

RESEARCH NOTES AND COMMUNICATIONS

MAKING NEW FRANCHISE SYSTEMS WORK

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This paper argues that new franchise systems are more likely to survive if they are structured to economize on agency costs. After controlling for industry effects, and firm age and size, this paper shows empirical support for six of nine hypotheses about the linkage between mechanisms for economizing on agency costs and the survival of new franchise systems. © 1998 by John Wiley & Sons, Ltd.

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INTRODUCTION

Agency theory explains how best to organize relationships in which one party (the principal) determines the work, which another party (the agent) undertakes (Eisenhardt, 1989). Under conditions of incomplete information and uncertainty, which characterize most business settings, at least three agency problems can arise; adverse selection, moral hazard, and holdup. Adverse selection occurs when the principal cannot ascertain if the agent accurately represents his ability to do the work for which he is being paid. Moral hazard occurs when the principal cannot be sure if the agent has put forth maximal effort (Eisenhardt, 1989). Holdup occurs when at least one of the parties will act opportunistically to renegotiate an agreement after a relationship-specific investment has been made (Williamson, 1985).

As previous research has argued (e.g., Lafontaine, 1992; Brickley and Dark, 1987), franchising can reduce the problems of adverse selection and

moral hazard (suboptimal effort) that exist with fixed wage employment by making the agent the residual claimant on the proceeds of a retail outlet. However, this solution comes at the expense of an incentive for both the principal and the agent to engage in holdup and for the agent to maximize personal gain at the expense of system-wide gain (misdirected effort) (Klein, Crawford, and Alchian, 1978). Agency theory suggests that for new franchisors to survive, they must employ contract terms that manage incentives for franchisors and franchisees to engage in adverse selection, moral hazard, and holdup.

Unfortunately, previous cross-sectional agency theory research on franchising suffers from several problems which undermine the validity of findings, and suggest the need for more rigorous, longitudinal methods to demonstrate the theory's validity. First, cross-sectional predictions of the proportion of outlets franchised (the standard test of agency theory), which do not control for age and size, cannot separate agency theory predictions from the effects of institutionalization (Rao and Neilsen, 1992). Since both the proportion of franchised outlets and most franchisor policies increase as the franchisor ages and grows (Shane, 1996; Baucus, Baucus, and Human, 1993; Lafontaine and Shaw, 1996), the cross-sectional corre-

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lations between the proportion franchised and franchisor policies may be artifacts of their respective correlations with firm age and size. By employing a longitudinal design with controls for firm age and size, this study separates agency and institutional theory effects on firm behavior and avoids these problems.

Second, agency theorists have argued that franchisors instantaneously and costlessly adjust their agency contracts as environmental conditions change (e.g., Brickley and Dark, 1987). Recent research, however, has demonstrated that franchise contracts are sticky to change, preventing all franchisors from displaying optimal contracts at any moment in time (Lafontaine and Shaw, 1996). By examining the effect of franchisor policies on the survival of new franchise systems over time, this study provides evidence of efficient contracting, even when sticky contracting obscures cross-sectional observation of that efficiency. Over time, we observe efficient contracting because the environment selects for survival those firms which have appropriate agency contracts.

Third, prior agency theory research has not examined the relative importance of moral hazard, adverse selection and holdup. Instead, previous researchers have used evidence for one dimension of agency theory as evidence for all dimensions of agency theory (e.g., Brickley and Dark, 1987). This approach has led researchers to misinterpret the power of agency theory by viewing its effects as broader than the empirical evidence demonstrates. By explicitly comparing the effects of franchisor policies to manage moral hazard, adverse selection, and holdup, this study overcomes this inference problem.

Fourth, previous researchers have argued that the behavior of mature franchisors is explained by agency cost economizing, while the behavior of new franchisors is explained by efforts to overcome resource constraints to growth (Martin and Justis, 1993). This approach has made explanations for franchisor behavior relatively unparsimonious. This study shows that the survival of new franchise systems is explained by agency cost economizing, and that scholars need not invoke resource constraint theory to explain the behavior of new franchisors.

