

Hossain, Md Arafat; Oon, Elaine Yen Nee

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# Board leadership, board meeting frequency and firm performance in two-tier boards

by

Md Arafat Hossain <sup>1</sup> & Elaine Yen Nee Oon <sup>2\*</sup>

<sup>1,2</sup> Universiti Malaya

\*Corresponding author

## Abstract

We examine how board leadership influences the frequency of supervisory board meetings, and how meeting frequency, in turn, affects firm performance. Utilizing a 10-year longitudinal dataset of German and Indonesian listed firms, we find that CEOs in both countries are more likely to foster lower board meeting frequency. However, in Germany, chairmen and female independent directors are more likely to promote higher board meeting frequency, while in Indonesia, affiliated directors and female independent directors have no significant influence. More frequent board meetings lead to better firm performance in Indonesia but not in Germany.

**Keywords:** *Board meeting frequency, two-tier board structure, supervisory board, chairman, affiliated director, board leadership, Germany, Indonesia, firm performance.*

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## 1 | INTRODUCTION

Board meeting frequency has long been a contentious issue in practice and academic research. On one hand, both individual board members and past studies have found that more frequent board meetings will lead to better decision-making due to the increase in opportunity and time for information processing, consideration, and exchange (Adams & Ferreira, 2012; DeBoskey, Luo, & Zhou, 2018; Guest, 2019; Hahn & Lasfer, 2016; Jiang, Wan, & Zhao, 2016; Wahid, 2018). On the other hand, others are of the view that the more frequent the board meetings, the higher the risk of information overload and the compromising of resources and time, thereby resulting in lower efficiency in decision-making (AlHares, Ntim, Al-Hares, & Al Abed, 2018; Jensen, 1993; Ji, Talavera, & Yin, 2019; Vafeas, 1999). Despite these opposing views, board meetings continue to serve as an important platform for information procurement and exchange between non-independent (inside) and independent (outside) directors (Brick & Chidambaran, 2010; Hahn & Lasfer, 2016; Ji et al., 2019; Vafeas, 1999).

The frequency of board meetings becomes especially fundamental in a two-tier board structure due to the separation of the management and supervisory boards. Under this system, the supervisory board members are independent (outside) directors who may have little firm-specific information relative to non-independent (inside) directors. As such, a higher frequency of board meetings facilitates opportunities for information processing and consideration by outside directors. Therefore, the effectiveness of the monitoring and advising roles of independent directors depends on the procurement and exchange of information during board meetings (Brick & Chidambaran, 2010; Hahn & Lasfer, 2016; Schwartz-Ziv & Weisbach, 2013). Andres and Vallelado (2008) have suggested that a higher frequency of board meetings leads to increased monitoring through closer control over inside directors and greater advisory roles by outside directors.

Due to the separation of the management and supervisory boards in two-tier structures, further research is required into how key members of the boards—such as the CEO, chairman, affiliated independent directors and female independent directors, who represent the “dominant coalition” of board leadership (Finkelstein, 1992; Hambrick & Finkelstein, 1987)—influence the frequency of board meetings. Our collective investigation of the CEO, chairman, affiliated director and female independent director draws from the concept of the “dominant coalition” of board leadership espoused by upper echelon theory (Finkelstein, 1992; Hambrick & Finkelstein, 1987; Hambrick & Mason 1984; Hambrick, 2007) and the notion of leveraging their diverse skills, knowledge and experience for firm benefit espoused by resource

dependence theory (Pfeffer & Salancik, 1978; Hillman & Dalziel, 2003). We propose that these four individuals are key board members who represent the “dominant coalition” of board leadership, each of whom possesses diverse skills and expertise, and thus should be examined collectively for several reasons.

First, both the CEO and the chairman of the board have long been recognized as key decision-makers within an organization, but both have different powers and motives by virtue of their statuses and roles in the firm (He, Carrilero-Castillo, & Gonzalez-Garcia, 2021; Jiang & Liu, 2020; Withers & Fitza, 2017). For example, since the CEO is part of the management team (board) of the firm while the chairman is part of the firm’s supervisory (independent) board, both may have different motives and powers of influence in the provision and exchange of information during board meetings (Armstrong, Core, & Guay, 2014; DeBoskey et al., 2018). Second, recent studies have shown that while independent directors have a strong influence on a firm’s strategies, their level of independence differs, since some independent directors are purely independent while others have affiliations with the focal firm by virtue of their past relationships with the focal firm (Cavaco, Crifo, Rebérioux, & Roudaut, 2017; Joh & Jung, 2017; Masulis & Zhang, 2018). These different levels of independence are likely to give rise to different motives when performing their roles. For example, affiliated directors, due to their past relationships with the management of the focal firm, may be motivated to either increase or decrease the sharing of firm-specific information depending on their present relationships with the focal firm.

Third, the presence of female independent directors has been found to provide significant differences and improvements to the strategic decision-making and monitoring efficiency of firms (Adams & Ferreira, 2009; Adams & Ferreira, 2012; Zalata, Ntim, Choudhry, Hassanein, & Elzahar, 2019). For example, extant research has shown that female independent directors provide valuable advice and counsel, stimulate greater creativity and imaginative solutions in decision-making and are more intense in monitoring activities, thus resulting in higher-quality board discussions and accounting activities as well as fewer reporting restatements, firm frauds and tax avoidances (Abbott, Parker, & Presley, 2012; Cumming, Leung, & Rui, 2015; Gul, Srinidhi, & Ng, 2011). Consequently, affiliated directors and female independent directors exert substantial influence derived from their diverse skills and motives, making them important members of the “dominant coalition” of board leadership. Therefore, our study examines these four key board members—CEOs, chairmen, affiliated directors and female independent directors—collectively, since they represent the dominant

coalition of board leadership, while at the same time each brings different skills, motives and levels of board influence to firm strategies, outcomes and board activities.

Taken together, the above warrants empirical investigation into how the dominant coalition of these four types of board leaders influence the frequency of board meetings in two-tier boards, leading to our first research question: *How do CEOs, chairmen, affiliated independent directors and female independent directors influence the frequency of board meetings?* Although a handful of past studies have examined the consequences of board meeting frequency on firm performance (Chou, Chung, & Yin, 2013; DeBoskey et al., 2018), further investigation into how board meeting frequency affects firm performance is needed, especially in two-tier board structures (Ji et al., 2019; Liu, Wang, & Wu, 2016). This leads to our second research question: *How does the frequency of board meetings influence firm performance?*

Our study makes three main contributions. First, we provide a more nuanced theoretical and empirical account of how the dominant coalition of board leadership influences board meeting frequency and firm performance through a multi-theoretic approach by integrating the upper echelon and resource dependence theories. Such theoretical integration provides a richer and more nuanced explanation of the phenomena, especially when applied to different institutional environments as boundary conditions (Barkema, Chen, George, Luo, & Tsui, 2015). To the best of our knowledge, our study is one of the first to use such theoretical integration within the context of two-tier board structures. Second, in so doing, our study contributes toward a better understanding of the efficacy of two-tier board structures, since most studies have mainly focused on one-tier board structures for a variety of corporate governance issues (Brick & Chidambaran, 2010; Dash & Raithatha, 2019; DeBoskey et al., 2018; Hahn & Lasfer, 2016; Vafeas, 1999). In addition, while most past studies examined the influence of CEOs in isolation (Balsam, Puthenpurackal, & Upadhyay, 2016; Pham, 2020), we examine not only the influence of CEOs but also the chairmen of the board, who have received relatively scant attention to date. Third, adopting the system GMM (two-step) regression as our main analysis enables us to account for endogeneity, heteroskedasticity and simultaneity issues, thus providing better methodological rigor compared to other related past studies which mainly used OLS, fixed effects or 2SLS regression (Adams & Ferreira, 2009; Brick & Chidambaran, 2010; Chou et al., 2013; Hahn & Lasfer, 2016; Vafeas, 1999).

