Research Paper

Board diversity and firm performance in the U.S. tourism sector: The effect of institutional ownership

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ABSTRACT

This study examines the relationship between board diversity and firm performance in the U.S. tourism sector by using institutional ownership as a contingency that moderates this relationship. The study's sample includes publicly-traded companies from the U.S. restaurant, hotel and airline industries. The hypotheses are tested via two-way fixed-effects regression, and the findings of the study indicate that board diversity is positively associated with financial performance (Tobin's Q), and the effect of board diversity on performance is contingent on the degree of institutional ownership. More precisely, the study finds that board diversity has a larger effect on financial performance when institutional ownership is low on a tourism firm's ownership structure. Overall, the findings suggest that boards' internal control and monitoring on management is important to derive higher financial performance, and even yet it is more important when external monitoring by institutional owners, proxied by percentage of institutional ownership, is weak.

1. Introduction

Board of directors have gained a great deal of importance in the corporate governance, and a large amount of interest has emerged that focuses on the board of directors and its various attributes as qualities of corporate governance. One of the board qualities that has attracted large interest in the business/management literature is the diversity of board of directors. In the last few decades, corporate boardrooms have become progressively diverse across several attributes of board members such as race, gender, age, and professional expertise. For instance, female representation in Fortune 100 firms' boardrooms has increased from 16.9 percent in 2004 to 25 percent in 2018 (Deloitte, 2019). The trend towards a more diverse corporate boardroom has attracted the interest of researchers from a diverse range of academic disciplines, and the increase in diversity in boardrooms has led to a certain question over the years: "Why do companies strive to diversify the boardroom representation? What is the driver of this trend?" Although the answers to this question may be manifold, one motivation to increase the board diversity has been argued to be the performance implications of the diversity.

Despite the growing interest and effort in exploring this question in the mainstream business research, there has been little interest among the tourism scholars in this particular research domain. It is no doubt that findings of the prior studies in mainstream business research might

hold true for tourism firms to a certain degree, however, there are certain reasons that motivate this tourism sector-specific research to examine the link between board diversity and firm performance. Governance is an important managerial attribute for tourism firms (Yeh and Trejos, 2015), because it is directly associated with control, monitoring and leadership (Blanco et al., 2009; Sainaghi, 2005). As argued by Goymen (2000) and Guilding et al. (2005), tourism firms with strong governance mechanisms benefit more from internal monitoring and increase their revenue. Therefore, understanding the governance structure of the tourism firms has economic importance. The scant governance research in the tourism literature points out that governance in the tourism sector may also differ from those in other sectors primarily due to the characteristics of the sector (Yeh and Trejos, 2015). First, tourism is a fast-pace sector, thus, customer preferences and demands change frequently (Evans et al., 2003). This necessitates tourism firms to detect and understand changing customer preferences and be agile in responding to these changes. In this regard, an effective board is highly important in the tourism sector to shape strategies of companies and improve decision-making process for critical corporate decisions (Yeh and Trejos, 2015). Second, tourism firms not only compete with each other but also collaborate to provide a complete service experience to their customers (Evans et al., 2003). Therefore, within-sector stakeholder management is critically important for tourism firms, which imposes further responsibilities on the board of directors of tourism

firms (i.e. to establish a stricter control on firm' decisions concerning stakeholders, customer service, business partnerships, and fair competition). Third, since tourism services are mostly complementary in nature and require close collaboration across different industries, boards in tourism firms should have a broader knowledge base and understanding of different industries within the tourism sector. Decisions made in isolation of other industry dynamics might prove wrong and biased. Hence, the diversity of board members gains additional importance for tourism companies because diverse board members bring in a variety of opinions and industrial experiences to the boards. In line with this reasoning, the study utilizes the agency theory (Fama and Jensen, 1983; Dalton et al., 2007) and resource dependence view of the firm (Pfeffer and Salancik, 1978; Hillman and Cannella, 2007) as the theoretical underpinnings of its arguments, and explores whether a diverse board enhances firm performance in the tourism sector.

Given the scarce empirical findings explicating how board diversity improves tourism firms' performance, the findings of this study is valuable for tourism executives, owners and researchers to understand this link within the boundaries of the tourism sector. However, the pressing contribution of this study lies in the use of a particular contingency, namely the institutional ownership. Institutional owners owe a fiduciary duty to their own shareholders to protect their interest, hence they prefer to invest in firms with strong corporate governance (Chung and Zhang, 2011). In that regard, board diversity is perceived as a significant indicator of governance quality that institutional investors are concerned with when they choose firms to be included in their portfolios (Fombrun and Pan, 2006). Moreover, institutional investors exert due diligence in choosing firms that promise higher financial performance and market returns (Pound, 1988). From a control standpoint, institutional ownership in a company increases the external monitoring on the management as well as on the board of directors (Navissi and Naiker, 2006). Due to their monitoring effect, presence of institutional investors is found to have a positive effect on financial performance (Pound, 1988) and market value of the firm (Shleifer and Vishny, 1986). Given these qualities of institutional ownership, the study further examines whether institutional ownership moderates the relationship between board diversity and tourism firms' performance by acting as an external monitoring mechanism. More precisely, the study postulates that the impact of board diversity on performance of tourism firms becomes more significant when institutional ownership on these firms remain low.

The study contributes to the literature in several ways. First, it examines the relationship between board diversity and firm performance for U.S. listed tourism firms by utilizing a diverse sample from hotel, restaurant and airline industries. This aggregation helps reveal a first-hand evidence of implications for the U.S. tourism sector. Second, the study introduces institutional ownership as a contingency on the relationship between board diversity and firm performance, which offers a new insight as to how an external control mechanism (i.e. institutional ownership) imposes variation on the effect of an internal control mechanism (i.e. board diversity). Third, the study uses a composite measure of board diversity index that accounts for the impacts of several diversity constructs, which has not been utilized before in the hospitality and tourism research.

2. Review of literature

2.1. Corporate governance and board diversity

Corporate governance deals with deployment of firm resources and alignment of diverse interests of organizational stakeholders (Daily et al., 2003). Shleifer and Vishny (1997) elucidate that corporate governance is a system in which managers try to optimize various constraints among stakeholders to reduce agency problem. One of the key corporate governance mechanisms is the board of directors (Dahya et al., 2008) that oversees management and approves strategic corporate decisions (Ferreira, 2010). Board of directors have two primary responsibilities in organizations. The first responsibility, grounded on the resource dependence view of the firm, is to provide firms with counselling and legitimacy through various board committees and establishing links for the firms to connect to other organizations (Hillman and Dalziel, 2003; Parker, 2007; Johnson et al., 1996). The second role of the board of directors, grounded on the agency theory, is to monitor and audit managers on behalf of shareholders (Pearce and Zahra, 1992; Baysinger and Hoskisson, 1990; Fama and Jensen, 1983). For an effective monitoring on management, board of directors should be composed of board members with diverse profiles (Hillman and Dalziel, 2003). Diversity in corporate boards has critical contributions to the firms such as promoting a better understanding of marketplace, increasing creativity and innovation, and improving problem solving ability within the boards (Hillman, 2015; Robinson and Dechant, 1997). Board diversity is typically assessed in two dimensions- demographic and cognitive. Demographic diversity attributes include gender, race and age (Hillman and Cannella, 2007; Hafsi and Turgut, 2013), whereas cognitive diversity attributes include education, professional (occupational) background, expertise, tenure and personality characteristics of board members (Hafsi and Turgut, 2013; Milliken and Martins, 1996).