In the section below, the paper presents specific testable hypotheses about franchise system survival that emerge from agency theory. These

hypotheses provide an empirical test which overcomes the problems of previous cross-sectional research and demonstrates the validity of agency theory.

HYPOTHESES

Passive ownership

The provision of residual claimancy on the profits of a retail outlet provides a strong incentive for agents not to engage in suboptimal effort or adverse selection since it makes the agent's compensation dependent on the amount and quality of his effort (Brickley and Dark, 1987). However, for residual claimancy to have its positive effect, franchised outlets must be run by owner-operators. If outlets are owned by passive investors who hire managers to operate the outlet, then the beneficial effects of residual claimancy are lost. Moreover, passive ownership adds a layer of agency costs—that between the passive owner and the outlet manager—which has to be managed. Therefore:

Hypothesis 1: New franchise systems which permit passive ownership of franchised outlets are more likely to fail than are other new franchise systems.

Cash investment

The size of the franchisee cash investment in the franchise system also should reduce franchisee moral hazard and adverse selection problems. First, franchisors can obtain capital more cheaply from franchisees than from portfolio investors since outlet operators, who are not residual claimants, have less incentive to work hard (Lafontaine and Kaufmann, 1994). Therefore, investors demand higher returns on portfolio investments than they would expect from investments in individual outlets even if the latter is more risky (Lafontaine, 1992). Second, the size of a franchisee's cash investment in a franchised outlet should serve as a quality signal to reduce the franchisee adverse selection problem. Individuals who have greater outlet management capability signal this ability by purchasing franchise outlets and agreeing to receive a return on investment that is dependent on personal abilities to generate revenues (Shane, 1996). Talented potential fran-

chisees see the cash investment as more worthwhile than will untalented potential franchisees. The higher the cash investment, the more that this self-selection will occur and the lower will be the franchisee adverse selection problem (Norton, 1988).¹ Therefore:

Hypothesis 2: New franchise systems which require higher levels of franchisee cash involvement are less likely to fail than are other new franchise systems.

Franchisee experience

Requiring franchisees to have prior experience should be positively associated with the survival of the franchise system since an experience requirement reduces the franchisee adverse selection problem. Since most franchise systems provide economic rents to franchisees to ensure their continued adherence to the terms of the franchise agreement (Michael and Moore, 1995), low-quality potential franchisees have an incentive to misrepresent their abilities to be selected into franchise systems. Franchisee experience can be used as a quality signal since potential franchisees with experience are more likely to have knowledge of local markets and management skills (Norton, 1988). Therefore:

Hypothesis 3: New franchise systems which require franchisees to have experience are less likely to fail than are other new franchise systems.

Royalty rate

By substituting franchisees for company-owned managers, franchisors create incentives for franchisee free-riding and holdup. Franchisors minimize these problems by establishing and enforcing contractual provisions for advertising, training and outlet operations, and auditing fran-

chised units to ensure their compliance (Brickley and Dark, 1987). These monitoring activities impose a cost for which the franchisor needs to be compensated. To the extent that the franchisor receives ongoing royalties, he has an incentive not to default on his monitoring obligations. Potential franchisees see the size of the royalty rate as a measure of the franchisor's incentive to develop and uphold system assets. This reassures potential franchisees that the system is organized in a way that will minimize agency problems (Lal, 1990). Therefore:

Hypothesis 4: New franchise systems which have higher royalty rates are less likely to fail than are other new franchise systems.

Geographic dispersion

Controlling free-riding also depends on the cost of monitoring franchisees. Monitoring costs increase with the geographic distance between the principal and the agent since monitoring costs depend on the amount of time that monitors spend on monitoring relative to other activities (Norton, 1988). Moreover, when distances are greater, monitors spend a greater amount of time away from agents, increasing the latter's opportunity to free ride (Brickley and Dark, 1987). The more geographically concentrated its franchise system, the more the firm is able to economize on agency costs. Therefore:

Hypothesis 5: New franchise systems which are geographically concentrated are less likely to fail than are other new franchise systems.

