Corporate governance provisions and firm financial performance
The moderating effect of deviation from optimal franchising

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Abstract

Purpose – Borrowing from arguments of agency theory, the present study aims to investigate the moderating effect of the deviation from optimal franchising on the relationship between corporate governance provisions and firm financial performance.

Design/methodology/approach – The sample consists of 35 publicly listed US restaurant firms for the 1990-2008 period. The study uses a hierarchical regression with cross-sectional time-series fixed effects.

Findings – The results show that the deviation from optimal franchising worsens the negative relationship between corporate governance provisions and firm performance.

Research limitations/implications – The availability of governance data restricts our sample to large publicly listed firms in the US restaurant industry, limiting the ability to generalize results for small and privately held restaurant firms.

Practical implications – Firm executives should not only pay attention to which corporate governance provisions they adopt but also strive to maintain an optimal level of franchising.

Originality/value – The key contribution of this study to governance literature is that this study demonstrates how the presence of multiple governance mechanisms influences firm performance.

Keywords Corporate governance, Financial performance, Franchising, Agency theory, Restaurant industry

Paper type Research paper

Introduction

The past two decades have witnessed a steady stream of research investigating the relationship between corporate governance mechanisms and firm performance. This is partly because firms' financial success hinges on choosing appropriate corporate governance mechanisms that reduce the conflict of interest between an owner (the principal) and a manager (the agent). On the basis of agency theory, a potential conflict of interest arises when there is a separation between the interests of the company owners and company managers (Berle and Means, 1932). This conflict leads to several fundamental problems, such as increased monitoring costs and reduced profitability. While an agent's decisions affect both his/her own wealth and that of the principal, it is

virtually impossible to anticipate and address in a contract every possible action an agent may take (Brennan, 1995). Over time, this impasse forces firms to use various government mechanisms to alleviate the conflict of interest and lower monitoring costs through different forms of business governance (i.e. franchising), corporate governance provisions such as anti-takeover measures (Gompers *et al.*, 2003) or managerial ownership (Singh and Davidson, 2003). Among these governance mechanisms, franchising is one of the fastest developing forms of business adopted by many firms to expand their operations and to mitigate principal–agent conflict, which, in turn, helps firms increase firm performance. The restaurant industry is one of the most prominent industries to use franchising as a governance mechanism because of the advantages mentioned above.

Extant literature reveals that corporate governance provisions are significantly and negatively related to firm value (Bebchuk *et al.*, 2009; Gompers *et al.*, 2003). By the same token, several studies demonstrate that franchising has a positive effect on firm financial performance (Aliouche and Schlentrich, 2009; Aliouche *et al.*, 2012; Hsu and Jang, 2009; Madanoglu *et al.*, 2011, 2013). Although individual relationships between corporate governance provisions, franchising and firm performance are well-established, there are several issues that remain unresolved. First, Bebchuk *et al.* (2009) contend that a large majority of corporate governance provisions of Gompers *et al.* (2003) have no influence on firm value and propose an alternative governance measure called the entrenchment index (hereafter, the E-Index). In the hospitality management literature, a study by Denizci Guillet and Mattila (2010) indirectly supports this claim by showing that hospitality firms (i.e. hotels and restaurants) differ from the overall market portfolio on the basis of corporate governance provisions. Second, the interaction effect of franchising interacting with other corporate governance provisions in the restaurant industry is virtually unexplored. In other words, we do not know whether firms that simultaneously refrain from using restrictive corporate governance provisions and operate more franchising outlets demonstrate greater financial performance. This study seeks to answer these questions by pursuing two objectives. The first one is to examine how the level of E-Index influences the financial performance of restaurant firms. The second objective is to investigate the moderating effect of franchising on the relationship between the E-Index and firm financial performance.

This paper builds on the two noteworthy studies of Denizci Guillet and Mattila (2010) and Bebchuk *et al.* (2009) to add to extant literature by using franchising as a moderator between corporate governance provisions and firm financial performance. The specific contribution of this study to the hospitality management literature is that it extends the descriptive work of Denizci Guillet and Mattila (2010) pertaining to corporate governance provisions and financial performance. In addition, this paper contributes to hospitality, general and financial management literatures by going beyond considerations of the main effects of governance provisions on firm financial performance.

Theory, prior studies and hypothesis development
Corporate governance and agency theory
Corporate governance is a set of regulations among a firm's management, its board, its shareholders and its stakeholders (OECD, 1999). It mainly deals with conflicts of interest, aligns the interests of stakeholders and designs ways to prevent corporate misconduct by using incentive mechanisms. Specifically, corporate governance consists

of a set of unique rules to protect the interests of company shareholders. This set of rules is referred to as the "corporate governance provisions". Many of those rules are created at a firm level, while some other provisions are embedded in state laws that effect the balance of power between shareholders and corporate management (Crowther and Jatana, 2005). Some examples of these provisions will be provided in the literature review section.

