Research Paper

The relationship between board diversity and firm performance in the lodging industry: The moderating role of internationalization

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ABSTRACT

Following the emphasis on board diversity and its roles on firm performance, an examination on the relationship between board diversity and firm performance in the lodging industry is conducted. Further, this study employs internationalization, a moderator, to more comprehensively investigate the board diversity-firm performance relationship. This study found that gender diversity shows a positive and significant effect on firm performance while age diversity has an insignificant effect on firm performance. Regarding the moderating effect of internationalization, the degree of internationalization significantly magnifies the effect of gender diversity on firm performance but insignificantly moderates the effect of age diversity on firm performance. This study attempts to contribute to the hospitality and tourism literature by examining the topic that has been rarely dealt with and provide practical guidelines for stakeholders of a lodging firm especially when selecting board members.

1. Introduction

In accordance with a pivotal role of a board of directors on corporate governance and firm performance, shareholders need to consider various factors including work experience and compensation of candidate board members while composing a board (Milliken and Martins, 1996). Particularly, board diversity, defined as "variety in the composition of a board of directors" (Kang et al., 2007, p.2) has been one of the most critical issues associated with the effectiveness of the board and its influence on firm performance (Milliken and Martins, 1996). For example, National Association of Corporate Directors (NACD, 2012) supported shareholders' assertion that demographic factors, such as gender and age should be evaluated in the selection of directors for corporate growth and better performance. And, Morgan Stanley Capital International industry reports covering 6,500 firms revealed that a firm with more diversified board is less likely to be damaged by corporate scandals including bribery and fraud of executive managers (Grene and Newlands, 2015). Similarly, the importance of board diversity has been enlarged in the hospitality industry. For example, in an annual report, InterContinental Hotels Group underscored various dimensions of diversity in a board for ensuring long-term and sustainable valuate creation (IHG, 2019).

Following the emphasis on board diversity, to date, while multiple studies have explored the board diversity-firm performance relationship, empirical results have been inconclusive (Erhardt et al., 2003). A stream of researchers, based on the resource dependence theory and the human capital theory, found that board diversity has a positive effect on firm performance (Joecks et al., 2012; Erhardt et al., 2003; Kim et al., 2013). Contrarily, other studies, grounded on the social identity theory and the similarity-attraction paradigm, found a negative relationship between board diversity and firm performance (Treichler, 1995; Arena et al., 2015).

Inconsistent empirical results may be attributable to multiple factors, such as industry-specific characteristics and operationalization of board diversity (e.g., gender, nationality, and age) (Jackson and Schuler, 1995; Oliver, 1997). Particularly, according to Guillen (2000), appropriate systems of corporate governance differ, contingent on industries, thus, the effect of board diversity on firm performance should be developed in the consideration of industry-specific characteristics. Given the lodging industry-specific characteristics such as separation of property ownership and management, which leads to conflicts of interests between agents and owners (Guilding, 2003), high level of operational risks due to capital intensity in real estate components (Defranco and Lattin, 2007), and severe sensitivity to external factors and customers' discretionary spending (Huse, 2007), the functions and roles of a diversified board may be more important than ones in other industries.

Further, although a board of directors are involved in strategic management process of a firm and affected firm performance to some extent, the board does not intervene in every managerial situation

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(Finkelstein et al., 2009; Barroso-Castro et al., 2017). Thus, to more specifically capture the effect of board diversity on firm performance, certain managerial situations and strategies (e.g., internationalization and acquisition) the board vigorously participate in should be contemplated. This study proposes that internationalization is one of key contingent factors, which should be considered to comprehensively understand the board diversity-firm performance relationship, given that managerial complexity and challenges generated in accordance with internationalization may necessitate a more effective and diversified board that appropriately provides resources and monitors top executives (Carpenter and Westphal, 2001; Van der Walt et al., 2006). Specifically, when a firm adopts internationalization, management process becomes more demanding, which requires substantial energy and efforts, thereby triggering high initial costs with significant risks (Forbes and Milliken, 1999; Carter and Lorsch, 2004). Thus, CEO and other top executives may not afford all tasks and challenges occurred in the process of internationalization, solely relying upon their capabilities and resources (Barroso et al., 2011). In this regard, values of a diversified board owning different perspectives, experience, and know-how may be critical as a firm calls for the diversified board members' resources and capital for resolving operational challenges and reducing managerial complexity in the process of international expansion (Hitt et al., 1994). Likewise, taking advantage of mutually exclusive and comprehensive knowledge and know-how offered by diverse members in a board, the board may be able to more effectively monitor top executives' management in multipoint international markets, which results in a reduction in agency costs and better market evaluation (Carpenter and Westphal, 2001; Haynes and Hillman, 2010). Considering that internationalization has been adopted as a core expansion strategy by lodging firms for decades (Palich et al., 2000; Kim and Mathur, 2008), the importance of the contingent role of internationalization on the relationship between board diversity and firm performance seems conspicuous. However, there has been no attempt to employ internationalization as a moderating factor for more precisely examining the relationship between board diversity and firm performance in the literature.

Accordingly, motivated by the inconsistent viewpoints and empirical results of the board diversity-firm performance relationship and idiosyncratic characteristics of the lodging industry related to the functions and consequences of board diversity, this study attempts to examine the relationship between board diversity and firm performance in the lodging industry first. And then, as the primary purpose, this study examines the moderating effect of internationalization on the relationship between board diversity and firm performance. More specifically, this study attempts to examine the effect of gender and age diversity, respectively, on Tobin's q, a financial market-based measure of firm performance, and then, investigate the moderating effect of internationalization by including the interaction term between gender (and age) diversity and the degree of internationalization measured by the Berry-Herfindahl index.

This study expects to contribute to the corporate governance literature by examining the board diversity-firm performance relationship, incorporating idiosyncratic characteristics of the lodging industry. Because the sample of this study encompasses the most up-to-date information on the lodging industry's board composition and other industry-specific characteristics (e.g., firm size, leverage ratio, and internationalization), results of this study expect to strengthen external validity of the board diversity-firm performance relationship. Additionally, to the best knowledge, since this study is the first one exploring the relationship between board diversity and firm performance by incorporating the intervention of internationalization, this study expects to offer a unique dimension that the effect of board diversity may depend on a firm's specific strategy, which offers new perspectives on relevant theories. Additionally, results of this study expect to provide implications for shareholders, legislators, and other stakeholders of lodging firms regarding diversity representation in a boardroom.

2. Literature review and hypotheses development

2.1. The effect of board diversity on firm performance

The board diversity-firm performance relationship has been examined extensively in the literature, regarded as a controversial issue in the corporate governance context of modern corporations (Mahadeo et al., 2012). The literature provides two conflicting perspectives regarding the board diversity-firm performance relationship.

On the one hand, the resource dependence theory and the human capital theory mainly explain benefits from board diversity (Carter et al., 2003; Hillman and Dalziel, 2003). First, the resource dependence theorists maintain that board diversity enables a firm to secure resources which are vital to reduce risks and improve operational outcomes (Taljaard et al., 2015). Specifically, business activities of a firm are contingent on environments and obtaining appropriate resources from the environments are crucial to achieve competitive advantage (Pfeffer, 1972). According to Hillman and Dalziel (2003), a board of directors provides diverse service (e.g., advice, counsel, and legitimacy) to a firm, utilizing valuable resources gained from external environments. A diversified board provides much more varied and crucial resources for better decision makings, resulting in better firm performance (Hillman et al., 2000). Next, the human capital theorists contend that accumulated human capital (e.g., skills, knowledge, and other attributes of individuals) from board diversity improves decision-making process with unique knowledge and perspectives from each differentiated board member (Carter et al., 2010).

