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Should Franchise Restaurant Companies Own So Much Real Estate?

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A B S T R A C T

This paper examines the performance effects of corporate real estate (CRE) ownership for franchise restaurant companies. Although several studies have investigated the performance effects of franchise firms (Leleux et al., 2003; Aliouche and Schlentrich, 2009; Hsu and Jang, 2009; Madanoglu et al., 2011; Aliouche, Kaen and Schlentrich, 2012), no previous study has focused on the performance effects of corporate real estate ownership on franchise restaurant companies. McDonald's was one of the earliest of companies that have extensively used CRE as a source of strategic advantage and as a way to reduce the agency costs associated with franchising. As retail companies seek to assemble valuable CRE portfolios that can generate sustainable competitive advantages, inferior or inefficient locations can significantly undermine their long-term financial performance. Furthermore, the existing franchise research has largely ignored the danger of over-exposure of real estate risk, as highlighted by the most recent global financial crisis. For these reasons and more, CRE ownership has the potential to significantly impact the performance of franchise restaurant companies and this paper seeks to fill this gap in franchise literature. By testing the effect of CRE ownership level on abnormal returns (Jensen's alpha) and systematic risk (beta) of public franchise restaurant companies, we find that the CRE level has a significantly negative impact on the abnormal returns and significantly positive impact on the systematic risk of franchise restaurant firms, as well as restaurants in general. Considering that non-franchise companies have higher average levels of CRE ownership, this study provides a partial explanation as to the outperformance of franchise restaurant companies compared to non-franchise restaurant companies.

Keywords: Franchises; Franchise Performance; Corporate Real Estate

Ⅰ. Introduction

Ever since McDonalds began franchising in the 1950s, interest relating to franchising has grown enormously and gained popularity as a practical form of business. The advantage of the franchising format is that firms can combine the benefits of large-scale brand recognition, product uniformity and organizational design, along with the retailing efforts and incentives of local owners (Klein, 1995). According to "Franchise Business Economic Outlook 2015," an annual study conducted by the International Franchising Association, more than 781,000 franchised businesses generate a total economic output of more than $889 billion, or over 5 percent of the U.S. GDP. Combining both direct and indirect job activity, franchising generates one out of every seven jobs in the private sector, or nearly 14 percent of the nation's private-sector employment.

The exceptional growth of franchising businesses in recent decades has also drawn substantial research interest.

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Why do companies franchise? One main theory proposed in the franchise literature is the resource scarcity theory: franchising is designed to provide franchisors with the resources necessary to accelerate growth to reach minimum efficient scale and build brand name capital (Oxenfeldt and Kelly, 1968; Hunt, 1973; Caves and Murphy, 1976). According to this theory, rather than financing growth through internally generated capital, companies choose to franchise as means of raising capital from the franchisees to support rapid expansion. Furthermore, this theory states that companies that seek to grow faster would tend to franchise more. Unlike a company-owned outlet, a franchised unit is operated by a franchisee that pays franchise and royalty fees to the franchisor while investing fixed assets into the unit (Lafontaine & Kaufmann, 1994). Therefore, the franchise form relieves the franchisor of the need to raise capital for growth and expansion (Mcguire & Staelin, 1983).

The other main theoretical approach in explaining why companies franchise is the agency cost theory: franchising provides for an efficient form of organization when the marginal cost of monitoring is greater than the marginal cost of undertaking a franchise agreement (Rubin, 1978; Brickley and Dark, 1987). According to this theory, franchising substitutes powerful ownership incentives for the costly monitoring that would otherwise be necessary with employee managers (Rubin, 1978). Since franchisees usually make substantial investments in their units and the unit level profit depends on franchisees' continued best efforts, companies choose to franchise to alleviate their need for costly monitoring (Fama and Jensen, 1983; Norton, 1988). Particularly, as the franchisor expands into rural or unfamiliar markets (Minkler, 1992), agency theory anticipates increased reliance on franchising (Lafontaine and Kaufmann, 1994). However, although firm and unit level incentives may be better aligned through franchising than through company ownership, they are still only imperfectly aligned since franchisors benefit from system-wide sales while franchisees benefit from unit level profit (Shane, 1998). Therefore, agency theory acknowledges both the benefits (reduction in monitoring costs) and the costs (free riding) of franchising. Many studies have drawn from both of these theories to identify the rationale and motivation of firms to franchise: lower agency costs, greater access to capital, better alignment of incentives, and superior local market knowledge (Combs and Ketchen, 1999; Combs et al., 2004; Castrogiovanni et al., 2006).

