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CEO Attributes and Firm Performance in the Hospitality Industry

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ABSTRACT

Drawing on upper echelons theory, we explore demographic and other attributes of CEOs in the hospitality industry and their impact on firm performance. Our results, based on a sample of 1,427 CEO firm-years of publicly traded companies over a period of 24 years, show that a typical CEO in the hospitality industry is male, in his mid-50s, with no graduate degree and no prior CEO experience, but has worked in operations and has an average tenure of approximately 9 years. Our analyses show that while there is some relationship between CEO attributes and firm performance, the sign and significance of this relationship depends on the specific firm performance measure used. Our study contributes to the literature in corporate governance and hospitality by systematically examining the effect of CEO demographics and other attributes on firm performance in the hospitality industry. We draw implications for CEO search committees of hospitality firms and outline avenues for future research.

Chief executive officers (CEOs) play an important role in making strategic decisions (Porter, 1980), shaping organizational architecture (Burgelman, 1983), and energizing organizational constituencies (Fanelli, Misangyi, & Tosi, 2009). Although there are debates among scholars about how much CEOs matter, the “CEO effect,” or the influence CEOs have on firm performance, is well documented in the literature. A recent study finds that the CEO effect explains 38.5% of variance in return on assets (ROA), 35.5% of variance in return on sales, and 46.4% of variance in market-to-book value of common stock (Hambrick & Quigley, 2014). Moreover, the CEO effect has increased from less than 10% during the period of 1950–1969 to about 20% during the period of 1990–2009 (Quigley & Hambrick, 2015). Despite the increasing significance of CEOs, limited research has studied their impact on the financial performance of hospitality firms.

According to upper echelons theory (Hambrick & Mason, 1984), CEO attributes affect firm performance. The financial market reacts when a firm appoints or dismisses its CEO (Jackson, 2014). Nevertheless, research on CEO demographics and experience-related attributes in the hospitality literature is sparse. Although not directly studying the

impact of CEO attributes on firm performance, a handful of studies on hospitality executives provide some evidence of the association between personal attributes, such as gender (Gröschl & Arcot, 2014) and tenure (Upneja & Ozdemir, 2014), and firm performance. More studies are needed to better understand how CEO attributes affect hospitality firm performance.

In examining the financial performance of hospitality firms, previous research has used different measures of firm performance, such as ROA (Madanoglu & Karadag, 2008), stock return (Ozdemir, Kizildag, & Upneja, 2013), and Tobin’s Q (Guillet, Kucukusta, & Xiao, 2012). As an example of an accounting-based measure of profitability, ROA reflects the past or short-term financial performance of a firm, whereas market-based measures, such as Tobin’s Q and stock return, reflect future or long-term financial performance of a firm (Combs, Crook, & Shook, 2005; Hult et al., 2008). Both accounting- and market-based measures are widely used as valid indicators of financial performance. Nevertheless, there is no consensus about the relationship between the two (Richard, Devinney, Yip, & Johnson, 2009). While some scholars suggest that they are unrelated because of the conflicts between achieving long-term

versus short-term financial goals (Venkatraman & Ramanujam, 1986), others expect the two to be more or less associated (Richard et al., 2009). In an effort to address this ongoing debate, Gentry and Shen (2010) conducted a study using annual financial data from all the publicly traded U.S. firms in Compustat from 1961 to 2008. Their findings indicate that despite the positive correlation between accounting- and market-based measures across industries, there is no evidence of convergence between the two. Given that each indicator may represent a distinct dimension of firm performance, a comparison of the effects of CEO attributes on different indicators of firm financial performance is warranted.

To that end, the current study employs upper echelons theory as a theoretical background to investigate how CEO attributes affect the performance of firms in the hospitality industry. Specifically, the present study aims to examine: (1) the attributes of CEOs in the hospitality industry and (2) the effect of CEO attributes on firm performance.

Literature review

The impact of CEOs on firm performance in the hospitality industry

The impact CEOs have on the performance of firms has captured extensive attention from scholars and practitioners alike. At the center of leadership, CEOs set the pattern for the organization through their vision, decisions, policies, and the things about which they care, measure, and reward (Finkelstein, Hambrick, & Cannella, 2009). Numerous studies have examined the effect of CEOs on firm performance. While research findings do not agree on the extent to which CEOs affect firm performance, Mackey (2008) finds that, by addressing the methodological issues behind the inconsistency, CEO effect is considerably more important than industry effect on corporate-parent performance, and reasonably more important than industry effect on business-segment performance in certain settings. In lodging/entertainment, services, wholesale/retail trade, and transportation, industry effects account for a substantially larger portion of performance variance than in manufacturing (McGahan & Porter, 1997). Therefore, holding industry effect constant, a study of CEO effect on firm

performance within the hospitality industry is warranted.

Unlike previous studies on CEOs that are mostly sector-specific, the current study investigates CEO effect on firm performance using the hospitality industry as a whole. The hospitality industry is unique in several aspects. First, the hospitality industry relies on discretionary income, and therefore is very sensitive to economic downturns (Denizci, 2007). Second, the hospitality industry pays its executives lower than other industries do (Skalpe, 2007; Sturman, 2001). Third, the hospitality industry is structurally different from other industries such that the hospitality industry has greater competition, higher risk, higher leverage, and higher capital intensity than other industries, and these characteristics may help explain why the hospitality industry differs from other industries with regard to profitability, stock returns, and corporate governance practices (Singal, 2015).