Gender has been extensively investigated as a focal diversity construct for corporate boardrooms (Singh et al., 2008; Terjesen et al., 2009). Gender diversity research has provided ample evidence that female board members are typically better motivated than male board members to create relationships, and they bring in important skill sets to their board (Hafsi and Turgut, 2013). Female board members also have higher moral values and they are more concerned with ethical issues than their male colleagues (Kennedy and Kray, 2014; Luthar et al., 1997). Along with gender diversity, racial diversity in corporate boards has also attracted significant attention mainly because it is a topic of practical importance to companies (Miller and Triana, 2009). In accordance with the resource dependence theory, racial minority directors bring in valuable resources to the boardrooms such as advanced education, business expertise, and strong ties with other companies (Hillman et al., 2002). Moreover, prior research has documented a positive association between racial diversity and generation of innovative ideas and insights in board of directors (McLeod and Lobel, 1992).

Cognitive diversity attributes such as occupational expertise, experience and tenure also serve a significant role in the corporate boards to make the decision making process more efficient (Hillman and Dalziel, 2003) and to exert strict scrutiny on management. Diverse professional backgrounds represented in the boards as well as board members holding seats in other corporate boards increase the effectiveness of the board functioning (Hitt and Tyler, 1991). Hillman and Dalziel (2003) put it that board members' professional experience that is different from the firm's functional business area is valuable, because such board members introduce new practices that are yet unfamiliar to the firm and the industry the firm operates in. Guthrie and Datta (1997) also claim that directors with diverse professional and experiential backgrounds can reach out to new stakeholders who may contribute to the effective board functioning.

2.2. Board diversity and firm performance

The agency theory explicitly puts it that boards are important internal governance mechanisms that are designed to monitor managers and their actions (Fama and Jensen, 1983). In the agency theory framework, board of directors should be in pursuit of preserving owners' interest and reducing agency problems between owners and managers. In accomplishing this task, board diversity is an essential quality of the boards. Board members with diverse gender, racial, age, occupational and cultural backgrounds might ask challenging questions to the executive teams and oppose their propositions that traditional board members might hesitate to do (Carter et al., 2003). In addition to serving their fiduciary responsibility to shareholders, board of directors also carries

out a resource-dependence role (Hillman and Dalziel, 2003). The resource dependence view of the firm postulates that directors bring in crucial resources to the firm (Hillman et al., 2000; Daily and Dalton, 1994; Pearce and Zahra, 1992; Boyd, 1990), establish connections to external resources to acquire critical resources through their wider social networks (Campbell and Minguez-Vera, 2008; Kosnik, 1990), and advise firms on strategic corporate decisions to ensure their survival and improve performance (Hillman and Dalziel, 2003). In accordance with the premises of the agency theory and resource dependence view of the firm, a significant amount of research has documented a positive association with board diversity and firm performance (Terjesen et al., 2016; Kim and Starks, 2016; Arun et al., 2015; Sabatier, 2015; Garcia-Meca et al., 2015; Campbell and Minguez-Vera, 2008; Erhardt et al., 2003). For example, using a sample of the top 500 ASX listed firms over the period between 2005 and 2011, Vafaei et al. (2015) examined whether the board diversity, measured in percentage of female board members, affects firm performance and reported that board diversity and financial performance is positively associated after controlling for firm-specific and governance-related factors. Erhardt et al. (2003) used a unique sample of 112 large public companies that were publicized to be the best workplace for minorities in a Fortune magazine article, and documented that percentage of female board members and minority board members are positively linked to return on investment and return on assets. Miller and Triana (2009) also provided support for the positive effect of board diversity on performance while also testing innovation as a mediator in this relationship. They showed that diverse human and social capital in boards, proxied as gender and racial diversity, enrich the decision making process in companies, and this is linked to innovation, which eventually improves the financial performance.

Despite the large positive evidence, diversity may also be disadvantageous in terms of group performance and induce conflicts, disagreements and substantial delays in decision making (Erhardt et al., 2003). In line with this view, Hambrick et al. (1996) showed that heterogenous top-management teams are not as efficient as homogenous top-management teams, and they are more sluggish in their actions and responses than their homogenous counterparts. In the same vein, Knight et al. (1999) suggest that demographic diversity is negatively related to group consensus, and Treichler (1995) argues that aligning different views of the workforce is costly and requires significant coordination. Thus, these studies, among others, point out that diversity may indeed have negative organizational outcomes because of the challenges in consolidating diverse resources into an effective harmonized team (Erhardt et al., 2003; Ahern and Dittmar, 2012; Adams and Ferreira, 2009; Smith et al., 2006). In accordance with this argument, Adams and Ferreira (2009) reported that boards with greater gender diversity exert more effort on monitoring managers, however, this does not necessarily translate to better performance. They indeed found that proportion of female members on the board is negatively associated with Tobin's Q. From an international perspective, Smith et al. (2006) also documented similar evidence by revealing a negative effect of board gender diversity on gross profits to sales ratio for a sample of Danish firms. Moreover, there is also some evidence that board diversity may have neutral effect on firm performance (Ararat et al., 2010). For instance, Pletzer et al. (2015) reported that gender diversity in corporate boards is not related, positively or negatively, to firm performance operationalized as Tobin's Q, return on assets (ROA) and return on equity (ROE).

Prior related studies in hospitality and tourism research concentrated on the structure of board of directors, particularly focusing on board size and board independence (Wang et al., 2018; Song et al., 2017; Yeh and Trejos, 2015; Yeh, 2013; Kim et al., 2012). In a recent study, Wang et al. (2018) studied the link between board size and financial performance, measured in ROA, ROE and Tobin's Q in Taiwanese hotel industry, and documented an inverted U-shaped relationship suggesting that board size is performance increasing up to an optimal point, and passing that point it is detrimental to performance. Song et al. (2017) studied the board composition, measured as the ratio of inside and outside directors,

on financial performance in the U.S. restaurant industry and found mixed findings. Precisely, they reported that as percentage of insider board members increases, so does the market-based performance, Tobin's Q. Their findings also suggest that increasing presentation of outside board members in the corporate boards reduces Tobin's Q. In regard to operating performance (i.e. ROA), they reported no significant effect of board composition. Yeh and Trejos (2015) studied the influence of various governance attributes including board size on the financial performance of publicly-traded Taiwanese hotel firms and reported that size of the board has a negative effect on performance. In a similar context, Kim et al. (2012) concentrated their study on the private club industry in the U.S. and explored the effect of board size and board involvement in strategy on financial performance. They reported positive effect of both constructs on the operating efficiency (income before fixed expenses divided by total income).