Complexity

The complexity of the task to be transferred to the agent also increases monitoring costs. Less perfect information about the agent's ability to perform a task increases the difficulty of ensuring that the agent has performed that task (Barzel, 1989) and provides agents with an incentive to shirk (Chi, 1994). Moreover, the more complex the franchise concept, the more difficult and costly it is for the principal to specify the agent's required behavior under all contingencies (Eisenhardt, 1989) and the higher the agency cost of contracting (Klein *et al.*, 1978). Therefore:

¹ As an anonymous reviewer pointed out, there is another explanation that cannot be disentangled from those articulated above. That is, the success of the franchise system depends, at least in part, on the underlying value of the franchise opportunity. Since the size of the cash investment may be correlated with the underlying economic value of the franchise system, the size of the cash investment could be proxying the value of the opportunity.

Hypothesis 6: New franchise systems which are more complex are more likely to fail than are other new franchise systems.

Master franchising

Master franchise agreements 'grant the rights of development to an individual . . . [whose purpose is] to recruit, train, and oversee the operations of individual franchisees in the area' (Dandridge and Falbe, 1994: 41). The use of master franchise agreements also raises agency costs. One of the roles of the master franchisee is to enforce franchise agreements. Without master franchise agreements, the codification of enforcement behavior is unnecessary. The franchisor can simply adopt appropriate monitoring routines as the situation dictates. However, with master franchise agreements, enforcement behavior must either be specified at the time of contracting or be foregone. Given the inability of franchisors to foresee all possible mechanisms for franchisee shirking, this requirement will reduce the ability to monitor franchisees and raise the opportunity for franchisee shirking. Therefore:

Hypothesis 7: New franchise systems which employ master franchising are more likely to fail than are other new franchise systems.

Length of contract

The use of a contract arrangement between the franchisor and the franchisee provides an incentive for the agent to engage in misdirected effort. Increasing the term of an agreement between the principal and agent reduces this agency problem for three reasons. First, long time horizons provide an incentive for principals to invest in gathering information about agents' behavior (Eisenhardt, 1989). Increased information about the agent enhances the likelihood that the principal will detect shirking and reduces the incentive for the agent to shirk. Second, patterns of environmental effects become clear over time, allowing the principal to more precisely separate exogenous environmental effects from the agent's shirking behavior, making agent moral hazard more difficult (Holmstrom, 1979). Third, the longer the time horizon of the agreement, the lower the agent's incentive to shirk or engage in perquisite-taking (Jensen and Meckling, 1976)

since long time horizons increase the amount that the agent has to gain by proper behavior relative to the amount he has to gain from shirking (Williamson, 1985). Therefore:

Hypothesis 8: New franchise systems which have longer-term agreements are less likely to fail than are other new franchise systems.

Total investment

When franchising is used, the problem of holdup is introduced. Franchisors often require franchisees to make franchisor-specific investments in materials, signs, or building designs (Brickley and Dark, 1987). Since franchisor-specific investments are worth more in the system than outside, these assets generate quasi-rents (Carney and Gedajlovic, 1991). Franchisors can appropriate the value of these quasi-rents by opportunistically precluding franchisees from using these assets before the end of their useful lives (Klein *et al.*, 1978).

Quasi-rents place limits on the size of the investment that franchisees are willing to make. Franchisees want to minimize these investments to recoup their costs during the life of the franchise contract and preclude the possibility of franchisor appropriation (Combs and Castrogiovanni, 1994). The greater the amount of this investment, the greater the divergence between the franchisor and franchisee over the required return on the outlet's assets during the period of the initial franchise agreement. For this reason, high investments raise bargaining costs (Brickley and Dark, 1987).² Thus:

Hypothesis 9: New franchise systems which have higher levels of total investment are more likely to fail than are other new franchise systems.