## **2 | THEORY AND HYPOTHESES DEVELOPMENT**

### **2.1. Theoretical background**

We draw on two primary theories—the upper echelon and resource dependence theories—to develop our hypotheses regarding the influence of board leaders on the frequency of board meetings. Upper echelon theory postulates that organizational actions, strategies and outcomes reflect the experiences, values and personalities of “powerful actors” in the organization, who are the core group of top executives or the firm’s dominant coalition (Hambrick & Mason, 1984, p. 193). We propose that the CEO, chairman, affiliated directors and female independent directors are “powerful actors” of the organization who are able to exert significant influence, as the firm’s dominant coalition, on the strategies and actions of the firm (including board meeting frequency) depending on their level of managerial discretion (Hambrick, 2007; Hambrick & Finkelstein, 1987; Hambrick & Mason, 1984; Jiang & Liu, 2020).

Resource dependence theory describes how boards of directors can help organizations reduce environmental interdependence and uncertainties by connecting their firms with external factors (Cavaco et al., 2017; Hillman, Cannella, & Paetzold, 2000; Pfeffer & Salancik, 1978). In their role within the resource dependence theory, directors bring resources to the firm such as knowledge and variety of skills; provide access to key constituents (e.g., suppliers, customers, decision-makers); and contribute legitimacy (Hillman & Dalziel, 2003; Hillman, Shropshire, & Cannella, 2007). We propose that affiliated directors and female independent directors serve as important influence on the frequency of board meetings as they carry out their resource dependence role.

### **2.2. CEOs and board meeting frequency**

Upper echelon theory posits that executives’ experiences, values and personalities greatly influence their fields of vision, perceptions and interpretations of the situations they face and, in turn, affect their choices (Hambrick, 2007, p. 334). In other words, the logic of upper echelon theory is that executives make choices based on “their personalized construals of the situations they face” (Hambrick, 2007, p. 338). However, these choices and actions are also dependent on the level of the executives’ managerial discretion. Managerial discretion is the latitude of action that executives have to affect the activities of the companies they run (Hambrick & Finkelstein, 1987). We suggest that a CEO’s level of discretion to exert considerable influence on firm strategies and board meeting activities is dependent on their power, as measured by

their tenure, the number of directorships which they hold in different firms and their ownership of the focal firm.

The length of a CEO's tenure in an organization plays a key role in the extent and significance of their influence, decision-making autonomy and power (Armstrong et al., 2014; Cook & Burrell, 2013; Veprauskaitė & Adams, 2013). The longer a CEO serves a company, the more the CEO is able to accumulate comprehensive knowledge and deeper understanding of the company's operating environment, as well as to develop long-term relationships with key stakeholders (Hermalin & Weisbach, 1998; Veprauskaitė & Adams, 2013). Thus, CEOs with longer tenures can influence the key strategic decisions of their firms, including the agenda, frequency and activities of board meetings (Adams & Ferreira, 2007; Baldenius, Melumad, & Meng, 2014; Lin, Lin, & Lei, 2019). Past studies have found that longer-tenured CEOs are often likely to become more powerful, self-opportunistic, entrenched in their legacies and less willing to pursue new strategic initiatives (Matta & Beamish, 2008); hence, they are more likely to shun board monitoring and scrutiny. As a result of their long tenure in the firm, they can easily control the provision of firm-specific information and procedures due to their familiarity with the firm and their established relationships with key top executives and stakeholders (Armstrong et al., 2014; Cook & Burrell, 2013). Therefore, longer-tenured CEOs are likely to favor fewer board meetings so as to suppress opportunities for vigorous board monitoring of their conduct and management (Hermalin & Weisbach, 1998).

In addition, we argue that CEOs holding multiple directorships are able to exert powerful influence on decision-making and are more likely to favor fewer board meetings for three reasons. First, CEOs serving on many boards acquire their credibility, reputations, broad knowledge and diverse ideas through their experiences on the different boards they serve (Carpenter & Westphal, 2001; Kor & Sundaramurthy, 2009). Thus, such CEOs can exert sufficient influence in the decision-making process over a fewer number of board meetings because they are capable of providing effective agendas and valuable strategic solutions to cope with a variety of problems more rapidly (Bravo & Reguera-Alvarado, 2017). Second, holding multiple directorships places constraints on the time and dedication of CEOs when serving a firm, hence they are likely to attend fewer board meetings (Adams & Ferreira, 2009; Jiraporn, Davidson, DaDalt, & Ning, 2009; Kor & Sundaramurthy, 2009). Third, although such busy CEOs may be prone to affecting corporate decisions and performance negatively (Lei & Deng, 2014; López & Morrós, 2014), they are able to mitigate these negative effects because they can capitalize on their wider knowledge and credible reputations gained through their experiences in serving multiple boards.

While CEOs' share ownerships align their economic interests with those of shareholders, thus incentivizing them to maximize firm value, these ownerships also increase their influence and power (Fama & Jensen, 1983; Peasnell, Pope, & Young, 2005). Studies in several countries, including Australia (Arthur, 2001) and Singapore (Mak & Li, 2001) as well as others (Peasnell et al., 2005; Weisbach, 1988), have found that the extent of board monitoring and the level of board independence declines as CEO/executive share ownership increases. CEOs with significant "ownership power" in a firm could, for self-serving reasons, extend their tenure on the board beyond the point of effectiveness (Veprauskaitė & Adams, 2013; Wang, Holmes, Oh, & Zhu, 2016). These findings suggest that as CEOs' share ownerships increase, their need to preserve their self-interests also increases. Hence, such CEOs are likely to use their power and influence to withhold firm-specific information from the board and reduce the frequency of board meetings in order to weaken the efficacy of board monitoring (Vafeas, 1999).

Taken together, the above arguments suggest that through their power and influence, CEOs are more likely to lobby for a lower frequency of board meetings, leading to our first hypothesis:

*H1: CEO power is negatively related to board meeting frequency.*

### **2.3. Chairmen and board meeting frequency**

While evidence of the CEO effect has emerged within upper echelon research, the board chair has remained a relatively opaque figure despite being an important component of a firm's dominant coalition as prescribed by upper echelon theory. The board chair is a crucial leadership position within the board and the overall firm, especially when two different individuals separately occupy the CEO and chairman positions (Hambrick, 2007; Krause & Semadeni, 2014; Withers & Fitza, 2017). Separate board chairs can provide firm stakeholders with additional governance oversight, resources and an extra layer of monitoring on the CEO's conduct (Krause & Semadeni, 2014; Lorsch & Zelleke, 2005). As such, the board chair inspires trust among board members and performs critical functions that directly impact a firm's strategic decision-making and performance, such as shaping the board meeting agenda and the frequency of board meetings (Balsam et al., 2016; Jensen, 1993). However, most prior studies have not examined the impact of having an outside chairman in a separate board, as in the case of two-tier board structures, but rather have mainly examined the impact of separating the positions of CEO and board chairman in one-tier boards (Balsam et al., 2016; Chang, Lee, &



Shim, 2018; Withers & Fitza, 2017). Similar to the CEO, we propose that the level of the board chairs' discretion to exert influence on board meeting activities and firm strategies depends on their power, as measured by their tenure, the number of directorships they hold in other firms and their ownership of the focal firm.

The influence of tenure has long been a contentious issue in the discharge and efficacy of directors' monitoring and advising roles (Canavan, Jones, & Potter, 2004; Lipton & Lorsch, 1992; Musteen, Datta, & Kemmerer, 2010). Some scholars have found that longer tenure reduces directors' independence and transparency to outside stakeholders (Boeker, 1997; Hillman, Shropshire, Trevis, Dalton, & Dalton, 2011), creates isolated groups that worsen decision-making (Bravo & Reguera-Alvarado, 2017), and causes them to befriend rather than monitor management (Canavan et al., 2004; Lipton & Lorsch, 1992). While long tenures can result in reduced monitoring effectiveness, other studies have found that boards with shorter-tenured directors have limited experience and firm-specific knowledge, hence are likely to be equally challenged in carrying out their monitoring and advising duties (Bacon, Cornett, & Davidson, 1997; Musteen et al., 2010; Vafeas, 1999). Since the chairman of the board is the chief position of the firm's dominant coalition, we argue that a longer-tenured chairman is likely to have greater discretion in exerting influence over board meeting activities and to promote greater meeting frequencies. This is because board chairs with longer tenures have more experience, deeper firm-specific knowledge, greater commitment and willingness to extend efforts toward attaining firm goals (Vafeas, 2003; Zahra, 1996). As such, they are more competent in assessing strategic decisions and more willing to spend time attending meetings to facilitate more frequent discussion for the benefit of the firm (Zahra, 1996).