CEO attributes and firm performance

Upper echelons theory posits that executive attributes affect executive actions and decision making, which in turn affect firm performance (Hambrick & Mason, 1984). Executives are boundedly rational, as their decisions and actions reflect their own values, experiences, and personalities (Hambrick, 2007). Executive demographic attributes are valid, although incomplete, proxies of their cognitions (Hambrick, 2007). Researchers can make predictions of firm performance and strategic decisions based on executives' age, gender, tenure, experience, educational backgrounds, and functional backgrounds (Guillet, Seo, Kucukusta, & Lee, 2013; Hambrick, 2007; Hambrick & Mason, 1984). Based on 308 studies, Wang, Holmes, Oh, and Zhu (2016) conducted a meta-analysis and found general support for the predictions of upper echelons theory, with a few exceptions. For example, they found that CEO attributes, including age, tenure, formal education, and prior career experience, are positively related to firm performance. The following section provides a summary of the literature regarding the aforementioned CEO attributes.

Age

According to Guillet et al. (2012), age is an important variable about executives because they accrue human capital through years of work. Older executives may be more competitive than younger executives because they have more experience in business (Peni, 2014). Previous research has found mixed results with regard to the relationship between executive age and firm performance. For example, Peni (2014) found that CEO age is not significantly related to Tobin's Q, but is positively related to ROA. Davidson, Xie, Xu, and Ning (2007) found that CEOs who are close to retirement age are more concerned with short-term instead of long-term firm performance prior to turnover in order to increase their personal wealth. Davis (1979), however, found no relationship between executive age and corporate performance.

Gender

Gender is one of the most studied attributes of executives (Peni, 2014). Using this attribute as one of the indicators of good diversity management in the hospitality industry, Singal (2014) found that investment in diversity has a positive impact on the firm's financial performance, as measured by Tobin's Q and firm credit rating. Although earlier studies suggest that male executives have greater advantages for business performance than their female counterparts (Granovetter, 1992), female CEOs are, on average, younger than male CEOs, but have more impressive work experience and education (Adams, Gupta, Haughton, & Leeth, 2007). When the CEO is a woman, the firm has lower risk levels than when the CEO is a man (Khan, Walayet, & João Paulo, 2013). Gröschl and Arcot (2014) explored the composition of top management teams (TMT) in the hotel industry and found that different proportions of female executives in a TMT have different impacts on firm performance. When 10%–20% of TMT members are female, female executives have a positive influence on the firm's financial performance.

Tenure

CEO tenure refers to the number of years an individual works as a CEO at the company. As CEOs accumulate tenure, their knowledge of the

firm and their ability to monitor and provide important resources increase, which may have a positive impact on the firm's financial performance (Baysinger & Hoskisson, 1990). However, empirical evidence suggests that the tenure–performance relationship is not always linear. For example, Laveren, Helleboogh, Molly, and Limere (2010) found a curvilinear relationship between CEO tenure and firm performance, such that CEO tenure contributes to firm value growth to a certain point, after which a longer tenure negatively affects firm value growth. The tenure–performance relationship may also depend on industry dynamics. For instance, in the stable food industry, firm performance improves steadily with CEO tenure, while in the dynamic computer industry, firm performance decreases steadily with CEO tenure (Henderson, Miller, & Hambrick, 2006). In the lodging industry, CEO tenure is significantly related to ROA and Tobin's Q, but insignificantly related to stock return (Upneja & Ozdemir, 2014).

Experience

CEO experience refers to prior CEO experience before joining the firm. Upper echelons theory (Hambrick & Mason, 1984) posits that top executives act on personal interpretations of the situations they face, and their interpretations are subject to personal experiences. While experienced CEOs are hired to replicate their previous success in the current organizations (Hamori & Koyuncu, 2015), their performance in the new firms is not always satisfactory. Some studies show that CEO experience is negatively related to firm performance. For example, Elsaid, Wang, and Davidson (2011) found that companies that hired former CEOs tend to have worse financial performance post-succession than companies that hired non-former CEOs. Yet, the market reacts positively to the hiring of an experienced outsider. Also, companies that hired former CEOs who moved directly from their previous positions to the current ones, or who have job-specific experience in the same or related industry or at similar-sized companies to the current ones, experience significantly lower performance post-succession than companies that hire non-former CEOs (Hamori & Koyuncu, 2015). Despite the intriguing findings,

a meta-analysis on upper echelons theory reveals that CEO prior experience is positively related to firm performance (Wang et al., 2016).