² As an anonymous reviewer pointed out, another explanation is also possible. If a franchisor requires the franchisee to pay an amount in excess of the present value of the opportunity that can be exploited by a franchise, these excess investment costs will make other franchise systems more appealing. As a result, the attraction of franchisees will be difficult and the probability of system survival will be reduced.

METHODS

Sample

This study tested the above hypotheses through the use of survival analysis on a cohort of 157 new franchisors established in the United States between 1981 and 1983 and tracked over time. The sample consisted of franchise systems which *Sourcebook of Franchise Opportunities*, 1985 indicated first began to franchise in 1981, 1982, or 1983. The 1985 issue was selected since the data for this issue were gathered in 1984 about franchise systems established through December 31, 1983. Data were gathered for each firm from its entry into franchising forward in time and were compiled from the *Sourcebook* and supplemented with data from the *Franchise Annual*, *IFA's Franchise Opportunities Guide*, and *Entrepreneur Magazine's Franchise 500*. The covariates used in the analysis were the most current available information in the franchise sources. The firms were drawn from a number of industries, including Non-Food Retail (64 firms), Business Services (31), Eating Places (30), Retail Food (8), Automotive Repair (6), Building Cleaning and Maintenance (6), Employment Agencies (6), and Other (6).

The sample was taken from the *Sourcebook of Franchise Opportunities* because this source has been used in several cross-sectional studies of franchising (e.g., Baucus *et al.*, 1993; Sen, 1993) and has been found to be unbiased. Moreover, the sample was compared to a larger list of 479 new franchisors started between 1981 and 1983 constructed from *Franchise Annual*, *IFA's Franchise Opportunities Guide*, and *Entrepreneur Magazine's Franchise 500* for which partial data could be obtained. *T*-tests indicated that there were no significant differences between the firms in and outside the sample on any of the individual variables.³

The dependent variable in the study was exit from franchising.⁴ Shane (1996) found that three-quarters of all new franchise systems ceased franchising within 10 years of their formation. The high rate of failure of new franchise systems

suggests that survival of a new system over time is important (Carney and Gedajlovic, 1991).

The event—cessation of franchising—was operationalized as the delisting of the franchisor from all the following sources: *Sourcebook of Franchise Opportunities*, *Franchise Annual*, *IFA's Franchise Opportunities Guide*, and *Entrepreneur Magazine's Franchise 500*. Among the 157 firms in the sample, there were 114 exits and 43 censored cases. To avoid the problem of biased coefficients that result from censored cases, the hazard of exit was examined through Cox regression in SPSS with time-varying covariates. The cessation of franchising was modeled as the instantaneous rate of cessation. In order to consider time variation in the covariates, the data were divided into yearly spells. There are 1078 firm-year observations in the total sample.

Independent variables

Passive ownership is measured by a dummy variable in which 1 indicates that the franchisor allows passive ownership. *Cash investment* is the dollar value of the cash investment that franchisees need to make to purchase an outlet in the system. *Franchisee experience* is a dummy variable of 1 if the franchisor requires franchisees to have prior experience. *Royalty rate* is the ongoing percentage of sales (including advertising fees) that franchisees pay to the franchisor. Geographic concentration is measured as the number of outlets per state in which the franchisor is operating. *Complexity* is measured as a count of the number of different support services that the franchisor contracts to provide to the franchisee as part of the franchising package. *Master franchise agreements* is measured by a dummy variable in which 1 indicates that the franchisor uses master franchise agreements. *Contract length* is measured as the term of the franchise agreement in years. *Total investment* is the dollar value of the cost of creating a franchise outlet.

Control variables

To strengthen the empirical tests, several control variables were included. *Age* was measured as the number of years since incorporation. *Size* was measured as the total number of outlets in the franchise system. Age and size were controlled because previous research has shown that these

³ The results of these *t*-tests are omitted to conserve space, but are available from the author.