What is less well-established in literature, however, is the performance effects of franchising. Does it pay to franchise? The main reason for the lack of research in this area is due to limited availability of performance data, since a large majority of franchising firms are privately held companies. Despite this limitation, several studies have used publicly available information to research the performance effects of franchising compared to their non-franchising counterparts (Roh, 2002; Leleux et al., 2003; Hsu and Jang, 2009; Aliouche and Schlentrich, 2009). The results from these studies show mixed results; however, the most recent studies reveal strong evidence that franchising produces superior financial performance compared to non-franchising companies, particularly in the restaurant industry (Madanoglu et al., 2011; Aliouche et al., 2012).

This paper extends the franchising performance literature by examining the effects of corporate real estate (CRE) ownership on the financial performances of franchise restaurant companies. This topic is relevant for at least four reasons: first, not only was McDonald's a pioneer in the franchise industry, but also was one of the earliest of companies that have used CRE as a source of strategic advantage and as a way to reduce the agency costs associated with franchising. Second, CRE is closely linked to the business strategy of companies in the retail sector (Gibson and Barkham, 2001). From corporate strategy perspective, the ultimate goal of a company is achieving sustainable competitive advantage through long-term build up of firm-specific resources that are distinctive and difficult to imitate (Barney, 1991; Amit and Schoemaker, 1993). As retail companies seek to assemble valuable CRE portfolios that can generate sustainable competitive advantages, inferior or inefficient locations can significantly undermine their long-term financial performance. Third, portfolio theory suggests that if real estate assets have a different risk profile than that of the operating business, then CRE should provide diversification benefit to firms with significant property holdings. Fourth, the existing franchise research has largely ignored the danger of over-exposure of real estate risk, as highlighted by the most recent global financial crisis. According to Tuzel (2010), real estate risk is likely to be systematic, and CRE investment is riskier than investment in other types of capital for the firm due to slow depreciation of real estate. Therefore, firms with

high real estate holdings are hurt more during recessions (Tuzel, 2010). For these reasons, CRE ownership has the potential to significantly impact the performance of franchise restaurant companies.

The primary goal of this paper is to examine the relationship between CRE ownership levels and the performance of franchise restaurant companies, and to fill a gap in franchise performance literature. This study is organized as follows: the first section reviews the literature on the financial performance of franchise firms; the second section describes the data and the methodology; the third section presents the results and analyzes the findings; the last section discusses the limitations and concludes.

Ⅱ. Literature Review

A. Financial Performance of Franchises

As previously described, within the franchising literature, there are two widely-accepted theories on why firms franchise: resource scarcity theory and agency theory. Combs et al., 2004 and Castrogiovanni et al., 2006, have done comprehensive reviews of literature in this area. The primary focus of this paper is is to add to a growing subset of franchise literature which examines whether the economic motivations behind franchising translate into better financial performance. There are two types of research inquiries within the existing franchising performance literature: first, comparing various measures of financial performance between franchising and non-franchising firms, and second, using the proportion of franchise versus company-owned units as a significant predictor of firm financial performance.

In Roh (2002), the author argued that a better risk-return tradeoff exists for franchises because royalties received from a unit has less variance over time than the revenues and profits of that unit. Furthermore, a firm-owned unit requires capital investment by the firm, which increases the firm's leverage and risk. Using data from publicly listed restaurant firms, Roh demonstrated the that firms with higher franchising propensity indeed had lower variation in operating cash flows. Michael (2002) provided evidence that firms that chose to franchise early acquired market share at faster rate, which produced better financial results compared to non-franchising firms. In Leleux et al. (2003) the authors compared the financial performance of publicly listed franchises in the US to the performance of SP 500 over the period of 1990 to 1999. The authors found that franchising firms had higher cumulative shareholder returns than the SP500 index for nine out of ten years of their study. In Srinivasan (2006), the author investigated the effect of franchising propensity on firms' Tobin's Q, a performance measurement variable. The results were mixed among different groupings within franchising and non-franchising firms.

