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The logic of franchise contracts: Empirical results of Japan

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ABSTRACT

This paper examines the factors determining the choice between company-owned outlets and franchising. A number of researchers have based their studies on the data of retail contracting in the US. However, there has been little empirical analysis in the case of Japan. In this paper, we provide a comprehensive assessment of various alternative hypotheses about franchising by using Japanese data. The principal-agent model of franchising that assumes risk-sharing and moral-hazard is supported by our data.

1. Introduction

In recent years, many firms have adopted franchising as a method of doing business in a variety of industries. We can easily find franchising in the restaurant (fast-food) sector which includes such well known chains as McDonald's, KFC, and Pizza Hut among others, but it has also steadily grown in importance in the non-food retailing sector. This is especially true in Japan as evidenced by the fact that the number of convenience stores operating under franchise arrangements has rapidly grown since the 1970s. In 2007, Seven-Eleven Japan had franchised 93.3% of its 12,034 stores, Lawson had franchised 94.9% of its 8587 stores, and FamilyMart had franchised 93.1% of its 6691 stores. Seven-Eleven Japan has had the largest sales of all retail firms in Japan since 2001. On an all-store basis, in 2008, the sales of convenience stores in Japan totalled 7.86 trillion yen, which is more than the department store sales of 7.38 trillion yen. Hence, it is timely to examine the determining factors behind franchising.

Why have so many firms chosen to franchise rather than expand through company-owned outlets? A variety of factors have been shown to have significant impacts on the franchising decision.[1] Rubin (1978) first explained the choice of franchising in terms of monitoring and control within the system, drawing on the agency analysis. There have been theoretical developments in this area.[2] It has been explored that the problem of moral-hazard on the part of both the franchisor and the franchisee is essential to the specification of franchise contracts. In the principal-agent model, franchising (vertical separation) provides higher performance incentives than company-owned outlets (vertical integration) in which employees are paid a set wage not closely tied to observed performance, but also subjects agents to greater risk, which is costly. Where heightened incentives are more valuable, or their associated risk-bearing costs are lower, franchising is more profitable and more likely. On the empirical side, a number of authors have made efforts to test theoretical hypotheses about the franchisor's monitoring costs of franchisee efforts,[3] the shedding or sharing of risk involved in the operation of outlets,[4] franchisee moral-hazard,[5] and franchisor moral-hazard.[6]

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[1] For a survey of the related literature, see Lafontaine and Slade (1997, 2001, 2007), and Blair and Lafontaine (2005).

[2] For the literature in this area, see Mathewson and Winter (1985), Lal (1990), and Bhattacharyya and Lafontaine (1995).

[3] See Brickley and Dark (1987), Norton (1988), Lafontaine (1992), Scott (1995), and Affuso (2002).

[4] See Martin (1988), Norton (1988), Lafontaine (1992), Lafontaine and Bhattacharyya (1995), and Affuso (2002).

[5] See Norton (1988), Lafontaine (1992), Scott (1995), and Affuso (2002).

[6] See Rubin (1978), Lal (1990), Bhattacharyya and Lafontaine (1995), and Affuso (2002).

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Table 1
Growth in franchising from 1983 to 2007.

Year	Number of chains	Growth in number of chains	Number of outlets	Growth in number of outlets	Sales (¥million)	Growth in sales
1983	512	na	67,518	na	3,443,539	na
1984	588	14.8	86,908	28.7	3,985,910	15.8
1985	596	1.4	89,267	2.7	4,515,362	13.3
1986	617	3.5	99,579	11.6	5,160,834	14.3
1987	626	1.5	104,488	4.9	5,939,078	15.1
1988	626	0.0	113,267	8.4	6,357,701	7.0
1989	666	6.4	118,650	4.8	8,013,949	26.1
1990	680	2.1	123,365	4.0	8,857,254	10.5
1991	688	1.2	127,821	3.6	10,158,676	14.7
1992	703	2.2	131,506	2.9	10,936,852	7.7
1993	714	1.6	139,788	6.3	11,421,647	4.4
1994	734	2.8	146,045	4.5	12,254,036	7.3
1995	755	2.9	158,223	8.3	13,058,716	6.6
1996	803	6.4	177,196	12.0	14,181,817	8.6
1997	890	10.8	189,556	7.0	15,175,989	7.0
1998	923	3.7	192,450	1.5	16,190,025	6.7
1999	968	4.9	195,335	1.5	16,585,846	2.4
2000	1048	8.3	205,609	5.3	16,871,437	1.7
2001	1049	0.1	209,980	2.1	16,996,271	0.7
2002	1063	1.3	215,710	2.7	17,368,873	2.2
2003	1074	1.0	220,710	2.3	17,868,851	2.9
2004	1088	1.3	225,957	2.4	18,722,286	4.8
2005	1146	5.3	234,489	3.8	19,388,888	3.6
2006	1194	4.2	235,440	0.4	19,603,579	1.1
2007	1246	4.4	235,686	0.1	20,303,777	3.6