Educational background

Shareholders believe that some predictions can be made about a CEO's thinking process and performance based on the type of degree the CEO holds (Gottesman & Morey, 2010). CEO formal education is said to reflect CEO cognitive ability to acquire and process complex information and to facilitate decision making (Wally & Baum, 1994). CEO formal education may also reflect a CEO's level of innate curiosity and openness to new ideas (Wang et al., 2016). Using data from 1987 to 1996 and 1997 to 2006, respectively, Jalbert, Rao, and Jalbert (2002) and Jalbert, Furumo, and Jalbert (2011) found limited or mixed evidence regarding the impact of CEO educational background on firm performance. Alternatively, Gottesman and Morey (2010) showed no significant differences of financial performance among firms managed by CEOs with or without graduate degrees or with different types of graduate degrees (MBA, law, non-MBA, and non-law) from schools of different rankings. Due to a lack of empirical studies thus far, it is unclear how CEO education is related to firm performance in the hospitality industry.

Functional background

As one of the most studied demographic attributes of top executives, functional background affects how executives define and approach a problem (Hambrick & Mason, 1984). CEOs gain knowledge and skills in their prior career experiences, and such experiences affect their preferences and strategic choices (Wang et al., 2016). Output functional backgrounds refer to positions in sales and

marketing (Elsaid et al., 2011). Throughput functional backgrounds refer to positions in engineering, operations, and research and development (R&D; Elsaid et al., 2011). Peripheral functional backgrounds refer to positions in accounting, finance, law, personnel, and general administration (Bunderson, 2003; Elsaid et al., 2011). Koyuncu, Firfiray, Claes, and Hamori (2010) found that CEOs with functional backgrounds in operations perform better than CEOs with functional backgrounds in finance.

To summarize, research on CEO attributes in the hospitality industry is scant. Although a handful of earlier studies have explored the attributes and behavior of top chain-restaurant CEOs (Muller & Inman, 1996), attributes of female restaurant executives (Petrick, 1998), and the hospitality leadership profile in America (Lee, 1994), little is known about recent hospitality CEO attributes and how these attributes affect firm performance. Drawing on upper echelons theory, the current study aims to empirically answer two research questions:

Research Question 1: What are some of the salient demographic and other attributes of CEOs in the hospitality industry?

Research Question 2: How do these CEO attributes affect firm performance in the hospitality industry?

Figure 1 presents the conceptual framework proposed by the current study.

Methodology

Data

We obtained data from Compustat, ExecuComp, Marquis' Who's Who, and Bloomberg Executive Profiles for the period of 1992–2015. In order to gather all data related to hospitality CEOs in

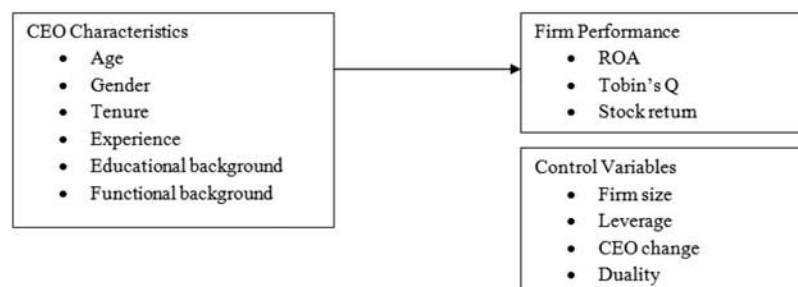


Figure 1. Firm performance model in the hospitality industry.

ExecuComp, we started with identifying a list of 42 North American Industry Classification System (NAICS) codes associated with the hospitality industry via a keyword search (i.e., hotel, restaurant, cruise, theme park, air transportation, travel, accommodation, beverage, parks, and club) and on the official NAICS site (www.census.gov/eos/www/naics). Using this list as search criteria for publicly traded hospitality companies in North America, a subset of 156 Compustat companies that are available in ExecuComp was identified for further study. After manually screening for unrelated companies based on company description, the final sample consisted of 1,427 firm-years, 240 distinct CEOs, and 106 unique companies. All financial data were winsorized at 5% and 95% levels to moderate the effects of extreme values and their impact on regression coefficients.

Independent variables

The main independent variable in this study is CEO attributes, which have six components: age, gender, tenure, experience, educational background, and functional background. The data for CEO age, gender, and tenure were collected from ExecuComp. Age is measured as a CEO's age in the fiscal year studied, gender as a dummy variable with 1 being male and 0 being female, and tenure as a CEO's years of employment as CEO at the focal firm. For each of the CEOs within the dataset, we manually extracted CEO experience, educational background, and functional background information from Marquis' Who's Who and Bloomberg Executive Profiles. CEO experience consists of four dummy variables, following a scheme partially adapted from Hamori and Koyuncu (2015). Exp1 equals 1 if the CEO has no prior CEO experience, and 0 otherwise. Exp2 equals 1 if the CEO has prior CEO experience in the same industry as the focal firm, and 0 otherwise. Exp3 equals 1 if the CEO has prior CEO experience in other service industries, and 0 otherwise. Exp4 equals 1 if the CEO has prior CEO experience in manufacturing industries, and 0 otherwise. Similar to experience, educational background also consists of four dummy variables (Gottesman & Morey, 2010). Edu1 equals 1 if the CEO has a non-graduate degree, and 0 otherwise. Edu2 equals 1 if the CEO has an MBA, and 0 otherwise. Edu3 equals 1 if the CEO has a graduate degree

in law, and 0 otherwise. Edu4 equals 1 if the CEO has a non-MBA and non-law graduate degree, and 0 otherwise. For functional background, Fun1 equals 1 if the CEO has a sales and marketing background, and 0 otherwise. Fun2 equals 1 if the CEO has an engineering, operations, or R&D background, and 0 otherwise. Fun3 equals 1 if the CEO has an accounting, finance, law, personnel, or general administration background (Bunderson, 2003; Elsaid et al., 2011). CEO functional backgrounds were determined by examining each CEO's prior job titles, employment history (Elsaid, 2014), and dominant functional career track based on length of service (Michel & Hambrick, 1992).

