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Is restaurant franchising capital a substitute for or a complement to debt?

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ABSTRACT

Since Oxenfeldt and Kelly's 1969 study, the resource scarcity hypothesis has been considered a representative theory to explain franchising motivations. Whether franchising capital is a substitute for or a complement to debt has been discussed in the franchise literature but the relationship remains unclear. Using Frank and Goyal's (2003) financial deficit model along with trade-off and pecking order theories, this study shed light on whether franchising capital acts as a substitute for and/or to complement debt in the restaurant industry. This study discovered that the adjustment speed of long-term debt leverage was faster for franchise restaurant firms than non-franchise restaurant firms. Further, the average long-term leverage target was lower for franchise restaurants. Consequently, this study revealed that franchising capital functioned as a substitute for long-term debt. In contrast, the adjustment speed of short-term debt leverage was slower for franchise restaurants and, thus, franchising capital complemented short-term debt.

1. Introduction

As a business format, many restaurants operate franchise outlets together with company-operated outlets, which is called a dual distribution system. Previous studies have examined which factors trigger franchising in particular industries (Lafontaine, 1992; Rubin, 1978; Scott, 1995). There are two major theories that purport to explain why businesses choose to go into franchising: agency theory (Jensen and Meckling, 1976; Lafontaine, 1992) and resource scarcity theory (Caves and Murphy, 1976; Ozanne and Hunt, 1971). Agency theory posits that agents (i.e., outlet managers) and principals (i.e., owners) each have their own set of unaligned interests. Unsurprisingly, agents tend to pursue their own interests. For example, outlet managers may not make a sincere effort to reduce all costs or increase sales because those efforts do not directly benefit them. Thus, agency costs exist between outlet managers and restaurant owners (Brickley et al., 1991; Jensen and Meckling, 1976; Lafontaine, 1992; Rubin, 1978). The franchising system is a solution to this problem because it converts outlet managers into entrepreneurs who receive residual profits from franchise operations. Accordingly, the entrepreneurs' interests are more closely aligned with the interests of the owners, which minimizes agency costs. On the other hand, the resource scarcity theory developed by Oxenfeldt and Kelly (1969) posits that owners decide to franchise when they have difficulty obtaining adequate managerial resources. One of the most important of these resources is financial capital (Caves and Murphy, 1976; Oxenfeldt and Kelly, 1969; Ozanne and Hunt, 1971). When a brand owner has difficulty obtaining enough financial capital to expand, the franchising system offers an effective business format for expansion via franchisees.

Although there are ongoing debates regarding why businesses choose to franchise, the scope of franchising studies remains small (Combs et al., 2004). As part of an effort to expand our understanding of franchising, Norton (1995) examined the financial effectiveness of franchising under different capital structures and whether the capital from franchisees' substitutes for franchisors' debt. Since Norton's (1995) study only a few other researchers have examined franchise financing using capital structure theories, but even in these cases the findings were mostly descriptive (Combs and Ketchen, 1999; Gonzalez-Diaz and Solis-Rodriguez, 2012; Roh et al., 2013). For example, Combs and Ketchen (1999) and Gonzalez-Diaz and Solis-Rodriguez (2012) found that higher debt leverage pushed companies towards franchise expansion. Roh et al. (2013) simply compared the average level of debt ratio between franchise and non-franchise restaurants. These studies may provide evidence of the capital scarcity hypothesis for franchise expansion, but they fail to show the effect of franchising funds on capital structure differences between franchise and non-franchise firms. Further, a handful of prior studies partially examined the role of franchising funds, but they had theoretical and methodologi-

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cal limitations. As mentioned above, Combs and Ketchen (1999) used a cross-sectional analysis that could be biased due to individual firms' heterogeneity. To overcome this problem Gonzalez-Diaz and Solis-Rodriguez (2012) employed panel analysis using instrumental variables, but their model estimated the effect of debt leverage on the percentage of franchised establishments. Moreover, those models were not based on financial theory but instead on the empirical variables from resource scarcity hypothesis. Finally, because Roh et al. (2013) used a simple comparison of the mean levels of debt ratio between franchise and non-franchise firms, which is simply a stylized fact from descriptive data. Therefore, we applied the dynamic panel data estimator suggested by Arellano and Bond (1991).

Under the resource scarcity concept, we incorporated the financial deficit model from prior finance literature (Frank and Goyal, 2003) and then combined it with a trade-off framework. As mentioned above, prior studies' examinations focused on the effect of debt leverage on franchise expansion. This could explain the motivations in terms of the resource scarcity hypothesis about franchise growth, but it fails to provide evidence that franchise funds are an efficient financial source that change the capital structure of franchise firms. Thus, this study examined the role of funds under the capital structure of firms and incorporated financial theory, which is closely related to a firm's financial deficit model. If franchise funds are a sound financial resource, then the firm's financial deficit should be explained by the franchise funds. Although we agree with the prior studies' results, they only explain motivations for franchising due to high debt ratios. Thus, this study analyzed the role of franchise funds under well-developed financial theory using a more advanced methodology.