In corporations, there are many individuals or entities, such as the board of directors, shareholders, executives, creditors, auditors and other stakeholders, who are responsible for developing mechanisms to reduce or eliminate the principal–agent problem (Bowen, 1994). The principal–agent problem is rooted in the agency theory, which states that one person – the principal (owner) – hires an agent (a manager) to perform tasks on his/her behalf. However, the agent may not always perform the work exactly the way the principal would expect (Berle and Means, 1932; Jensen and Meckling, 1976) because people are assumed to be self-interested and opportunistic (Eisenhardt, 1989). Fama and Jensen (1983) suggest that there are several methods to ensure the control of the agents of a firm. When the agent is a firm executive, the board of directors implements monitoring mechanisms to observe the discretion that an agent uses in his/her decision-making process. If the agent happens to be an entrepreneur where the principal is the corporation, firms use franchising. Franchising provides a share of ownership or residual claims (e.g. profits) to ensure that the agent's decisions serve the owner's interests, and thus, the alignment of incentives between the two parties is achieved.

Franchising as a governance mechanism and optimal level of franchising
There are two theoretical approaches that explain the emergence and growth of franchising as a popular business form. The most common explanation for why firms franchise is the agency theory, followed by the resource scarcity theory. According to the agency theory, franchising serves as a governance mechanism to improve the alignment between firm- and outlet-level incentives (Perdreau *et al.*, 2011). In franchising, there are two types of agency costs that have different effects on the firm: vertical and horizontal costs (Combs *et al.*, 2004). The most common vertical agency problem – shirking – takes place when an agent does not put his/her full effort forward when his/her behaviors may not be observed directly by the principal (Perryman and Combs, 2012). On the other hand, free riding is the most frequently observed horizontal agency cost (Caves and Murphy, 1976). Free riding occurs when an agent "rides" on the overall success of the franchising network by providing lower-quality service or doing limited local advertising to save resources that increase their store's profitability (Bradach, 1997; Brickley and Dark, 1987). Thus, franchising emerges as a delicate balance between these two agency costs. On the one hand, franchising helps reduce shirking because franchisees can receive residual claims that motivate them to work hard. On the other hand, franchisees may provide a lower level of customer service and ride on the efforts of other franchisees in the chain. Therefore, it is assumed that there exists an optimal level of franchising where vertical and horizontal agency costs are in balance.

Another reason why firms franchise is to gain access to scarce resources such as capital and managerial talent. The resource scarcity theory views franchising as a governance mechanism that relaxes the franchisor's financial and managerial constraints during the early development stages of the network (Oxenfeldt and Kelly, 1969; Norton, 1988; Shane, 1996; Wu, 2015). In particular, franchising can ease the

financial constraints of growth and expansion in small- to medium-sized firms because the franchisee supplies the financing and the resources to facilitate franchisor growth (Caves and Murphy, 1976; Oxenfeldt and Thompson, 1968). In addition, franchisees also provide managerial talent and local knowledge to spur firm growth (Minkler, 1992; Norton, 1988; Shane, 1998). The resource scarcity theory supports the idea that franchising is a relatively inexpensive way to expand operations, by increasing revenue through franchisee fees, royalties and sales to franchises, and by substituting the franchisees' investment in local operations for the franchisor's investment in local operations (Hsu and Jang, 2009). In sum, lower agency costs, easier access to low-cost capital, motivated managerial expertise and better local market knowledge are key factors that explain why firms choose franchising over owning outlets (Aliouche *et al.*, 2012; Hua and Dalbor, 2013).

In practice, most franchising chains adopt a dual distribution strategy, also called the plural form franchising, meaning that the chain is made up of both franchised and company-owned outlets (Srinivasan, 2006) within the same network. A limited number of studies look into what the ideal mix (i.e. proportion of franchised outlets to total outlets) in a chain is and whether this ideal proportion influences firm performance (Vazquez, 2007; Barthelemy, 2011). A study by Vazquez (2007) uses the resource scarcity and agency theory to estimate optimal franchising and reports that deviating from the optimal mix of franchised and company-owned outlets leads to negative performance consequences. Therefore, it is generally assumed that the deviation from optimal franchising should have negative consequences on the firm.