In a similar vein, board chairs with multiple directorships have also been found to have both negative and positive effects on the efficacy of firm monitoring and advising. On one hand, chairmen with multiple directorships have been argued to be ineffective monitors and advisors because they overcommit themselves (Cashman, Gillan, & Jun, 2012; Shivdasani & Yermack, 1999), prioritize and allocate their time and energy to serving certain boards over others (Masulis & Mobbs, 2014) and are often too busy to attend board meetings (Dash & Raithatha, 2019; Jiraporn et al., 2009). On the other hand, holding multiple directorships has been found to increase directors' advisory and monitoring abilities because it helps in the acquisition of more knowledge, diverse skills and valuable experience in rendering board duties (Ahn, Jiraporn, & Kim, 2010; Bennouri, Chtioui, Nagati, & Nekhili, 2018). We argue that the benefits accrued from multiple directorships held by chairmen helps to enhance their power and influence in terms of lobbying for greater board activities and meeting frequency.

Additionally, we posit that share ownership by board chairs contributes to their power to exert influence on the quality of managerial oversight and corporate decision-making. Board chairs with larger share ownerships have vested interest in firm performance, hence are more likely to favor a greater frequency of board meetings because they are more motivated to perform their board functions with extra diligence (Fama & Jensen, 1983; Hambrick & Jackson, 2000). In fact, Jiraporn (2009) found that directors holding a larger percentage of share ownership are less likely to be absent from board meetings. In addition, Hambrick and Jackson (2000) suggested that non-executive share ownership creates a financial incentive for non-executives and increases their identification with the firm, making them more vigilant in their managerial oversight and more generous with their time and attention (Filatotchev & Bishop, 2002).

Consequently, we hypothesize that a chairman's tenure, multiple directorships and level of share ownership increases their power to exert influence in promoting a greater frequency of board meetings. Therefore:

*H2: Chairman power is positively related to board meeting frequency.*

#### **2.4. Affiliated directors and board meeting frequency**

Board literature postulates that the two main functions of directors are monitoring of management on behalf of shareholders (Hillman et al., 2000; Pearce & Zahra, 1992) and providing resources to management by way of advice on corporate matters and liaisons with external constituencies (Hillman & Dalziel, 2003; Pfeffer & Salancik, 1978). Of particular interest are the role and influence of affiliated or "grey" directors, who are defined as those "non-management" directors who are not employees of the firm (Hillman et al., 2000, p. 237) but who also may *not* be truly independent of the firm's current management because of family relationships with management or past business dealings with the firm, including as former employees or consultants (Cavaco et al., 2017; Joh & Jung, 2017; Pearce & Zahra, 1992). Although these individuals play an important role in the firm, the challenge lies in exercising their independence when balancing their monitoring and advisory roles as a result of their previous professional and personal relationships with the firm.

While the monitoring function of directors is derived from the agency perspective, the theoretical underpinning for directors' provision of resources function is resource dependence theory (Hillman & Dalziel, 2003; Pfeffer & Salancik, 1978). Pfeffer & Salancik (1978) suggested that directors can bring four benefits to firms through their resource provision function: advice and counsel, channels of information flow, preferential access to resources

and legitimacy. Hence, affiliated directors are “resource-rich” directors because they have more firm-specific information and operational expertise due to their previous relationships (e.g., as former employees) and business dealings with the firm (Cavaco et al., 2017; Hillman, Withers, & Collins, 2009; Joh & Jung, 2017). Having firm-specific knowledge better facilitates their ability to act as channels of communication that connect the firm to external parties, thereby enabling preferential access to resources for the firm. Their previous relationships with the firm also make it easier to establish legitimacy, trust and cooperation with the CEO and management (Cavaco et al., 2017; Joh & Jung, 2017). Therefore, compared to purely independent directors, affiliated directors are likely to be better resource providers and are able to garner strong influence during board meetings to perform their resource provision roles.

However, with regards to the monitoring function, affiliated directors may not be useful stewards for shareholders due to their previous professional, social or personal relationships with the firm and its management (Hillman & Dalziel, 2003; Joh & Jung, 2017). They are often more likely to be obligated and subjected to managerial influence because their interests are more aligned with management than shareholders (Chou, Hamill, & Yeh, 2016). Their affiliations erode their ability or willingness to exercise independent judgement on the firm, and thus they become less objective and less effective monitors in their quest to protect or enhance their relationships with the firm (Chou et al., 2016; Daily, Johnson, Ellstrand, & Dalton, 1998). Affiliated directors often have conflicts of interests due to their previous, current and expected business relationships with the firm, which impairs their ability to monitor and discipline (Arosa, Iturralde, & Maseda, 2010). For example, challenging the CEO may place the affiliated director’s board seats and their valued personal and professional relationships at risk (Daily et al., 1998). As such, we conjecture that affiliated directors are likely to favor less frequent board meetings in order to reduce monitoring on the management of the focal firm.

In two-tier board structures where the management and supervisory boards are separated, the differences in the influence and roles rendered by affiliated directors and purely independent directors become more pronounced. Affiliated directors possess more firm-specific information due to their previous relationships with the firm, compared to purely independent directors who suffer from information deficit (Armstrong et al., 2014; Baldenius et al., 2014; Cavaco et al., 2017). CEOs are also more likely to share firm-specific information with their trusted affiliated directors than with purely independent directors, especially during uncertain environments or high information asymmetry conditions (Joh & Jung, 2017). With more firm-specific information and knowledge based on their previous relationships with the firm, affiliated directors are able to exercise their resource provision roles with fewer board

meetings. Hence, when balancing their lack of monitoring effectiveness with their better abilities to provide resources, advice and counsel, we predict that affiliated directors are more likely to lobby for a lower board meeting frequency. Therefore:

*H3: Affiliated directors are negatively related to board meeting frequency.*

## **2.5. Female independent directors and board meeting frequency**

According to resource dependence theory, firms acquire competitive advantages by developing linkages to external entities that control the resources they need in their external environments. Since the primary linkage mechanism between a firm and its external sources of dependency is the board of directors (Hillman & Dalziel, 2003; Hillman et al., 2007), the nature and amount of information and resources that directors bring to the boardroom, especially during meetings, have crucial impacts for firm performance and competitiveness (Adams & Ferreira, 2009; Fan, Jiang, Zhang, & Zhou, 2019; Yang, Riepe, Moser, Pull, & Terjesen, 2019). In addition, directors with broader access to external information and resources can increase their abilities in terms of monitoring and advising (Bebchuk & Weisbach, 2010; Zalata et al., 2019).

Therefore, drawing from resource dependence theory, we argue that female independent directors provide access to external resources that are important for firms' competitiveness in several ways. First, female independent directors are more likely than their male counterparts to foster a greater number of board meetings to serve as "channels for communicating information and for gaining preferential access to commitments" from important external stakeholders of the firm (Hillman et al., 2007, p. 942). They do so by bringing to the boardroom different experience, skills and knowledge that can facilitate the efficacy of the board's monitoring, decision-making and advisory services rendered to the firm (Bennouri et al., 2018; Zalata et al., 2019). The diversity in perspectives and information derived from female independent directors due to their differences from their male counterparts helps boards to make better decisions in monitoring through divergent and critical thinking. Second, female independent directors can stimulate creativity and offer more innovative solutions in decision-making processes during board meetings (Robinson & Dechant, 1997; Wiersema & Bantel, 1992).