⁴ All but one of the firms that ceased to franchise also ceased to exist. Therefore, cessation of franchising and firm failure are statistically indistinguishable in this sample.

variables reduce the probability of firm failure and exit from franchising (Rao and Neilsen, 1992; Lafontaine and Shaw, 1996). Moreover, Lafontaine (1992) has shown that other terms of franchising contracts vary by firm age and size. For example, royalty rates are higher in older and larger firms since these franchise systems demand greater franchisor incentives to compensate for greater importance of the brand name relative to the importance of franchisee inputs (Lafontaine and Kaufmann, 1994). Similarly, size reduces monitoring costs because 'per unit costs of monitoring are likely to decrease as new units are formed in proximity to existing ones due to economies of scale in monitoring' (Brickley, Dark, and Weisbach, 1991: 30). Failure to control for age and size might allow other contract terms to proxy the effects of age and size and might make it difficult to obtain unbiased estimates of their effect on firm survival.

Industry was operationalized as a dummy variable for each of seven industries—Automotive Repair, Business Services, Building Cleaning and Maintenance, Employment Agencies, Retail Food, Eating Places, Non-Food Retail—for which there were new franchise systems established during the 1981–83 period, except for the other industries.⁵ Industry was controlled because it influences agency costs: Industries vary on the complexity of franchise concepts, the incentive to free ride, labor intensity, monitoring and royalty mechanisms, the appropriateness of franchising as an organizational form with which to exploit an opportunity (Michael, 1996; Norton, 1988), and economic attractiveness.⁶

⁵ Industry also was defined according to the U.S. Commerce Department's classification of franchisors as shown in the *Sourcebook of Franchise Opportunities, 1985*. This classification was used to be consistent with previous research on franchising (e.g., Lafontaine, 1992; Brickley and Dark, 1987; Lafontaine and Kaufmann, 1994). The results do not change when this alternative categorization scheme was used.

⁶ Industry is not the best measure of the economic attractiveness of the franchise. A firm-level measure of the attractiveness of the opportunity would be better. However, since all the franchise systems in this study were private companies at some time during the period of investigation, these data are not available. While the dummy variable for industry captures attractiveness at the industry level, I nevertheless recognize that part of the unexplained variance in the survival of the franchise systems might be accounted for by the fundamental economic attractiveness of the different franchise systems.

RESULTS

Table 1 shows the descriptive statistics and the correlation matrix for the variables. The table indicates that there are no problems of multicollinearity between the independent variables.

Table 2 shows the results of the Cox regression models predicting franchisor failure. Model 1 is a basic model of the industry effects on failure. It demonstrates that industry has no significant effect. To ensure that the results were not an artifact of the industry in which the dummy variable was excluded, the regressions were rerun with each of the industries excluded in turn. The results did not change.

Model 2 adds the control variables of age and size. Addition of these variables provides a significant improvement over Model 1 (chi-square = 69.28, $p < 0.0001$). Company age had a significant negative effect on new franchisor failure ($B = -0.09$, $p < 0.0001$), as did company size ($B = -0.01$, $p < 0.0003$). Moreover, these variables retain their effects and significance after the other variables are entered into the model. In Model 3, company age ($B = -0.07$, $p < 0.0008$) and company size had significant negative effects on franchise system failure ($B = -0.01$, $p < 0.0008$).