Corporate governance provisions and firm performance

The past 15 years have witnessed numerous attempts to understand the nature of corporate governance mechanisms and the ways these mechanisms affect firm performance. Researchers generally measured the effectiveness of corporate governance either through ownership and board structure or through corporate governance provisions. Corporate boards have the power to make all the important decisions including decisions about investment policies, management compensation policies and board governance itself. Board members with appropriate stock ownership have incentives to provide effective monitoring and oversight of important corporate decisions. Hence, the board structure or ownership is viewed as a useful proxy for overall good governance. On the other hand, there is a belief that corporate governance provisions influence firm performance, and some studies support these ideas. A seminal study by Gompers *et al.* (2003) focuses on the relationship between shareholder rights, as measured by corporate governance provisions, and firm financial performance. These authors utilized 24 corporate governance provisions of the Investor Responsibility Resource Center (hereafter IRRC) database and formed an index called a Governance Index (G-Index) as a proxy for the balance of power between shareholders and the board of directors. The authors then looked at how the level of G-Index influences the key financial performance indicators, such as net profit margin, return on equity (ROE) and sales growth. Furthermore, Gompers *et al.* (2003) also built two portfolios based on the level of G-Index: a dictatorship portfolio (G-Index > 14) and a democracy portfolio (G-Index < 5). Their findings revealed that firms with weak shareholder rights (G-Index > 14) earned significantly lower returns, had lower firm value and had a worse operating performance than those with strong shareholder rights (G-Index < 5).

Subsequently, this long – short strategy resulted in an average annual return (ROI) of 8.5 per cent.

In the hospitality management literature, Denizci Guillet and Mattila (2010) built on the findings of the Gompers *et al.* (2003) study to explore the impact of the level and degree of corporate governance provisions on firm performance. They used several financial metrics in three hospitality segments – namely, lodging, restaurant and casino firms. Their descriptive-level analysis showed that hospitality firms with weak shareholder rights (G-Index > 9) are larger firms with higher earnings per share, higher stock prices, higher ROE and lower capital expenditure to assets ratio. The categorization of Denizci Guillet and Mattila (2010) differed considerably from that of Gompers *et al.*'s (2003) dictatorship portfolio (G-Index > 14) because no restaurant firms had a G-index higher than 14.

The study of Bebchuk *et al.* (2009) altered our understanding of the relationship between corporate governance provisions and firm performance. These authors claimed that the 24 provisions of the G-Index by Gompers *et al.* (2003) are very broad-based and are not equally important in explaining the effects of provisions on firm performance. Bebchuk *et al.* (2009) argued that some provisions might have little or no relevance to firm value. However, some other provisions could be positively correlated with firm value, which is in conflict with the tenets of the agency theory. As noted before, a higher governance score denotes more restrictive (i.e. weak) shareholder rights. Subsequently, Bebchuk *et al.* (2009) identified the provisions that matter the most. They found that only 6 of the 24 governance provisions are correlated with firm value. These provisions were:

(1) staggered boards;
(2) limits to amend bylaws;
(3) limits to amend charter;
(4) supermajority;
(5) golden parachutes; and
(6) poison pills.

The combination of these six provisions became the backbone of the E-Index, which assigns one point for each of the six provisions in the index. Thus, the E-index ranges from zero to six, giving equal weight to each of the six provisions. Furthermore, Bebchuk *et al.* (2009) also reported that, except for poison pills and golden parachutes, the other four provisions restrict shareholder rights by virtue of limiting their voting power. A higher E-Index score means more power for management and more severe obstructions to shareholders' ability to exercise their own will. The results of Bebchuk *et al.*'s (2009) study indicated that entrenchment provisions – both individually and in aggregate – are negatively correlated with Tobin's Q (market value of the firm). Drawing from the findings of their study, this paper posits the following hypothesis:

H1. The level of E-Index is negatively related to firm financial performance. That is, the higher the E-Index, the lower the firm financial performance.

Optimal franchising as a moderator
The extant literature reveals that, taken separately, firms that have a higher number of entrenchment provisions (Bebchuk *et al.*, 2009) and firms that deviate from their optimal

level of franchising (Vazquez, 2007) have lower firm financial performance. However, previous studies do not offer any insights about whether optimal franchising moderates the relationship between corporate governance provisions and firm financial performance. Therefore, it is not clear whether a deviation from the optimal level of franchising impacts the relationship between the E-Index and firm financial performance. Intuitively, one would expect that firms with a high E-Index and a high deviation from optimal franchising would exhibit lower firm performance relative to firms with a high E-index and a low deviation from optimal franchising. This is because both a high level of entrenchment and a high deviation from optimal franchising may lead to higher agency costs, that in turn affect firm performance. As noted before, one of the key reasons why firms enter into franchising contracts is to lower their agency costs. However, as noted before, too much franchising can also lead to agency costs, such as free riding (Perryman and Combs, 2012). Thus, we contend that, among firms with a low E-Index, firms with a low deviation from their optimal level of franchising will achieve better firm performance relative to their counterparts with high deviation from optimal franchising. This discussion leads to our second hypothesis:

> *H2*. A deviation from optimal franchising will moderate the relationship between corporate governance provisions and firm financial performance, such that a higher deviation from optimal franchising will worsen the relationship between corporate governance provisions and firm financial performance.