Similarly, the agency theory and the stakeholder theory which are mainly adopted in corporate governance literature may support benefits of board diversity. Based on the agency theory, board diversity is likely to increase board independence since different characteristics and backgrounds of members in a diversified board facilitate the capability of the board to question the original system, whereas common traits in a traditional board may not. That is, differentiated perspectives in a diversified board may result in effective monitoring, which decreases agency costs (Carter et al., 2003; Bear et al., 2010). In addition, research grounded on the stakeholder theory argues that a firm's success relies on satisfying the needs of diverse stakeholders, which may be relevantly accomplished by a diversified board with different backgrounds and capabilities. In addition, since a diversified board offers symbolic values to stakeholders of a firm, there may be a higher chance for a firm to build a beneficial relationship with its stakeholders, which may increase firm value (Hillman et al., 2001; Lückerath-Rovers, 2013).

Contrastingly, another stream of researchers asserts costs of board diversity, relied upon the social identity theory and the similarity-attraction paradigm in the social psychology literature (Tajfel et al., 1979; Williams and O'Reilly, 1998). Social identity theorists contend that individuals are likely to associate themselves with other people who resemble them in social category memberships. Similarly, the similar-attraction paradigm indicates that individuals are likely to build and preserve relationships with others who share common demographic characteristics. Heterogeneity in a group often results in conflicts between individuals along with problems of communication since individuals from diverse backgrounds may not fully comprehend others' perspectives and trust each other (Richard et al., 2003). In spite of the importance of board diversity in corporate governance context, the board diversity-firm performance relationship has been scarcely dealt with in the hospitality industry. Although Hambrick et al. (1996) and Singal (2014) examined the effect of diversity management (i.e., top management team and other dimensions of management) on firm performance in the hospitality industry context, to the best knowledge, none have focused on the impact of board diversity on firm performance in the hospitality industry context. Thus, for examining the board diversity-firm performance relationship in the lodging industry, this study uses gender and age diversity as proxies for board diversity which clearly represents different individuals' characteristics and are

the most frequently validated attributes in previous literature (Kilduff et al., 2000; Hillman et al., 2000).

2.2. The effect of gender diversity on firm performance

A stream of researchers suggests that gender diversity generates several advantages due to the following reasons. First, female board members are likely to have a cognitive style focusing on harmony in a group (Hurst et al., 1989) and capacity for effective dissemination of information (Earley and Mosakowski, 2000). Given that a lodging firm should swiftly react to diverse external factors such as economic conditions and changes in trends of customers (Kang and Lee, 2014), the female board members' capabilities for harmonizing each individual board members' perspectives may facilitate communication and information processing in an organization, which leads to more swift and appropriate strategic decision making for coping with volatile changes in business environment at a right time.

Second, compared to male board members, female board members have to face various types of challenges prior to holding the position of a board of directors, thereby building up differentiated human capital to handle operational problems and providing useful external resources which are obtained from previous experiences (Krishnan and Park, 2005; Rose, 2007). Thus, especially for the lodging industry case where multiple types of managerial problems occurred in varied locations where a firm operates its properties, gender diversity formed from an increase in the portion of female directors possibly enhance the quantity and quality of alternatives for appropriate strategic choices by virtue of fluent and unique experience.

Third, gender diversity in a board signals positive intention and image of workforce diversity, which may result in better firm performance (Rose, 2007). Since a lodging firm needs to provide sentimental service to customers who have various needs (Tepeci, 1999), more qualified employees captured by better corporate image from board diversity may result in an improvement in operational outcomes. Further, gender diversity's positive signals may seem as a firm's effort to care about various stakeholders by securing board seats for relatively minority groups, thereby leading to better market evaluation and financial performance in the end (Lückerath-Rovers, 2013).

Lastly, due to separation of property ownership and management in the lodging industry, management groups may be more likely to seek for own interests, utilizing information asymmetries (Guilding, 2003). Based on the agency theory, female directors who are relatively a new group different from traditional male directors may increase board independence and effectively monitor management groups, alleviating agency costs.

Contrastingly, similar to overall arguments on costs of board diversity, researchers maintain that an increase in the level of gender diversity in a boardroom may escalate conflicts and delays in strategic decisions (Richard et al., 2003; Hambrick et al., 1996).

However, considering that the lodging industry needs to provide emotional and sentimental service to customers and female workers' roles are highlighted in the process of management, accounting for high portion of total employment (Burke et al., 2008a), homogeneity and harmony between male and female workers may relatively well diffuse throughout an organization as corporate culture. In this regard, even in a boardroom, conflicts and communication problems between male and female directors possibly caused by gender difference may be marginalized due to the harmonized corporate culture in a lodging firm. Thus, this study, grounded on the theoretical supports regarding benefits from gender diversity, hypothesizes that benefits from board diversity exceeds costs in the lodging industry, thereby affecting positively firm performance as follows:

H1. The effect of gender diversity on firm performance in the US lodging industry is significant and positive.

2.3. The effect of age diversity on firm performance

According to Herrmann and Datta (2005), age diversity within a firm can be deemed as a proxy for risk-taking manners and the extent of experience. That is, young managers and board members are more inclined to take risks on strategic changes, expecting high growth in firm performance (Wiersema and Bantel, 1992). In addition, according to Cheng et al. (2010), young members in an organization are more likely to have the ability to devise creative ideas, fewer interests in stability of career, and lower willingness to accept current situations. On the other hands, older executive managers and board members have richer work experience, accumulated managerial knowledge, and better understandings of diverse market conditions than young ones, which may result in proper decision-making and initiatives (Reed and Defillippi, 1990). Thus, considering different strengths and weaknesses of each group in the board, which present separate implications in decision makings and strategic implementations, an amalgam of young and old board members obtained by age diversity may generate synergetic effects by actively collaborating with each other while complementing each other's drawbacks.

On the other hands, conflicts between young and old members may exist similar as other attributes of diversity (e.g., gender and race), which brings about conflicts between subgroups and delays in consensus for decision makings (Hagendorff and Keasey, 2012). Dissimilar to other attributes of board members, however, clear distinction between young and old board members is ambiguous, thus, heterogeneity among subgroups may seem relatively weak.

A lodging firm frequently expands its business activities into other regions to benefit from economies of scope, economies of scale, an increased market power, and risk reduction by utilizing location-specific advantages and internal resources (Palich et al., 2000; Kim and Mathur, 2008). In this context, young directors' characteristics may be helpful for a lodging firm to actively enter new markets and successfully cope with external changes and competitors' strategies in each market since young board members, compared to old board members, tend to be bold and creative in decision makings for the growth of a firm. At the same time, conventional old members' plentiful managerial knowhow, wisdom, and understandings of marketplaces gained from diverse work experience may be helpful a lodging firm to make prudent decisions and reduce mistakes, playing a pivotal role in lodging property operations. In sum, age diversity in the board with a combination of young and old directors may generate a synergetic effect, which may outweigh costs from age diversity and leads to better outcomes. Accordingly, this study hypothesizes that:

H2. The effect of age diversity on firm performance in the US lodging industry is significant and positive.

2.4. The moderating role of internationalization

Internationalization has been a widely adopted expansion strategy for firms in varied industries, including the lodging industry (Kim and Mathur, 2008). It is attributable that a highly saturated market condition in the base country motivates lodging firms to expand their business activities internationally in order to exploit benefits from foreign markets (e.g., reduction of business risks, increase in market share, and enhancement of brand recognition) (Lee et al., 2010). Based on the imperfect capital theory, internationalization offers diversified portfolios to shareholders, thereby ultimately improving a firm's market evaluation (Doukas and Travlos, 1988). Additionally, while adopting and implementing internationalization, a firm enables to use new environments and resources from foreign markets, which makes the firm adapt to volatile market changes effectively (Lu and Beamish, 2004). Contrastingly, as a firm internationally expands its business activities, the level of operational complexity and uncertainty a firm faces increases (Kogut, 1989). That is, external environments including

diversity of cultures, customers, regulations, and competitors may be at odd with the domestic operational situation, which generates tasks with high information processing demands executive managers should handle (Brahm, 1994).

