franch. (n=1077 and 269 respectively)	0.56 (0.50)	0	1	0.66 (0.48)	0	1
Mexico Master Franchise (n=274)	n/a	n/a	n/a	0.06 (0.23)	0	1
Mexican Address (n=277)	n/a	n/a	n/a	0.08 (0.27)	0	1
% Franchised Worldwide	80.14 (27.21)	0	100	85.01 (23.24)	0	100

Note: For each sample, we present descriptive statistics for that set of firms for which we have data on all of the primary variables of interest.

**Table 3: Probit and Tobit Results on Franchisors' Decisions  
to Operate in Mexico**

Explanatory Var.:	Probit Results: Dependent Variable is "In Mexico"			Tobit Results: Dependent Variable is "Mexico Units"		
	1	2	3	4	5	6
Expanded in US or Canada †	0.58** (5.11)	0.58** (5.05)	0.29** (2.21)	0.73** (4.62)	0.67** (4.18)	0.15 (0.78)
% Units Overseas	0.012** (3.15)	0.011** (2.71)	0.014** (3.31)	0.018** (4.30)	0.020** (4.55)	0.024** (5.19)
Near Mexico	0.06 (0.50)	0.07 (0.63)	0.04 (0.30)	0.39** (2.53)	0.42** (2.68)	0.43** (2.51)
Canadian	-0.63** (-4.27)	-0.66** (-4.33)	-0.47** (-2.83)	-0.54* (-1.77)	-0.49 (-1.62)	0.12 (0.39)
Years Franchising	0.003 (0.51)	0.002 (0.46)	-0.006 (-1.12)	0.016** (2.48)	0.016** (2.46)	0.004 (0.50)
Total Units Worldwide (in 000's)	0.56** (3.76)	0.55** (3.67)	0.21 (1.63)	0.53** (8.09)	0.54** (8.11)	0.45** (6.26)
Dispersion in US and Canada			0.024** (5.23)			0.04** (5.47)
Previous Master Franchise		0.27** (2.76)	0.33** (3.30)		0.23 (1.53)	0.37** (2.19)
% Franchised Worldwide	0.003 (1.52)	0.003* (1.79)	0.002 (1.24)	-0.001 (-0.35)	-0.001 (-0.33)	-0.001 (-0.040)
Sector Dummies	Yes**	Yes**	Yes**	Yes	Yes	Yes
Number of Obs.	1104	1077	1029	1096	1069	1021
Observations at 0	818	797	757	1023	997	950
% predicted correctly	0.77	0.78	0.78	n/a	n/a	n/a
Pseudo R <sup>2</sup>	n/a	n/a	n/a	0.65	0.66	0.70

Notes: t-tests in parentheses. \*\*: Significant at 0.05 level or better, \*: Significant at 0.10 level.

†: This variable is equal to one for US firms that have expanded into Canada, and for Canadian firms that have expanded into the US Pseudo R<sup>2</sup> is calculated as the square of the correlation between predicted and observed values of the dependent variable.



**Table 4a: Comparison of Franchising Versus Company-Owned Units in Mexico and Worldwide**

	Mexico % Franchised	% Franchised Worldwide	Difference % Franchised
Firms with 5 or more units in Mexico (n=39)	89.12 (15.85)	88.36 (23.48)	0.76 (28.31)
Firms with 10 or more units in Mexico (n=21)	86.99 (17.43)	87.41 (23.31)	-0.42 (26.91)
Firms with 3 or more units in Mexico (n=48)	85.25 (22.41)	86.99 (24.45)	-1.73 (34.96)

Standard Deviations in Parentheses.

**Table 4b: OLS Results on Proportion of Franchised Units in Mexico versus Worldwide**  
(Dependent variable = Difference in % Franchised)

	Firms with 5 or more units in Mexico	Firms with 10 or more units in Mexico
Constant	-1.35 (-0.18)	-6.72 (-0.57)
Total Units ('000s)	1.70 (0.46)	1.89 (0.52)
Near Mexico	0.90 (0.01)	-2.88 (-0.20)
Mexico Units	0.13 (0.34)	0.30 (0.71)
% Units Overseas	-0.01 (-0.71)	-0.01 (-0.71)
Number of Observations	39	21
Adjusted R-square	-0.09	-0.14

Notes: t-tests in parentheses. None of the coefficients is significant at the 0.10 level or better.