In Vazquez (2007), the author used a misalignment measure based on the deviation from optimal franchising propensity as the predictor of firm performance. From the study, the author showed that misalignment had a negative relationship with sales growth per unit and a positive relationship with percentage of units discontinued. From these results, the author argued that franchising propensity may not have a direct effect on performance. Aliouche and Schlentrich (2009) compared franchising and non-franchising restaurant firms based on market value added (MVA), economic value added (EVA), return on equity, and shareholder returns measures. Based on their EVA and MVA analyses, the authors found some evidence that US franchise restaurant firms had higher levels of EVAs and MVAs compared to non-franchise restaurants. Hsu and Jang (2009) examined the performances of franchising and non-franchising restaurant firms over the years 1996–2005 using Return on Assets, Return on Equity, and Tobin's Q as performance variables. The results showed better performance for franchising firms for all three variables. However, franchising firms did not have a higher Tobin's Q value when controlling for firm size, leverage, advertising, and return on assets. Perrigot (2009) used 123 franchising firms in the hotel and restaurant industries to assess the effect of franchising propensity on worldwide sales. His results indicated that firms with higher franchising propensity have higher worldwide sales.

More recently, in Madanoglu et al. (2011), the authors compared the risk-adjusted financial performance of high franchising firms (over 50% franchising or more) versus non-franchising restaurant firms over the 1995–2008 period, using five different variables: Sharpe Ratio, Treynor Ratio, Jensen's Alpha, Sortino Ratio, and Upside Potential Ratio. The results showed that in each measure, high franchising restaurant firms outperformed their

non-franchising counterparts. In Aliouche et al., (2012), the authors investigated risk-adjusted performance of franchise firms over an extended period of 1990-2008 using three different market benchmarks (S&P 500, Russell 2000, and CRSP Index) and two different performance metrics (Sharpe Ratio and Jensens' Alpha). The results showed that the portfolio of all active US-based publicly traded franchise firms outperformed the benchmark market indices on a risk-adjusted basis from 1990 through 2008. In particular, the restaurant firms not only outperformed the market indices, but also had the lowest risk (beta of 0.78) among franchise firms. In Madanoglu et al. (2013), the authors compared risk-adjusted performance of franchising *vs*. non-franchising restaurant firms. The authors considered the Sharpe ratio, the Treynor ratio, the Jensen index, the Sortino ratio, and the upside potential ratio as measures of firm financial performance, and all five measures showed that franchising firms outperformed their non-franchising counterparts.

B. Corporate Real Estate and Firm Performance

Corporate real estate (CRE) refers to tangible fixed assets that firms own for operational purposes such as land and buildings. The beginning of CRE research began in the early 1980s when researchers began to notice the significant levels of CRE ownership among companies (Zeckhauser and Silverman, 1983; Veale, 1989; Currie and Scott, 1991). Zeckhauser and Silverman (1983) showed that property represented approximately 25 to 40 percent of total corporate assets in the USA. Several studies have empirically investigated the effects of such high levels of CRE ownership by companies on their firm performance. In Cheong and Kim (1997), the authors examined the relationship between the rise in real estate prices and the return on investment among firms in Korea. The results based on a yearly cross-sectional test for the period of 1987-1991 showed that the percentage of CRE holdings had no significant impact upon on the return on investment.

In Deng and Gyourko (2000), the authors analyzed non-real estate industries for the period 1984-1993 and showed that high CRE ownership levels were linked with negative performance for firms with high betas. Meanwhile, in Seiler et al. (2001) the authors reasoned that since real estate has a different risk profile from that of the core operating business, there could exist potential diversification benefits of CRE ownership. The authors tested for the effects of CRE ownership on the firm's systematic risk (beta) and risk-adjusted returns based on a broad sample of 80 firms from 1985 to 1994. Contrary to expectations, results indicated no significant evidence of diversification benefits of owning high levels of CRE.

In response to the need for more industry level research, Brounen and Eichholtz (2005) looked at the effects of CRE ownership on the risk and return characteristics of public companies using a sample of 5,109 companies from 20 industries based in nine countries during the period of 1990-2000. The authors discovered that the effects were sector specific: the retail industry was more likely to have a closer connection and impact from CRE than other industries.