Research methodology
Sample and data collection
The initial sample of this study was publicly traded restaurant firms listed on major US Stock Exchanges, such as NYSE, NASDAQ and AMEX, under the Standard Industry Code (SIC) 5812 ($N = 76$). However, only restaurant firms that have governance provisions data in the IRRC were retained ($N = 35$). Data in this study were an unbalanced panel where some firms entered the data set after 1990 or exited before 2008, which resulted in 228 firm-year observations.

Data for franchising, financial performance and firm characteristics, such as firm age, were obtained from each company's annual Security and Exchange Commission (SEC) filings and Compustat. Governance provisions data were retrieved from IRRC and encompassed the years 1990 and 2006. As IRRC reports the E-Index for the following eight years: 1990, 1993, 1995, 1998, 2000, 2002, 2004 and 2006, we used the same E-Index for the subsequent year(s) when data were not reported. For example, if Firm A had an E-index of 4 for 1990, we entered the same value for 1991 and 1992, because an E-Index of 4 in 1990 has the same signaling value in 1991 and in 1992. This is because shareholders and potential investors may still use that level of E-Index to assess the level of entrenchment of a given firm. To ensure that our results were robust to both specifications, we conducted alternative analyses that are explained later in this study.

Dependent and independent variables
Our dependent variable – firm financial performance – was measured by Tobin's Q. It is a forward-looking market-based measure of firm value, which is widely used in many disciplines, including franchising (Hsu and Jang, 2009; Srinivasan, 2006). This study used industry-adjusted Tobin's Q and lagged it by one year ($t + 1$) to be consistent with the measure of Gompers *et al.* (2003). We measured Tobin's Q as in Chung and Pruitt (1994):

Tobin's Q = (Market capitalization + Value of firm's outstanding preferred stock + Value of firm's short-term liabilities net of short-term assets) / Book value of total assets of the firm).

The first predictor in this study was the level of E-Index (Bebchuk *et al.*, 2009). To construct this index, each company received a score of 1 for each corporate governance provision that was present in their annual company filings. That is, if no governance provisions were reported, a given company received a score of 0, whereas, if a firm implemented all governance provisions then its E-Index would be 6.

The second independent variable was the interaction term of E-Index and FRANDEV (deviation from optimal level of franchising). To create the moderating variable, we first obtained FRANDEV using a two-step procedure as in Vazquez (2007). In the first step, we ran a linear regression model with robust standard errors where the agency and resource scarcity variables were used as predictors of the optimal proportion of franchised outlets. We used three resource scarcity variables: firm size, firm age and leverage as control variables in this analysis. Firm size (SIZE) was captured by the logged value of total outlets (Combs *et al.*, 2009). Firm age (AGE) was measured as the number of years since incorporation (Alon, 2001). The final variable in this group was financial leverage (LEV), which was calculated as the ratio of long-term debt to total assets (Jensen and Meckling, 1976). Agency costs were measured by two variables that primarily have an effect on monitoring costs within a firm. The first variable was domestic geographic dispersion (STATES), which was measured as the number of US states where a restaurant firm operates its outlets (Combs and Ketchen, 1999). The second item encompassed international expansion (COUNTRIES), which was measured as the number of countries in which a firm has outlets (Combs and Ketchen, 1999). The optimal (predicted) level of franchising is estimated as follows:

$$\Pr oportion\ of\ franchised\ outlets\ =\ \alpha\ +\ \alpha_1 SIZE\ +\ \alpha_2 AGE\ +\ \alpha_3 LEV\ +\ \alpha_4 CAPINT$$
$$+\ \alpha_5 STATES\ +\ \alpha_6 COUNTRIES\ +\ \varepsilon$$

where SIZE is log of total outlets; AGE is firm age; LEV is financial leverage; CAPINT is capital intensity; STATES is the number of US states; and COUNTRIES is the number of countries.

We used the regression residual (ε) for each firm-year observation from the above equation to estimate the deviation from the optimal franchising level (Silverman *et al.*, 1997; Vazquez, 2007). More specifically, the deviation from the predicted level of franchising was computed as the absolute value of the residual (abs ε), where the residual represented either a positive or negative deviation from the predicted proportion of franchised outlets for each firm for each year. Thus, the deviation from the predicted level of franchising ranges between 0 and 1, with the value of 0 indicating that the franchising firm was at its optimal level and the value of 1 denoting that the firm was in total deviation from the predicted level of franchising based on the prescriptions of the resource scarcity and agency theories. As noted above, this variable was labeled FRANDEV.

The interaction term of E-Index and FRANDEV was labeled ENTFRAN. Prior to creating the interaction variable, we used mean centering for both E-Index and FRANDEV to address any multicollinearity issues (Aiken and West, 1991).

Control variables
We used the five variables used as predictors of the optimal franchising proportion as control variables in the second-stage analysis of firm financial performance, namely, firm size, firm age, financial leverage, domestic geographic dispersion and international expansion. We also controlled for the effect of capital intensity (CAPINT), which is calculated as the ratio of total assets to total sales (Capon *et al.*, 1990). We controlled for the effect of FRANDEV because of its posited negative effect on firm performance (Vazquez, 2007). In addition, we included year dummies to our models to capture the effect of performance fluctuations across years.