Dependent variables

The dependent variable in this study is firm performance, which has three indicators: ROA, Tobin's Q, and stock return. ROA is operationalized as the ratio of net income to average total assets (Upneja & Ozdemir, 2014). Tobin's Q is operationalized as the approximate q using Chung and Pruitt's (1994) calculation $(MVE + PS + DEBT)/TA$, where MVE represents the product of a firm's stock price and the number of common shares outstanding; PS represents the liquidating value of outstanding preferred shares; DEBT represents the value of short-term liabilities, net of short-term assets plus the book value of long-term assets; and TA represents the book value of total assets. Stock return is calculated as the ratio of the difference between the fiscal year-end closing price of year t and year $t-1$ plus dividends to the fiscal year-end closing price of year $t-1$ (Upneja & Ozdemir, 2014).

Control variables

Firm size, leverage, CEO change, duality, and year are included as control variables for the statistical analyses because earlier research suggests that these variables may influence firm performance (Guillet et al., 2013; Upneja & Ozdemir, 2014). Size is operationalized as the natural logarithm of total assets, leverage as the ratio of total debt to total assets, CEO change as a dummy variable that takes on a value of 1 if a new CEO assumes office in year t relative to year $t-1$, and 0 otherwise. Duality refers to a CEO who is also chair of the board and is measured by a dummy variable that takes on a value of 1 if the CEO is also

chair of the board, and 0 otherwise. Data of control variables were collected from Compustat and ExecuComp. Table 1 lists the descriptions, data sources, and citations of the variables in the study.

Data analysis

The current study uses OLS to analyze the effect of CEO attributes on firm performance. The data analysis consists of two steps: Model 1 examines the effect of control variables on firm performance and Model 2 examines the effect of CEO attributes and control variables on firm performance. The general model estimated is as follows, with Exp1, Edu1, and Fun2 omitted to avoid the dummy variable trap:

$$\begin{aligned} \text{ROA}_{i,t}/\text{Tobin's } Q_{i,t}/\text{Stockreturn}_{i,t} = & \beta_0 + \beta_1 \text{Age}_{i,t} \\ & + \beta_2 \text{Gender}_{i,t} + \beta_3 \text{Tenure}_{i,t} + \beta_4 \text{Exp2}_{i,t} + \beta_5 \text{Exp3}_{i,t} + \beta_6 \text{Exp4}_{i,t} \\ & + \beta_7 \text{Edu2}_{i,t} + \beta_8 \text{Edu3}_{i,t} + \beta_9 \text{Edu4}_{i,t} + \beta_{10} \text{Fun1}_{i,t} + \beta_{11} \text{Fun3}_{i,t} \\ & + \beta_{12} \text{Size}_{i,t} + \beta_{13} \text{Leverage}_{i,t} + \beta_{14} \text{CEOchange}_{i,t} + \beta_{15} \text{Duality}_{i,t} \\ & + D \cdot \text{Year} + \varepsilon \end{aligned}$$

Results

Descriptive statistics

Table 2 displays the summary statistics of the variables examined in this study. The average ROA of the sample firms is 5%, the average Tobin's Q is 1.51, and the average annual stock return is 9%. A typical firm in our sample has \$4,577.44 million worth of total assets and a leverage ratio of 0.62. On average, a

Table 1. Descriptions, Data Sources, and Citations of Variables in the Study.