More recently, Tuzel (2010) explored the connection between CRE and stock returns and found that returns of firms with a high share of CRE exceed that of low real estate firms by 3–6% annually, adjusted for market return, size, value, and momentum factors. The author also found that real estate risk is systematic, and because real estate as a capital base depreciates more slowly than other types of capital, firms with high levels of CRE are more vulnerable to bad productivity shocks and therefore are riskier (Tuzel, 2010).

Ⅲ. Research Design

The research motivation behind our study is based on the intersection of the CRE literature and the franchise literature, to examine whether CRE ownership level could be a significant variable in explaining the performance differences between franchise and non-franchise restaurant firms. As evidenced by the results from Brounen and Eichholtz (2005), CRE is undoubtedly closely linked to the business strategy of companies in the retail sector (Gibson and Barkham, 2001). Because locations that can provide superior access to customers are highly valuable and desirable, firms have strong motivation to secure these places through ownership rather than leasing (Nourse, 1990); otherwise, the economic profit will

ultimately pass on to the actual owner of the resource through increased rents. Especially due to high customer switching costs, companies desire to control the value generated by good locations for an extended period of time. Furthermore, because real estate is heterogeneous, the process of accumulating a good portfolio of retail CRE is time-consuming and complex; this "lumpy" process creates a barrier against easy or quick imitation by new competitors, and therefore, a good set of retail CRE can create competitive advantage that can lead to long-term superior financial performance. On the other hand, a lack of CRE ownership undermines the sustainability of competitive advantage. Therefore, CRE ownership should have a significant relationship with the performance of retail companies.

Theoretically, there are several reasons why CRE would be significantly related to the business strategy of franchise companies, in particular. First, under the resource scarcity theory, Oxenfeldt and Kelly (1968) proposed that firms prefer wholly-owned operations to franchising because they can expect higher rates of return from company-owned units. However, the lack of sufficient internally-generated resources to expand rapidly pressures companies to franchise. Therefore, small, growing firms will use franchising to expand until they reach sufficient economics of scale. When firms begin to generate sufficient capital internally, franchisors will turn attention to maximizing each unit's returns by discontinuing franchising at some point and repurchasing its most profitable units from franchisees until the franchise system becomes a company-owned chain. CRE is relevant to the resource scarcity theory because the CRE ownership strategy used by retail companies conflicts with the rapid growth motivation underlying the use of the franchise form under this theory. As mentioned previously, while franchise companies may seek to gain short to mid-term growth and performance advantage over competitors through rapid expansion. The CRE ownership strategy seeks to create sustainable long-term performance through the creation of advantageous CRE portfolios that generate barriers to entry. As such, without an effective CRE strategy, the growth and performance of franchises will most likely become unsustainable. Therefore, the question of "who owns and controls the underlying real estate for franchisees" is a critical question for the long-term success of franchisors.

Furthermore, the resource scarcity theory states that once the franchisor reaches sufficient size, it will seeks to maximize each unit's returns by attempting to repurchase the most profitable franchise units; however, this strategic redirection by the franchising firm may not necessarily occur if the franchisor has ownership or control over the underlying real estate of the franchisee units. In fact, the profits of each franchise unit can be indirectly accessed through rent increases by the franchisor, which can provide more stable cash flow and a better risk-return tradeoff than unit level profits. This additional stream of profit generation through CRE ownership allows franchisors to have diversification of income, and since real estate has low correlation with common stocks, companies with a high level of CRE should theoretically receive diversification benefits from owning real estate. Therefore, CRE ownership strategy could provide an explanation for firm behaviors that resource scarcity theory alone could not provide.

Moreover, CRE can also influence the agency cost theory of franchising. Studies suggest that the ownership of local assets, including CRE, can affect the agency and incentive structures of the forms of franchises (Lutz, 1995). In other words, franchisors can reduce the agency costs associated with monitoring franchisees through the ownership and control over the underlying real estate. Even though the franchise agreement is designed to control the behavior and quality standards of the franchisees, it is imperfect at best to align the interests of franchisors and franchisees. A better alignment can be achieved through the combination of the franchise agreement and the lease agreement which can ensure greater compliance by the franchisees.