Third, female independent directors provide firms with valuable advice and counsel through the different demographic and relational attributes they bring to the boardroom relative to their male counterparts (Bennouri et al., 2018). For example, female independent directors bring fresh viewpoints and tend to be more independent in their thinking than their male peers because they are not a part of the "old boys' club" (Carter, Simkins, & Simpson, 2003; Fan et

al., 2019). In addition, female independent directors allocate more effort to monitoring activities (Adams & Ferreira, 2008, 2009; Bozhinov, Joecks, & Scharfenkamp, 2021), because women are generally more risk-averse and less tolerant of opportunistic behaviors than men (Huang & Kisgen, 2013; Jiang et al., 2016). In fact, Adams and Ferreira (2009) found that female directors have better attendance in meetings and are more likely to attend monitoring-related committees than male directors. Supporting the notion of greater monitoring efforts by women, Schwartz-Ziv (2017) provided evidence that boards with at least three female directors are more likely to request further information or an update on the subject discussed, and to take the initiative after board meetings. As such, since they are more active monitors (Bozhinov et al., 2021) and less tolerant of opportunistic behaviors compared to their male counterparts, female independent directors are more likely to encourage a greater frequency of board meetings in order to create more opportunities and time for executing their monitoring duties. Therefore:

*H4: Female independent directors are positively related to board meeting frequency.*

## **2.6. Board meeting frequency and firm performance**

Directors rely on board meetings as platforms to obtain firm-specific information when making strategic business decisions and monitoring management activities. The board meeting is a principal source of information, particularly for independent directors (Chou et al., 2013; Liu et al., 2016). Without sufficient information, independent directors face obstacles in performing their duties and making informed decisions that can benefit the organization (Duchin, Matsusaka, & Ozbas, 2010). Moreover, an important way in which independent directors ensure the effectiveness of corporate governance systems (Min & Chizema, 2015), board monitoring (DeBoskey et al., 2018) and the protection of shareholder' interests (Jiang et al., 2016) is through the frequency of board meetings. Vafeas (1999) argued that board meeting frequency measures board functions. The frequency of board meetings is one of the key dimensions of board cooperation, and board meetings are often the only way for independent directors to make contributions to firms through their participation in board activities (Hahn & Lasfer, 2016; Masulis & Mobbs, 2014). As such, the positive effects on corporate governance derived from frequent board meetings have a substantial influence on a firm's performance in terms of growth opportunities (Ji et al., 2019) and shareholder value (Jiang et al., 2016; Liu et al., 2016).

In contrast, opponents of frequent board meetings (in previous studies based mostly within the context of the one-tier board structure) have argued that a greater frequency of board meetings does not help protect shareholders' interests because directors spend limited amounts of time in performing their duties (Lipton & Lorsch, 1992) and undertake too many ineffective routine activities during board meetings simply to satisfy firm regulations, thereby reducing the efficacy of board activities (Jensen, 1993). In addition, Ji et al. (2019) found that a higher board meeting frequency and higher board meeting attendance from directors do not effectively monitor the management nor prevent them from indulging in opportunistic behaviors.

In two-tier board structures, the level of frequency and type of activities undertaken during board meetings becomes especially important, due to the clear separation between the supervisory board (independent board) and the management board (top executives/non-independent board) (Bezemer, Peij, Kruijs, & Maassen, 2014; Volonté, 2015). According to the Corporate Governance Codes of both Germany and Indonesia, the supervisory board within an organization monitors and advises the management board based on information obtained from board meeting agendas. However, the "chief executive officers almost always set the agenda for board meetings" (Vafeas, 1999, p. 114), hence increasing the likelihood of routine tasks and counter-productive activities that limit opportunities for independent directors to exercise meaningful control of management (Jensen, 1993; Vafeas, 1999). This is in line with our argument in Hypothesis 1, in which we predict that CEOs are more likely to lobby for a lower frequency of board meetings in order to reduce monitoring on their self-serving board meeting agendas. In addition, Vafeas (1999) found that boards meet more often following poor firm performance, suggesting that frequent board meetings are reactive rather than proactive measures for improved governance. As a result, Vafeas (1999) concluded that frequent board meetings are negatively associated with firm performance in US firms.

Additionally, more frequent board meetings may not necessarily be useful, because the limited time independent directors spend with the company is not used for the meaningful exchange of ideas among themselves or with the management board (Dash & Raithatha, 2019; Vafeas, 1999). As outsiders, independent directors have less firm-specific information to make strategic decisions and to monitor management (AlHares et al., 2018; Baldenius et al., 2014; Ji et al., 2019), hence a higher board meeting frequency may not bring benefits to the firm. Moreover, frequent meetings involve managerial time, higher traveling expenses, administrative support requirements and directors' meeting fees which may affect other essential or entrepreneurial activities within the firm, as resources are being directed towards less productive activities (Evans, Evans, & Loh, 2002; Johl, Kaur, & Cooper, 2015).

Consequently, this may be detrimental to firm performance. In sum, we predict that a higher board meeting frequency will lead to lower firm performance. Therefore:

*H5: Board meeting frequency is negatively related to firm performance.*

### **3 | RESEARCH DESIGN**

#### **3.1. Sample and data collection**

We investigated our research questions using a longitudinal dataset of 308 publicly listed firms from Germany (158 firms) and Indonesia (150 firms); where firms in both countries adopt the two-tier board system. Our observation period spanned 10 years from 2008 to 2017. Firm data were obtained from OSIRIS, Thomson Reuters Eikon, Datastream and annual reports, while country data were taken from the World Bank database. We located our empirical context in Germany and Indonesia for three reasons. First, all listed firms from these two countries are required by law to adopt the two-tier board structure, thus allowing for a cleaner dataset of firms that follows the same type of board structure. Second, Germany and Indonesia are important countries within their respective continents. Germany is a highly industrialized economy and is the largest economy in Europe. Likewise, Indonesia's economy is the largest in Southeast Asia by a significant margin and is one of the most rapidly growing emerging economies in the world. Moreover, both Indonesia and Germany follow the same corporate goals of OECD principles in maintaining the international standards of corporate governance practices. Third, by utilizing Germany and Indonesia, we respond to the call for theory integration by utilizing both the western and eastern contexts (Barkema et al., 2015).

#### **3.2. Measurement of variables**

##### **3.2.1 Dependent variable**

For our first research question, our dependent variable is the frequency of *board meetings*, measured by the number of supervisory board meetings held by the directors of supervisory boards annually, as disclosed in their annual reports (Jiang et al., 2016; Liu et al., 2016). For our second research question, our dependent variable is *firm performance*, as measured by return on assets (*ROA*).

##### **3.2.2 Independent variables**

We measure *CEO power* and *chairman power* using three dimensions: tenure, multiple directorships and share ownership in the focal firm (Finkelstein, 1992; Jiang & Liu, 2020). We first calculated the standardized z-scores for these three dimensions, then used Principal

Component Analysis (PCA) to aggregate them into two separate composite indexes: CEO power and chairman power (Buchanan, Le, & Rishi, 2012; Kurul, 2017). Following previous studies, we define *affiliated directors* as individuals who are on the firm's board of directors but are not a current executive or employee of the firm, and are at least one of the following: a) former employee who has left the focal firm at least two years ago; b) family member of the focal firm's management; c) engaged in business or professional relationships with the focal firm (Cavaco et al., 2017; German Code, 2019; Hillman et al., 2000; Joh & Jung, 2017; Pearce & Zahra, 1992). The proportion of affiliated directors is calculated as the ratio of the total number of affiliated directors to the total number of independent directors on the board. Similarly, the proportion of *female independent directors* is calculated as the ratio of the total number of female independent directors to the total number of independent directors on the board (Wahid, 2018). Information regarding the affiliated directors and female independent directors were hand-collected from the annual reports of focal firms.