Data analysis
We ran tests for autocorrelation and heteroskedasticity with STATA 13.0. First, we used the *abar* routine for autocorrelation. The Arellano–Bond test indicated that autocorrelation is present ($z = 9.80$, $p > z = 0.000$). Next, we conducted a Breusch–Pagan/Cook–Weisberg test for heteroskedasticity. The test showed that data are heteroskedastic ($\chi^2 (1) = 35.23$, $p > \chi^2 = 0.000$). *To ensure the robustness of our results, we used an xtscc* routine in STATA, which is a type of cross-sectional time-series fixed-effects regression (Hoechle, 2007). This routine allows for estimating fixed-effects models with Driscoll–Kraay standard errors (Driscoll and Kraay, 1995), which are robust to heteroskedasticity, autocorrelation and cross-sectional dependence (Driscoll and Kraay, 1998).

We ran three different models to test our hypotheses. Model 1 includes all control variables, including DEVFRAN. The inclusion of the E-Index to the variables in Model 1 constitutes Model 2, which is used to test *H1*. Model 3 augments Model 2 by adding the interacting term (ENTFRAN) to the estimation. The following equation describes Model 3, which includes all control variables and predictors:

$$Tobin's\ Q = \alpha + \alpha_1 SIZE + \alpha_2 AGE + \alpha_3 LEV + \alpha_4 CAPINT + \alpha_5 STATES$$
$$+ \alpha_6 COUNTRIES + \alpha_7 DEVFRAN + \alpha_8 E - Index + \alpha_9 NTFRAN$$

where SIZE is log of total outlets; AGE is firm age; LEV is financial leverage; CAPINT is capital intensity; STATES is the number of US states; COUNTRIES is the number of countries; DEVFRAN is the deviation from the predicted proportion of franchised outlets; the E-Index is the level of the entrenchment index and ENTFRAN is the interaction term of level of the entrenchment index and the deviation from the predicted proportion of franchised outlets.

Robustness analysis
We conducted several robustness analyses to ensure that our results were not influenced by missing data or alternative measures. First, we dropped data for gap years in which IRRC does not report corporate governance data to assess whether our results held. This analysis had 102 firm-year observations and was labeled Model 4. Model 5 was similar to Model 3, with a single change that pertained to firm size. We used an alternative specification for firm size by using total assets (ASSETS) in lieu of log of total outlets. We augmented Model 5 by controlling for restaurant segment effects (Model 6). This variable was a categorical dummy variable where limited-service restaurants were coded as 1 and full-service restaurants were coded as 0. In all cases (Models 4 through 6),

the results were similar to the main findings of this study, which increased our
confidence in the robustness of our models.

Findings
Main analysis
Table I reports the descriptive statistics of this study. The results show that mean AGE
for our sample was approximately 38 years. Restaurant firms that report governance
provisions have an average SIZE of 4,027 outlets. The high standard deviation for firm
size (8,810) denotes that large firms such as McDonalds and Yum! Brands influence the
mean value of this variable. Sampled firms tend to finance approximately 24 per cent of
their assets with debt. An average restaurant firm has outlets in approximately 36 states
and 15 countries. The deviation from predicted franchising proportion for our sample is
25 per cent, which denotes that an average restaurant firm is either 25 per cent above or
below the predicted (optimal) level of franchising. As can be seen in Table II, several
control variables are significantly correlated with each other. SIZE and STATES
constitute the pair of variables with the highest correlation (0.795). Therefore, as a
precaution, we examined variance inflation factors for all independent and control
variables, which ranged between 1.23 and 3.91. These values are below the suggested
threshold of 10 (Pedhazur, 1997), which leads us to conclude that multicollinearity is not
a concern.

The results for Model 1 show that control variables explained 33.3 per cent of the
variation in Tobin's Q (Table III). Among control variables, SIZE ($-0.627, p \leq 0.05$) and
STATES ($-0.045, p \leq 0.001$) were negatively related with Tobin's Q. On the other hand,
CAPINT had a positive relationship with firm performance ($0.362, p \leq 0.05$). In Model 2,
the inclusion of the E-Index improved the R^2 to 34.4 per cent. In this analysis, the same
control variables retained their prior level of significance ($p \leq 0.00$). The level of the
E-Index had a significant negative relationship ($-0.237, p \leq 0.001$) with Tobin's Q,
which lends support for *H1*. In addition, this result corroborates the findings of Bebchuk
et al. (2009).