Variables	Descriptions	Data Sources	Citations
Age _{it}	CEO's age for firm <i>i</i> at year <i>t</i>	ExecuComp	(Guillet et al., 2012)
Gender _{it}	Dummy variable = 1 if the CEO is male, 0 if female	ExecuComp	(Guillet et al., 2012)
Tenure _{it}	CEO's years of employment as CEO at firm <i>i</i> at year <i>t</i>	ExecuComp	(Guillet et al., 2012)
Exp1 _{it}	Dummy variable = 1 if the CEO has no prior CEO experience, 0 otherwise	Marquis' Who's Who, Bloomberg Executive Profiles	(Hamori & Koyuncu, 2015)
Exp2 _{it}	Dummy variable = 1 if the CEO has prior CEO experience in the same industry as firm <i>i</i> , 0 otherwise		
Exp3 _{it}	Dummy variable = 1 if the CEO has prior CEO experience in other service industries, 0 otherwise		
Exp4 _{it}	Dummy variable = 1 if the CEO has prior CEO experience in manufacturing industries, 0 otherwise		
Edu1 _{it}	Dummy variable = 1 if the CEO has a non-graduate degree, 0 otherwise	Marquis' Who's Who, Bloomberg Executive Profiles	(Gottesman & Morey, 2010)
Edu2 _{it}	Dummy variable = 1 if the CEO has an MBA, 0 otherwise		
Edu3 _{it}	Dummy variable = 1 if the CEO has a graduate degree in law, 0 otherwise		
Edu4 _{it}	Dummy variable = 1 if the CEO has a non-MBA and non-law graduate degree, 0 otherwise		
Fun1 _{it}	Dummy variable = 1 if the CEO has an output functional background, 0 otherwise	Marquis' Who's Who, Bloomberg Executive Profiles	(Bunderson, 2003; Elsaid et al., 2011)
Fun2 _{it}	Dummy variable = 1 if the CEO has a throughput functional background, 0 otherwise		
Fun3 _{it}	Dummy variable = 1 if the CEO has a peripheral functional background, 0 otherwise		
ROA _{it}	Ratio of net income and average total assets	Compustat	(Upneja & Ozdemir, 2014)
Tobin's Q _{it}	Approximate $q = (\text{MVE} + \text{PS} + \text{DEBT})/\text{TA}$, where MVE is the product of a firm's stock price and the number of common shares outstanding; PS is the liquidating value of outstanding preferred shares; DEBT is the value of short-term liabilities, net of short-term assets plus the book value of long-term assets; and TA is the book value of total assets	Compustat	(Chung & Pruitt, 1994)
Stock return _{it}	The ratio of the difference between the fiscal year-end closing price of year <i>t</i> and year <i>t</i> -1 plus dividends to the fiscal year-end closing price of year <i>t</i> -1	Compustat	(Upneja & Ozdemir, 2014)
Size _{it}	Natural logarithm of total assets	Compustat	(Upneja & Ozdemir, 2014)
Leverage _{it}	Ratio of total debt and total assets	Compustat	(Guillet et al., 2013)
CEO change _{it}	Dummy variable = 1 if a new CEO assumes office in year <i>t</i> relative to year <i>t</i> -1, 0 otherwise	ExecuComp	(Upneja & Ozdemir, 2014)
Duality _{it}	Dummy variable = 1 if the CEO is also chair of the board, 0 otherwise	ExecuComp	(Guillet et al., 2013)

Table 2. Descriptive Statistics.

Variable	N	Mean	SD	Min.	Max.
ROA	1381	0.05	0.06	-0.10	0.16
Tobin's Q	1360	1.51	0.86	0.51	3.70
Stock return	1281	0.09	0.41	-0.58	0.96
Age	1427	54.36	7.62	30.00	80.00
Tenure (in years)	1406	8.73	7.93	0.10	41.00
Size (in millions)	1388	4577.44	8084.21	6.27	54121.00
Leverage	1388	0.62	0.37	0.04	4.07

	Frequency (%)		
	N	1	0
Gender	1427	1381 (96.8)	46 (3.2)
Exp1	1415	1001 (70.7)	414 (29.3)
Exp2	1415	294 (20.8)	1121 (79.2)
Exp3	1415	75 (5.3)	1347 (94.7)
Exp4	1415	45 (3.2)	1370 (96.8)
Edu1	1243	647 (52.1)	596 (47.9)
Edu2	1243	344 (27.7)	899 (72.3)
Edu3	1243	177 (14.2)	1066 (85.8)
Edu4	1243	75 (6.0)	1168 (94.0)
Fun1	1414	127 (9.0)	1287 (91.0)
Fun2	1414	866 (61.2)	548 (38.8)
Fun3	1414	421 (29.8)	993 (70.2)
CEO change	1422	137 (9.6)	1285 (90.4)
Duality	1427	965 (67.6)	462 (32.4)

Note: Please refer to Table 1 for description of variables.

sample firm has experienced CEO change at least once during the sample period. The average age of the sample CEOs is around 54 years, with the youngest CEO being 30 years old and the oldest being 80 years old. Male CEOs constitute the majority (96.8%). Among the sample CEOs, 70.7% have no prior CEO experience, 20.8% have CEO experience in the same industry as the focal firm, 5.3% have CEO experience in other service industries, and 3.2% have CEO experience in the manufacturing industry. In terms of education, 52.1% of the sample CEOs have no graduate degrees, 27.7% have an MBA degree, 14.2% have an advanced law degree, and 6.0% have a graduate degree in other fields. As for functional background, 61.2% of the sample CEOs have worked in operations, 29.8% have worked in fields related to accounting, finance, law, personnel, and general administration, and 9.0% have worked in fields related to sales and marketing. The majority (67.6%) of the sample CEOs also serve as chair of the board. Table 3 lists the results of Pearson's correlation analysis of the variables in this study. ROA, Tobin's Q, and stock return are positively and significantly correlated with each other. Among the four control variables, CEO change is negatively and significantly correlated with all three performance measures.