### **3.2.3 Control variables**

Following previous corporate governance studies, we control for a variety of firm and country variables (Buchanan et al., 2012; Cavaco et al., 2017; DeBoskey et al., 2018; Hillman et al., 2007; Wintoki, Linck, & Netter, 2012). For firm-level controls, we control for the *age*, *gender* and *education* of each focal firm's *CEO* and *chairman* of the board. We also control for the proportion of *purely independent directors*, calculated as the ratio of the total number of purely independent directors to the total number of independent directors on the board, to rule out possible confounding effects on other independent directors (Chou et al., 2016; Masulis & Zhang, 2018). Next, we control for *firm age*, *firm ownership*, *firm size* (number of employees per annum), *firm leverage* and past performance, as measured by return on assets (*ROA*). For country-level variables, we control for *GDP growth* (Jandhyala & Phene, 2015) and *governance index* (Kaufmann, Kraay, & Mastruzzi, 2009). To account for the different regulatory and institutional qualities of Germany and Indonesia, we created a composite governance index using the World Bank Worldwide Governance Indicators (Buchanan et al., 2012; Kaufmann et al., 2009; Kurul, 2017) which covers six dimensions: 1) Voice and Accountability, 2) Political Stability and Absence of Violence, 3) Government Effectiveness, 4) Regulatory Quality, 5) Rule of Law, and 6) Control of Corruption (Kaufmann et al., 2009, p. 2). These six dimensions range from -2.5 to +2.5, where higher value indicates higher regulatory and institutional quality. Following previous studies, we aggregated these six dimensions using Principal Component Analysis (PCA) to obtain the composite governance



index (Buchanan et al., 2012; Kurul, 2017). Finally, we also control for industry, year and country fixed effects.

### **3.3. Regression models**

We employ a dynamic panel data model with system GMM (two-step) as our main analysis for several reasons. First, the OLS method provides inconsistent results due to omitted variable bias. Second, system GMM (two-step) enables us to overcome endogeneity and unobserved heteroskedasticity problems, since current corporate governance variables may relate to past firm performance; additionally, in the presence of a dynamic relationship, explanatory variables may correlate with fixed effect errors (e.g., unobserved heteroskedasticity) (Arellano & Bover, 1995; Roodman, 2009). To address the endogeneity problems, system GMM (two-step) allows for the use of past values of firm performance as instruments without compromising the efficiency and consistency of estimators. For instance, system GMM (two-step) corrects endogeneity through lag adjustments of dependent variables; thus, following past studies, we employ two years and four years of lag dependent variables for completeness of the dynamic issue (Duru, Iyengar, & Zampelli, 2016; Wintoki et al., 2012). Empirically, it is important to understand the number of lags of our dependent variable (e.g., firm performance as measured by ROA) that we need in order to capture all the information from the past. Older lags are exogenous with respect to the residuals of the present; thus, these older lags can be used as instruments. This is important for consistent estimation using the dynamic panel GMM estimator.

Third, besides the lagged levels of dependent variables as instruments, system GMM (two-step) also applies complete exogenous and lagged differences as instruments to solve endogeneity problems. Particularly, system GMM (two-step) includes additional instruments to improve the efficiency of an equation, and the “system” GMM estimator adds to this one extra layer of instrumentation in which the original levels are instrumented with differences (Arellano & Bover, 1995). Fourth, system GMM (two-step) also addresses the simultaneity issues (e.g., future firm performance may influence the current corporate governance variables) and unobserved heterogeneity (e.g., board independence may depend on the CEO’s abilities in the firm) (Hermalin & Weisbach, 1998; Wintoki et al., 2012). Fifth, we use system GMM (two-step) instead of GMM (one-step) because GMM (two-step) is an augmented estimator, and is thus more efficient and robust regarding heteroskedasticity and auto-correlation (Roodman, 2009).

Following Arellano and Bover (1995); Blundell and Bond (1998); Wintoki et al. (2012); Marshall, Pinto, and Tang (2019); and Dash and Raithatha (2019), we measure the dynamic relationships using robust standard errors through the following equations:

$$Board\ meetings_{ijt} = \Phi Board\ meetings_{i(t-1)} + \beta_1 CEO\ power_{it} + \beta_2 Chairman\ power_{it} + \beta_3 Affiliated\ directors_{it} + \beta_4 Female\ independent\ directors_{it} + \gamma Controls_{ijt} + Industry + Year + Country + \eta_{ij} + \varepsilon_{ijt} \quad (1)$$

$$Firm\ performance_{ijt} = \beta Firm\ performance_{i(t-2)} + \beta Firm\ performance_{i(t-4)} + \beta Board\ meetings_{it} + \gamma Controls_{ijt} + Industry + Year + Country + \eta_{ij} + \varepsilon_{ijt} \quad (2)$$

## 4 | EMPIRICAL RESULTS

### 4.1. Descriptive statistics and correlation analysis

Table 1 presents descriptive statistics for our full sample, organized by country. Table 2 presents the correlations of all our variables, depicting no high correlations among variables. The VIF of each variable is less than 2 (maximum value of VIF is 1.99), with an average VIF of 1.31, suggesting no problems of multicollinearity for any variables (Lin et al., 2019).

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 Table 1 & Table 2 about here  
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### 4.2. System GMM (two-step) model estimation results

Results are depicted in Table 3. The relationship between CEO power and board meeting frequency is negative and significant, consistently in model 1 ( $\beta = -0.031$ ;  $p < 0.05$ ) and model 5 ( $\beta = -0.085$ ;  $p < 0.01$ ) for the full sample and for both Germany (model 6:  $\beta = -0.070$   $p < 0.01$ ) and Indonesia (model 7:  $\beta = -0.067$ ;  $p < 0.05$ ). Hence, Hypothesis 1 (*H1: CEO power is negatively related to board meeting frequency*) is supported. These results indicate that powerful CEOs from both developed and less developed countries, as measured by their tenure, multiple directorships and share ownerships, are likely to influence board monitoring intensity to protect their self-interests by lobbying for less frequent board meetings (Armstrong et al., 2014; Baldenius et al., 2014; Cook & Burrell, 2013). Our results for Hypothesis 1 are consistent with the findings of Armstrong et al. (2014); DeBoskey et al. (2018); and Cook and Burrell (2013), and are also in line with the upper echelon perspective.

Next, with reference to Hypothesis 2, the results in Table 3 show that the relationship between chairman power and board meeting frequency is negative and significant in model 2 ( $\beta = -0.023$ ;  $p < 0.1$ ) and model 5 ( $\beta = -0.036$ ;  $p < 0.05$ ) for the full sample, and for model 7 ( $\beta = -0.057$ ;  $p < 0.05$ ) in Indonesia. Therefore, Hypothesis 2 is not supported in the full sample or in Indonesia. However, for Germany, the relationship is positive and significant, as shown in model 6 ( $\beta = 0.030$ ;  $p < 0.05$ ), thus providing partial support for Hypothesis 2. These opposing results provide interesting insights that reveal the differences in institutional development and corporate governance between Indonesia and Germany. This suggests that for Germany, a country with better-developed formal institutions and better governance enforcement, the board chairman is likely to engage in more vigorous monitoring and advising by encouraging more frequent board meetings. In sum, Hypothesis 2 (*H2: Chairman power is positively related to board meeting frequency*) is supported for Germany but not for Indonesia.

With reference to Hypothesis 3, results from Table 3 show that the relationship between affiliated directors and board meeting frequency is found to be negative and significant in model 3 ( $\beta = -0.069$ ;  $p < 0.05$ ) and model 5 ( $\beta = -0.076$ ;  $p < 0.01$ ) for the full sample, and in model 6 ( $\beta = -0.048$ ;  $p < 0.05$ ) for Germany; however, it is negative and not significant in model 7 ( $\beta = -0.014$ ;  $p > 0.1$ ) for Indonesia. These findings show that in general, affiliated directors are likely to favor a lower board meeting frequency, providing support for Hypothesis 3 (*H3: Affiliated directors are negatively related to board meeting frequency*) in the full model and for Germany but not for Indonesia. These results suggest that the agency theory perspective of affiliated directors outweighs the resource dependence perspective. In other words, affiliated directors' previous relationships with the focal firm may create conflicts of interest and agency problems that will lead to poor corporate governance and less effective monitoring, as compared to purely independent directors (Chou et al., 2016; Joh & Jung, 2017). Our findings imply that previous relationships with focal firms are more likely to trigger the alignment of interests between the affiliated directors and the executives of the focal firm, rather than the shareholders. As such, to reduce monitoring, affiliated directors are likely to prefer less frequent board meetings.