Model 3 adds the hypothesized variables. This model is a significant improvement over Model 2 (chi-square = 68.99, $p < 0.0001$), demonstrating that the inclusion of agency theoretic explanatory factors increases the predictive power of the model. The results provide support for six hypotheses. The first hypothesis was strongly supported. Permitting passive ownership has a significant positive effect on new franchisor failure ($B = 1.24$, $p < 0.0001$). The second hypothesis received support. The level of the franchisee cash investment has a significant negative effect on new franchisor failure ($B = -0.00$, $p < 0.0404$). The third hypothesis was strongly supported. The requirement that franchisees have experience has a significant negative effect on new franchisor failure ($B = -0.71$, $p < 0.0080$). The fourth hypothesis was not supported. The royalty rate has no significant effect on new franchisor failure ($B = -0.36$, $p = 0.7959$).⁷ The fifth hypothesis was

⁷ One might argue, theoretically, that the effect of the royalty rate should be curvilinear rather than linear since the royalty rate might provide an incentive to both franchisees and franchi-

supported. The degree of geographic concentration has a significant negative effect on new franchisor failure ($B = -0.02$, $p < 0.0609$). The sixth hypothesis was strongly supported. The complexity of the franchise system has a significant positive effect on new franchisor failure ($B = 0.11$, $p < 0.0219$). The seventh hypothesis received strong support. The use of master franchising has a significant positive effect on new franchise system exit ($B = 0.65$, $p < 0.0038$). The eighth hypothesis was not supported. The length of the agreement has no effect on new franchisor failure ($B = -0.00$, $p < 0.9713$). The ninth hypothesis was not supported. The level of total investment needed to open an outlet has no effect on new franchisor failure ($B = 0.00$, $p < 0.8601$).

DISCUSSION

The results of the study indicate that franchise systems founded between 1981 and 1983, which are structured to economize on agency costs, are more likely to survive than franchise systems which are not structured to economize on agency costs. This finding is important because the failure rate of franchise systems is high, with over 72 percent of the new franchise systems in the sample ceasing to franchise by 1995.

Why do new franchisors engage in policies that are problematic for survival? The results show that some of the variance in survival is explained by firm age and size. So it is possible that the age and size influence the firm to adopt the policies that inhibit its survival. Alternatively, unmeasured factors might explain the adoption of these policies. For example, new franchisors might adopt master franchising or permit passive ownership because these policies make it easier for them to attract franchisees or to obtain the financial resources necessary to grow quickly enough to reach minimum efficient scale to compete with other firms in their industries.

However, the results also suggest support for a more evolutionary view of agency cost economizing than has been posited to date in the

literature. Much of the theoretical literature (e.g., Lal, 1990) has argued that franchisors tailor agency contracts to the specific characteristics of franchisees. However, franchisors actually offer standard contracts and these contract terms are relatively stable within firms over time (Lafontaine and Shaw, 1996). Contrary to prior agency theory, this study shows that entrepreneurs do not negotiate optimal agency contract with each agent. These findings suggest that previous agency theory research is correct about the importance of efficient contracting, but incorrect about the mechanisms by which efficiency operates. At least in franchising, optimal contracts are not selected by the entrepreneur, but by the environment over time. Franchisors either do not know or do not have the ability to design optimal contracts with agents. Rather they appear to undertake organizational design experiments and the environment selects the ones that prove to be most efficient. Therefore, prior cross-sectional evidence on agency contracting in franchising should be interpreted to mean that the environment, not franchisors, selects efficient contracts.

Second, previous research on franchising has failed to control for theoretically important factors of age and size. This is problematic because Baucus *et al.* (1993) show that, in cross-sectional tests, initial investment and royalty rates are correlated with firm age and size and that all four variables might be proxies for the value of the franchise. The strong significance of the age and size variables in the results of this paper indicate that it is necessary to control for age and size to have accurate specification of a model to predict franchisor failure. While this study eliminates the criticism that previous tests of agency theory are underspecified because they failed to control for firm age and size, the nonsignificance of the royalty rate, initial investment, and contract term variables which were significant in previous research (e.g., Brickley and Dark, 1987; Brickley *et al.*, 1991; Sen, 1993) suggests that prior research absent these controls may be biased due to the proxying of age and size effects.

This is important because the results of this study were stronger for franchisee adverse selection and moral hazard than for holdup, which has traditionally been measured by the size of the franchisee's initial investment in franchisor specific assets. Although these differences with previous research might be explained by measure-

isors. However, inclusion of a royalty rate squared term did not generate a significant effect for either the royalty rate or royalty rate squared.