Empirical findings

Research question 2 asks about the relationship between CEO attributes and firm performance. Two general models were analyzed, one with only control variables as independent variables and the other with both CEO attributes and control variables as independent variables. As shown in Models 1 a/b/c of Table 4, control variables have varying effects on firm performance such that size, leverage, CEO change, and duality all have a significant impact on ROA, whereas only size has a significant impact on Tobin's Q and no control variable has a significant impact on stock return. When CEO attributes are added to the model, gender and Exp2 have a significant, negative effect on ROA (Model 2a). In other words, male CEOs and CEOs with prior CEO experience in the same industry underperform female CEOs and CEOs in other experience categories in terms of ROA. As shown in Model 2b, age, Exp4, Edu4, and Fun3 have a significant effect on Tobin's Q. Specifically, Tobin's Q decreases as CEO age increases. Compared with other CEOs, CEOs with prior CEO experience in manufacturing industries, CEOs with non-MBA and non-law graduate degrees, and CEOs with functional backgrounds in accounting, finance, law, personnel, and general administration are associated with lower levels of Tobin's Q. As shown in Model 2c, age is positively and significantly related to stock return. Overall, tenure has no significant impact on firm performance regardless of the performance measure used. Also, the signs of the coefficients of gender are negative across models, suggesting that female CEOs consistently outperform male CEOs. However, given that female CEOs constitute less than 4% of the sample, this result should be interpreted with caution. Taken together, the answer to our second research question is that while there is some relationship between CEO attributes and firm performance, the sign and significance of this relationship depends on the specific firm performance measure used, and there are no identifying attributes that consistently lead to superior firm performance across all metrics.

Table 3. Summary of Pearson's Correlation.

Measures	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1 ROA	-																			
2 Tobin's Q	0.65 (0.00)	-																		
3 Stock return	0.19 (0.00)	0.22 (0.00)	-																	
4 Age	0.04 (0.17)	-0.05 (0.07)	0.08 (0.01)	-																
5 Gender	-0.08 (0.00)	-0.08 (0.01)	-0.07 (0.01)	0.04 (0.09)	-															
6 Tenure	0.15 (0.00)	0.07 (0.02)	-0.01 (0.76)	0.36 (0.00)	0.05 (0.05)	-														
7 Exp1	0.14 (0.00)	0.06 (0.02)	0.03 (0.32)	-0.05 (0.06)	-0.08 (0.00)	0.29 (0.00)	-													
8 Exp2	-0.11 (0.00)	-0.05 (0.07)	-0.02 (0.56)	0.03 (0.34)	0.09 (0.00)	-0.21 (0.00)	-0.80 (0.00)	-												
9 Exp3	-0.04 (0.13)	0.01 (0.70)	-0.02 (0.52)	0.03 (0.32)	0.04 (0.10)	-0.12 (0.00)	-0.37 (0.00)	-0.12 (0.00)	-											
10 Exp4	-0.07 (0.01)	-0.06 (0.02)	-0.01 (0.67)	0.04 (0.16)	-0.06 (0.03)	-0.10 (0.00)	-0.28 (0.00)	-0.09 (0.11)	-0.04 (0.11)	-										
11 Edu1	0.05 (0.07)	0.09 (0.00)	-0.03 (0.34)	-0.01 (0.86)	-0.02 (0.54)	-0.02 (0.49)	0.00 (0.97)	0.00 (0.99)	-0.02 (0.40)	0.03 (0.31)	-									
12 Edu2	-0.01 (0.70)	-0.04 (0.12)	0.01 (0.65)	-0.03 (0.35)	-0.07 (0.01)	0.02 (0.54)	0.00 (0.94)	-0.07 (0.02)	0.08 (0.01)	0.05 (0.08)	-0.64 (0.00)	-								
13 Edu3	-0.04 (0.21)	-0.02 (0.47)	0.01 (0.80)	0.10 (0.00)	0.08 (0.00)	-0.05 (0.10)	-0.06 (0.04)	0.12 (0.00)	-0.04 (0.16)	-0.07 (0.01)	-0.42 (0.00)	-0.25 (0.00)	-							
14 Edu4	-0.03 (0.23)	-0.08 (0.01)	0.02 (0.43)	-0.08 (0.00)	0.05 (0.08)	0.08 (0.01)	0.08 (0.01)	-0.05 (0.08)	-0.03 (0.25)	-0.05 (0.10)	-0.26 (0.00)	-0.16 (0.00)	-0.10 (0.00)	-						
15 Fun1	0.00 (0.92)	0.00 (0.93)	0.02 (0.48)	-0.01 (0.64)	-0.36 (0.00)	-0.15 (0.00)	-0.01 (0.59)	0.03 (0.21)	-0.07 (0.01)	0.06 (0.04)	0.03 (0.27)	0.07 (0.01)	-0.13 (0.00)	-0.02 (0.58)	-					
16 Fun2	0.07 (0.01)	0.12 (0.00)	-0.05 (0.09)	0.04 (0.19)	0.21 (0.00)	0.12 (0.00)	-0.06 (0.02)	-0.01 (0.83)	0.10 (0.00)	0.05 (0.09)	0.27 (0.00)	-0.15 (0.00)	-0.20 (0.00)	0.01 (0.64)	-0.39 (0.00)	-				
17 Fun3	-0.18 (0.00)	-0.13 (0.00)	0.04 (0.18)	-0.03 (0.27)	0.00 (0.92)	-0.03 (0.23)	0.07 (0.01)	-0.01 (0.58)	-0.06 (0.03)	-0.08 (0.00)	-0.30 (0.00)	0.11 (0.00)	0.30 (0.00)	0.00 (0.89)	-0.20 (0.00)	-0.82 (0.00)				
18 Size	-0.18 (0.00)	-0.24 (0.00)	0.04 (0.21)	0.19 (0.00)	0.06 (0.03)	0.05 (0.06)	0.06 (0.03)	0.06 (0.02)	-0.04 (0.12)	0.06 (0.02)	-0.14 (0.00)	0.02 (0.52)	0.07 (0.02)	0.15 (0.00)	0.01 (0.60)	-0.19 (0.00)	0.19 (0.00)	-		
19 Leverage	-0.26 (0.00)	-0.11 (0.00)	0.01 (0.62)	0.05 (0.06)	-0.03 (0.26)	-0.15 (0.00)	-0.15 (0.00)	0.08 (0.00)	0.10 (0.00)	0.06 (0.04)	-0.08 (0.00)	0.08 (0.01)	0.01 (0.61)	0.00 (0.99)	0.12 (0.00)	-0.13 (0.00)	0.07 (0.01)	0.28 (0.00)	-	
20 CEO change	-0.13 (0.00)	-0.07 (0.01)	-0.06 (0.04)	-0.06 (0.04)	0.21 (0.83)	-0.18 (0.00)	-0.03 (0.21)	0.03 (0.29)	0.01 (0.73)	0.01 (0.74)	-0.02 (0.51)	0.05 (0.06)	-0.02 (0.53)	-0.03 (0.23)	0.02 (0.41)	0.00 (0.97)	-0.01 (0.58)	0.03 (0.27)	0.06 (0.02)	-
21 Duality	0.09 (0.00)	0.04 (0.12)	-0.04 (0.13)	0.10 (0.00)	0.10 (0.00)	0.43 (0.00)	0.14 (0.00)	-0.12 (0.00)	-0.06 (0.03)	-0.01 (0.63)	-0.08 (0.00)	-0.02 (0.54)	-0.10 (0.00)	0.00 (0.95)	-0.06 (0.02)	0.04 (0.13)	0.00 (0.86)	0.06 (0.04)	-0.10 (0.00)	-0.18 (0.00)