As evident in the findings reported above, there is no consensus on the impact of board diversity on firm performance in the mainstream management and governance literature. Moreover, the hospitality and tourism literature has been mostly silent on the board diversity and its connection to financial performance, and provided limited contribution to the literature by only exploring the effect of board composition variables such as board size and board independence on performance. Therefore, taking from here, this study provides a more comprehensive picture of how board diversity in the tourism sector is related to firm performance. Although some evidence exists that diverse boards may become sluggish due to their directors' diverse opinions, consistent with similar arguments for top management teams (Erhardt el al., 2003; Hambrick et al., 1996), the evidence supporting the positive effect of board diversity on firm performance, based on agency theory and resource dependence view of the firm, is more profound and prevalent. Thus, relying on the premises of these theories, the study predicts that board diversity should positively affect firm performance in the tourism sector and tests the following hypothesis:

H1. Board diversity is positively associated with firm performance in the U.S. tourism sector.

2.3. Moderating effect of institutional ownership

Exploring the effect of board diversity on firm performance is valuable and insightful for practitioners and researchers. Yet, the knowledge regarding when and under what circumstances the effect of board diversity on performance varies is limited. The theoretical ambiguity and equivocal findings are indicative that the alleged relationship is perplexing and lends itself to deeper analysis in which certain contingencies should be explored to better understand this complex relationship (Miller and Triana, 2009). Accordingly, the study explores the institutional ownership as an external control mechanism that complements the internal control on management, and acts as a contingency in the board diversity-firm performance nexus.

Institutional investors are defined as financial institutions (i.e. banks, insurance companies, pension funds, etc.) that trade collectively on behalf of individual investors in order to maximize returns given the risk profile (Chung and Zhang, 2011). Institutional investors have a fiduciary responsibility to actively monitor management (Chung and Zhang, 2011). By fulfilling this responsibility, institutional owners help reduce agency problem between owners and managers and enhance financial performance (Shleifer and Vishny, 1986). Reduced agency problem and enhanced performance are plausible outcomes because institutional investors possess remarkable power to directly affect management actions and corporate strategies due to their paramount voting power (Gillan and Stark, 2003). In addition to monitoring role on management, institutional owners also reduces the information asymmetry for small shareholders and potential investors by serving as a signaling mechanism (Lin and Fu, 2017; Demiralp et al., 2011). Institutional investors exercise due diligence in picking the most performance promising firms

in their portfolio, and exert strong control on managerial decisions (Pound, 1988). In accordance with these monitoring and signaling propositions, several studies reported a positive effect of institutional ownership on financial performance (Nashier and Gupta, 2016; Gurbuz et al., 2010). For instance, McConnell and Servaes (1990) found a significant relationship between Tobin's Q and fraction of institutional ownership. Likewise, Lin and Fu (2017) examined this relationship using the companies listed at Shanghai Stock Exchange, and documented a positive association between Tobin's Q and fractions of shares held by institutional owners. In the peculiarity of the tourism industry, Tsai and Gu (2007a, 2007b) reported a positive association between institutional ownership and firm performance (Tobin's Q) using a sample of U.S. restaurant firms and casino hotels respectively. Likewise, Lin et al. (2018) found evidence that higher institutional ownership helps reduce return volatility in Macao's casino industry.

Contrary to the studies that report positive effect of institutional ownership on firm performance, there also exists evidence for the negative effect or no effect at all. Bhattacharya and Graham (2007), for instance, revealed that institutional owners that have investment and business connections with their invested firms have negative effects on the firm performance. Tsouknidis (2018) also found a negative relationship between institutional ownership and firm performance for a sample of U.S. listed shipping companies. Tsouknidis (2018) argues that a concentrated ownership structure without significant presence of institutional investors gives greater flexibility and speed to managers in decision making, and therefore these benefits outweigh the benefits of reduced agency cost and information asymmetry that are typically associated with large institutional ownership presence.

Governance literature provides ample evidence that external monitors such as institutional owners and securities analysts may have an influence on companies' strategic decisions (Wright et al., 2002; Hill and Snell, 1988); and they are willing to exercise their ownership rights to force managers to act in the best interest of shareholders (Cornett et al., 2007). In that respect, external monitors are complementary to internal monitor mechanisms to control managerial opportunism (Le et al., 2006). Hence, the study presumes that existence and magnitude of an external monitor, that is institutional ownership, alters the value of internal monitors and their effect on firm performance through support in monitoring. Specifically, the study contends that board diversity should have a greater impact on firm performance when institutional ownership in a tourism firm is low, because these firms are expected to have weaker external monitoring, hence they need more internal monitoring to prevent managerial opportunism and to make managers pursue performance increasing strategic decisions. Accordingly, hypothesis 2 follows as:

H2. The effect of board diversity on performance becomes more profound as the level of institutional ownership decreases in a tourism firm's ownership structure.

3. Methodology

3.1. Data

Tourism comprises many industries including transportation, food and beverage, attractions, recreational services, accommodation, and travel services (tntourism, 2012). However, due to data availability, the study draws its sample only from the publicly-traded companies operating in the hotel (SIC 7011), restaurant (SIC 5812) and airline industries (SIC 4512) of the U.S. tourism sector. The board-related data is collected from the ISS database, which collects and maintains individual director data on annual basis. The director data includes director's name, age, tenure, race, gender, committee memberships, primary employers, current title, outside board memberships etc. ISS data have been widely used in prior corporate governance research (Harjoto et al., 2015; Deckop et al., 2006). The institutional ownership data comes from

Thomson Reuters' Ownership Database (aka Thomson SP data feeds). This database provides ownership information by mutual funds that report their holdings to Securities Exchange Commission (SEC) and other ownership data reported in 13 F reports at a fiscal quarter end. Firm performance variable, Tobin's Q, is constructed using company financials and share prices. Company financials and share price information are obtained from Compustat and Center for Research in Security Prices (CRSP) database. Merging ISS database with Thomson Reuters' Ownership, Compustat and CRSP database, and eliminating large outliers results in a panel dataset of 279 firm-year observations for 36 tourism firms for the period 2007-2016.

3.2. Dependent variable

The study uses Tobin's Q (sum of market value of equity (including preferred stock) and book value of long-term debt divided by book value of total assets) as the measure of firm performance (Kim et al., 2018; Chung and Pruitt, 1995). Because Tobin's Q reflects the ability of the firms in creating value and is a long-term performance measure, it has been argued to be a preferable measure of performance over short-term, accounting-based performance measures such as ROA and ROE (Servaes and Tamayo, 2013). In the empirical tests, the natural logarithm of Tobin's Q is used, because log-transformation improves statistical distribution properties of the Tobin's Q (Hirsch and Seaks, 1993).