Next, the results from Table 3 show that there is a positive and significant relationship between female independent directors and board meeting frequency in model 4 ( $\beta = 0.046$ ;  $p < 0.05$ ) and model 5 ( $\beta = 0.047$ ;  $p < 0.05$ ) for the full sample, and in model 6 ( $\beta = 0.083$ ;  $p < 0.01$ ) for Germany. However, for Indonesia, Table 3 shows that there is no significant relationship between female independent directors and board meeting frequency, as seen in model 7 ( $\beta = 0.019$ ;  $p > 0.1$ ). Thus, Hypothesis 4 (*H4: Female independent directors are positively related to*

*board meeting frequency*) is supported for the full model and for Germany, but is not supported for Indonesia. These results indicate that, in general, female independent directors bring different skills, values and experiences to the board, thereby providing increased access to resources and connections to the external environment, as postulated by resource dependence theory (Hillman et al., 2007; Post & Byron, 2015; Wahid, 2018). Our finding is in line with previous studies, which have also found that female independent directors are better monitors (Bozhinov et al., 2021) and attend more board meetings than their male counterparts (Adams & Ferreira, 2008, 2009, 2012). The positive but non-significant result found in Indonesia, where the institutional environment is less developed and weaker in governance, suggests that a less diverse board with fewer female independent directors reduces their influence, causing female independent directors to have less “voice.” Hence, they are unable to lobby for a higher board meeting frequency (Schwartz-Ziv, 2017; Usman, Zhang, Farooq, Makki, & Dong, 2018).

Table 4 shows that there is a negative and significant relationship between board meeting frequency and firm performance in the full sample ( $\beta = -1.558$ ;  $p < 0.05$ ) and in Germany ( $\beta = -2.349$ ;  $p < 0.05$ ). On the other hand, there is a positive and significant relationship between board meeting frequency and firm performance in Indonesia ( $\beta = 1.249$ ;  $p < 0.05$ ). Therefore, Hypothesis 5 (*H5: Board meeting frequency is negatively related to firm performance*) is supported in the full sample and in Germany but not supported in Indonesia. Our results suggest the importance of board meetings in ensuring proper exchange of information between independent and non-independent directors, and in the setting of effective board meeting agendas that will bring benefits to the firm. Without these, more frequent board meetings will not necessarily lead to better firm performance. Interestingly, firms in countries with weak governance, such as Indonesia, seems to benefit from greater frequency of board meetings, indicating that more board meetings are necessary to ensure proper information exchange and more monitoring and advising opportunities for independent directors.

Controls from our first regression model (model 5 in Table 3) show that, in general, board chairmen with higher education levels, larger firms and firms with higher leverage are likely to foster more frequent board meetings. Firms that had performed well in terms of ROA for the past two years are likely to promote a greater frequency of board meetings, while firms that had performed well for the past four years are unlikely to do so, indicating that stability in performance will lead to less frequent board meetings (Jensen, 1993; Vafeas, 1999). As expected, firms that operate in more developed economies and better institutional environments are likely to encourage more frequent board meetings. From our second regression model

(model 8 in Table 4), control variables show that younger CEOs and firms with a higher proportion of purely independent directors are associated with better firm performance, while highly leveraged firms lead to lower firm performance. Intriguingly, firms with more highly educated chairmen perform worse, suggesting that such chairmen are likely to be in great demand and have multiple directorships, resulting in their having less time to focus on advising their focal firms (Bravo & Reguera-Alvarado, 2017; Cashman et al., 2012; Lei & Deng, 2014; Shivdasani & Yermack, 1999).

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Table 3 & Table 4 about here  
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### **4.3. Robustness checks**

We conducted several additional analyses to confirm the robustness of our analyses and results. First, we tested our system GMM (two-step) models using different dependent variables as proxies for firm performance, such as ROE, ROS and Tobin's Q, instead of ROA. Results remain unchanged for all our hypotheses. Second, we used 2SLS as the alternative estimation method for both equations. All hypothesized results were similar to our main analysis.

## **5 | DISCUSSION AND CONCLUSION**

Our study provides valuable information to academicians, practitioners and policymakers regarding the determinants of board meeting frequency in a two-tier board structure, from the contexts of both a stronger corporate governance (Germany) and a weaker one (Indonesia). Our findings suggest that the influence of board leadership on board meeting frequency may be dependent on institutional contexts. Our study also highlights the importance of board meetings, since board meetings are important platforms through which independent directors discharge their duties and responsibilities. As such, the frequency of board meetings is a crucial indicator in assessing the effectiveness of independent directors' roles.

Our study yields several important insights. First, our results demonstrated that CEOs and board chairmen exert different but significant influences on board meeting frequency in both Germany and Indonesia. CEOs are powerful, self-opportunistic and likely to provide firm-specific information to control the monitoring and advising effectiveness of board members so as to protect their self-interests. Thus, we found that CEOs negatively influence board meeting frequency in Germany and Indonesia. Second, board chairmen favor a higher frequency of board meetings in Germany, where the enforcement of governance is stronger, while the opposite effect was found in Indonesia, where corporate governance is less developed and has

weaker enforcement. Third, we investigated the relatively under-researched influence of affiliated directors and discovered that, in general, they are more likely to lobby for a lower frequency of board meetings due to their previous relationships with the focal firm. Fourth, female independent directors are likely to foster a higher frequency of board meetings in Germany, while in Indonesia female independent directors do not have significant influence on board meeting frequency.

Finally, our study reveals that the frequency of board meetings has opposing effects on firm performance in Germany and Indonesia. In Germany, where formal institutions are more developed with stronger enforcement and transparency, board meeting frequency was found to be negatively associated with firm performance. By contrast, board meeting frequency was positively associated with firm performance in Indonesia, where formal institutions are less developed with weaker enforcement and transparency. Our findings indicate that independent and effective monitoring and advising can take place with fewer board meetings in the context of more developed institutions with better corporate governance, while a higher frequency of board meetings is required to ensure the effectiveness of monitoring and advising in the context of less developed institutions with weaker corporate governance.

### **5.1. Theoretical and methodological contributions**

We utilize a multi-theoretic approach by integrating upper echelon and resource dependence lenses to explicate the theoretical underpinnings of how the dominant coalition of board leadership influences board meeting frequency and firm performance. By integrating these two theoretical perspectives, our study provides a nuanced theoretical and empirical account of this phenomena. We draw from upper echelon theory to demonstrate the powers of CEOs and chairmen, along with the importance of affiliated and female independent directors, as the dominant coalition of board leadership in influencing board meeting frequency, which in turn affects firm performance. We then integrate upper echelon theory with resource dependency theory to further develop our predictions regarding the influence of affiliated and female independent directors on board meeting frequency. Our findings demonstrate the richness of theoretical integration when applied to different institutional and corporate governance contexts, such as Germany and Indonesia (Barkema et al., 2015).

We contribute to the often-overlooked and under-explored context of the two-tier board structure by providing a better understanding of the influence of board members on board activities and meetings. Most past studies have mainly focused on the one-tier board structure, and on a variety of issues regarding determinants or consequences of corporate governance

mechanisms (Brick & Chidambaran, 2010; Dash & Raithatha, 2019; DeBoskey et al., 2018; Hahn & Lasfer, 2016; Vafeas, 1999). In addition, our study informs how the frequency of board meetings may have an impact on firm performance, providing additional knowledge for research on the consequences of board meeting frequency within the two-tier board structure and different institutional environments.