The evidence for the strategic importance of CRE in the franchising industry can be illustrated by the following: research into the current real estate control structure among franchises reveal the industry awareness of the importance of CRE. Franchising information is not easily attainable, especially for non-publicly traded companies, but research data on top 50 restaurant franchise brands by number of units indicate that 70% of these top franchisors currently operate by owning or controlling the CRE of their franchise units. This data reveals the existing awareness by the franchising industry on the strategic importance of CRE ownership and control.

This awareness is prominently illustrated by McDonald's, one of the earliest franchise companies that have used CRE strategically to reduce agency costs of

monitoring franchisees while diversifying sources of income. According to the book Behind the Golden Arches (Love, 1986), the key to the long-term success of McDonalds is rooted in its ownership of the land and the real estate that their franchisees sit on. The ownership of the underlying CRE offers McDonald's continuing share in the success of its franchisees through increased rents, while maintaining the control necessary to compel franchisees to conform to McDonald's quality standards.

Based on these reasons, this paper's proposition is that:

P1. There would be a significant relationship between the percentage of CRE ownership levels and systematic risk/excess returns within the franchise restaurant industry.

Ⅳ. Data Description

A listing of top 500 franchises is published by Entrepreneur each year via a survey and verified with Uniform Franchise Offering Circular. However, most of these franchises are private and returns and balance sheet data are not readily available. We therefore turned to publicly listed franchises as they are required to report their balance sheet and income statement information. The sample consists of companies that are in the Standard and Poor's Compustat database having a primary Standard Industry Classification (SIC) code of 5812 between the years 2003 to 2012. This ten year sample period was divided into two sub-periods of five years each, from 2003 to 2007 and 2008 to 2012 for two reasons: first, this division allows for examination of the impact of the global financial crisis in 2008, and second, since the standard in the finance literature for estimating stable betas is at least 60 months of consecutive monthly returns data.

As long as a company was publicly listed for the entirety of either of the two sub-periods with no missing variables for the analysis, it was included in this study. This process resulted in the following sample sizes for the two sub-periods: 48 firms for the period 2003 to 2007 and 39 firms for the period 2008 to 2012. Following variables were retrieved from the balance sheets: Total Assets, Net Property Plant and Equipment (PPE), Long Term Debt and Year End Market Capitalization. Monthly stock returns were obtained from the Center for Research in Security Prices (CRSP). The CRSP Index's equal-weighted return on the S&P 500 was used as a proxy for market return and 3 month treasury bills were used as a proxy for risk free rate of return.

A major limitation in franchise research is that there is no central public depository of public franchise information. With the help from a private research company (FranData) and by reviewing the annual 10-K filings, a complete listing of franchise restaurant companies was identified from the sample for both sub-periods. In the first sub-period, 24 out of 48 firms were franchise restaurant companies while in the second sub-period, 25 out of 39 firms were franchises.

To quantify the relative CRE ownership, we constructed a corporate real estate percentage (CREP) figure by dividing the book values of a company's Net property, plant and equipment (PPE) by its Total Assets:

$$\text{CREP (\%)} = \frac{\text{Net PPE}}{\text{Total Assets}}$$

This figure was then multiplied by 100 to have a value between 0 and 100. Since it is widely believed in the field of finance that firm size and leverage can impact a firm's stock performance and systematic risk, these variables were also prepared to be included in the research. Leverage is computed as the ratio between long-term debt and total market capitalization as was used by Brounen and Eichholtz (2005).

$$\text{LEVERAGE} = \frac{\text{Long Term Debt}}{\text{Market Capitalization}}$$

The natural log of the year-end market capitalization was used as the proxy for firm size (SIZE).

Ⅴ. Methodology

A. First-stage regression: stock returns

As a first step in examining the effect that the percentage

of real asset holdings has on the firm's systematic risk, a single index model was used to quantify both the historic return and risk characteristics, following the equation:

$$R_{i,t} - Rf_t = \alpha_{i,t} + \beta e_{i,t}(Rm_t - Rf_t) + \varepsilon$$

$R_{i,t}$ denotes the total stock return of firm i over period t, which in the current case is monthly. Rf_t represents the risk-free rate of return over period t, and the return of a 3 month treasury bill was used as a proxy. Rm_t is the market return over period t and is calculated using the equal-weighted monthly returns on the S&P 500 index. $\beta e_{i,t}$ represents the systematic risk and is the sensitivity of the return for firm i to the movements in the market during the same period. $\alpha_{i,t}$ is the intercept in the regression of stock excess returns on the market excess returns.

