

## The Effects of Independent Directors' Financial Knowledge and External Directorships on Firm Performance

HAMEZAH MD NOR & INTAN MAIZA ABD RAHMAN

### ABSTRACT

*Prior studies have provided some inconclusive findings regarding the effect of independent directors (INEDs) on firm performance. Drawing insights from the theories of resource dependence (RD), human capital (HC), and social capital (SC), this research argues that the mere presence of INEDs (motivation) is insufficient but rather the appointed INEDs need to have sufficient HC and SC (ability) in the forms of knowledge, expertise, and connection to effectively perform their roles. This study extends prior research by investigating the effects of INEDs' financial knowledge (as indicator of INEDs' HC) and INEDs' external directorship (as indicator of INEDs' external SC) on firm performance. A total of 300 non-financial firms listed on Bursa Malaysia in the year 2013 were selected using stratified random sampling method. Results indicated that INEDs' financial knowledge does not have any relationship with firm performance. In contrast, an inverted U-shaped relationship between INEDs' external directorship and firm performance was found, hence reflecting a trade-off between SC gain through external directorship and busyness effect. The findings of this research suggest that there are potential costs and benefits associated with INEDs' SC. The findings also support the call for limiting the number of directorship an INED can have.*

*Keywords: External directorship; financial knowledge; human capital; independent director; social capital*

### ABSTRAK

*Kajian lepas memberikan beberapa penemuan yang tidak konklusif mengenai kesan pengarah bebas (PB) terhadap prestasi firma. Berdasarkan pandangan dari teori pergantungan sumber, modal insan dan modal sosial, kajian ini berpendapat bahawa kehadiran PB (motivasi) sahaja tidak mencukupi, sebaliknya PB yang dilantik perlu memiliki modal insan dan modal sosial yang mencukupi (keupayaan) dalam bentuk pengetahuan, kepakaran dan hubungan untuk membolehkan mereka melaksanakan peranan dengan berkesan. Kajian ini melanjutkan kajian terdahulu dengan mengkaji kesan pengetahuan kewangan PB (sebagai petunjuk kepada modal insan PB) dan pelbagai jawatan pengarah luar yang dipegang PB (sebagai petunjuk kepada modal sosial luar PB) terhadap prestasi firma. Sejumlah tiga ratus (300) buah firma bukan kewangan yang tersenarai di Bursa Malaysia pada tahun 2013 dipilih berdasarkan persampelan rawak strata. Keputusan menunjukkan bahawa pengetahuan kewangan PB tidak mempunyai sebarang hubungan dengan prestasi firma. Sebaliknya, hubungan berbentuk U-terbalik antara pelbagai jawatan pengarah luar yang dipegang oleh PB dan prestasi firma telah ditemui, dan ini menggambarkan terdapatnya pertukaran antara modal sosial yang diperolehi dari pelbagai jawatan pengarah luar yang dipegang dan kesan kesibukan. Penemuan kajian mencadangkan bahawa terdapat potensi kos dan manfaat berkaitan dengan modal sosial PB. Keputusan kajian ini juga menyokong cadangan untuk menghadkan bilangan jawatan pengarah yang boleh dipegang oleh PB.*

*Kata kunci: Pengarah luar; pengetahuan kewangan; modal insan; pengarah bebas; modal sosial*

### INTRODUCTION

The 1997/1998 Asian financial crisis and the widespread of accounting scandals involving companies in both developed and developing countries such as Enron, Parmalat, Satyam and Transmile, have highlighted the importance of independent directors (INEDs) as a governance mechanism. INEDs, who are independent of management and do not have any business connection or interests with firms (Bursa Malaysia Listing Requirement [LR] 2012), are seen as an important monitoring mechanism that can strengthen corporate board (Petra 2005). Agency theory suggests that due to their independent status, a board dominated by INEDs is less likely to collude with corporate

insiders, i.e. managers and controlling shareholders, and hence, can protect the shareholders against insiders' opportunism (Fama 1980; Fama & Jensen 1983).