The analysis of Model 3 revealed that the same control variables as in Models 1
and 2 (SIZE, CAPINT and STATES) remained significant and had the same
directional sign. Additionally, COUNTRIES had a positive influence on firm

Variable	Mean	SD	Minimum	Maximum
Age	38.563	18.017	6	78
Size	4027.070	8810.394	36	36,000
Lev	0.237	0.171	0	0.958
Capint	1.416	0.462	0.126	2.925
States	36.535	13.230	4	50
Frandev	0.256	0.123	0.016	0.582
Countries	15.612	31.528	0	121
E-Index	2.546	1.350	0	6
Entfran	0.001	0.426		0.135
Tobin's Q	−0.006	0.853	0.395	5.415

Notes: [a]Reported mean and standard deviation for SIZE are not transformed.

Table I.
Descriptive
statistics[a]

Variable	1	2	3	4	5	6	7	8	9	10
Age	1									
Size	0.166*	1								
Lev	0.321*	0.295*	1							
Capint	0.284*	0.284*	0.325*	1						
States	−0.051	0.627*	0.242*	0.119	1					
Countries	0.440*	0.795	0.233*	−0.215*	0.461*	1				
Frandev	−0.208*	−0.064	0.144*	0.006	−0.171*	0.343*	1			
E-Index	0.205*	0.133*	0.053	−0.026	0.271*	0.178*	0.426*	1		
Entfran	0.266*	−0.141	0.187*	0.114	−0.118	0.019	0.043*	−0.086*	1	

Table II.
Correlations

Note: *$p \leq 0.05$

Variable	Model 1	Model 2	Model 3
Effects on Tobin's Q			
Constant	6.497**	6.695**	6.558**
Size	−0.627*	−0.659*	−0.636*
Age	0.009	0.011	0.011
Lev	−0.597	−0.675	−0.698
Capint	0.362*	0.541**	0.642**
States	−0.045***	−0.044***	−0.047***
Countries	0.009	0.014	0.021*
Frandev	0.694	0.636	0.869
E-Index		−0.237***	−0.227***
Entfran			−0.853**
Year dummies	Yes	Yes	Yes
R^2	0.333	0.344	0.354
F	107.95	118.27	1612.27
df	24	25	26
N	228	228	228

Table III.
Corporate governance provisions and firm performance

Notes: *$p \leq 0.05$; **$p \leq 0.01$; ***$p \leq 0.001$

performance (0.021, $p \leq 0.05$). The negative and significant coefficient for ENTFRAN ($-0.853, p \leq 0.01$) indicated that the deviation from optimal franchising moderated the relationship between the E-Index and firm value. This finding is consistent with *H2*. We used an interaction plot to visually evaluate the moderating effect of FRANDEV on the relationship between the E-Index and Tobin's Q. In the moderation analysis, "low" denotes one standard deviation below the mean, while "high" stands for one standard deviation above the mean. As can be seen in Figure 1, firms with a high E-index experience more severe performance consequences when they have a high deviation from optimal franchising. The moderating effect can be better understood by observing the gap in Tobin's Q between firms on the basis of the value of E-Index and FRANDEV. For example, at high levels of E-index, firms that further deviate from their optimal franchising levels experience a larger drop in firm value relative to firms that have a low deviation from optimal franchising. This

finding denotes that firms face more severe performance penalties when they concurrently adopt restrictive governance provisions (a high E-Index) and further deviate from optimal levels of franchising (high FRANDEV).

Results for robustness analysis
This section reports the robustness analysis with a restricted number of observations, alternative measures for firm size and a control variable capturing restaurant segment effects. As can be seen in Table IV, our conservative model (Model 4), which includes data for only eight years of governance provisions, yields results that are consistent with our hypotheses. That is, both E-Index and FRANDEV remain significant and negative. In addition, in Model 5, the alternative measure for firm size – total assets (ASSETS) – did not have a material effect on our results. That is, both E-Index and ENTFRAN had a negative significant relationship with Tobin's Q. Last, in Model 6, limited-service restaurant firms had a lower Tobin's Q compared to full-service restaurant firms. More importantly, the negative effect of both E-Index and ENTFRAN remained significant and negative. These alternative specifications and robustness checks increased our confidence in our results.