3.3. Independent variable

Previous studies typically operationalized board diversity based on one or two major demographic characteristics of the board members. Race and gender have traditionally been on top of the list (Hafsi and Turgut, 2013; Ararat et al., 2010). Yet, this operationalization fails to encompass the cohesiveness and diversity of different opinions that may be achieved through combining multiple demographic and cognitive diversity attributes. In line with Harjoto et al. (2015) and Ararat et al. (2010), the study operationalizes the board diversity as an index of multiple diversity attributes because diverse and opposing opinions of board members may be marginalized (Westphal and Milton, 2000), and boards benefit from the proliferation of diverse opinions for critical inquiry (Konrad et al., 2008). Board diversity index (BD-Index) is constructed based on six diversity attributes- gender, race, age, experience, tenure, and expertise. Gender diversity is an index of heterogeneity for gender with two categories: male and female. Race diversity represents variation in racial background of board members and ISS database reports six racial categories: Caucasian, African American, Hispanic/Latin American, Asian, Indian and other. Age diversity represents the heterogeneity in board members' age groups, and in accordance with Harjoto et al. (2015) the study employs five age categories: less than 40-years old, 40–49, 50–59, 60–69, 70 years-old and older. Experience diversity represents a director's experience in other companies' boards, and has six categories: serving in 0, 1, 2, 3, 4, or more than 4 other companies' board of directors. Tenure diversity reflects board members' tenure in the current board and is measured as the number of years board position is held in that board. Board members are appointed to board positions on average for three-year terms. Hence, the study uses six groups to construct tenure heterogeneity: 1 term (less than or equal to 3 years), 2, 3, 4, 5 and more than 5 terms (more than 15 years). Expertise diversity reflects the diversity of occupational background of board members, and is assessed in six groups: academic, finance and accounting, legal (attorney, counsel), consultant, management (executive, professional director), and other (medical, retired, other). Following Harjoto et al. (2015), the study constructs six individual diversity indices using Blau's index of heterogeneity, calculated as $1 - \sum P_i^2$, where P represents the proportion of individual board member in each category of diversity and i is the number of categories. Individual diversity indices take on values between 0 (perfect

homogeneity) and 1 (perfect heterogeneity). If an index is made up of only one category, for instance a board with all male directors, then gender diversity index takes on a value of 0, representing perfect homogeneity. As the number of groups represented in a diversity dimension increases, the diversity index score of the group approaches to 1. Because the maximum diversity score of individual indices are less than one and varies significantly, individual diversity indices are standardized to have the same value ranging between zero and one by dividing the calculated index score by the maximum index score within each industry group for each year (see Harjoto et al., 2015). Then, the standardized individual diversity index scores are summed to create the composite BD-Index, which ranges from 0 to 7, where an increasing score represents larger board diversity.

3.4. Moderator variable

Consistent with prior research, the study defines the institutional investors as those with large share ownership including banks, insurance companies and pension funds; and defines institutional ownership (InstOwn) as the fraction of shares held by institutional owners to total shares outstanding (Chung and Zhang, 2011; Lin and Fu, 2017; Nashier and Gupta, 2016; Rubin and Smith, 2009). InstOwn is calculated by dividing the total number of common shares held by all institutional owners to total common shares outstanding at year-end. This measure comprises aggregated holdings of all institutions that report an SEC 13 F schedule but not classified as insiders in Form 3 or Form 4.

3.5. Control variables

The study includes firm size, leverage, cash flows, capital intensity, advertising intensity, dividends, and firm age as firm-level controls; and board size, board independence and chief executive officer (CEO) duality as board-level controls (Adams and Ferreira, 2009; Hambrick and D'Aveni, 1992). Firm size (FSize) is measured as the natural logarithm of book value of total assets, and controls for any systematic differences in performance due to size of the firm (Vafaei et al., 2015; Smith et al., 2006). Leverage (Lev) is measured by the book value of long-term debt to total assets and is used as a control variable because the pecking order theory suggests a negative relationship between leverage and various performance measures (Bhattacharya and Graham, 2009). Lang et al. (1991) argue that firms that have high free cash flows are those with a Tobin's Q less than one. Thus, consistent with prior research (Brush et al., 2000; Abdelkarim and Alawneh, 2009), the study includes cash flows (CF) (operating cash flows deflated by total assets) as a control variable in performance equation. Lubatkin and Chatterjee (1994) argue that investment in fixed assets may help companies improve their financial performance because they contribute to the companies' production level. Hence, the study operationalizes capital intensity (CapInt) as the ratio of net property, plant and equipment to total assets (Stickney and McGee, 1982). Prior research provided evidence that advertising intensity (AdvInt) (advertising expense divided by sales) affects firm performance and firm value (Joshi and Hanssens, 2010; Connolly and Hirschey, 2005), thus AdvInt is used as a control variable in the models.[1] Lang and Stulz (1994) argued that dividend payments matter for Tobin's. Therefore, dividends paid (Div) is used as a

control variable in the models. The study includes firm age (FAge) (the natural logarithm of number of years since the first appearance of a firm in CRSP database) in the models as a firm-level control variable to account for firms' operating experience (Setia-Atmaja, 2009; Mikkelson et al., 1997). Cornett et al. (2007) and Yermack (1996) report a negative association between board size and Tobin's Q, and Yermack (1996) discusses that smaller boards are more effective than larger boards. Thus, the study includes the board size (BSize) as a board-level control variable, which is measured as the natural logarithm of number of board members in a company's board of directors. Boards with higher fraction of outside directors are suggested to contribute to financial performance and firm value (Brickley et al., 1994). Hence, the models include the percentage of outside board members as a proxy of board independence (BInd) (the ratio of number of outside board members to total number of board members). When CEO is also the chairman of the board of directors, the CEO has substantial power and can effectively control the information flow to outside board members, which can result in severe information asymmetry (Cornett et al., 2007). The limited information flow creates a monitoring problem. Hence, the study controls for this effect by including CEO-Dual as a dummy variable in the models, which takes on a value of 1 if the CEO is also the chairman of the board, 0 otherwise.

3.6. Models

The direct effect of board diversity on tourism firm performance, and the moderating effect of institutional ownership on the proposed relationship between board diversity and firm performance is estimated through two-way fixed effect regression analysis. The choice the fixed-effect regression analysis is based on the Hausman test, which provided results in favor of fixed-effects versus random-effects (chi-sq = 69.58, Prob > chi-sq = 0.00). Two-way fixed-effect regression helps control for unobserved heterogeneities in group (firm) and time (year) dimensions, and increases the confidence in the study's findings (Wooldridge, 2002). The following models are used to estimate the main effect (Eq. (1)) and the moderating effect (Eq. (2)). Both models include the year dummies to account for time trends, and STATA fixed-effect routine accounts for the firm-level heterogeneity once the data is stored in panel form using a firm-identifier.

$$\begin{aligned}
Tobin's\ Q_{it} = {}& x_0 + x_1 BD\text{-}Index_{it} + x_2 InstOwn_{it} + x_3 FSize_{it} + x_4 Lev_{it} \\
& + x_5 CF_{it} + x_6 CapInt_{it} + x_7 AdvInt_{it} + x_8 Div_{it} + x_9 FAge_{it} \\
& + x_{10} BSize_{it} + x_{11} BInd_{it} + x_{12} CEO\text{-}Dual_{it} + \varepsilon
\end{aligned} \tag{1}$$

$$\begin{aligned}
Tobin's\ Q_{it} = {}& x_0 + x_1 BD\text{-}Index_{it} + x_2 InstOwn_{it} \\
& + x_3 BD\text{-}Index * InstOwn_{it} + x_4 FSize_{it} + x_5 Lev_{it} + x_6 CF_{it} \\
& + x_7 CapInt_{it} + x_8 AdvInt_{it} + x_9 Div_{it} + x_{10} FAge_{it} + x_{11} BSize_{it} \\
& + x_{12} BInd_{it} + x_{13} CEO\text{-}Dual_{it} + \varepsilon
\end{aligned} \tag{2}$$