Table 1. Descriptive statistics and correlations of the variables

	Mean	S.D.	EXI	ROY	LEN	MAS	PAS	COM	CON	TOT	EXP	CAS	AGE	SIZ	AUT	BUS	MAI	EMP	FOO	RET	RES	OTH
EXI	0.11	0.31	1.00																			
ROY	7.00	5.00	0.04	1.00																		
LEN	13.26	13.52	-0.03	-0.17	1.00																	
MAS	0.53	0.50	0.08	0.02	-0.02	1.00																
PAS	0.23	0.42	0.13	-0.09	0.12	0.08	1.00															
COM	5.78	2.24	0.04	0.13	-0.11	-0.03	0.01	1.00														
CON	12.92	20.69	-0.08	0.08	0.04	0.04	0.05	0.06	1.00													
TOT	204.09 [†]	620.67 [†]	-0.03	-0.01	0.03	0.13	-0.09	-0.22	-0.02	1.00												
EXP	0.37	0.48	-0.12	-0.07	0.08	-0.20	-0.20	0.10	0.02	-0.06	1.00											
CAS	80.88 [†]	97.36 [†]	-0.04	-0.01	0.07	0.18	-0.07	-0.10	-0.01	0.58	-0.10	1.00										
AGE	14.16	14.35	-0.06	-0.12	-0.08	-0.11	-0.13	0.23	-0.00	-0.03	0.13	-0.00	1.00									
SIZ	122.76	325.21	-0.10	-0.04	0.19	-0.05	0.01	0.08	0.55	-0.04	0.13	-0.08	0.13	1.00								
AUT	0.04	0.20	0.02	0.10	0.00	0.01	-0.01	0.01	-0.03	-0.03	-0.05	-0.07	-0.04	-0.05	1.00							
BUS	0.20	0.38	0.04	0.13	0.08	-0.04	-0.06	0.07	-0.06	-0.11	0.11	-0.22	-0.03	0.06	-0.10	1.00						
MAI	0.04	0.20	-0.02	0.05	-0.07	-0.09	-0.09	-0.12	0.29	-0.06	0.01	-0.10	-0.04	0.35	-0.05	-0.10	1.00					
EMP	0.04	0.20	-0.06	0.13	-0.07	0.01	-0.06	0.04	-0.09	-0.06	0.07	-0.08	0.06	-0.02	-0.05	-0.11	-0.06	1.00				
FOO	0.04	0.20	-0.00	-0.16	-0.09	-0.04	0.07	-0.17	-0.08	-0.02	0.02	-0.03	-0.03	-0.04	-0.05	-0.11	-0.05	-0.06	1.00			
RET	0.41	0.49	0.02	-0.07	-0.07	-0.05	0.17	0.10	-0.06	-0.12	-0.11	-0.12	-0.02	-0.04	-0.17	-0.37	-0.18	-0.20	-0.19	1.00		
RES	0.19	0.40	-0.02	-0.06	0.14	0.14	-0.06	0.03	0.11	0.10	0.03	0.35	-0.05	-0.03	-0.10	-0.22	-0.11	-0.12	-0.12	-0.40	1.00	
OTH	0.04	0.20	-0.02	-0.08	-0.02	0.04	-0.08	-0.17	-0.05	0.55	-0.06	0.38	0.26	0.05	-0.04	-0.09	-0.04	-0.05	-0.05	-0.15	-0.09	1.00

EXI = Existence of franchise system

ROY = Royalty rate

LEN = Length of the franchise agreement

MAS = Master franchising

PAS = Passive ownership

COM = Complexity

CON = Geographic concentration

TOT = Total investment

EXP = Franchisee experience

CAS = Cash investment

[†] In thousands.