Discussion and conclusions
The empirical results of this study support the agency theory predictions about corporate governance and firm performance and enrich current explanations of firm performance. For instance, in terms of corporate governance provisions, our findings are similar to Bebchuk *et al.*'s (2009) findings. The significant negative effect of the E-Index denotes that this measure provides a better depiction of the effect of corporate governance provisions on firm performance than the G-Index does (Denizci Guillet and Mattila, 2010). In other words, our study ascertains that the six key provisions as used by Bebchuk *et al.* (2009) have a significant influence on the firm value of publicly listed US restaurant firms. However, as opposed to previous studies that looked at the deviation from agency (Vazquez, 2007) or transaction costs (Argyres and Bigelow, 2007; Silverman *et al.*, 1997), the present study findings indicate that the deviation from optimal franchising did not have a significant relationship with firm financial performance. Therefore, we contend that agency costs borne by the deviation from optimal franchising are not severe enough to impact firm performance, at least, among the larger publicly traded restaurant firms included in this study. However, a high level of deviation from optimal franchising worsens the relationship between E-Index and
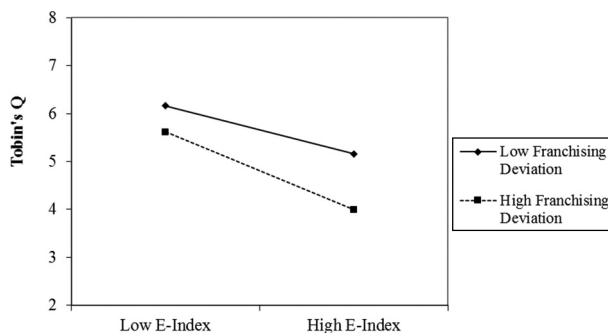

Figure 1.
The interaction between E-Index and deviation from optimal franchising

Variables	Model 4	Model 5	Model 6
Effects on Tobin's Q			
Constant	5.682	6.695**	7.691***
Size	−0.414		−0.636*
Age	0.028	0.021	0.048*
Lev	−0.471	−0.617	−0.721
Capint	0.645	0.211	0.092
States	−0.069**	−0.051***	−0.052***
Countries	0.012*	0.007*	0.022*
Frandev	−0.066	0.194	−0.199
E-Index	−0.279**	−0.268***	−0.270***
Entfran	−1.251*	−1.239***	−1.226***
Assets		−0.623*	−0.747**
Segment			−1.030**
Year dummies	No	Yes	Yes
R^2	0.274	0.363	0.389
F	62.55	1859.95	765.83
df	9	26	27
N	102	228	228

Table IV.
Robustness analysis

Notes: *$p \leq 0.05$; **$p \leq 0.01$; ***$p \leq 0.001$

firm performance. We conjecture, however, that agency costs may still be important for individual franchised outlets in a network or chain. This is because Vazquez's (2007) study had a different unit of analysis than our study (outlet level vs firm level, respectively).

We conclude that the two governance mechanisms – corporate governance provisions and optimal franchising – when incorporated together serve as solutions to reduce agency problems. That is, we confirm that firms that hold franchise and owned outlets jointly strive to maintain an optimal franchising level and have strong shareholder rights (a low E-Index) that outperform their counterparts in the restaurant industry, which is consistent with the agency theory. While it is very encouraging to assess the joint effect of these two governance mechanisms, it should be noted that our study does not provide an answer to the question of "how". That is, it is not known what strategic decisions restaurant firms take to outperform their counterparts. To answer this question, we recommend that future studies delve into the "black box" of corporate governance provisions, the franchising decision-making process and firm financial performance.

Theoretical implications
From a theoretical perspective, the key contribution of this study to governance literature is the use of two important mechanisms to manage agency costs:

(1) the degree of deviation from optimal franchising; and

(2) corporate governance provisions.

These two mechanisms have different principals and agents, but our results reveal that both of these agency relationships have a significant relationship with firm

performance. Specifically, the present study lends support to the tenets of the agency theory by unveiling that when firms have both a high E-index (i.e. poor corporate governance) and a high deviation from optimal franchising, they face more severe performance consequences. This finding is an important step toward disentangling the effect of various governance mechanisms and uncovering complexities surrounding the intriguing relationship between corporate governance mechanisms and firm financial performance. More specifically, our results show that agency costs borne by a deviation from optimal franchising make the negative effect of weak shareholder rights on firm performance even more severe. These findings make theoretical sense because under normal conditions, higher agency costs should lead to lower performance, irrespective of whether these costs are borne by different agents whether they are franchisees or corporate executives.

This study adds to the body of knowledge in the hospitality management literature by using more comprehensive and holistic models of governance mechanisms and firm performance, and thus extends the work of Denizci Guillet and Mattila (2010). The next question hospitality management organizational and corporate governance literature is to explore whether contractual arrangements, such as management contracts, moderate the relationship between corporate governance provisions and financial performance of lodging firms. Indeed, a recent study by Sohn *et al.* (2013) reported that an asset-light strategy, where hotels derive their revenue from management contracts, leads to higher operating margins. In future studies, it may also be worth considering variables, such as board composition, as another governance measure (Gillan, 2006). Finally, future studies may investigate whether the relationship between the level of E-Index and firm financial performance holds for lodging, casino and airline firms. It is recommended that future studies consider the unique contingencies of these segments of the hospitality industry to pursue such an inquiry.