Given the essential role played by the INEDs as corporate monitors, public listed companies worldwide are required to increase the representation of INEDs on the board. In Malaysia, the Code on Corporate Governance (MCCG) 2000 recommended that the board of Malaysian public listed companies (PLCs) to allocate at least one third of the board membership to INEDs. The Code emphasizes that the audit, nominating, and remuneration committees of PLCs to have a majority of INEDs. Those who advocate for an increase in the number or the proportion of INEDs

on corporate board believe that such a development would enhance the monitoring function of the board of directors, which in turn would lead to better corporate decision-making process (Masulis et al. 2012). However, the empirical evidence regarding the effectiveness of INEDs as corporate monitors is mixed (Ararat et al. 2010; Dahya et al. 2008; Khosa 2017; Masulis et al. 2012).

The inconclusive findings might be due to prior studies failing to examine the differences among the INEDs in terms of their HC and SC, which include, among others, knowledge, experience, and connection that they bring to the firms (Barroso-Castro et al. 2015; Hillman & Dalziel 2003; Kor & Sundaramurthy 2009; Tian et al. 2011). HC refers to the “resources such as knowledge and experience obtained via work experience (Becker 1962), whereas SC refers to the actual and potential resources embedded within, available through, and derived from the networks possessed by individuals” (Nahapiet & Ghoshal 1998).

Grounded in the resource dependence (RD) theory (Pfeffer & Salancik 1978), board capital scholars postulate that directors’ HC and SC shape how they discharge their governance and advice functions (Barroso-Castro et al. 2015; Hillman & Dalziel 2003; Kor & Sundaramurthy 2009; Tian et al. 2011). Without adequate HC and SC in the forms of knowledge, experience, and connection, INEDs’ abilities “to understand and contribute to strategy or effectively monitor performance in complex business” (Mire 2016, p. 3), are limited. From the governance perspective, the INEDs are expected to perform their monitoring role by means of sitting on a number of watchdog committees, including the audit, remuneration, and nominating committees (Annuar & Abdul Rashid 2015). Their active involvements in these committees are aimed to provide a check and balance mechanism on the board. Li (1994) argued that since INEDs bring a combination of skills, expertise, knowledge, and independence to the sub-committees and the boards as a whole, they are seen as a powerful governance mechanism that can minimize agency costs and protect the interest of shareholders. As corporate advisors, INEDs play an important role in a firm’s strategic decision-making process. In this process, they are involved in the taking of decisions, shaping of decisions, as well as shaping of the content, context, and conduct of strategy (McNulty & Pettigrew 1999). Therefore, the INEDs who are better equipped with HC and SC are more capable in providing fresh perspectives and ideas on strategic proposals. Therefore, focusing on the structural board independence (INEDs’ motivation) without considering their HC and SC (INEDs’ ability) may result in an incomplete picture of how INEDs affect a firm’s outcome (Chen et al. 2017; Hillman & Dalziel 2003; Khanna et al. 2013; Kor & Sundaramurthy 2009; Tian et al. 2011).

Bringing together insights from the perspectives of agency, RD, HC, and SC theories, this research addresses the aforementioned gap by investigating how INEDs’

financial knowledge and external directorship shape their ability to monitor and advise the insiders to improve firm performance. INEDs is the main focus here since prior research suggested that the extent to which directors use their HC and SC and how they employ such capital to effect firm outcomes is contingent on their independence status (outside status versus inside status) (Dalziel et al. 2011; Md. Nor & Ku Ismail 2017; Tian et al. 2011).

There are three reasons that motivate this research in examining the effects of INEDs’ HC and SC on firm performance using Malaysian data. First, the importance of directors’ HC and SC in Malaysia has been noted in the MCCG. For instance, the MCCG 2000 stated that INEDs should be “persons of calibre, credibility, and have the necessary skill and experience to bring an independent judgement to bear on the issues of strategy, performance, and resources including key appointments and standards of conduct” (p. 9). The code also requires the board to “annually review its required mix of skills and experience and other qualities, including core competencies which non-executive directors should bring to the board” (p. 10). These criteria have also been emphasized in the latest MCCG 2017. The recommendations indicate that firms need to appoint an INED from among those with higher levels of HC and SC. Although the concept of directors’ HC and SC has received a significant interest from policymakers, practitioners, and academics, little research has been done on this topic. Hence, this research is able to provide some insights on how INEDs’ HC and SC affect their ability to perform their roles.