Our study offers several methodological contributions by adopting the system GMM (two-step) regression as our main analysis. First, using system GMM (two-step) provides better methodological rigor in our analysis, as compared to other related past studies that have mainly used OLS, fixed effects or 2SLS in examining the determinants of board meeting frequency, attendance and firm performance (Adams & Ferreira, 2009; Brick & Chidambaran, 2010; Chou et al., 2013; Hahn & Lasfer, 2016; Vafeas, 1999). Using system GMM (two-step) allows us to formulate a dynamic panel regression to account for the dynamic relationship between current governance variables and past performance of firms; failure to do so can give rise to unobserved heteroskedasticity and endogeneity. By contrast, OLS and fixed effects regression models expose the risk of obtaining biased and inconsistent results due to their inability to account for the presence of endogeneity and heteroskedasticity. For example, both OLS and fixed effects models consider the current values of the explanatory variables (governance variables) to be independent of the past realization of firms, hence their estimates would be biased if the past performance of firms affects the current values of the governance variables. Second, OLS and fixed effects regression do not account for heteroskedasticity, resulting in OLS providing an upward-biased coefficient for the lagged dependent variable in the presence of heteroskedasticity. On the other hand, in addition to its inability to capture time invariant issues such as industry and year effects, fixed effects regression does not account for the correlation between the coefficient of the lagged dependent variable and the error term. As a result, this produces a downward-biased coefficient of the lagged dependent variable. Third, unlike system GMM (two-step), OLS and fixed effects regression do not consider the issue of simultaneity, in which current governance variables may be related to firms' future performance; hence, they may produce biased results.

## **5.2. Practical implications**

Our findings provide several implications for practice, especially for countries adopting the two-tier board structure, with different levels of institutional and corporate governance development as boundary conditions. First, we show that CEOs, chairmen, affiliated directors and female independent directors can have significant influence on board meetings in

Germany, while in Indonesia affiliated and female independent directors have no significant influence. Our results highlight that these board members may exert different influence depending on their institutional contexts. Second, we provide valuable insights on the varying influence of affiliated and female independent directors within the two-tier board structure, adding more practical knowledge in a relatively under-researched context. Third, we demonstrate how a greater frequency of board meetings may not necessarily benefit firms in terms of performance, especially in the context of a well-developed institutional environment, but will benefit performance for firms from countries with a less developed and weaker institutional and governance environment. Finally, we illustrate the importance of board meeting as an important platform not only for information procurement and exchange, but also for directors to execute their monitoring and advisory roles, especially in a two-tier board context where there is a distinct separation between the management and supervisory boards.

### **5.3. Limitations and future research**

The limitations of our study offer opportunities for future research. First, we focused on the two-tier board structure, suggesting that a potential extension could investigate the determinants of board meeting frequency for firms in countries that allow both one-tier and two-tier board structures (for example, France, the Netherlands and Portugal). Second, although our results limit generalizability to publicly listed firms, future studies could build on our study and examine how board meeting frequency affects firm performance for small, unlisted, and privately held firms. Third, future research could investigate the influence of board meeting attendance among independent and non-independent directors on firm performance in order to deepen our understanding of the consequences of board meeting attendance. Finally, we encourage future studies to build theory to account for the impact of complex interactions among different types of independent directors on the execution of their monitoring and advisory roles.

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**TABLE 1 Descriptive statistics**

Variable	Full Sample					Germany					Indonesia				
	Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max
Board meetings	3100	6.705	6.074	1	61	1600	5.456	2.187	2	23	1500	8.037	8.229	1	61
CEO power	3099	-1.836	1.428	-9.426	3.660	1600	-1.648	1.818	-9.426	3.660	1499	-2.037	0.783	-7.370	2.323
Chairman power	3100	-0.014	0.971	-1.153	1.917	1600	0.019	0.983	-1.153	2.301	1500	-0.020	1.018	-1.153	2.301
Affiliated directors	3100	2.835	2.007	0	13	1600	2.883	2.520	0	13	1500	2.783	1.244	1	9
Female independent directors	3100	0.338	0.723	0	5	1600	0.487	0.902	0	5	1500	0.179	0.407	0	2
CEO age	3100	54.658	7.300	31	87	1600	54.954	6.253	37	76	1500	54.341	8.263	31	87
CEO gender	3100	0.033	0.179	0	1	1600	0.027	0.162	0	1	1500	0.040	0.196	0	1
CEO education	3100	2.554	0.764	0	4	1600	2.690	0.842	1	4	1500	2.409	0.639	0	4
Chairman age	3100	61.481	8.070	30	90	1600	61.401	6.582	34	85	1500	61.566	9.403	30	90
Chairman gender	3099	0.037	0.190	0	1	1600	0.013	0.114	0	1	1499	0.063	0.244	0	1
Chairman education	3100	2.719	0.894	0	4	1600	2.993	0.909	1	4	1500	2.427	0.778	0	4
Pure independent directors	3100	2.791	2.179	0	15	1600	3.569	2.657	0	15	1500	1.962	0.978	0	7
Firm age	3100	47.927	44.056	10	270	1600	57.825	54.742	10	270	1500	37.370	24.496	10	122
Firm ownership	3100	0.469	0.260	0.0005	1	1600	0.393	0.286	0	0.967	1500	0.550	0.200	0.0001	1
Firm size (employees) (Millions)	3090	0.568	8.679	1	182.865	1590	1.092	12.078	1	182.865	1500	0.013	0.054	15	0.665
ROA	3067	4.260	12.968	-54	41.900	1575	2.249	13.834	-54	41.900	1492	6.383	11.618	-54	41.900
Leverage	3036	11.458	12.450	-99.635	78.189	1544	7.557	10.831	-99.635	61.952	1492	15.495	12.730	0	78.189
GDP growth	3100	3.287	2.819	-5.619	6.224	1600	1.250	2.552	-5.619	4.080	1500	5.461	0.575	4.629	6.224
Governance index	3100	0.999	0.198	0.772	1.327	1600	0.964	0.074	0.896	1.123	1500	-1.028	0.111	-1.161	-0.879

**TABLE 2 Pairwise correlations**

<b>Variables</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>	<b>(7)</b>	<b>(8)</b>	<b>(9)</b>	<b>(10)</b>	<b>(11)</b>	<b>(12)</b>	<b>(13)</b>	<b>(14)</b>	<b>(15)</b>	<b>(16)</b>	<b>(17)</b>	<b>(18)</b>
(1) CEO power	1.000																	
(2) Chairman power	0.040	1.000																
(3) Affiliated directors	-0.267	-0.008	1.000															
(4) Female independent directors	-0.128	0.075	0.477	1.000														
(5) CEO age	0.034	0.207	0.016	0.007	1.000													
(6) CEO gender	-0.062	0.026	-0.011	0.048	-0.054	1.000												
(7) CEO education	-0.103	-0.021	0.199	0.175	0.007	0.023	1.000											
(8) Chairman age	-0.037	0.378	0.087	0.055	0.200	0.079	0.027	1.000										
(9) Chairman gender	-0.024	-0.022	-0.023	0.093	-0.007	0.039	-0.030	-0.038	1.000									
(10) Chairman education	0.161	-0.046	0.125	0.152	0.074	-0.051	0.274	0.026	-0.060	1.000								
(11) Pure independent directors	-0.126	-0.064	0.592	0.424	0.038	-0.081	0.228	0.071	-0.062	0.270	1.000							
(12) Firm age	-0.132	0.077	0.291	0.189	0.140	0.069	0.092	0.135	-0.024	0.068	0.289	1.000						
(13) Firm ownership	-0.048	-0.002	0.089	-0.006	-0.118	0.034	-0.019	-0.027	0.039	-0.127	-0.102	0.056	1.000					
(14) Firm size (employees)	-0.022	-0.009	0.131	0.139	-0.013	-0.012	0.028	0.043	-0.013	0.070	0.037	0.082	-0.095	1.000				
(15) ROA	0.020	0.039	0.113	-0.028	0.041	0.008	-0.043	-0.019	0.002	-0.066	-0.014	0.101	0.069	-0.016	1.000			
(16) Leverage	-0.172	0.038	0.414	0.228	0.006	-0.043	0.028	0.090	-0.010	-0.021	0.252	0.054	0.155	0.116	-0.059	1.000		
(17) GDP growth	-0.184	0.062	-0.008	-0.117	0.000	0.040	-0.130	0.031	0.105	-0.238	-0.291	-0.067	0.229	-0.047	0.161	0.237	1.000	
(18) Governance index	-0.091	-0.290	-0.019	-0.081	-0.082	0.033	-0.086	-0.090	0.069	-0.113	-0.129	-0.105	0.102	-0.020	0.105	0.027	0.324	1.000