**Table 5: Analysis of Royalty Policies in Mexico and Home Market**

	Firms with identical royalty structure in Mexico n=239	Firms with differentiated royalty structure in Mexico n=16	<i>t</i> -statistic (or approximate <i>t</i> ) for differences in mean
Ave. Mexico Units	2.4 (8.8)	11.9 (21.3)	1.784*
Ave. Mexican % Franchised	84.8 (24.5) n=30	82.2 (20.8) n=13	0.332
Ave. % Units Overseas	13.1 (25.5)	24.8 (28.1)	1.773*
% Near Mexico	22.2 (41.6)	25.0 (44.7)	0.262
% Canadian	5.9 (23.5)	12.5 (34.1)	0.766
Ave. Years Franchising	11.8 (11.2)	23.12 (14.0)	3.848***
Ave. Total Units	348.9 (982.4)	1237.9 (3457.5)	1.026
% Mexico Master Franchise	2.5 (15.7)	60.0 (50.7)	4.377 ***
% Mexican Address	3.3 (18.0)	75.0 (44.7)	6.374***
Ave. % Franchised Worldwide	83.99 (23.6)	86.40 (29.6)	0.396
% with different franchise fee in US and Mexico	6.8 (25.3) n=234	68.8 (47.9)	5.125***

Notes: Standard Deviations in Parentheses. \*\*\*:  $p=0.001$ , \*\*:  $p=0.05$ , \*:  $p=0.10$ . (1): The *t*-tests are performed using the TTEST procedure in SAS. The *t* statistic computed in this procedure is based on the assumption that the variances of the two groups are equal. The procedure also computes an  $F'$  (folded) statistic to test for equality of the 2 variances (Steel and Torrie, 1980), and gives an approximate *t* based on the assumption that the variances are unequal, along with a Cochran and Cox (1950) approximation of the probability level for the approximate *t*. The statistic reported in the table is the true *t* statistic except in cases where the  $F'$  test revealed unequal variances. In those cases, the approximate *t* is reported.

**Table 6: Analysis of Franchise Fees in Mexico and Home Market**

	Uniform franchise fee structure n=241	Differentiated fee structure n=29	t-statistic (or approximate t) for differences in means
Ave. Mexico Units	2.6 (11.5)	9.5 (10.7)	3.105***
Ave. Mexican % Franchised	88.7 (24.2) n=26	79.3 (19.9) n=20	1.414
Ave. % Units Overseas	13.4 (26.5)	21.8 (25.8)	1.627
% Near Mexico	22.4 (41.8)	27.6 (45.5)	0.625
% Canadian	6.6 (24.9)	6.9 (25.8)	0.052
Ave. Years Franchising	12.3 (12.0)	16.4 (11.5)	1.732*
Ave. Total Units (000s)	0.376 (1.32)	0.742 (1.12)	1.435
% Mexico Master Franchise	2.5 (15.6) n=240	37 (49.2) n=27	3.626***
% Mexican Address	3.7 (19.0)	44.8 (50.6)	4.336***
Ave. Total % Franchised	83.8 (23.7)	92.4 (20.2)	1.877*
% with different royalty rate in US and Mexico	2.2 (14.8) n=223	40.7 (50.1) n=27	3.974***

Notes: Standard Deviations in Parentheses. \*\*\*: p=0.001, \*\*: p=0.05, \*: p=0.10. (1): The t-tests are performed using the TTEST procedure in SAS. The *t* statistic computed in this procedure is based on the assumption that the variances of the two groups are equal. The procedure also computes an F' (folded) statistic to test for equality of the 2 variances (Steel and Torrie, 1980), and gives an approximate *t* based on the assumption that the variances are unequal, along with a Cochran and Cox (1950) approximation of the probability level for the approximate *t*. The statistic reported in the table is the true *t* statistic except in cases where the F' test revealed unequal variances. In those cases, the approximate *t* is reported.