Practical implications

Our results have some important managerial implications. First and foremost, the key takeaway for the restaurant industry executives would be that they should pay close attention to both the governance provisions they adopt and their degree of franchising. They should also keep track of their competitors' corporate governance provisions. This may not be an easy task because newly adopted or dropped corporate governance provisions may not become public knowledge for at least a year after adoption. Contrary to corporate governance provisions, looking at the proportion of key competitors' franchised outlets may not be a wise strategy. This is because each firm would have an optimal level of franchising based on its characteristics, such as firm age and geographic dispersion. Equity analysts should also be aware of this issue because in her study, Srinivasan (2006) shows that two restaurant firms (Panera Bread and McDonalds) with an identical proportion of franchised outlets (72 per cent) have different levels of Tobin's Q (5.30 and 1.29, respectively). Franchising can perhaps explain the divergence in leverage of sub-sectors of the hospitality industry (Kizildag, 2015). Thus, analysts should look both at specific governance provisions and other firm-level characteristics, such as firm age, leverage and geographic dispersion, when issuing buy or sell recommendations for public restaurant firms.

Second, the existence of agency costs may denote that non-franchising firms, such as Cracker Barrel and Bob Evans, should franchise some of their outlets. However, given

that these firms only have company-owned outlets, these firms' actual level of franchising (0 per cent) should deviate from the predicted levels of franchising. Because these firms do not have the flexibility to adjust their levels of franchising, executives of these non-franchising firms should exercise caution when adopting new corporate governance provisions. That is, it would be much more difficult for such non-franchising restaurant firms to weather the negative effects of some governance provisions. This is because, these firms cannot adjust their level of franchising toward optimal levels unless they change their strategy and start franchising. In contrast, franchising restaurants may be able to adjust their levels of franchising by buying back some outlets from franchisees, opening more company-owned outlets, or recruiting new franchisees to their network. However, such adjustments may not be easy because firms, sometimes, face steep adjustment costs when they convert the existing outlets into company-owned outlets or open new franchised ones. Meanwhile, two hypothetical franchising restaurant firms with weak shareholder rights (i.e. firms with a high E-Index) may still demonstrate different firm performance due to how close their respective franchising proportions are to their optimal levels of franchising. That is, franchising restaurant firms with weak shareholder rights may be able to negate some of the detrimental effects of restrictive corporate governance provisions by "keeping an even keel" (i.e. having a low deviation from predicted franchising levels).

This study offers practical implications for shareholders of restaurant firms. Present and prospective investors should be aware of the joint effects of governance provisions and deviation from optimal franchising on firm value. That is, investors should make a distinction between high levels of franchising (e.g. 95 per cent of franchised to total outlets) and deviation from optimal franchising. That is, some firms may deviate from the optimal level even if they franchise 70 per cent of their outlets. These firms may be in deviation because their optimal franchising level should be say 30 per cent. Thus, these firms will be over-franchised by 40 per cent. Therefore, investors should be aware that higher proportional levels may not compensate for the negative influence of high E-index levels on firm financial performance.

The model of this study suggests that all firms should franchise some of their outlets. Then by default, most non-franchising will be "under-franchised" (i.e. doing less franchising than predicted by the present model). However, it is possible that some non-franchising firms may still have lower deviation levels compared to some franchising firms because under-franchising and over-franchising are equivalent in terms of deviation from the optimal level of franchising. To test the practical relevance of this issue, we analyzed the descriptive statistics of the two subsamples: franchising and non-franchising restaurant firms. The results showed that the average deviation from optimal franchising was 0.295 and 0.268, respectively, fort the two subsamples. This finding denotes that the empirical model in this study bridges theory and practice in the context of restaurant firms.

Limitations and future research
There are some limitations regarding data availability and statistical analysis that we acknowledge. The availability of governance data restricts our focus primarily to larger publicly listed firms in the US restaurant industry. That is, more than half of the publicly listed US restaurant firms are not listed in the IRRC database. The IRRC tends to include mostly large public firms, which limits our ability to generalize our results to small and

privately held restaurant firms. We also note that while we document that governance provisions influence firm financial performance, our analysis does not consider board structure. The inclusion of board structure in future studies should further enrich our understanding of the relationship between corporate governance and firm performance.

There are some future directions that may help better explain the relationship between corporate governance, optimal franchising and firm performance in the restaurant industry. One suggestion would be to use Brown and Caylor's (2006) Gov-7 index to offer a fine-grained understanding of the aforementioned relationships. Another approach would be to build calendar-time portfolios for franchising and non-franchising restaurants based on the top and bottom quartiles of the E-Index. Such an approach may shed some light on the true impact of corporate governance provisions on firm financial performance. Future studies can use value-based measures (Aliouche and Schlentrich, 2009) that capture shareholder value or use dynamic efficiency measures (Parte-Esteban and Alberca-Oliver, 2015) to offer additional insights into the economic effect of corporate governance provisions. Finally, using more holistic performance measures that capture non-financial aspects can provide a better understanding of the effect of governance mechanisms (Sainaghi, 2010; Sainaghi *et al.*, 2013). It is our hope that these opportunities will be pursued by other scholars in the near future.

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