B. Second stage regressions: impact of CREP on Alpha and Beta

As the second step in our analysis, the hypothesis concerning the relationship between CRE levels and systematic risk (beta) and excess returns (Jensen's alpha) are tested using two-stage least squares (2SLS) regression models. In order to examine the effect that the percentage of real asset holdings has on excess returns, a regression is estimated based on the following equation:

$$\alpha_{i,t} = \alpha_0 + \alpha_1 \hat{CREP}_{i,t} + \alpha_2 LEVERAGE + \alpha_3 SIZE + \epsilon_t$$

This equation relates a firm's excess return (alpha) to the corresponding CREP, firm leverage (LEVERAGE), and firm size (SIZE). Instead of using the observed CREPs, this model uses predicted (instrument variable) CREP from a reduced form equation. This step in the model is similar to the ones used in Seiler et al. (2001) and Brounen and Eichholtz (2005), and regresses CREP on a constant, the lagged CREP, company size, and firm leverage. This procedure eliminates potential recursivity, multicollinearity, and/or simultaneity bias that exist between leverage and CREP. In order to examine the effect that the percentage of real asset holdings has on the systematic risk (beta) of the firm, the same regression model is used with *i,t* as the dependent variable.

Table 1

ALL RESTAURANTS (AVERAGES)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Market Value (millions)	1717.3	2244.2	2358.5	2834.5	2947.4	2767.5	2984.4	3755.3	4737.3	4760.6
Standard Deviation	5054.9	6749.0	7031.0	8884.3	10780.2	10891.4	10723.3	13026.3	16576.4	15139.3
Leverage (LTD/LTA)	18.6%	19.9%	18.3%	19.8%	24.4%	37.7%	33.4%	31.6%	30.2%	30.4%
Standard Deviation	17.2%	20.2%	20.0%	20.4%	23.3%	58.2%	52.7%	49.7%	47.9%	50.8%
CREP (PPE/TA)	68.5%	66.5%	65.8%	67.0%	66.5%	61.2%	60.0%	57.4%	56.3%	54.2%
Standard Deviation	16.5%	16.5%	17.4%	16.7%	18.9%	21.9%	21.5%	21.1%	21.1%	21.0%
Revenue Growth Rate (5 years)					11.5%					3.0%
FRANCHISES (AVERAGES)										
Market Value (millions)	2,533.7	3,230.7	3,342.1	4,063.9	4,826.0	3,826.2	3,881.9	4,783.1	5,922.1	5,586.8
Standard Deviation	6,960.7	9,073.3	9,426.1	11,772.3	15,185.7	13,948.2	13,584.7	16,483.1	20,814.3	18,241.6
Leverage (LTD/LTA)	20.2%	24.6%	21.2%	23.1%	29.4%	46.0%	42.3%	40.4%	37.5%	38.7%
Standard Deviation	14.4%	22.4%	22.3%	21.5%	25.7%	72.1%	65.5	61.3%	58.7%	62.5%
CREP (PPE/TA)	64.2%	63.4%	63.6%	64.9%	63.6%	58.0%	56.9	54.2%	54.1%	53.3%
Standard Deviation	19.7%	20.6%	21.0%	19.9%	21.9%	24.0%	23.4	22.3%	22.7%	22.7%
Revenue Growth Rate (5 years)					10.9%					1.1%
NON-FRANCHISES (AVERAGES)										
Average Market Value (millions)	1002.9	1381.0	1497.9	1758.0	13.0	1210.7	1664.6	2243.8	2995.0	3545.6
Standard Deviation	2368.5	3726.1	3956.4	5282.0	39.7	2796.3	3838.4	4816.5	6988.6	9249.6
Average Leverage (LTD/LTA)	17.1%	15.8%	15.8%	16.9%	20.0%	25.5%	20.3%	18.5%	19.5%	18.3%
Standard Deviation	19.5%	17.5%	17.8%	19.5%	20.5%	24.4%	19.8%	19.9%	22.5%	22.1%
Average CREP (PPE/TA)	72.3%	69.3%	67.6%	68.8%	69.1%	66.0%	64.5%	62.1%	59.5%	55.5%
Standard Deviation	12.4%	11.7%	13.8%	13.6%	15.9%	18.1%	18.1%	18.8%	18.6%	18.9%
Revenue Growth Rate (5 years)					12.0%					5.7%