Source: Statistics issued by the Japan Franchise Association.

The literature gives a number of other explanations for franchising such as, raising capital for expansion (Caves and Murphy, 1976), signaling of business quality (Gallini and Lutz, 1992; Lafontaine, 1993), and free-rider issues for franchisees (Brickley and Dark, 1987; Norton, 1988). Lafontaine (1992) uses a large sample of franchisors to provide an assessment of various hypotheses on franchising, including risk-sharing, and both franchisee and franchisor moral-hazard.

Much of the existing empirical analysis has been done using North American data; however, franchising has also developed in other countries, including Japan. Hence, it is necessary to provide a comparative work that assesses the robustness of the empirical results in other geographic areas. The purpose of this paper is thus to extend empirical work to Japan. First, we attempt to test a similar empirical model with Lafontaine (1992), using our Japanese data. Next, we add two hypotheses on signaling and free-riding to the original model. The contribution of this paper lies in its attempt for providing a comprehensive empirical assessment of various alternative hypotheses about Japanese franchising, which has not previously been studied.

We employ firm-level data for 572 franchisors involved in 33 industry sectors in Japan in 2002, including retailing (convenience stores, supermarkets, medicines/cosmetics, etc.), services (dry cleaning, hair salon/health and beauty, real estate agencies, etc.), and restaurants. This was obtained from the annual publication *Nihon no Franchise Chain 2003* (Japanese Franchise Chain, 2003) published by Shogyokai. The data was collected through a questionnaire mailed to franchise chains by Shogyokai.

The main results obtained from our empirical analysis are as follows. First, the agency-theoretic model that assumes risk-sharing and double-sided moral-hazard is supported by our data. Second, the traditional capital explanation for franchising is not empirically supported by our data. Those are consistent with previous results based on the US data. Third, factors such as signaling of business quality and franchisee free-riding significantly affect franchisor decisions to use franchising. This is interesting because previous empirical studies do not support these hypotheses.

The rest of the paper is organized as follows. Section 2 describes some characteristics of franchising in Japan. Section 3 discusses the literature and hypotheses. Section 4 details the data and variables for the study. In Section 5, we show our methodology and results. We conclude our study in Section 6.

2. Background—franchising in Japan

According to statistics issued by the Japan Franchise Association, business-format franchising accounted for a market size of about 20.3 trillion yen (US$177 billion) in Japan in 2007. At this time, there were 1246 franchise chains operating in Japan, of which 340 operated in retail, 366 in services, and the remaining 540 in the restaurant sector. The total number of franchise outlets was about 236,000, of which 85,000 were in retail, 95,000 in services, and the remaining 56,000 in the restaurant sector. Including sales in the traditional franchising sector (which is comprised largely of new car dealerships and gasoline stations), it is estimated that franchising accounted for around 34% total retail sales in Japan in 2007.

In what follows, we can see an overview of franchise development in Japan over the past 25 years. As for business-format franchising, we can obtain the number of chains over recent years using statistics issued by the Japan Franchise Association, and calculate the growth in the figures. Table 1 shows the growth in the number of chains, the number of outlets, and the total sales of franchise chains from 1983 to 2007 in Japan. Looking at this table, we notice that the number of chains, the number of outlets, and the total sales all show a growth trend. Actually, investigating the relationships between these variables, the correlation between the number of chains and the number of outlets is 0.98, and the correlation between the number of chains and total sales is 0.96.

Table 2 illustrates that franchising occurs in a wide variety of retailing, service and restaurant industries in Japanese economy. It shows the number of chains, the number of outlets, and total sales for each sector in Japan in 2006. Viewed as three large categories, restaurants have the greatest number of chains, while retailing has the greatest number of outlets and total sales. In the retailing