Note: *p*-values are shown in parentheses. Please refer to Table 1 for descriptions of variables.

Table 4. Results of OLS Estimation.

	ROA		Tobin's Q		Stock Return	
	Model 1a	Model 2a	Model 1b	Model 2b	Model 1c	Model 2c
	β	β	β	β	β	β
Age		.000		-.007*		.004**
Gender		-.026*		-.275		-.099
Tenure		.000		.007		-.003
Exp2		-.010*		-.041		-.049
Exp3		-.005		.155		-.043
Exp4		-.019		-.300*		-.075
Edu2		.000		-.075		.019
Edu3		.001		.056		.005
Edu4		-.004		-.233*		.071
Fun1		.001		-.078		-.017
Fun3		-.007		-.187**		.010
Size	-.007***	-.006***	-.151***	-.124***	-.005	-.007
Leverage	-.031***	-.029***	-.085	-.069	.001	.001
CEO change	-.019**	-.018**	-.070	-.063	-.046	-.046
Duality	.008*	.004	.068	.039	-.010	.000
F-statistic	6.390***	5.267***	6.279***	5.381***	12.720***	9.455***
Adj. R^2	0.109	0.120	0.109	0.125	0.226	0.228
N	1186	1186	1167	1167	1087	1087

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Note: Coefficients of year dummies are not reported for clarity and brevity. Please refer to Table 1 for descriptions of variables.

Discussion

Although organizational theorists suggest that CEO attributes may affect firm performance, empirical evidence is far from conclusive. Given that CEO attributes are understudied in the hospitality literature, we systematically analyzed the effect of CEO attributes on three of the most commonly used firm performance indicators: ROA, Tobin's Q, and stock return. Drawing on upper echelons theory and extensive hand-collected data on CEOs of publicly traded hospitality firms, the present research empirically finds that a typical CEO in the hospitality industry is a man, in his mid-50s, who has no graduate degree and no prior CEO experience, but has worked in operations and has a CEO tenure of approximately nine years. Second, out of the six attributes variables, only tenure does not have a significant impact on firm performance. Age, experience, educational background, and functional background all have a significant impact on firm performance, measured as Tobin's Q. Several important theoretical and managerial implications can be drawn from this research.