A stream of researchers contends that contribution and values of diversity in a board are not determined by itself, but hinge on strategic environments and complexity a firm's operations associate with (Van der Walt et al., 2006; Carpenter and Westphal, 2001). Carpenter and Westphal (2001) found that strategic complexity significantly affects corporate governance and functions of a board of directors. Similarly, Van der Walt et al. (2006) examined the interaction effect between board diversity and strategic complexity on a firm's profits and growth and found that there is a negative and significant association between the interaction and firm performance. That is, strategic complexity caused by a firm's expansion strategies and changes in external environments intervenes in the effect of board diversity on firm performance. In this regard, incorporating environments and managerial complexity a firm faces with into the board diversity-firm performance relationship seems necessary for a more comprehensive examination.

This study employs the degree of internationalization as a proxy reflecting managerial complexity and external environments which may intervene the board diversity-firm performance relationship in the lodging industry since internationalization may generate greater managerial complexity from turbulent environments due to each foreign region's distinctive market situation, cultural difference, and seasonality (Palich et al., 2000). In the lodging industry, turbulent external conditions and managerial complexity occurred by internationalization may magnify benefits of board diversity, thereby positively moderating board diversity's values and consequences on firm performance. More specifically, turbulent operational complexity may provide opportunities for board members to act as boundary spanners who offer appropriate external resources and strategic guidance and links with internal resource and capabilities, which may be helpful for a firms' survival in competitive environments. For example, as a lodging firm actively internationalizes its businesses, female directors' expertise in facilitating communication and diffusing information in a board become more salient while reconciling various properties' management dynamics and formulating tactical strategies. Similarly, in the process of internationalization, values from an appropriate mixture of young and old members from age diversity may be enlarged by virtue of young directors' swift reactions to changing trends on international markets and old directors' plentiful managerial knowhows and external ties accumulated from relatively longer industrial experience (Cheng et al., 2010).

Besides, based on the agency theory, an increase in managerial complexity and uncertainty will generate a higher probability of managerial entrenchments (Kang and Lee, 2014; Lee et al., 2014). In this managerial situation, a monitoring role of a board may be underscored, and shareholders of a firm may require a diversified board with plentiful business experience and different perspectives to more effectively monitor top executives' potential entrenchments and protect the shareholders' wealth (Finkelstein et al., 2009; Lee, 2014). Accordingly, this study postulates that internationalization may enlarge values obtained from board diversity, thereby leading to a positive moderating effect on the board diversity-firm performance relationship as below:

H3. Internationalization positively moderates the effect of gender diversity on firm performance in the US lodging industry.

H4. Internationalization positively moderates the effect of age diversity on firm performance in the US lodging industry.

3. Methodology

3.1. Data

The sample of the current study includes publicly traded US lodging firms, following the North American Industry Classification System code 721110 (hotels except casino hotels and motels). Data for board diversity (i.e., gender diversity and age diversity) is collected from DEF14A (other definitive proxy statements). And, 10-Ks (firms' annual reports) provide information regarding firm performance, internationalization and other control variables. The sample period spans 1993–2018 to contain all publicly traded firms filing 10-Ks and DEF14A in the Electronic Data Gathering, Analysis, and Retrieval system (EDGAR).

Prior to running main analysis, this study checked some assumptions of panel regression models. Specifically, for checking multicollinearity, this study employed variance inflation factor (VIF) and found that all value of VIF is between 1 and 10, indicating that there exists no severe multicollinearity among variables. Using studentized residuals plot along with Durbin-Watson d test, this study detected autocorrelation and heteroscedasticity of all models, thus, this study decided to use Newey-West standard errors to address the autocorrelation and heteroscedasticity issue (Gujarati, 2009; Hoechle, 2007). And, we conducted Fisher-type unit-root test for checking stationarity for unbalanced panel data (Hurlin and Mignon, 2007) and the result indicates that all panels contain unit roots (p-value = 0.296) at the 5% significance level over the sample period. For improving conditions of independence and linearity, this study detected and eliminated outliers and influential cases, using studentized residuals and Cook's distance. Observations whose absolute values of studentized residual are larger than 3 were deleted as potential outliers. And, influential cases with the Cook's distance larger than 1 were eliminated (Anderson et al., 2016; Chatterjee and Hadi, 1986). As the final sample, this study obtained 320 firm-year observations for both gender diversity and age diversity.

3.2. Estimation methods and models

For examining the impact of board diversity and the moderating role of internationalization on the board diversity-firm performance relationship, panel regression models are employed. For operationalizing firm performance, Tobin's q, a financial market-based measure is used as a dependent variable (Choi et al., 2011). And, in order to measure board diversity, this study employs gender diversity and age diversity. For measuring the degree of internationalization, this study uses the Berry-Herfindahl index. All models contain relevant control variables which possibly confounds the board diversity-firm performance relationship. Models for analyses are as follows:

H1. Tobin's $q = \alpha_0 + \alpha_1 GD + \alpha_2 INT + \alpha_3 SIZE + \alpha_4 LEV + \alpha_5 GO + \alpha_6 BS + \varepsilon$,

H2. Tobin's $q = \alpha_0 + \alpha_1 AD + \alpha_2 INT + \alpha_3 SIZE + \alpha_4 LEV + \alpha_5 GO + \alpha_6 BS + \varepsilon$,

H3. Tobin's $q = \alpha_0 + \alpha_1 GD + \alpha_2 INT + \alpha_3 GDxINT + \alpha_4 SIZE + \alpha_5 LEV + \alpha_6 GO + \alpha_7 BS + \varepsilon$,

H4. Tobin's $q = \alpha_0 + \alpha_1 AD + \alpha_2 INT + \alpha_3 ADxINT + \alpha_4 SIZE + \alpha_5 LEV + \alpha_6 GO + \alpha_7 BS + \varepsilon$,

where Tobin's q represents firm performance measured by market value to book value ratio; GD represents the degree of gender diversity measured by the Blau (1977) index of heterogeneity $(1-\Sigma Pi^2)$; AD represents the degree of age diversity measured by standard deviation of board members' age; INT represents the degree of internationalization using the Berry-Herfindahl index $(1-\Sigma S_i^2)$; SIZE represents a firm's size measured by the log of total assets; LEV represents firm's leverage measured by debt-to-asset ratio; GO represents growth opportunity measured by capital expenditure divided by sales; BS represents the number of a board of directors in a firm.

For the coefficient estimation, either the fixed effects or random effects method should be employed in panel data setting because an

omitted variable bias caused by unobservable time-specific and firm-specific heterogeneities may result in biased and inconsistent estimation when using the pooled OLS estimation method (Gujarati, 2009). This study conducted the Hausman test to select either the fixed effects method or random effects method. Since there was a significant difference in coefficient estimations between the fixed effects and random effects method (p-value < 0.05), this study determined to adopt the fixed effects method for testing all hypotheses.