Second, the corporate environment in Malaysia is distinct from that of developed countries. The Malaysian market is dominated by concentrated ownership and therefore, the presence of controlling shareholders is common in Malaysian PLCs. The governance challenge in controlled companies is to mitigate the agency problems between the controlling shareholders and the minority shareholders. In contrast, the governance concern in widely dispersed companies is to combat managerial agency problems (Bebchuk & Hamdani 2017). It is expected that the way INEDs’ HC and SC affect their monitoring and advising roles in PLCs in Malaysia are different from those in developed countries. Finally, agency theory has been used by the Malaysian regulators and policy makers as a fundamental line of reasoning in many aspects of its recommendations, including enhancing the role of INEDs. Therefore, by examining the INEDs’ HC and SC, this research provides additional insights to the regulatory bodies on the effects of INEDs’ knowledge, experiences, and connections on the board’s effectiveness.

Overall, this paper is structured as follows. The next section outlines the theoretical background and hypotheses development, followed by the research method and the results and discussion section. The final section concludes with a discussion of limitations and suggestions for future research.

#### THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

From the lens of the agency theory, INEDs who are independent of the management and care about their reputation are more vigilant to monitor corporate insiders on behalf of the shareholders (Fama 1980; Fama & Jensen 1983). Therefore, the presence of higher number of INEDs in the boardroom seems to increase the board's effectiveness. Most scholars who premised their research on the agency theory treated INEDs as a homogenous group and ignored the heterogeneity in their ability in terms of knowledge, experiences, and connections (Hillman & Dalziel 2003; Tian et al. 2011). On the other hand, proponents of RD, HC, and SC theories have expressed their concerns on the drawbacks of the agency theory (Hillman & Dalziel 2003). They suggested that in order to enhance the agency's perspectives on what directors do and how they affect firm's outcomes, directors' independence (motivation) should be assessed in conjunction with their HC and SC (ability) (Dalziel et al. 2011; Kroll et al. 2008; Tian et al. 2011). They specifically suggested there is a need to isolate the influence of inside and outside directors' HC and SC on firms' outcomes (Dalziel et al. 2011; Tian et al. 2011). Next, RD theory emphasizes that firms are not autonomous and therefore, need to exchange and acquire resources from other firms for survival and for their success (Pfeffer 1972). A firm's dependence on scarce resources is characterised in this theory of RD (Pfeffer & Salancik 1978). From the lens of RD theory, INEDs are not only viewed as the means to monitor managerial behaviour, but also to provide critical resources to the firm (Hillman et al. 2009; Pfeffer 1972; Pferrer & Salancik 1978). There are at least four types of resources that can be provided by the INEDs to their respective firms: (i) information in the forms of advice and counsel; (ii) access to channels of communication between the firm and external entities; (iii) preference of access to resources; and (iv) legitimacy (Hillman & Dalziel 2003). The theory suggests that resource-rich INEDs (those with valuable resources) i.e. having more HC and SC, enable the firms to minimise their dependence or gain resources (Hillman & Dalziel 2003; Pfeffer 1972; Pfeffer & Salancik 1978).

The concept of directors' HC and SC is adopted from the HC theory (Becker 1962) and SC theory (Nahapiet & Ghoshal 1998). Both theories were derived from different theoretical viewpoints (Coleman 1990). The HC theory is rooted in the economic literature and is often applied in labour economics, while the SC theory originates from sociology. HC refers to the resources that are embedded within individuals (Becker 1962) which consist of knowledge, skills, and expertise developed through investments in education, training, and various experiences (Becker 1962; Hillman & Dalziel 2003). In the context of boardroom, such capital can range from industry familiarity, experience as a CEO, experience in finance or specific activities, and overall familiarity with the firm (Hillman & Dalziel 2003; Johnson et al. 2013; Tian et al. 2011). Johnson et al. (2013) argued that HC affects "what

directors pay attention to and how they frame decisions" (p. 240).

SC is defined as individual's resources that are available through the person's social networking with others (Hillman & Dalziel 2003). SC theory suggests that people with rich SC perform better than those without such resources (Bourdieu 1986). In the context of boardroom, SC consists of directors' internal and external networking (Kim & Cannella 2008; Tian et al. 2011). Internal networking is created through board members' experiences of working and interacting with each other (Tian et al. 2011). On the contrary, directors' external networking is derived through connections with outside groups, organisations, or other agencies (Hillman & Dalziel 2003; Kim 2007; Kor & Sundaramurthy 2009; Melkumov & Khoreva 2015).