4. Results

4.1. Descriptive statistics

Table 1 reports the descriptive statistics of the study in two panels. Panel A exhibits the summary statistics for variables. The mean Tobin's Q in the sample is 2.33, ranging from 0.57 to 14.26. BD-Index has a range of 1.63–5.77 and the average BD-Index score in the sample is 4.29. Individual diversity constructs point out strong diversity for age, experience, tenure and expertise constructs, some diversity for gender, and relatively low diversity for race construct. The average InstOwn in our sample is 75.94 %. The lowest institutional ownership is 36.57 %, and the maximum InstOwn is 99.57 %. Average FSize (natural logarithm of total assets) is 7.66, and the average Lev is 32 %. The average tourism

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[1] A considerable number of firms do not report advertising expenditures in income statement either because they are not obligated to do so or the amount is immaterial to be reported as a line item. Therefore, advertising expense data is missing in Compustat for these firms. We therefore replace missing advertising expense data with zero and include an additional dummy variable (Adv-Missing) in our analyses to indicate that for such cross-sectional observations advertising expense data are missing (e.g. Barnett and Salomon, 2012; Fee et al., 2009; Masulis et al., 2009). This variable is not reported in the equations or in the tables. Results prevail similar without this variable in the models.

Table 1
Descriptive Statistics.

Panel A. Summary Statistics of Study Variables

Variable	N	Mean	Std. Dev.	Min	Max
Tobin's Q	279	0.63	0.62	−0.57	2.66
BD-Index	279	4.29	0.80	1.63	5.77
GenderDiv	279	0.59	0.29	0.00	1.00
RaceDiv	279	0.44	0.38	0.00	1.00
AgeDiv	279	0.83	0.14	0.00	1.00
ExperienceDiv	279	0.76	0.24	0.00	1.00
TenureDiv	279	0.81	0.23	0.00	1.00
ExpertiseDiv	279	0.86	0.11	0.00	1.00
InstOwn (%)	279	75.94	12.81	36.57	99.57
FSize	279	7.66	1.34	5.28	10.90
Lev	279	0.32	0.37	0.00	3.00
CF	279	0.16	0.08	−0.09	0.40
CapInt	279	0.57	0.21	0.06	0.89
AdvInt	279	2.18	1.50	0.00	5.71
Div	279	173.93	514.76	0.00	3230.30
FAge	279	2.73	0.75	0.35	4.00
Bsize	279	2.19	0.25	1.61	3.00
BInd	279	0.80	0.10	0.50	1.00
CEO-Dual	279	0.08	0.27	0.00	1.00

Panel B. Sample Distribution Across Industry Groups

Industry	N	Freq.	Percent
Restaurant Industry	24	193	69.18 %
Airline Industry	6	43	15.41 %
Hotel Industry	6	43	15.41 %
Total	36	279	100.00 %

firm's cash flows deflated by total assets (CF) is 0.16. The average tourism firm has CapInt ratio of 0.57 and AdvInt ratio of 2.18. Moreover, the average FAge (natural logarithm of number of years since first inclusion in CRSP) is 2. The mean value of annual dividend payments in the whole sample is $173.93 million. The average BSize (natural logarithm of number of board members) is 2.19, and the mean of BInd is 0.80. In 8 % of the observations in our sample, CEO is also the chair of the board of directors (CEO-Dual). Panel B exhibits the distribution of the sample firms.

4.2. Main findings

The effect of board diversity on firm performance (Eq. (1)) is estimated via two-way fixed-effect regression, which includes firm-fixed effects that eliminate firm-specific factors on Tobin's Q and year fixed effects that account for macro-level time-trends on Tobin's Q. Results of the estimation are provided in Table 2. Model 1 includes the control variables only, Model 2 introduces the BD-Index and InstOwn into the model to test H1, and Model 3 incorporates the interaction term BD-Index*InstOwn to test the moderating effect of institutional ownership on the relationship between board diversity and firm performance. In Model 1, CF is positively related to Tobin's Q, and CapInt and BSize are negatively associated with Tobin's Q. These coefficient on the control variables indicate that firms with higher cash flows to assets ratios have better performance; larger boards and firms with greater capital investments tend to have weakened financial performance. The coefficient on BD-Index in Model 2 is positive and statistically significant (ß = 0.0843, p < 0.05) providing support for H1, which predicts that increasing board diversity improves firm performance controlling for a set of known factors that affect performance. The coefficient on the BD-Index implies that one unit increase in BD-Index results in 8.43 % increase in Tobin's Q. InstOwn is also positive and statistically significant (ß = 0.0035, p < 0.05) in Model 2, which suggests that as the degree of institutional investment increases in ownership structure of the sample companies, the firms' financial performance enhances. Quantitively, 10 % increase in institutional ownership leads to 3.5 % increase in Tobin's Q for the sample tourism companies. CF, CapInt and BSize retain their

Table 2
Fixed-Effects Regression Estimates of the Board Diversity on Tobin's Q, and the Moderating Effect of Institutional Ownership on this Relationship.

	Controls Only Model 1	Main Effects Included Model 2	Interaction Effect Included Model 3
BD-Index		0.0843**	0.4226***
		(2.35)	(3.65)
InstOwn		0.0035**	0.0195***
		(2.33)	(3.87)
BD-Index *InstOwn			−0.0043***
			(−3.24)
FSize	−0.0976	−0.1570**	−0.1204*
	(−1.38)	(−2.60)	(−1.99)
Lev	0.0421	0.0449	0.0760
	(0.41)	(0.51)	(0.85)
CF	2.3084***	2.3019***	2.0302***
	(4.75)	(5.34)	(5.17)
CapInt	−0.4684**	−0.4168**	−0.5152**
	(−2.27)	(−2.31)	(−2.69)
AdvInt	0.0180	0.0170	0.0286
	(0.51)	(0.49)	(0.79)
Div	−0.0001	−0.0001	−0.0002**
	(−0.69)	(−0.62)	(−2.03)
FAge	0.1295*	0.0297	0.0770
	(1.85)	(0.50)	(1.33)
BSize	−0.2563**	−0.3796***	−0.3657***
	(−2.71)	(−3.80)	(−3.99)
BInd	0.1971	0.2433	0.2369
	(0.95)	(1.04)	(1.03)
CEO-Dual	−0.0069	−0.0006	−0.0083
	(−0.15)	(−0.01)	(−0.15)
Intercept	1.2160*	1.4386***	−0.1532
	(1.86)	(2.73)	(−0.24)
Firm Fixed-Effects	Yes	Yes	Yes
Year Fixed-Effects	Yes	Yes	Yes
N	279	279	279
R-sq	0.7381	0.7519	0.7444

Notes: t-statistics are in parentheses and they are calculated using cluster standard errors.
* p < .1.
** p < .05.
*** p<.01.