In addition, considering that there may be an endogeneity issue, particularly a causality problem, in the relationship between board diversity and firm performance (Adams and Ferreira, 2009; Vafaei et al., 2015), the two-stage least squares (2SLS) estimator with instrumental variables is employed with the fixed effects method. Regarding instrumental variables, previous studies argue that a valid instrument is difficult to obtain in the context of corporate governance structure since firm-specific characteristics correlated with board diversity are inevitably correlated with firm performance (and error terms) and included as control variables already in models (e.g., firm size, leverage, and board number) (Adams and Ferreira, 2009; Jurkus et al., 2011). Nevertheless, considering the significance of the possible causality problem that may compromises the valid estimation, referring to the previous literature, this study adopted two significantly valid instrumental variables which are the industry average of gender and age diversity, and the average age of board members of a firm (Cater et al., 2003; Liu et al., 2014). Specifically, grounded on the board diversity literature, the industry proclivity of increasing diversity in a board possibly influences the diversity (e.g., gender and age diversity) of a board in a firm (Liu et al., 2014). Likewise, given that board seats have been traditionally taken by old male directors, as directors' average age becomes younger, the firm tends to increase the overall diversity (e.g., gender, race, and nationality), expecting changes in the board (Cater et al., 2003). For checking whether the adopted instrumental variables meet exogeneity conditions, this study employed the Sargan-Hansen instrument test (Davidson and MacKinnon, 1993). Under the null hypothesis that the instrumental variables are not correlated with the error terms, the results of the test showed insignificant statistics (p-values of two models with gender and age diversity are 0.1405 and 0.6639, respectively), which indicates that the two instrumental variables are valid, statistically satisfying the exogeneity conditions.

For detecting the endogeneity, this study conducted the Durbin-Wu-Hausman test with the two adopted instrumental variables (Wooldridge, 2010). The results of the Durbin-Wu-Hausman test showed the significant difference between the 2SLS estimation and the OLS estimation (p-values of two models with gender and age diversity are 0.001 and 0.002, respectively), implying that there is a significant endogeneity problem between board diversity and firm performance. Thus, this study determined to adopt the fixed effects method with the instrumental variables. As the first step of 2SLS estimation, this study regressed the endogenous variable (i.e., gender diversity and age diversity) on exogenous variables including the newly added two instrumental variables along with original control variables to obtain fitted values. As the second step, to estimate coefficients for hypotheses testing, Tobin's q, a dependent variable, was regressed on the fitted values drawn from the first step and other original control variables (Wooldridge, 2010).

Additionally, to check robustness, this study additionally performed analyses, employing generalized estimating equations (GEE) method, a different statistical technique of coefficient estimation that provides maximum likelihood estimates and addresses non-independent firm-year observations with cross-sectional time series data (Liang and Zeger, 1986; Hambrick and Cannella, 2004).

3.3. Firm performance measure

To measure firm performance, the current study employs Tobin's q, a financial market-based measure of firm performance, as a dependent variable. A group of researchers contends that Tobin's q is better for measuring firm performance than accounting-based measures (e.g., return on equity and return on assets) and stock return measures (e.g., stock growth rate) since Tobin's provides an unbiased estimate of firm value, addressing a firm's cash flow relative to the replacement costs of assets (Wernerfelt and Montgomery, 1988). Specifically, while accounting-based measures and stock return measures are ex post approaches over sample periods which require the adjustment for risks and may not address unexpected changes appropriately, Tobin's q is a measure at a point in time, undisturbed by unexpected changes and the impacts of risks over the sample period (Lang and Stulz, 1994).

This study uses the approximate Tobin's q proposed by Chung and Pruitt (1994). The approximate Tobin's q is calculated by (MVE + PS + DEBT)/TA, where MVE is a firm's stock price multiplied by the number of common shares outstanding; PS is referred to the liquidating value of outstanding preferred stock; DEBT represents short-term liabilities, composed of sum of short-term assets and the book value of long-term debt; and TA represents total assets of a firm.

3.4. Board diversity measure

This study uses the Blau's (1997) index ($1 - \Sigma P_i^2$) of heterogeneity to measure gender diversity, considering that the index has been extensively validated in multiple studies with regard to diversity management (Richard et al., 2003). The index is calculated by subtracting ΣP_i^2 from 1, where P_i represents the proportion of subgroup members in category i. For example, when measuring gender diversity using the Blau's index, the value takes on a range from 0 to 0.50. While an index of 0 indicates that there is only one gender (i.e., historically all-male board members), a value of 0.5 suggest that each gender has the equal number of board members. When measuring age diversity, since inconsistent criteria for dividing age subgroups may exist when employing heterogeneity index, this study uses standard deviation of board members' age within a firm, following previous literature (Tihanyi et al., 2000).

3.5. Other explanatory variables

For internationalization, a moderator, the Berry-Herfindahl index ($1 - \Sigma S_i^2$) is adopted since the index considering the number along with the weight of each entity is widely accepted as an appropriate measure of the degree of internationalization in the literature (Denis et al., 2002). S_i indicates the number of lodging properties in each country to the total number of properties ratio. In order to examine the moderating effect, this study contained an interaction term between board diversity and the degree of internationalization.

This study uses four relevant control variables which have been commonly included in previous literature to address probable confounding effects on the board diversity-firm performance relationship (Erhardt et al., 2003; Carter et al., 2003). First, this study includes firm size (SIZE) because as firm size increases, there is a higher chance of increasing the level of board diversity and firm performance at the same time, which may confound a pure effect of board diversity on firm performance (Carter et al., 2003). Second, a firm's leverage (LEV) is included since leverage possibly affects both firm performance and the monitoring role of a diversified board towards executive managers. For example, while leverage may affect firm value due to the tax shield effect and financial distress costs (Modigliani and Miller, 1958), higher leverage improves a diversified board' power to control managers' discretion, which leads to a decrease in potential agency costs (Harford et al., 2007). Third, a firm with greater growth opportunity is more likely to have information asymmetries between executive managers and shareholders including a board of directors, which increases the agency problem. Thus, this study includes growth opportunity as a control variable to address the confounding effect on the relationship between board diversity and firm performance (Mak and Li, 2001). In

addition, according to previous literature about corporate governance, since board size may have a negative impact on firm performance due to problems of poor communication and decision-making, board size (BS) is included in this study as a control variable (Guest, 2009).

4. Analyses and results

4.1. Descriptive statistics

Table 1 represents descriptive statistics of variables included in the main analyses. Since firm-year observations for investigating the impact of gender diversity and age diversity are different, Table 1 contains two separate sections. First, the gender diversity sample is comprised of 320 firm-year observations. Tobin's q, a dependent variable in models, has a mean of 1.056 and a standard deviation of 0.486, ranging from 0.010 to 2.741. The degree of gender diversity (GD) has a mean of 0.119, ranging from 0.000 to 0.571. For the degree of internationalization (INT), the sample has a mean of 0.097 and standard deviation of 0.222. Board size (BS) of sampled lodging firms ranges from 2.000–19.000 with a mean of 7.478. Other control variables including firm size (SIZE), a firm's leverage (LEV), and growth opportunity (GO) show notable variations for explaining factors in the main analyses.

Next, in the age diversity sample with 320 firm-year observations, the degree of age diversity (AD) has a mean of 4.199 along with a standard deviation of 0.934. The age composition of directors in the sample has a mean of 57.55 with a range from 22 to 88. Directors' age over 60 accounts for 90% of observations, while age under 60 accounts for 10% of the sample. Variables including Tobin's q, the degree of internationalization (INT), and other control variables has same descriptive statistics as ones in gender diversity sample.

Tables 2 and 3 provide the results of Pearson's correlation analyses of variables. In Table 2 representing the results for gender diversity sample, the degree of gender diversity (GD) correlates positively and significantly with Tobin's q at the 5% significance level. The moderating variable, the degree of internationalization (INT), and the dependent variable, Tobin's q, are correlated positively and significantly with each other. And, the degree of gender diversity (GD) is positively correlated with the degree of internationalization (INT). Control variables including a firm's size (SIZE), leverage ratio (LEV), and the number of board members (BN) shows a positive and significant correlation with a dependent variable, Tobin's q at the 5% significance

level while only growth opportunity insignificantly correlates with Tobin's q.