AGE = Age of the franchise system

SIZ = Size of the franchise system

AUT = Dummy variable for the auto industry

BUS = Dummy variable for the business services industry

MAI = Dummy variable for the maintenance industry

EMP = Dummy variable for the employment industry

FOO = Dummy variable for the retail food industry

RET = Dummy variable for the nonfood retail industry

RES = Dummy variable for eating establishments

OTH = Other

Table 2. Cox regressions of exit from franchising, 1984–95

Independent variables	Model 1	Model 2	Model 3
Auto Industry	0.75 (0.71)	0.95 (0.72)	-0.47 (0.89)
Business Services	0.69 (0.61)	0.88 (0.62)	-0.16 (0.82)
Maintenance	0.08 (0.76)	0.60 (0.76)	0.34 (0.93)
Employment Industry	-0.97 (0.91)	-0.33 (0.92)	-1.62 (1.08)
Retail Food	0.30 (0.71)	0.58 (0.72)	-0.44 (0.88)
Non-Food Retail	0.57 (0.60)	0.67 (0.60)	-0.62 (0.78)
Eating Places	0.27 (0.62)	0.42 (0.62)	-0.63 (0.78)
Age		-0.09*** (0.02)	-0.07*** (0.02)
Size		-0.01*** (0.00)	-0.01*** (0.00)
Passive ownership			1.24**** (0.23)
Cash investment			-0.00* (0.00)
Franchisee experience			-0.71** (0.27)
Royalty rate			-0.36 (1.40)
Geographic concentration			-0.02† (0.01)
Complexity			0.11* (0.05)
Master franchising			0.65** (0.23)
Length of agreement			-0.00 (0.01)
Total investment			0.00 (0.00)
-2 Log likelihood	1397.53	1328.25	1259.259
d.f.	7	9	18
Chi-square	9.35	34.43****	114.37****
Change in -2 log likelihood	11.24	69.28****	68.99****

**** $p < 0.0001$; *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; † $p < 0.10$; standard errors in parentheses. Two-tailed tests are used. The sample included 114 exits, 43 censored cases, and 1078 organization years.

ment error, the use of controls for age and size in this study suggests that prior agency theory evidence of holdup in franchising might be biased.

Future researchers should consider the relative importance of different agency costs on firm survival. Adverse selection and moral hazard might be more important problems than holdup in organizational design because low levels of

franchisee power make franchisee holdup rare. Alternatively, perhaps the holdup problem is influenced more directly by institutional factors (e.g., laws which govern franchise termination) than other agency problems. The effect on franchise system survival of design choices to control holdup problems may be masked more deeply by these institutional factors than the effect of design choices to control other agency problems. The

relative importance of controlling different agency costs would be a valuable area for future research.

While researchers have traditionally used agency theory to explain franchising in mature systems, previous research has failed to test agency theory explanations for franchising among new franchisors, relying instead on resource constraint theory to explain franchising among these firms (e.g., Martin and Justis, 1993). According to this theory, young companies franchise to obtain the capital and management talent necessary to achieve rapid growth, which is necessary for scale economies in advertising, purchasing, and administration (Carney and Gedajlovic, 1991). Resource constraint theory would suggest that the survival of new franchisors should be enhanced by passive ownership and master franchising since these policies make it easier to obtain capital and managerial resources from franchisees (Kaufmann and Kim, 1995). The empirical results in this study support the agency theory prediction for the effects of passive ownership and master franchising and reject the resource constraint theory prediction. This suggests that agency theory explains the survival of *new* as well as mature franchisors, allowing for a more parsimonious theoretical explanation for franchising.

In conclusion, this study has shown that new franchisors are more likely to survive if they economize on agency costs in establishing new franchise systems. This contribution is valuable because franchising is an important organizational design in retail distribution today. Moreover, it is possible that the survival of other types of organizational designs depend on environmental selection of efficient contracts. Hopefully, this study will spur further understanding of how organizational design affects firm survival. This would be valuable in an economy that is innovating its organizational designs.

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