sign and significance in Model 2, and FSize also becomes significant and negatively correlated with Tobin's Q. Model 3 tests H2, the moderating effect of institutional ownership on financial performance. The interaction term, BD-Index*InstOwn, is negative and significant (ß=-0.0043, p < 0.01), which provides support for H2. This negative coefficient suggests that the effect of board diversity on firm performance is more profound for firms with lower institutional ownership. All control variables that are significant in Model 2 are also significant in Model 3, keeping their signs and significance. The study also predicts the margins for a set of institutional ownership percentages (5 %, 25 %, 50 %,75 %, and 95 %) and board diversity levels (1 through 7). Fig. 1 graphically shows the predictive margins across institutional ownership percentages and board diversity levels. As Fig. 1 illustrates, at the lower level of institutional ownership, the effect of board diversity on Tobin's Q is much significant as evidenced by the slope of the line that represents 5 % institutional ownership. As institutional ownership increases, the slope of the lines flattens corresponding to a lower marginal effect of board diversity on predicted Tobin's Q. At the highest level of institutional ownership used in Fig. 1 (95 % institutional ownership line), the line is almost flat implying a very small effect of board diversity on predicted Tobin's Q, which suggests increasing board diversity does not make a significant impact on Tobin's Q. Overall, these findings provide evidence that board diversity boosts financial performance for tourism firms, and diversity of board members across several dimensions is more important for firms that attract lower institutional ownership from a
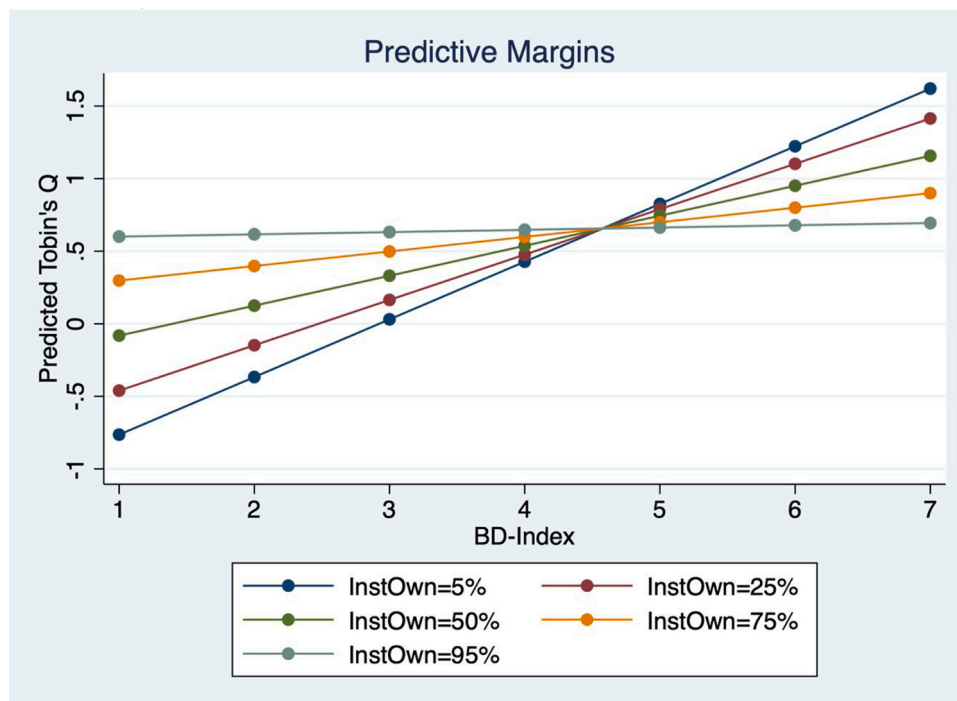
Fig. 1. Moderation of Institutional Ownership Level on the Relationship between Board Diversity and Tobin's Q.

performance standpoint.

4.3. Additional analyses

4.3.1. Categorizing institutional ownership- low, moderate and high

To provide robustness to the primary findings, the sample is split into three groups based on the level of institutional ownership. More precisely, three categories of institutional ownership is created- low, moderate and high using the "xtile" command of the STATA. Firms that are in the bottom third of the distribution (InstOwn between 36.57 % and 71.08 %) are included in the InstOwn-Low category, firms that are in middle third of the distribution (InstOwn between 71.41 % and 82.01 %) are included in the InstOwn-Moderate category, and lastly firms that are in top third of the distribution (InstOwn between 82.17 % and 99.57 %) are included in the InstOwn-High category. Then, these categories are dummy-coded to replace the continuous InstOwn variable in the empirical models, and the equations are re-estimated via two-way fixed effect regression. All other variables in the original models retain their operationalizations. Table 3 provides the results of these estimations.

Model 1 in Table 3 has the main effects, BD-Index, InstOwn-Moderate and InstOwn-High; and Model 2 introduces the two interaction effects between board diversity and institutional ownership categories- BD-Index*InstOwn-Moderate and BD-Index*InstOwn-High. InstOwn-Low category is dropped in the estimations, because it is used as the reference group. Control variables that are found to be significant in the main analysis keep their signs and significance. Findings indicate a positive effect of BD-Index on financial performance as with the main analysis, but InstOwn-Moderate and InstOwn-High are both insignificant in Model 1 suggesting that moderate and high level of institutional ownership has no varying effect on Tobin's Q compared to low institutional ownership. When interactions are introduced in Model 2, BD-Index and institutional ownership dummies are all significant. More informatively, interaction terms InstOwn-Moderate and InstOwn-High are both significant and negative suggesting that at higher levels of institutional ownership, the board diversity has a significantly lower influence on Tobin's Q. The margins analysis are also conducted with the categorical variables, InstOwn-Low, InstOwn-Moderate and

InstOwn-High. Fig. 2 shows the interaction among these three institutional ownership groups and board diversity. Consistent with the main analysis, the slope of the InstOwn-Low category is significantly steeper compared to moderate and high institutional ownership groups advocating a more profound effect of board diversity on Tobin's for InstOwn-Low category firms. Taken together, findings of the fixed-effect regression analysis and the margins analysis with the categorical institutional ownership variables support the main analysis and enhance the confidence on the findings.

4.3.2. Estimation with restaurant firms only

In this study, a large fraction of the sample firms are from the restaurant industry due to data restrictions in the hotel and airline industries. Given that, sample selection bias may be a potential problem in data analysis and lead to erroneous conclusions. To ensure that the analysis does not suffer from the sample selection bias and the findings are robust to inclusion of unequal firm year observations from three industry groups, the main models (Eqs. (1) and (2)) are re-estimated with the restaurant firms only. The findings of the estimations are reported in Table 4. Evident in Table 4, coefficients on main variables of interest BD-Index, InstOwn and BD-Index*InstOwn, keep their sign and they are quantitatively similar to those in the main analysis. Model 2 and Model 3 provide support for H1 that suggests that BD-Index ($\beta = 0.0864$, $p < 0.05$) is positively related to Tobin's Q, and H2 that suggests that institutional ownership negatively moderates the relationship between board diversity and financial performance (BD-Index*InstOwn, $\beta = -0.0039$, $p < .1$). These additional findings from a sample of single industry ensure that the main findings are not spuriously driven by inclusion of three industries of tourism sector with unequal observations in the sample.