Regarding the results of age diversity sample in Table 3, while the degree of age diversity (AD) has a negative correlation with Tobin's q, other explanatory variables including the degree of internationalization (INT), firm size (SIZE), leverage ratio (LEV), and board size (BS) show positive and significant correlations with Tobin's q at the 5% significance level. However, growth opportunity (GO) insignificantly correlate with Tobin's q.

4.2. Main analyses and hypotheses testing

Table 4 presents results of the two-stage least squares (2SLS) estimation with the fixed effects model using gender diversity sample. As clearly presented in Table 4, there is a positive and significant relationship between gender diversity (GD) and Tobin's q, supporting H1 (p-value = 0.011). That is, on average, a unit increase in gender diversity leads to 1.548 increases in Tobin's q. More specifically, the enhancement of the even distribution of male and female members in a board leads to better market value, compared to the assets' replacement cost. For control variables, while firm size (SIZE) negatively associates with Tobin's q, leverage ratio (LEV) has a positive and significant effect on Tobin's q. And, growth opportunity (GO) and board size (BS) shows an insignificant impact on Tobin's q.

Regarding the moderating effect of internationalization, the interaction term (GD x INT) shows a significantly positive impact on Tobin's q (p-value = 0.001), which supports H3. That is, on average, a unit increase in degree of internationalization (INT), measured by the Berry-Herfindahl index, magnifies the influence of gender diversity (GD) on better market value relative to a firm's replacement cost of total assets. Leverage ratio (LEV) affects positively Tobin's q at the 1% significance level, while a firm's size (SIZE) has a negative impact on Tobin's q. Additionally, growth opportunity (GO) and the number of board members (BN) insignificantly associates with Tobin's q.

With age diversity sample, we attempt to test the individual effect of age diversity (AD) (H2) and the moderating effect of the degree of internationalization (INT) (H4). According to the first column in Table 5, age diversity (AD) shows an insignificant effect on Tobin's q, not supporting H2. And, INT has also an insignificant effect on Tobin's q at the 5% significance level. For control variables, while LEV positively affects Tobin's q, SIZE adversely influences financial performance, Tobin's q.

From estimations for investigating the moderating role of INT, the interaction term (AD x INT) does not show a significant association with Tobin's q, which does not support H4. And, SIZE adversely affects Tobin's q whereas LEV appears to have a positive and significant effect on Tobin's q at the 1% significance level.

To summarize, as gender diversity in a board increases, a lodging firm expects to achieve better financial performance. Further, a positive effect of gender diversity on financial performance become magnified in a managerial situation where the firm actively internationalizes its business activities. Contrarily, age diversity has no significant impact on Tobin's q and internationalization does not significantly moderate the effect of age diversity on firm performance.

Results of estimations when using generalized estimating equations (GEE) method are consistent with the main results, which confirmed the validation of the main results for hypotheses testing. Similar with the main results, the results from additional analyses showed a positive and significant effect of gender diversity and the interaction term (GD x INT), while showing an insignificant effect of age diversity and the interaction term (AD x INT).

5. Discussions and conclusions

This study aims to propose and examine the contingent role of internationalization on the relationship between board diversity and firm performance in the lodging industry. Prior to examining the moderating

Table 1
Summary of Descriptive Statistics.[†]

Variable	N	Mean	Std. Dev.	Min	Max
Panel A: Gender Diversity Sample					
Tobin's q	320	1.056	0.486	0.010	2.741
GD	320	0.119	0.151	0.000	0.571
INT	320	0.097	0.222	0.000	0.879
SIZE	320	6.026	1.994	0.553	10.187
LEV	320	0.506	0.314	0.000	1.829
GO	320	0.185	0.443	− 0.110	4.646
BS	320	7.478	3.041	2.000	19.000
Panel B: Age Diversity Sample					
Tobin's q	320	1.056	0.486	0.010	2.741
AD	320	4.199	0.934	2.175	6.277
INT	320	0.097	0.222	0.000	0.879
SIZE	320	6.026	1.994	0.553	10.187
LEV	320	0.506	0.314	0.000	1.829
GO	320	0.185	0.443	− 0.110	4.646
BS	320	7.478	3.041	2.000	19.000

[†] Tobin's q represents financial market-based measure of firm performance; GD represents the degree of gender diversity; AD represents the degree of age diversity; INT represents the degree of internationalization; SIZE represents firm size; LEV represents a firm's leverage; GO represents growth opportunity; BS represents the number of a board of directors.

Table 2
Summary of Pearson's correlations for gender diversity sample.[†]

Variable	Tobin's q	GD	INT	SIZE	LEV	GO	BN
Tobin's q	1.000						
GD	0.245***	1.000					
INT	0.338***	0.539***	1.000				
SIZE	0.367***	0.309***	0.642***	1.000			
LEV	0.221***	−0.069	−0.223***	−0.288***	1.000		
GO	−0.073	−0.112**	−0.129**	0.016	−0.081	1.000	
BS	0.150***	0.367***	0.425***	0.654***	−0.304***	−0.080	1.000

[†] ** and *** denote the 5% and 1% significance level, respectively.

effect of internationalization, this study examines the individual effect of board diversity (i.e., gender diversity and age diversity) on financial performance first. The positive effect of gender diversity on firm performance in the US lodging industry is consistent with empirical findings of previous studies in varied industries (Erhardt et al., 2003; Joecks et al., 2012). The results may suggest that benefits from the diversified gender composition in the board (e.g., creativity, innovation, and a more conscious and effective problem-solving) outweighs costs of gender diversity (e.g., communication problems and a lack of cohesion). Especially, for lodging firms, a proper level of involvement of women board members with proficient intuition for satisfying volatile customer needs may contribute to achieving competitive advantage in highly competitive markets (Kang et al., 2007). In addition, since women are likely to be independent from "old boys" network and proficient in fostering harmony, based on the agency theory, female board members may perform a pivotal and catalytic role for monitoring managers along with providing unique perspectives which facilitate an improvement of executive mangers' strategic decisions (Farrell and Hersch, 2005). And, another possible benefit from gender diversity in the board is to captivate and retain more qualified female workers. That is, as the high degree of gender diversity in the board comes to light, it may cause an improvement of corporate image in community and act as a potent driver to attract more skillful female workers. Accordingly, a firm may expect that female human capital (i.e., female board members and employees) provide more emotional and touching products and service to customers who are crucial stakeholders of a firm's operational success, which results in customer satisfaction and positive outcomes in the end (Fondas, 2000).