**Table 3 System GMM (two-step) regression**

Variables	Full Sample				By Country		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
	(H1) Board Meetings (log)	(H2) Board Meetings (log)	(H3) Board Meetings (log)	(H4) Board Meetings (log)	Full Model Board meetings (log)	Germany Board Meetings (log)	Indonesia Board Meetings (log)
Board meetings (log) (t-1)	0.992*** (0.068)	0.939*** (0.047)	0.967*** (0.052)	0.893*** (0.053)	0.987*** (0.050)	0.979*** (0.091)	0.932*** (0.047)
CEO power	-0.031** (0.015)				-0.085*** (0.025)	-0.070*** (0.025)	-0.067** (0.029)
Chairman power		-0.023* (0.013)			-0.036** (0.016)	0.030** (0.014)	-0.057** (0.026)
Affiliated directors			-0.069** (0.035)		-0.076*** (0.023)	-0.048** (0.022)	-0.014 (0.034)
Female independent directors				0.046** (0.019)	0.047** (0.020)	0.083*** (0.031)	0.019 (0.016)
CEO age	0.003 (0.002)	-0.001 (0.001)	-0.002 (0.001)	-0.001 (0.002)	-0.001 (0.001)	-0.001 (0.002)	-0.001 (0.002)
CEO gender	0.004 (0.062)	0.008 (0.036)	0.036 (0.048)	-0.000 (0.051)	0.008 (0.044)	0.003 (0.040)	0.108 (0.078)
CEO education	-0.053 (0.053)	-0.044 (0.036)	-0.052 (0.044)	-0.084** (0.040)	-0.049 (0.032)	-0.052 (0.041)	-0.136*** (0.048)
Chairman age	-0.001 (0.001)	0.002 (0.001)	0.001 (0.001)	0.002 (0.001)	0.001 (0.001)	-0.003* (0.001)	0.001 (0.001)
Chairman gender	0.018 (0.049)	0.033 (0.038)	0.034 (0.045)	0.010 (0.061)	-0.004 (0.045)	-0.095 (0.138)	0.019 (0.050)
Chairman education	0.030* (0.016)	0.013 (0.009)	0.023* (0.014)	0.024* (0.013)	0.030** (0.012)	0.021 (0.014)	0.011 (0.022)
Pure independent directors	-0.055 (0.036)	0.004 (0.008)	0.016 (0.040)	-0.004 (0.015)	0.001 (0.023)	0.002 (0.014)	0.090 (0.066)
Firm age (log)	0.025 (0.018)	-0.001 (0.009)	0.014 (0.019)	-0.005 (0.018)	0.009 (0.013)	-0.006 (0.019)	-0.026 (0.022)

**Table 3 System GMM (two-step) regression**

Variables	Full Sample				By Country		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
	(H1)	(H2)	(H3)	(H4)	Full Model	Germany	Indonesia
	Board Meetings (log)	Board Meetings (log)	Board Meetings (log)	Board Meetings (log)	Board meetings (log)	Board Meetings (log)	Board Meetings (log)
Firm ownership	-0.083* (0.048)	-0.019 (0.025)	0.003 (0.055)	-0.011 (0.040)	0.005 (0.032)	0.017 (0.041)	-0.001 (0.001)
Firm size (log)	0.020* (0.011)	0.007 (0.006)	0.015 (0.011)	-0.007 (0.009)	0.025*** (0.009)	0.013 (0.009)	0.013 (0.010)
ROA (t-2)	0.015 (0.010)	0.007 (0.005)	0.016* (0.009)	0.016* (0.009)	0.012* (0.007)	0.008 (0.006)	-0.003 (0.008)
ROA (t-4)	-0.025** (0.010)	-0.009 (0.007)	-0.007 (0.009)	-0.004 (0.009)	-0.011* (0.006)	-0.004 (0.006)	-0.011 (0.009)
Leverage	0.008** (0.004)	0.000 (0.002)	0.005 (0.004)	0.001 (0.004)	0.004* (0.002)	0.005 (0.004)	-0.004 (0.004)
GDP growth	0.014 (0.010)	0.003 (0.007)	-0.017** (0.007)	0.002 (0.018)	0.017* (0.009)	-0.006 (0.005)	0.601*** (0.191)
Governance index	0.653*** (0.196)	0.394** (0.161)	-0.288 (0.339)	1.025*** (0.299)	0.424*** (0.139)	0.110 (0.253)	-3.257*** (0.772)
Number of instruments	34	36	35	31	43	42	43
AR (1)	0.000	0.000	0.008	0.000	0.000	0.000	0.000
AR (2)	0.256	0.124	0.161	0.295	0.483	0.107	0.258
Hansen test of over identification ( <i>p-value</i> )	0.341	0.365	0.251	0.398	0.234	0.282	0.391
Diff-in-Hansen tests of exogeneity ( <i>p-value</i> )	0.448	0.521	0.338	0.250	0.648	0.354	0.320
Industry effect	Included	Included	Included	Included	Included	Included	Included
Year effect	Included	Included	Included	Included	Included	Included	Included
Country effect	Included	Included	Included	Included	Included		
Observations	2,934	2,948	2,963	2,949	2,947	1,503	1,472
Number of firms	306	306	308	306	306	158	150

Robust Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**TABLE 4 System GMM (two-step) regression**

<b>Variables</b>	<b>Full Sample</b>	<b>By Country</b>	
	<b>Model 8 (H5) ROA</b>	<b>Model 9 Germany ROA</b>	<b>Model 10 Indonesia ROA</b>
ROA (t-2)	0.388*** (0.099)	0.522* (0.291)	1.711*** (0.294)
ROA (t-4)	-0.097*** (0.032)	0.118 (0.164)	-0.630** (0.244)
Board meetings (log)	-1.558** (0.766)	-2.349** (1.148)	1.249** (0.518)
CEO age	0.103* (0.053)	0.126 (0.126)	-0.009 (0.034)
CEO gender	1.443 (1.211)	-1.701 (3.335)	-1.587 (2.225)
CEO education	0.637 (1.186)	2.144 (1.960)	5.142*** (1.905)
Chairman age	-0.063 (0.042)	-0.085 (0.124)	0.033 (0.035)
Chairman gender	-1.233 (1.348)	-4.471 (4.870)	-0.270 (1.222)
Chairman education	-1.007* (0.609)	-1.314 (1.087)	-1.830** (0.901)
Pure independent directors	2.661*** (0.624)	0.396 (1.347)	3.541 (2.599)
Firm age (log)	-0.451 (0.582)	0.810 (1.044)	-1.624* (0.829)
Firm ownership	0.016 (0.018)	-0.006 (0.033)	0.018 (0.014)
Firm size (log)	0.161 (0.277)	-0.915 (0.862)	-0.233 (0.339)
Leverage	-0.321*** (0.100)	0.533 (0.490)	-0.266* (0.135)
GDP growth	0.342 (0.270)	-1.692 (1.136)	15.994* (8.807)
Governance index	-4.100 (2.602)	-6.959** (3.468)	11.379 (9.790)
Number of instruments	36	33	34
AR (1)	0.001	0.004	0.022
AR (2)	0.136	0.280	0.150
Hansen test of over identification ( <i>p-value</i> )	0.306	0.305	0.482
Diff-in-Hansen tests of exogeneity ( <i>p-value</i> )	0.326	0.112	0.591
Industry effect	Included	Included	Included
Year effect	Included	Included	Included
Country effect	Included		
Observations	2,932	1,499	1,477
Number of firms	306	158	150

Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1