5. Discussion, further research and limitations

Diversity of board of directors, across several dimensions, emerges as a critical aspect of board of directors, and has been under intense scrutiny in regard to its effect in advancing monitoring on management and influencing performance. Several theories, including agency theory

Table 3
Fixed-Effects Regression Estimates of the Board Diversity on Tobin's Q, and the Moderating Effect of Institutional Ownership Categories- InstOwn-Low, InstOwn-Medium, and InstOwn-High.

	Main Effects Included Model 1	Interaction Effects Included Model 2
BD-Index	0.0840**	0.1544***
	(2.41)	(4.20)
InstOwn-Moderate	0.0121	0.3675**
	(0.42)	(2.49)
InstOwn-High	0.0629	0.5287***
	(1.66)	(3.24)
BD-Index*InstOwn-Moderate		−0.0888**
		(−2.47)
BD-Index*InstOwn-High		−0.1182***
		(−3.03)
FSize	−0.1264**	−0.1296**
	(−2.13)	(−2.33)
Lev	0.0231	0.0453
	(0.24)	(0.45)
CF	2.3772***	2.2571***
	(5.22)	(5.14)
CapInt	−0.5014**	−0.4574**
	(−2.71)	(−2.43)
AdvInt	0.0259	0.0364
	(0.75)	(1.04)
Div	−0.0001	−0.0002**
	(−1.11)	(−2.33)
FAge	0.0617	0.0863
	(0.97)	(1.46)
BSize	−0.3363***	−0.3460***
	(−3.51)	(−4.17)
BInd	0.2152	0.1440
	(0.99)	(0.67)
CEO-Dual	0.0030	0.0041
	(0.06)	(0.08)
Intercept	1.3321**	1.0732**
	(2.48)	(2.22)
Firm Fixed-Effects	*Yes*	*Yes*
Year Fixed-Effects	*Yes*	*Yes*
N	*279*	*279*
R-sq	*0.7525*	*0.7621*

Notes: t-statistics are in parentheses and they are calculated using cluster standard errors.
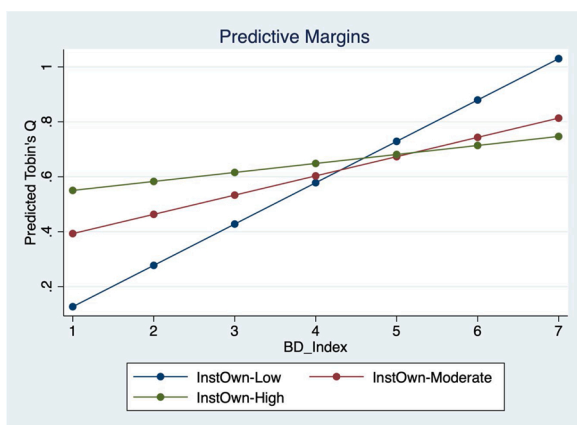* p < .1.
** p < .05.
*** p<.01.

Fig. 2. Moderation of Institutional Ownership Categories on the Relationship between Board Diversity and Tobin's Q.

Table 4
Fixed-Effects Regression Estimates of the Board Diversity on Tobin's Q, and the Moderating Effect of Institutional Ownership on this Relationship- Restaurant Firms Only.

	Controls Only Model 1	Main Effects Included Model 2	Interaction Effect Included Model 3
BD-Index		0.0864**	0.3812**
		(2.06)	(2.18)
InstOwn		0.0031	0.0180**
		(1.66)	(2.03)
BD-Index*InstOwn			−0.0039*
			(−1.71)
FSize	−0.1096*	−0.1596***	−0.1535**
	(−1.72)	(−2.88)	(−2.22)
Lev	0.0806	0.1021	0.0886
	(0.58)	(0.85)	(0.90)
CF	2.4590***	2.2905***	2.2416***
	(4.03)	(4.63)	(6.22)
CapInt	−0.5243**	−0.6458***	−0.6181***
	(−2.23)	(−3.25)	(−2.69)
AdvInt	0.0277	0.0386	0.0536
	(0.70)	(1.05)	(1.49)
Div	−0.0001	−0.0001	−0.0002*
	(−0.61)	(−0.70)	(−1.68)
FAge	0.2344**	0.1811*	0.2002*
	(2.59)	(1.94)	(1.88)
BSize	−0.3162**	−0.3935***	−0.3845***
	(−2.50)	(−3.27)	(−3.76)
BInd	0.3644	0.2967	0.2884
	(0.87)	(0.71)	(1.10)
CEO-Dual	0.0589	0.0484	0.0489
	(1.25)	(1.13)	(1.22)
Intercept	1.0815	1.2316**	−0.0072
	(1.64)	(2.41)	(−0.01)
Firm Fixed-Effects	*Yes*	*Yes*	*Yes*
Year Fixed-Effects	*Yes*	*Yes*	*Yes*
N	*193*	*193*	*193*
R-sq	*0.7532*	*0.7668*	*0.7715*

Notes: t-statistics are in parentheses and they are calculated using cluster standard errors.
* p < .1.
** p < .05.
*** p<.01.

and resource dependence view of the firm, have been used to explain why diverse boards should drive better performance, yet the findings of the prior research are not decisive. This study tackles this question by particularly examining the firms in the U.S. tourism sector, and finds that financial performance of tourism firms improves as their board gets more diverse. Moreover, this study agrees with the view that the relationship between board diversity and financial performance is more complex than a simple, direct relationship. Hence, the study uses a contingency framework in which the moderating effect of institutional ownership is explored in the proposed relationship between board diversity and firm performance. Assuming the external monitoring function of institutional owners, this study proposes that board diversity should matter most on the performance of tourism firms when institutional ownership is low because firms with low external monitoring will need more internal monitoring to improve their performance. The study finds support for this proposition by showing that the positive impact of board diversity on firm performance becomes stronger as the level of institutional ownership decreases. Given the limited research in tourism and hospitality disciplines in this particular literature, the findings of this study are insightful for practitioners and researchers who work or conduct research in these disciplines.

5.1. Theoretical implications

The results of the fixed-effects regression estimations indicate that

board diversity (BD-Index) and financial performance (Tobin's Q) of tourism firms are positively associated, controlling for factors that are known to affect performance. This finding is consistent with the findings of a large stream of board diversity studies that reported positive impact of board diversity on performance (Terjesen et al., 2016; Kim and Starks, 2016; Arun et al., 2015; Sabatier, 2015; Campbell and Minguez-Vera, 2008; Erhardt et al., 2003). Given this outcome, the study argues that diverse boards impose superior monitoring on management and induce management to pursue value and performance increasing strategies, which are in the best interest of the shareholders. This finding conforms to the agency theory explanations (Fama and Jensen, 1983; Shleifer and Vishny, 1997) that suggest that owners and managers have conflicting interests, and for better performance these conflicting interests must be aligned via proper monitoring. When diverse boards are in place, they could easily question management and raise their concern for controversial management decisions. As management faces such opposition from a diverse board, the decision making becomes more effective with a variety of views brought on the table by diverse board members. Consequently, an effective board oversight is imposed on the management decisions, which results in superior financial outcomes that satisfy both managers and owners. The positive association between board diversity and financial performance is also consistent with the resource-dependence view of the firm (Pfeffer and Salancik, 1978; Hillman and Cannella, 2007), which in this context suggests that board members with diverse demographic profiles and cognitive skill sets increase human capital in the boards and results in an enriched decision making process that is assumed to be correlated with better performance. The reported positive association between board diversity and financial performance is important, because the current level of board diversity in a tourism firm should reveal signals to existing shareholders and potential investors to assess a firm's potential performance. In accordance with the premises of agency theory, shareholders and investors can rely on diverse boards in the sense that such boards will thrive to protect their interests in the firm. Moreover, diverse boards' both demographic and cognitive diversity provide confidence for shareholders and potential investors on their investment, because these boards are equipped with a wide variety of skill sets not only to effectively monitor management decisions but also to combat with environmental changes that might affect financial performance.