According to the results of the analysis examining the moderating effect of internationalization, as the degree of internationalization of a lodging firm increases, a positive effect of gender diversity on firm performance appears to be enlarged. The results indicate that contribution and values of board diversity may vary, contingent on external environments and operational complexity derived from internationalization (Carpenter and Westphal, 2001). In other words, a lodging firm's incremental operational complexity from internationalization provides expanded opportunities for female board members to display their differentiated abilities of swiftly capturing customers' demands and harmonizing different perspectives of each board member for optimal decision making. Additionally, as a lodging firm is exposed to diverse market environments while expanding its

Table 4
Summary of the results from main analysis for gender diversity sample.[†]

Estimation	FE-2SLS	FE-2SLS
Variable	Tobin's q	Tobin's q
GD	1.548**	0.287
	(0.609)	(0.750)
INT	0.285	−1.320**
	(0.362)	(0.536)
GD x INT		4.238***
		(1.437)
SIZE	−0.217***	−0.255***
	(0.051)	(0.043)
LEV	1.133***	1.134***
	(0.096)	(0.076)
GO	0.032	0.045
	(0.064)	(0.042)
BN	−0.015	−0.019
	(0.016)	(0.013)
Constant	1.647***	2.123***
	(0.312)	(0.312)
Observations	320	320
Wald chi2	424.35***	5469.08***

[†] ** and *** denote the 5% and 1% significance level, respectively.

businesses internationally, an access to external resources which may be connected to board members' previous work experiences are more likely occur. Particularly, operating properties in foreign regions tend to make a firm rely more on male and female board members' connections with external resources in markets. Since both male and female board members may be likely to bring valuable and unique resources from external markets into the organization, based on their human capital accumulated by previous work experience and knowhow, the value of this strengthened gender diversity may be magnified in the situation of internationalization. And, in the process of internationalization managerial entrenchment and the escalation of irrational commitment of managers may occur due to information asymmetry between top executives and shareholders (Lee et al., 2014). When a board is diversified with an appropriate blend of male and female directors owning different human and relational capital, the board can more effectively evaluate and monitor top executives, compared to a board having relatively unified characteristics (Hillman and Dalziel, 2003). In this regard, board diversity may alleviate the agency problems (e.g.,

Table 3
Summary of Pearson's correlations for age diversity sample.[†]

Variable	Tobin's q	AD	INT	SIZE	LEV	GO	BN
Tobin's q	1.000						
AD	−0.143**	1.000					
INT	0.338***	−0.097	1.000				
SIZE	0.367***	−0.125**	0.642***	1.000			
LEV	0.221***	−0.052	−0.223***	−0.288***	1.000		
GO	−0.073	0.037	−0.129**	0.016	−0.081	1.000	
BS	0.150***	0.126**	0.425***	0.654***	−0.304***	−0.080	1.000

[†] ** and *** denote the 5% and 1% significance level, respectively.

Table 5
Summary of the results from main analysis for age diversity sample.[†]

Estimation	FE-2SLS	FE-2SLS
Variable	Tobin's q	Tobin's q
AD	−0.623	0.427
	(0.457)	(0.404)
INT	0.350	2.745
	(0.753)	(3.890)
AD x INT		−0.586
		(0.978)
SIZE	−0.246***	−0.201**
	(0.096)	(0.096)
LEV	1.139***	1.134***
	(0.154)	(0.114)
GO	0.069***	0.062***
	(0.020)	(0.022)
BN	0.047	0.033
	(0.053)	(0.043)
Constant	4.185***	3.181**
	(1.490)	(1.546)
Observations	320	320
Wald chi2	133.75***	206.48***

[†] ** and *** denote the 5% and 1% significance level, respectively.

managerial entrenchment and the escalation of commitment) by appropriately monitoring executives and narrowing the information gap between managers and shareholders. Accordingly, in the context of internationalization, the roles of resource provision and monitoring of the diversified board may become more valuable, which, in turn, may magnify the positive effect of board diversity on firm performance.

On the other hand, regarding an insignificant effect of age diversity, roles of age in the board room may be ambiguous in the lodging industry. In other words, board members' inclination and acts relying on age show unclear distinctions in the lodging industry. For example, the lodging industry, a capital-based service industry, accompanies high initial investments and operational costs along with high exit cost. In this context, a board of directors of a lodging firm may tend to show risk-averse attitudes regardless of age when making strategic decisions, which diminishes the risk-taking propensity (and the advantage of risk taking, accordingly) of young board members. In addition, considering that the lodging industry needs to respond to fast-changing customer demand on trendy products and services, not only young board members but also old members may be likely to focus on devising responsive strategies, which attenuates the idiosyncratic advantages of old board members, such as prudence and dignity.

This study expects to contribute to the corporate governance literature by examining the board diversity-firm performance relationship, reflecting idiosyncratic characteristics of the lodging industry. Specifically, corporate governance is the complex and dynamic process that is interrelated with firm-specific and industry-specific contingent factors (e.g., CEO/board relations within a firm, strategies, external environmental characteristics of the industry) (Finkelstein et al., 2009). Due to the interrelated and complex contingent factors, an effective board structure in one firm or industry context may not be applied to other ones. By focusing on the lodging industry, this study found the positive effect of gender diversity on firm performance, which confirms the relevant theories, including the human capital theory, the resource dependence theory, the agency theory, and the stakeholder theory, enhancing the external validity of the relationship.

And, as the primary purpose, this study expects to bring the value and originality into the corporate governance literature by incorporating internationalization as a key contingent factor in the board diversity-firm performance relationship. Since a board does not engage in every single management activity in strategic processes of a firm, specific contexts and strategic situations that magnifies the vigorous involvement of a board should be considered for more comprehensively and precisely examining the effect of board diversity. Given that

internationalization generates different contingencies and operational complexity of a lodging firm, this study enriches theories pertaining to board diversity by providing empirical evidence that the effect of board diversity on firm performance may be accelerated in the context of internationalization, one of key corporate strategies.

For practical implications, as board diversity is currently a critical issue in the lodging industry, results of the study serve as practical guidelines for shareholders of a firm when selecting board members. That is, when a lodging firm attempts to select new nominees of a board of directors, more elaborate decision-making is required while considering the effect of board diversity on firm performance. Particularly, in terms of gender diversity, shareholders of a firm should consider the balance between male and female board members to obtain benefits from a diversified and accumulated human capital (knowledge, perspectives, ideas, and knowhow) of both male and female board members. Specifically, shareholders of a firm are recommended to add criteria for evaluating qualifications and gender composition of new board nominees. And, shareholders need to inspect whether female and male board members effectively cooperate by relevantly blending each gender group's different roles at annual meetings. This improved balance and synergy from gender diversity may act as a catalyst for satisfying other stakeholder groups of a firm, including employees, customers, and even community. Especially, in complex managerial situation of a firm by operating its business activities in multiple locations in global markets, a firm expect strengthened values and contribution of gender diversity on firm performance. If mutual trust and interpersonal interactions between male and female board members build extensive and solid integration in a board, this costly-to-duplicate gender diversity with social complexity and causal ambiguity may be a critical source of sustainable competitive advantage.

Next, findings of this study may provide meaningful insights to state legislators regarding female board representation. As multiple European countries (e.g., Norway and Finland) already have regulated the minimum number or percentage of female directors of firms (Marinova et al., 2016), this study's findings of a positive impact of gender diversity on firm performance may offer guidelines for devising regulation for securing appropriate female directors' seats.

Further, a firm may be able to obtain better market evaluation by underscoring information on gender diversity in a board. In addition, publicly disclosing the information through annual reports and proxy statements enables for a lodging firm to strengthen a positive relationship with their stakeholders.

Several limitations remain in this study. Specifically, since this study employs secondary data for analyses, only publicly traded US lodging firms are included in the sample. When applying findings this study to privately-owned lodging firms or firms in other countries, a generalizability issue should be carefully considered. For enhancing external validity, employing more samples from different countries and privately-owned lodging firms are recommended for future studies.

Second, the measure of board diversity, the Blau's index for measuring gender diversity and standard deviation for measuring age diversity may not comprehensively contain information of diversity of the board. In order to enhance construct validity, other types of measures of board diversity (e.g., variation, proportion, and the existence of board members with unique characteristics using a dummy variable) need to be used simultaneously in future studies.

Third, although this study used gender and age for measuring board diversity, which have been extensively validated measures in the literature, cognitive attributes such as previous work experience, education level, and cultural backgrounds may be proper proxies for more deeply investigating the effect of board diversity on firm performance. Thus, employing other attributes of board members for examining the relationship between board diversity and firm performance is encouraged for future studies.