VI. Results

As an initial investigation into the performance effects of CRE on franchise restaurant companies, we summarized the descriptive trends of CRE ownership percentage, leverage, and market value and revenue growth rates in Table 1. Because of the vast size of one franchise company, McDonald's, the franchise averages were prepared with and without McDonald's to gain a better understanding of the trends. The restaurant industry as a whole has experienced tremendous growth in market capitalization between 2003 and 2012. The restaurant industry experienced annual growth rate of 12% in average market capitalization during these years. On average, franchises have a much higher market capitalization than non-franchises, although this gap has steadily declined.

The average level of corporate real estate as a percentage of total assets has steadily declined for the last ten years, and what started out at average CREP of 68.5% in 2003 has reached 54.2% in 2012. Between the franchises and non-franchises, the CREP is higher on average for non-franchises than for franchises. The importance of CRE for this industry is seen from the fact that restaurant companies invest 60% to 70% of their total assets into PPE. This high level also implies vulnerability and over-exposure to real estate risk for these companies and as a result of the financial crisis in 2007-2008, there is sudden 5% decrease in CREP from 2007 to 2008.

In the first set of regressions, we used the entire sample set of restaurants without regard to franchise or non-franchise distinction. The results for both sub-periods are as follows:

During the years 2003 to 2007, CREP was significantly negatively related to Jensen's alpha for the whole sample. CREP was also significantly positively related to systematic risk (beta) for these firms. During years 2008 to 2012, once again, CREP was significantly negatively related to Jensen's alpha for the whole sample. One the other hand, only leverage was significantly positively related to systematic risk of these firms during this period.

In the second set of regressions, we investigated only the franchise restaurants during these two sub-periods. The results are as follows:

As for the franchise only sample, CREP was once again significantly negatively related to Jensen's alpha during the years 2003 to 2007, and then significantly positively related to systematic risk (beta) during the years 2008 to 2012.

These results as a whole indicate the significantly negative impact of CRE ownership on restaurants and franchise restaurants performances. Not only does CRE ownership dampen the returns, it increases the risk of restaurant firms. Another insight we noticed was that

Table 2

Regression results with Alpha as the dependent variable

Independent Variables	Years 2003 to 2007	Years 2008-2012
Constant		
CREP	-0.303**	-0.298**
SIZE	-0.045	0.077
LEVERAGE	0.226	0.152
Adjusted R^2	0.089	0.1

Regression results with Beta as the dependent variable

Independent Variables	Years 2003 to 2007	Years 2008-2012
Constant		
CREP	0.297**	-0.019
SIZE	0.127	-0.222
LEVERAGE	-0.191	0.304*
Adjusted R^2	0.12	0.1

* significant at 90%
** significant at 95%

Table 3

Regression results with Alpha as the dependent variable

Independent Variables	Years 2003 to 2007	Years 2008-2012
Constant		
CREP	-0.418**	-0.072
SIZE	-0.234	0.006**
LEVERAGE	-0.273	0.585
Adjusted R^2	0.17	0.30

Regression results with Beta as the dependent variable

Independent Variables	Years 2003 to 2007	Years 2008-2012
Constant		
CREP	0.098	0.368**
SIZE	-0.79	-0.163
LEVERAGE	0.534***	0.738***
Adjusted R^2	0.19	0.39

* significant at 90%
** significant at 95%
*** significant at 99%

adjusted R^2 was much higher for franchise only regressions. Instead of diversifying the risk profile of restaurant businesses, CRE ownership actually increases the overall risk of these firms. These results are in contrast to modern portfolio theory which suggests that if real estate assets have a different risk profile than that of the operating business, then CRE could provide diversification benefit to firms with significant property holdings.

Although firms may have compelling strategic reasons to own high levels of CRE, these results show that inefficient and inferior investments into CRE negatively impact their financial performance. The growing awareness of these issues is evidenced by the downward trend of the average level of corporate real estate as a percentage of total assets during the last ten years among restaurant firms. Despite this potential performance-dampening effect of CRE on franchise restaurants, the recent study by Aliouche et al., (2012) show clear outperformance of franchise restaurant companies compared to non-franchise restaurants. Considering that non-franchise restaurant companies have higher average levels of CRE ownership than franchise restaurant companies, our study provides a potential explanation for the outperformance of these franchise companies.