An alternative control mechanism to reduce agency problem between managers and shareholders, and thus to increase firm performance is the institutional ownership (Agrawal and Knoeber, 1996). As the number of institutional investors and their shareholdings in the firms have increased over the years, the role of the institutional investors has evolved from one of a passive shareholder to that of stockholder activist (Huson et al., 2002). These large shareholders can exert significant pressure on the companies they invested in through sponsorships of proxy proposals, negotiation with the firms' management, and public targeting of underperformed firms (Huson et al., 2002). Hence, institutional investors enhance performance and shareholder value by preventing value-destroying activities in the firms.

As the prior research points it out institutional owners prefer to invest in firms with strong governance mechanisms because better governed firms are presumed to exert superior monitoring on managerial decisions (Bushee, 2001). However, when the governance quality is not up to the par and unable to oversee managerial behavior, alternative control mechanisms might step in to persuade managers to act in the best interest of owners and favor decisions that enhance firm performance (Linck et al., 2008). The finding of a moderating effect of institutional ownership in the present study, coupled with the positive direct effect of institutional ownership on Tobin's Q, offers consistent evidence and indicates that institutional owners actively monitor and affect managerial decisions and curb managerial opportunism to protect and enhance their investment (Tihanyi et al., 2003), and the value of this external monitoring becomes more prominent when tourism firms lack the board diversity, a quality of internal control. This particular finding

is valuable for the governance and firm performance literature as it shows the complementary role of internal and external monitoring mechanism on firm performance. Hence, the study further supports the arguments that board diversity and firm-performance should not be examined in isolation, but rather be explored in a framework that utilizes contingency situations, which provide a richer picture of the alleged relationship.

5.2. Practical implications

Workplace diversity brings in countless benefits for tourism firms including increases in productivity, communication, and innovation. Also, the workplace diversity encourages tourism firms to design and provide unique services desired by their guests. Considering these benefits, tourism sector employs a diverse work force with respect to race, gender, age, experience and culture. Yet, at the executive level, the diversity is still not appreciated to its full extent in the tourism sector. For instance, a workplace equality report published in 2013 (Equality in Tourism, 2013) reported that only 15.2 % of the board members (93 out of 613) of the large tourism companies surveyed were women despite the fact that women make up the large fraction of work force in the worldwide tourism sector (Equality in Tourism, 2013). Following on this issue, the current study highlights the significance of diversity at the board level for the tourism sector and how diversity affects firm performance. Given the findings of the study, one of the main recommendations of the study is that tourism firms should reconsider how they view the diversity phenomenon and how they can invest in this quality at the board level to improve their organizational and financial performance. In a demanding business conjecture that is continually evolving and requiring innovative solutions to emerging problems and issues, the value of a diverse board, equipped with various skill sets, experiential knowledge and cultural perspectives, is unarguable for tourism firms and their performance. In addition to direct performance implications, paying attention to diversity concerns and internalizing diversity across the organizational ladder helps improve firm reputation in the corporate world and creates not only an awareness among customers but also induces an appetite for investors to consider these firms in their portfolios. Thus, the study also provides insights for investors to pick tourism stocks in a more informed manner. An important consideration to include a firm in an equity portfolio is the expected future cash flows from a prospective firm, and the cash flows are tied to firm's performance. Hence, the revealed relationship between board diversity and tourism firm performance, and the role institutional ownership in moderating this relationship may act as signals to investors about the future cash flows expected from these firms.

This study further confirms the call by Miller and Triana (2009) by illustrating how the relationship between board diversity and performance is modified in the presence of a contingency situation, at least for the case of the tourism firms. Diversity in certain board attributes such as gender, race, age, etc., contribute to the financial performance, yet this study's findings exhibit that tourism firms will benefit more from this internal monitoring when their external monitoring (i.e. institutional ownership) is weak. For the sample of tourism firms, the median institutional ownership is 75.68 % for the whole sample, 75.33 % for the restaurant companies, 67.28 % for hotel companies, and 79.45 % for airline companies. Therefore, the study finds that external monitoring on management imposed by institutional owners is considerably high in restaurant and airline companies, and moderate in hotel companies. This finding further suggests that board diversity is more important in the hotel companies to ensure adequate control on management so that they perform to their best potential for a superior financial performance. These findings suggest that having institutional ownership in tourism firms' ownership structure signals enhanced firm performance, and the level of institutional ownership is indeed related to control on management decisions that affect performance. Hence, in selecting board members of a tourism firm, shareholders should have a fair

understanding of the firm's ownership structure, and how the ownership structure, through additional control on management, may complement the monitoring role of board of directors. Moreover, the findings imply that while diversity is a desirable condition for boards of tourism firms, many tourism firms might not benefit from the presence of such boards, hence institutional ownership may compensate the weakened control on such circumstances. That is, when institutional owners contemplate investment on firms, boards of these firms should consider the ultimate control implications of such investors and approval of such investments should be evaluated along with this new evidence.

5.3. Limitations and future research

This study is not free from limitations. First, this study's findings are robust to the extent that they are interpreted within the realm of tourism sector. The tourism sector is heavy on services and has observable sector characteristics. Thus, the study avoids generalizing the findings to other sectors of the economy with dissimilar sector dynamics. If these findings are used by the practitioners of other sectors, delicate care must be exercised not to arrive at erroneous conclusions. Second, the sample composition is uneven and skewed towards the restaurant firms due to data availability. This may be perceived as a restriction in the study's research design, however, the robustness tests provide evidence that restaurant only sample produces similar findings. Third, the observation period, 2007–2016, is chosen based on data availability, particularly for board-specific data from ISS database. Although this period reflects the most recent decade, the study is unable to draw inferences from the previous years. However, it should also be noted that board diversity has become a more serious governance issue in the past decade, which should relieve the concerns on the time period used in this study.

Further research should focus on identifying potential contingencies that may shed more light on the complex relationship between board diversity and firm performance, and utilize distinct samples across different industries and perhaps countries with dissimilar governance environments to improve our understanding in this important governance issue. Future research should also consider incorporating institutional ownership type into this research context, because type of institutional owners might change both the direction and magnitude of the effect revealed in this study. This effort would require access to third-party data sources, which the current study was unable to access.

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