Next, this study independently examines the effect of gender and age diversity on firm performance with different sample size. However,

an interaction between different types of diversity may exist. For example, according to the results of the study, although there is no relationship between age diversity and firm performance, an interaction between age diversity and gender diversity may show a significant impact on firm performance. Accordingly, in future studies, incorporating distinct types of board diversity is suggested by examining the interaction effect on firm performance.

Lastly, there might be more intervening factors such as firm-specific and industry-specific characteristics influencing the relationship between board diversity and firm performance. To more comprehensively examine the relationship between board diversity and firm performance, future studies need to ponder over other possible intervening factors by incorporating a moderator or a mediator.

References

Adams, R.B., Ferreira, D., 2009. Women in the boardroom and their impact on governance and performance. J.Financ. Econ. 94 (2), 291–309.

Anderson, D.R., Sweeney, D.J., Williams, T.A., Camm, J.D., Cochran, J.J., 2016. Statistics for business & economics. Nelson Education.

Arena, C., Cirillo, A., Mussolino, D., Pulcinelli, I., Saggese, S., Sarto, F., 2015. Women on board: evidence from a masculine industry. Corp. Gov. Int. J. Bus. Soc. 15 (3), 339–356.

Barroso, C., Villegas, M.M., Pérez-Calero, L., 2011. Board influence on a firm's internationalization. Corp. Gov. Int. Rev. 19 (4), 351–367.

Barroso-Castro, C., Villegas-Periñan, M.M., Dominguez, M., 2017. Board members' contribution to strategy: the mediating role of board internal processes. Eur. Res. Manag. Bus. Econ. 23 (2), 82–89.

Bear, S., Rahman, N., Post, C., 2010. The impact of board diversity and gender composition on corporate social responsibility and firm reputation. J. Bus. Ethics 97 (2), 207–221.

Blau, P.M., 1977. Inequality and Heterogeneity: A Primitive Theory of Social Structure, vol. 7 Free Press, New York.

Brahm, R., 1994. The institutional embeddedness of international business strategy: implications for US firms. J. Manag. Inq. 3 (1), 40–50.

Burke, R., Koyuncu, M., Fiksenbaum, L., 2008a. Work experiences, satisfactions and psychological well-being of female and male managers in the hospitality sector in Turkey. Equal. Oppor. Int. 27 (6), 505–518.

Carpenter, M.A., Westphal, J.D., 2001. The strategic context of external network ties: Examining the impact of director appointments on board involvement in strategic decision making. Acad. Manag. J. 44 (4), 639–660.

Carter, C., Lorsch, J.W., 2004. Back to the Drawing Board: Designing Corporate Boards for a Complex World. Harvard Business School Press, Boston, MA.

Carter, D.A., Simkins, B.J., Simpson, W.G., 2003. Corporate governance, board diversity, and firm value. Financ. Rev. 38 (1), 33–53.

Carter, D.A., D'Souza, F., Simkins, B.J., Simpson, W.G., 2010. The gender and ethnic diversity of US boards and board committees and firm financial performance. Corp. Gov. Int. Rev. 18 (5), 396–414.

Chatterjee, S., Hadi, A.S., 1986. Influential observations, high leverage points, and outliers in linear regression. Stat. Sci. 1 (3), 379–393.

Cheng, L.T.W., Chan, R.Y.K., Leung, T.Y., 2010. Management demography and corporate performance: evidence from China. Int. Bus. Rev. 19 (3), 261–275.

Choi, K., Kang, K.H., Lee, S., Lee, K., 2011. Impact of brand diversification on firm performance: a study of restaurant firms. Tour. Econ. 17 (4), 885–903.

Chung, K.H., Pruitt, S.W., 1994. A simple approximation of Tobin's q. Financ. Manage. 23 (3), 70–74.

Davidson, R., MacKinnon, J.G., 1993. Estimation and Inference in Econometrics. OUP Catalogue.

DeFranco, A.L., Lattin, T.W., 2007. Hospitality Financial Management. John Wiley & Sons, Inc., Hoboken, NJ.

Denis, D.J., Denis, D.K., Yost, K., 2002. Global diversification, industrial diversification, and firm value. J. Finance 57 (5), 1951–1979.

Doukas, J., Travlos, N., 1988. The effect of corporate multinationalism on shareholders wealth: evidence from international acquisitions. J. Finance 43 (5), 1161–1175.

Earley, P.C.P., Mosakowski, E., 2000. Creating hybrid team cultures: an empirical test of transnational team functioning. Acad. Manag. J. 43 (1), 26–49.

Erhardt, N.L., Werbel, J., Shrader, C.B., 2003. Board of director diversity and firm financial performance. Corp. Gov. Int. Rev. 11 (2), 102–111.

Farrell, K.A., Hersch, P.L., 2005. Additions to corporate boards: the effect of gender. J. Corp. Financ. 11 (1–2), 85–106.

Finkelstein, S., Cannella, S.F.B., Hambrick, D.C., Cannella, A.A., 2009. Strategic Leadership: Theory and Research on Executives, Top Management Teams, and Boards. Oxford University Press, USA.

Fondas, N., 2000. Women on Boards of Directors: Gender Bias or Power Threat?. In Women on Corporate Boards of Directors. Springer, Dordrecht.

Forbes, D.P., Milliken, F.J., 1999. Cognition and corporate governance: understanding boards of directors as strategic decision-making groups. Acad. Manag. Rev. 24 (3), 489–505.

Grene, S., Newlands, C., 2015. March 8. Boards Without Breed Scandal. Financial Times. Retrieved from https://www.ft.com/content/cdb790f8-c33d-11e4-ac3d-00144feab7de.

Guest, P.M., 2009. The impact of board size on firm performance: evidence from the UK. Eur. J. Financ. 15 (4), 385–404.

Guilding, C., 2003. Hotel owner/operator structures: implications for capital budgeting process. Manag. Account. Res. 14 (3), 179–199.

Guillen, M.F., 2000. Business groups in emerging economies: a resource-based view. Acad. Manag. J. 43 (3), 362–380.

Gujarati, D.N., 2009. Basic Econometrics. Tata McGraw-Hill Education.

Hagendorff, J., Keasey, K., 2012. The value of board diversity in banking: evidence from the market for corporate control. Eur. J. Financ. 18 (1), 41–58.

Hambrick, D.C., Cannella Jr., A.A., 2004. CEOs who have COOs: contingency analysis of an unexplored structural form. Strateg. Manage. J. 25 (10), 959–979.

Hambrick, D.C., Cho, T.S., Chen, M.J., 1996. The influence of top management team heterogeneity on firms' competitive moves. Adm. Sci. Q. 41 (4), 659–684.

Harford, J., Li, K., Zhao, X.S., 2007. Corporate Boards and the Leverage and Debt Maturity Choices. Available at SSRN 891300. .

Haynes, K.T., Hillman, A., 2010. The effect of board capital and CEO power on strategic change. Strateg. Manage. J. 31 (11), 1145–1163.

Herrmann, P., Datta, D., 2005. Relationships between top management team characteristics and international diversification: an empirical investigation. Br. J. Manag. 16 (1), 69–78.

Hillman, A., Dalziel, T., 2003. Board of directors and firm performance: integrating agency and resource dependence perspectives. Acad. Manag. Rev. 28 (2), 383–396.

Hillman, A.J., Cannella, J.A.A., Paetzold, R.L., 2000. The resource dependence role of corporate directors: strategic adaption of board composition in response to environmental change. J. Manag. Stud. 37 (2), 235–2565.

Hillman, A.J., Keim, G.D., Luce, R.A., 2001. Board composition and stakeholder performance: Do stakeholder directors make a difference? Bus. Soc. 40 (3), 295–314.

Hitt, M.A., Hoskisson, R.E., Ireland, R.D., 1994. A mid-range theory of the interactive effects of international and product diversification on innovation and performance. J. Manage. 20 (2), 297–326.