Based on this stable framework, we tested the role of franchising funds with a sound methodology. Because many restaurant firms face financial stress it is very important to clearly understand how franchising capital functions, in this case whether it is a substitute for or a complement to debt, in order to make effective long-term financial plans. If franchise funds work as a substitute for debt, then restaurants should carefully manage their franchising cash flows; unexpected franchising cash flow short-falls could damage long-term financial plans. On the other hand, if franchise funds complement debt, then franchise firms may need sufficient debt to manage their franchise business otherwise they could be hampered by firms' insufficient debt. To the authors' knowledge, no previous studies have examined whether franchise financing substitutes for or complements debt financing. Thus, to fill this research gap, the objective of this study was to identify the role of franchise financing: is it a substitute for or a complement to debt in the restaurant industry? This question is important to strategic planning in order to maintain the financial health of restaurant firms. If the role of franchising funds differs for short and long-term debt, it might mean that restaurant managers should change their financial position according to their franchising expansion strategy. Because misunderstandings regarding the role of franchising funds could result in an unexpected financial deficit, this study investigated the role of franchising funds. To achieve the purpose of this study, we borrowed traditional finance theories to develop testable models. More specifically, this study adopted a hypothetical model from capital structure theory and used it to analyze restaurant firms.

2. Literature review

2.1. Trade-off theory

The finance literature tends to emphasize two competing theories on corporate financing: trade-off and pecking order. The trade-off model argues that firms identify their optimal leverage by weighing the costs and benefits of an additional dollar of debt. The costs of debt include agency costs between stockholders and bondholders and/or bankruptcy costs, while the benefits of debt consist of tax deductions and/or reduction of free cash flows. At optimum leverage the costs and benefits of the last dollar of debt are balanced. Graham and Harvey (2001) found that 81% of firms consider a specific target debt–equity ratio when making debt decisions. Flannery and Rangan (2006) pointed out that most empirical studies heavily rely on the trade-off theory because the working version of the trade-off theory allows for the adjustment of debt leverage over time, creating a dynamic trade-off model.

This dynamic trade-off model recognizes that firms cannot instantaneously achieve their target leverage. Instead, they adjust their realized leverage over time. Thus, firms use the difference between realized leverage and target leverage in the last period in order to achieve a more desirable level in the next period. To operationalize leverage adjustment, this study used a two-stage dynamic partial adjustment capital structure model (Cook and Tang, 2010; Hovakimian et al., 2001). Following prior studies on capital structure (Fama and French, 2002; Kayhan and Titman, 2007), this study estimated capital structure adjustment speed towards the target using two-stage estimations based on a target leverage proxy from the first stage regression.

$$D^*_{\mathrm{i,t}} = \beta' X_{i,t} \tag{1}$$

$D^*_{i,t}$ is firm i's target debt leverage, which is unobservable. The vector $X_{i,t}$ in Eq. (1) contains a set of widely studied variables in the literature, such as dividend payout ratio, firm investment in fixed assets and working capital, internal cash flow, firm size, market-to-book value for the firm, etc. Once we identified a firm's target leverage in Stage 1, in Stage 2 we measured how quickly the firm adjusted toward its target leverage from a position of deviation. In a perfect market firms would move quickly back to their target level, which is the level a firm would choose in the absence of any adjustment costs (Hovakimian et al., 2001; De Miguel and Pindado, 2001). However, due to adjustment costs firms may partially adjust over multiple periods to their desired leverage. In the second stage, we used the standard partial adjustment model from the literature (Hovakimian et al., 2001; De Miguel and Pindado, 2001; Leary and Roberts, 2005; Strebulaev, 2007) as presented below:

$$\Delta D_{i,t} = \lambda_i (D^*_{\mathrm{i,t}} - D_{i,t-1}) + e_{i,t} \tag{2}$$

$$D_{i,t} = \lambda_i \mathrm{D}^*_{\mathrm{i,t}} + (1-\lambda_i) D_{i,t-1} + e_{i,t} \tag{3}$$

$D_{i,t}$ is firm i's realized debt leverage in year t, Δ is the difference operator, and $e_{i,t}$ is a regression error. The coefficient $(1-\lambda_i)$ is the partial adjustment coefficient, which represents the proportion of leverage deviation away from a firm's target leverage for the next year, closed by the firm from year $t-1$ to year t. $\lambda_i = 1$ indicates that firms fully adjusted for any deviation away from their target leverage. In the presence of adjustment costs, it is expected that λ_i will be less than 1 ($0 \le \lambda_i \le 1$).

$$\begin{aligned} D_{i,t} &= \lambda_i(\beta' X_{i,t}) + (1-\lambda_i) D_{i,t-1} + e_{i,t} \\ &= \lambda_{\mathrm{i}} \beta' X_{i,t} + (1-\lambda_i) D_{i,t-1} + e_{i,t} = \kappa' \mathrm{X}_{\mathrm{i,t}} + \gamma_1 \mathrm{D}_{\mathrm{i,t-1}} + e_{i,t} \end{aligned} \tag{4}$$

Because target debt leverage is unobservable, it is not possible to directly test the dynamic trade-off model in Eq. (2). However, it is common to model target debt leverage, $D^*_{i,t}$, as a linear function of a set of economic variables, as seen in Eq. (1). Because trade-off theory does not explicitly model target debt leverage, Eq. (1) is an ad-hoc formulation using explanatory variables derived from different theories (Rajan and Zingales, 1995; Fama and French, 2002). Next, we substituted Eq. (1) into (3) to yield Eq. (4). In Eq. (4), the coefficient, γ_1, is equivalent to $(1-\lambda_i)$, which is the speed of adjustment.