Lastly, the existing franchise research has largely ignored the danger of over-exposure of real estate risk, as highlighted by the most recent global financial crisis. According to Tuzel (2010), real estate risk is likely to be systematic, and CRE investment is riskier than investment in other types of capital for the firm, due to the slow depreciation of real estate. Therefore, firms with high real estate holdings are hurt more during recessions (Tuzel, 2010). Our results support the view that high levels of CRE investment increases the risk of franchise restaurant firms.

Ⅶ. Conclusions and Limitations

Recent studies in franchise performance literature have shown that franchising produces superior financial performance compared to non-franchising companies, particularly in the restaurant industry (Madanoglu et al., 2011, 2013; Aliouche et al., 2012). The researchers have attributed this superior performance on the business format choice between franchising versus non-franchising. One area of franchise study that has not been researched previously is the impact and the importance of CRE ownership on the performance of restaurant companies, and franchise restaurant companies in particular. Theoretically, CRE ownership is important because firms

have strong motivation to secure locations that can provide superior access to customers and firms (Nourse, 1990). Especially because real estate is heterogeneous, the process of accumulating a good portfolio of retail CRE is complex and requires significant investment of resources. Therefore, if done well, a good set of retail CRE can create a competitive advantage that can lead to long-term superior financial performance, while a lack of CRE ownership strategy undermines the sustainability of competitive advantage.

There are two ways in which CRE impacts previously established franchise theories. First, CRE ownership strategy provides an explanation as to why franchisors may not seek to repurchase the most profitable franchise units as predicted by the resources scarcity theory. If the franchisor has ownership or control over the underlying real estate of the franchisee units, the profits of each franchise unit can be indirectly accessed through rent increases by the franchisor. The stream of profit generation through CRE ownership allows franchisors to have diversification of income, and since real estate has low correlation with common stocks, companies with a high level of CRE should theoretically receive diversification benefits from owning real estate. However, depending on the riskiness of the CRE market compared to the business risk of the companies, firms with high real estate holdings could also be hurt more during recessions, and the diversification benefit would be outweighed by the exposure to higher risk. Second, CRE ownership influences the agency cost theory through the ownership of local assets, which affects agency and incentive structures of the forms of franchises (Lutz, 1995). In other words, franchisors can reduce the agency costs associated with monitoring franchisees through the ownership and control over the underlying real estate.

Our study tested the effects of CRE ownership on the excess returns and systematic risk of publicly listed franchise and non-franchise restaurant companies using a two-stage regression method. The results revealed the following: unlike what the modern portfolio theory suggested, CRE ownership variable was significantly negatively related to Jensen's alpha and significantly positively related to the systematic risk for franchise restaurant firms. The results showed evidence to support Tuzel (2010), that real estate risk is systematic and that firms with high CRE ownership levels are more negatively affected during recessions. The growing awareness of the riskiness of CRE ownership was highlighted by the downward trend of the average levels of CRE among restaurant firms during the last ten years. Since CRE is significantly negatively related to firm performance, the fact that non-franchise restaurant companies own higher levels of CRE compared to franchise companies provided an added explanation as to why recent studies have shown superior performances by franchises.

The primary implication from this study is that CRE strategy is significantly related to the performances of both franchise and non-franchise restaurants. Although CRE ownership is critical for the long-term success of these firms, there is a need for restaurant firms to balance between the CRE strategy and the risk of owning inefficient or overly high levels of CRE. The limitation of this study is that the results are based on a small sample of public franchise companies and the findings may not be generalized into private franchise situations, especially when the franchise industry is dominated by private companies. Furthermore, omitted variable bias is present as evidenced by the low R-square values. Nevertheless, this study demonstrates the significance of CRE for franchise restaurants and the need for further research into the link between franchise performance, CRE strategies, and the riskiness of owning too much CRE. Moreover, as restaurant firms are showing signs of gradually and intentionally shedding extra CRE from their existing portfolios, further research into the changing performance patterns between franchise and non-franchise restaurants could reveal additional insights into the drivers of franchise outperformance.

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