Hoechle, D., 2007. Robust standard errors for panel regressions with cross-sectional dependence. Stata J. 7 (3), 281–312.

Hurlin, C., Mignon, V., 2007. Second generation panel unit root tests.

Hurst, D.K., Rust, J.C., White, R.E., 1989. Top management teams and organizational Renewal. Strateg. Manage. J. 10 (1), 87–105.

Huse, M., 2007. Boards, Governance and Value Creation: the Human Side of Corporate Governance. Cambridge University Press.

IHG, 2019. 2018 IHG Annual Report. . Retrieved from https://www.ihgplc.com/-/media/ihg/annualreports/2018/ar-sections/ihg_2018ar_governance.ashx?la=en&hash=03DD738F5199C547C5B7B88057766B07.

Jackson, S., Schuler, R.S., 1995. Understanding human resource management in the context of organizations and their environments. Annu. Rev. Psychol. 46 (1), 237–264.

Joecks, J., Pull, K., Vetter, K., 2012. Gender diversity in the boardroom and firm performance: what exactly constitutes a 'Critical mass'? J. Bus. Ethics 118 (1), 61–72.

Jurkus, A.F., Park, J.C., Woodard, L.S., 2011. Women in top management and agency costs. J. Bus. Res. 64 (2), 180–186.

Kang, K.H., Lee, S., 2014. The moderating role of brand diversification on the relationship between geographic diversification in the US lodging industry. Int. J. Hosp. Manag. 38, 106–117.

Kang, H., Cheng, M., Gray, S.J., 2007. Corporate governance & board composition: diversity and independence of Australian boards. Corp. Gov. Int. Rev. 15 (2), 194–207.

Kilduff, M., Angelmar, R., Mehra, A., 2000. Top management-team diversity and firm performance: examining the role of cognitions. Organ. Sci. 11 (1), 21–34.

Kim, Y.S., Mathur, I., 2008. The impact of geographic diversification on firm performance. Int. Rev. Financ. Anal. 17 (4), 747–766.

Kim, I., Pantzalis, C., Park, J.C., 2013. Corporate boards' political ideology diversity and firm performance. J. Empir. Finance 21, 223–240.

Kogut, B., 1989. Research notes and communications a note on global strategies. Strateg. Manage. J. 10 (4), 383–389.

Krishnan, H.A., Park, D., 2005. A few good women—on top management teams. J. Bus. Res. 58 (12), 1712–1720.

Lang, L.H.P., Stulz, R.M., 1994. Tobin's q corporate diversification, and firm performance. J. Polit. Econ. 102 (6), 1248–1280.

Lee, T., Chan, K.C., Yeh, J.H., Chan, H.Y., 2010. The impact of internationalization on firm performance: a quantile regression analysis. Int. Rev. Accounting Banking Finance 2 (4), 39–59.

Lee, S., Upneja, A., Özdemir, Ö., Sun, K.A., 2014. A synergy effect of internationalization and firm size on performance: US hotel industry. Int. J. Contemp. Hosp. Manage. 26 (1), 35–49.

Liang, K.Y., Zeger, S.L., 1986. Longitudinal data analysis using generalized linear models. Biometrika 73 (1), 13–22.

Liu, Y., Wei, Z., Xie, F., 2014. Do women directors improve firm performance in China? J. Corp. Financ. 28, 169–184.

Lu, J., Beamish, P.W., 2004. International diversification and firm performance: the S-curve hypothesis. Acad. Manag. J. 47 (4), 598–609.

Lückerath-Rovers, M., 2013. Women on boards and firm performance. J. Manag. Gov. 17 (2), 491–509.

Mahadeo, J.D., Soobaroyen, T., Hanuman, V.O., 2012. Board composition and financial performance: uncovering the effects of diversity in an emerging economy. J. Bus. Ethics 105 (3), 375–388.

Mak, Y.T., Li, Y., 2001. Determinants of corporate ownership and board structure: evidence from Singapore. J. Corp. Financ. 7 (3), 235–256.

Marinova, J., Plantenga, J., Remery, C., 2016. Gender diversity and firm performance: evidence from Dutch and Danish boardrooms. Int. J. Hum. Resour. Manag. 27 (15), 1777–1790.

Milliken, F., Martins, L., 1996. Searching for common threads: understanding the multiple effects of diversity in organizational groups. Acad. Manag. Rev. 21 (2), 402–4343.

Modigliani, F., Miller, M.H., 1958. The cost of capital, corporation finance and the theory of investment. The American 1, 3.

NACD, 2012. The Diverse Board: Moving From Interest to Action. Report of the NACD Blue Ribbon Commision. . Retrieved from www.NACDonline.org.

Oliver, C., 1997. Sustainable competitive advantage: combining institutional and resource-based views. Strateg. Manage. J. 18 (9), 697–713.

Palich, L.E., Cardinal, L.B., Miller, C.C., 2000. Curvilinearity in the diversification performance linkage: an examination of over three decades of research. Strateg. Manage. J. 21 (2), 155–174.

Pfeffer, J., 1972. Size and composition of corporate boards of directors: the organization and its environment. Adm. Sci. Q. 17, 218–228.

Reed, R., Defillippi, R.J., 1990. Causal ambiguity, barriers to imitation, and sustainable competitive advantage. Acad. Manag. Rev. 15 (1), 88–102.

Richard, O., McMillan, A., Chadwick, K., Dwyer, S., 2003. Employing an innovation strategy in racial diverse workforces: effects on firm performance. Group Organ. Manag. 28 (1), 107–126.

Rose, C., 2007. Does female board representation influence firm performance? The Danish evidence. Corp. Gov. Int. Rev. 15 (2), 404–413.

Singal, M., 2014. The business case for diversity management in the hospitality industry. Int. J. Hosp. Manag. 40, 10–19.

Tajfel, H., Turner, J.C., Austin, W.G., Worchel, S., 1979. An integrative theory of intergroup conflict. Organizational Identity: A Reader. pp. 56–65.

Taljaard, C.C.H., Ward, M.J.D., Muller, C.J., 2015. Board diversity and financial performance: a graphical time-series approach. South Afr. J. Econ. Manag. Sci. 18 (3), 425–448.

Tepeci, M., 1999. Increasing brand loyalty in the hospitality industry. Int. J. Contemp. Hosp. Manage. 11 (5), 223–230.

Tihanyi, L., Ellstrand, A.E., Daily, C.M., Dalton, D.R., 2000. Composition of the top management team and firm international diversification. J. Manage. 26 (6), 1157–1177.

Treichler, C.M., 1995. Diversity of board members and organizational performance: an integrative perspective. Corp. Gov. Int. Rev. 3 (4), 189–200.

Vafaei, A., Ahmed, K., Mather, P., 2015. Board diversity and financial performance in the top 500 Australian firms. Aust. Account. Rev. 25 (4), 413–427.

Van der Walt, N., Ingley, C., Shergill, G.S., Townsend, A., 2006. Board configuration: are diverse boards better boards? Corp. Gov. Int. J. Bus. Soc. 6 (2), 129–147.

Wernerfelt, B., Montgomery, C.A., 1988. Tobin's q and the importance of focus in firm performance. Am. Econ. Rev. 78 (1), 246–250.

Wiersema, M.F., Bantel, K.A., 1992. Top management team demography and corporate strategic change. Acad. Manag. J. 35 (1), 91–121.

Williams, K.Y., O'Reilly, C.A., 1998. The complexity of diversity: a review of forty years of research. Res. Manag. Groups Teams 20, 77–140.

Wooldridge, J.M., 2010. Econometric Analysis of Cross Section and Panel Data. MIT Press.