To sum up, from the perspectives of RD, HC, and SC theories, directors' HC and SC are vital for a successful board and for superior firm performance. Equipped with sufficient HC and SC, directors will have the ability to fulfil their roles as corporate monitors and advisors. Research by Kim (2007), Kor and Sundaramurthy (2009), Kroll et al. (2008) and Tian et al. (2011) provided evidence to support the assertion that such forms of capital have positive effects on boards' effectiveness, which in turn improve firms' outcomes. The following section discusses on how INEDs' HC (INEDs' financial knowledge) and INEDs' external SC (INEDs' external directorship) affect firm performance.

#### INEDS' FINANCIAL KNOWLEDGE AND FIRM PERFORMANCE

Financial knowledge is one of the important criteria for INEDs to fulfil their monitoring role (Guner et al. 2008; Hillman & Dalziel 2003; Johnson et al. 2011; Kirkpatrick 2009). INEDs with financial knowledge may also provide valuable resources in terms of financial advice to the management (Francis et al. 2012) and may help a firm to easily access external funds (Guner et al. 2008). These functions, consequently, may result to substantial effects on the firms' outcomes, specifically firm performance as supported by prior research. For example, there is evidence that INEDs equipped with financial knowledge can enhance financial reporting quality, reduce the occurrence of fraud and earnings restatements, mitigate earnings management, and reduce internal control problems (Agrawal & Chadha 2005; Carcello et al. 2006; Krishnan 2005).

Moreover, being members of an audit committee, INEDs are supposed to be knowledgeable in financial matters due to their abundant responsibilities that require a relatively high degree of accounting sophistication (Defond et al. 2005). Defond et al. (2005) provided evidence that market reacts positively if INEDs with financial knowledge are appointed to an audit committee. Their findings are consistent with Felo et al. (2003) who found a positive relationship between the proportion of financial expertise on an audit committee and financial reporting quality. Earlier study by McMullen et al. (1996) documented that firms with financial reporting problems are unlikely to have financial experts on their audit committees. These findings

indicated that INEDs' financial knowledge adds value to a firm, and as a consequence, will better serve the interest of the shareholders.

Due to the benefits associated with financial expertise that INEDs bring into a firm, the MCCG 2007 strongly recommended that all members of an audit committee to be financially literate, and to have at least one member with financial and accounting knowledge. This recommendation is mandated in Chapter 15.09 of the LR (2012). The implicit assumption is that members who are financially sound can read, analyze, and interpret financial statements in order for them to discharge their oversight roles effectively.

Based on the perspective of RD and HC theories, and previous empirical evidence, a positive relationship between INEDs' financial knowledge and firm performance is expected. This research therefore deduces a hypothesis as follows:

H1: There is a positive relationship between INEDs' financial knowledge and firm performance

#### INEDS' EXTERNAL DIRECTORSHIPS AND FIRM PERFORMANCE

Board capital scholars suggested that INEDs' external networking can be developed through holding external directorship in other companies (Hillman & Dalziel 2003; Kor & Sundaramurthy 2009). INEDs with multiple directorships are argued to bring valuable resources to the respective firm such as strategic and governance information, learning from other directors' or firms' experiences and legitimacy (Barroso-Castro et al. 2015; Omer et al. 2014). Firms can benefit from this SC as it affects the effectiveness of INEDs in their role as corporate monitors and advisors (Barroso-Castro et al. 2015; De Villiers et al. 2011; Kor & Sundaramurthy 2009; Omer et al. 2014; Tian et al. 2011; Valenti & Horner 2010). For example, Md. Nor (2019) argued that the presence of INEDs who possess a wide range of experiences and knowledge in dealing with governance issues such as related party transactions (RPTs) in other firms are expected to be effective in monitoring the insiders' opportunism. Well-informed INEDs are more likely to develop a questioning culture, which in turn lead to more-in-depth discussions in a specific area of concern. They can also guide managers to make the right decisions in dealing with numerous governance problems. Knowledge gained from external directorship also enable the INEDs to influence their firms' strategic decision-making related to R&D projects (Dalziel et al. 2011). This knowledge makes INEDs more aware of technology development and can guide managers to spend the R&D funds more efficiently.