Theoretical implications

Drawing on upper echelons theory (Hambrick & Mason, 1984), to the best of our knowledge, the

current research is the first to systematically assess the effect of CEO attributes, particularly experience, education, and functional background, on firm performance. As predicted by the theory, age, gender, and tenure are significantly correlated with firm performance. However, tenure has no significant impact on any of the three firm performance measures, controlling for the effects of other CEO attributes and control variables. The finding is contrary to previous findings in the restaurant (Guillet et al., 2013) and hotel settings (Upneja & Ozdemir, 2014). One possible explanation is that there are subsector differences within the hospitality industry. For example, airlines and casinos may be different from hotels and restaurants in terms of average firm size and sensitivity to governmental policies. Given that industry dynamics affect the direction of the tenure–firm performance relationship (Henderson et al., 2006), the nonsignificant result in our study should not be surprising. Future research can replicate the current study in different hospitality sectors and compare the results to this study. Another explanation is that the relationship between tenure and firm performance is nonlinear (Laveren et al., 2010) and indirect (Wang et al., 2016). For example, future strategic actions mediate the relationship between CEO attributes and firm performance (Hambrick & Mason, 1984). Thus, the current study echoes Wang et al.'s (2016) call for theoretical and

empirical research to identify additional mediators of the CEO attributes–firm performance relationship.

One important finding of this study is that CEO experience, education, and functional background are significantly related to firm performance in terms of Tobin's Q. Few studies have explicitly examined the effect of experience, education, and functional background on firm performance in the hospitality industry. Because the hospitality industry values hands-on experience and is famous for its legendary entrepreneurs, such as J. W. Marriott and Conrad Hilton, there can be a perception that advanced degrees are not necessary for the success of the hospitality business. To some extent, the findings of this study confirm this notion by showing that CEOs with a graduate degree do not outperform CEOs who do not have an advanced degree. Nevertheless, the current study does not suggest that higher education is irrelevant to the hospitality business. In a 1996 survey, 57 women executives in 48 multiunit restaurant firms indicated that advancement to the rank of an executive position in the industry was no longer possible without formal education (Petrick, 1998). The results also reveal that CEOs who have graduate degrees other than MBA and law underperform CEOs who do not have advanced degrees. This finding seems to suggest that all (graduate) degrees are not the same, which can be supported by Hambrick and Mason's (1984) argument that it is reasonable to believe that students pursuing an English-literature degree are somewhat different from students pursuing a business degree. In addition, the finding on functional background suggests that CEOs who have a throughput background, whether it is related to their experience as a chief operating officer (COO), a restaurant franchisee, or a hotel manager, outperform CEOs who have other functional backgrounds in areas such as law, finance, and accounting. Since it is reasonable to believe that the hospitality business accentuates operations experience, the finding is consistent with upper echelons theory's prediction that the degree of throughout functional experience of executives is positively related to the extent to which the firm emphasizes throughout in its strategy (Hambrick & Mason, 1984). The finding also confirms what 85 restaurant CEOs in 1996 revealed as critical human resources factors for success in the consumer-driven service industry: operations and

field-management experience and skills (Muller & Inman, 1996). Lastly, the findings suggest that CEOs who rise through the ranks from within the company or who have no prior CEO experience outside the company outperform CEOs with prior experience. Specifically, CEOs with prior experience as CEOs in manufacturing companies significantly underperform CEOs who have no prior experience. The finding implies that not all CEOs' job-specific knowledge or skills are transferable across industries. What works in the manufacturing industry may not work in the service industry.

This study also contributes to the literature by empirically demonstrating that the same CEO attribute variables can have varying effects on different firm performance measures. Gentry and Shen (2010) caution that "many authors discuss firm performance very generally in their theory and hypothesis development and elaborate on theory performance measures only in the method section" (p. 526). Given that different measures of firm performance may represent different dimensions of a firm, researchers should define the firm performance measure they want to study upfront and use it to guide the theoretical development (Gentry & Shen, 2010). By doing so, researchers may develop better theories and avoid overgeneralizing research findings.

Practical implications

The current study provides some insights for CEO search committees of hospitality firms. The search committee can refer to the findings when creating search criteria for CEO positions that match the skills, knowledge, and experience of the CEO to the need of the firm. For the results to be most beneficial to the search committee, the search committee has to first decide the main goal they would like the CEO to achieve and how to measure the achievement of the goal. If the goal is to enhance growth outlook measured by Tobin's Q, the search committee should give preference to CEO candidates who are relatively young and who have operations backgrounds. The search committee should also give preference to CEO candidates who do not come from CEO positions from manufacturing firms. Although it is often assumed that individuals who have advanced

degrees are more likely to succeed as CEOs, this research shows that advanced degrees other than MBA and law may not help CEOs excel in the hospitality industry. If the goal the CEO is expected to achieve is to improve management efficiency measured by ROA, the search committee should give preference to female candidates and candidates who do not come from CEO positions from other firms in the same industry. If the goal set for the CEO is to increase stock returns, the search committee should consider hiring older CEOs. When a specific goal is not defined, a general suggestion is that the search committee should consider female CEO candidates and candidates from within the company.

Limitations and future research

The current study has several limitations. First, the sample is comprised of only publicly traded companies in the United States. Therefore, the results may not be generalizable to private firms or the hospitality industry in other contexts. Future research may replicate the current study using samples from other countries and compare the results to the findings of this study. Given that certain firm performance indicators, such as stock return, are not available in private companies, it will be interesting to see how private-company CEO attributes are related to firm performance. Third, there are other factors, such as CEO compensation, that may affect the firm performance examined in this study. Future research should explore the effects of other variables, separately from and/or in conjunction with CEO attributes, on firm performance.

Disclosure Statement

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

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