The arguments put forward by RD and SC theories regarding the importance of INEDs' external directorship are in line with the hypotheses related to director's quality and reputation. Fama and Jensen (1983) and Vafeas (1999) contended that the number of directorships held by a director might be a signal for reputational capital, with such

a person being perceived as a high quality director, and therefore increasing the probability of securing additional board seats in the future (Chen et al. 2014). As a result, the reputation status can be an important incentive for the directors to provide high quality of monitoring and advising of management (Fama & Jensen 1983). Chen et al. (2014) suggested that INEDs who are concerned with their reputation status are more likely to prevent tunneling by controlling shareholders. Furthermore, it is argued that a person gets appointed onto numerous boards due to the superior performance enjoyed earlier by the firm for which that person serves as a director (Ferris et al. 2003).

Prior research found that directors who serve on multiple boards are more effective monitors and advisors, resulting in positive economic consequences for firms (Ferris et al. 2003; Kor & Sundaramurthy 2009; Omer et al. 2014; Tian et al. 2011). For example, Omer et al. (2014) showed evidence that directors with good and better networks bring a positive impact on a firm's values. This impact is greater for outside (independent) directors. The results suggested that director's cost of acquiring external information can be offset by the potential benefits of greater and faster access of information from other firms. Kor and Sundaramurthy (2009) posited that INEDs' external SC is associated with a higher rate of sales growth in the US high-technology firms. In this sense, INEDs' external networking not only serve as a conduit for information and other critical resources, but can also expose them to a diverse set of strategic and governance issues, which in turn contribute to the group's general HC. Using a sample of 208 new CEO appointment events in the US manufacturing firms between 1999 and 2003, Tian et al. (2011) discovered a positive relationship between independent board members' external directorship and investors' reactions to a new CEO selection. It was revealed that the ability of INEDs in the form of external social networking is valued by capital market and is considered to be a critical determinant of INEDs' task performance.

On the contrary, there were also a number of previous studies that showed INEDs' multiple directorships reduce their monitoring effectiveness, and consequently this attribute has been used as a proxy for the busyness of INEDs in terms of corporate governance research (Core et al. 1999; Ferris et al. 2003; Fich & Shivdasani 2006). Multiple board appointments raise questions about the independence and quality of board decision-making because serving on many boards require directors' commitment of time and attention (Carpenter & Westphal 2001). Overcommitted directors might shirk their responsibilities as corporate monitors and advisors, resulting in severe problems within an agency (Ferris et al. 2003). Meanwhile, Fich and Shivdasani (2006) found that firms with a higher percentage of outside directors serving on three or more other boards experienced significantly lower market-to-book ratios, less profitability, and lower CEO's turnover sensitivity to firm performance. Core et al. (1999) found that busy outside directors provide CEOs with higher compensation packages, which in turn reduce the firm performance. Additionally, Devos et al.

(2009) found an inverse relation between the number of outside board seats and investors' reactions, suggesting that multiple directorships have a potential to increase managerial entrenchment at the expense of shareholders. Nonetheless, despite these arguments, the empirical evidence against multiple directorships is far from being conclusive. Based on the arguments put forward by the RD and SC theories, this study posits the following hypothesis.

H2: There is a positive relationship between INEDs' external directorships and firm performance

#### RESEARCH METHOD

The population of this study comprised all non-financial firms listed on the main market of Bursa Malaysia in 2013. All financial firms were excluded due to their unique characteristics and regulatory environment. This research used Krejcie and Morgan's (1970) table as the guideline for estimating the required sample size. For a population of 757 firms, Krejcie and Morgan (1970) suggested that a sample size of 260 (equivalent to 32.5%) is needed to represent the population. In order to be conservative, this research selected 300 firms which was about 40% of the population. Following the suggestion by Cavana and Delahaye (2001), the samples of this research were selected based on stratified random sampling technique. This technique yields more representative sample and is therefore the most efficient among all probability samplings (Sekaran 2000). Table 1 shows the number of sample firms for each industry.

TABLE 1. Number of Sample Firms by Industry in 2013

Industry	No. of sample firms
Constructions	17
Consumer product	51
Industrial product	93
Plantation	16
Properties	35
Trading and services	71
Other	17
Total	300

The year 2013 was selected since it was the most recent data available at the start of this research. Moreover, the data were able to capture the revised MCGG 2007 and MCGG 2012 which aimed to strengthen the role of INEDs in Malaysia. Both codes focused on the INEDs' financial knowledge and directorship which have been the focal issues of this research. Although the latest version of MCGG was released in 2017, the reform did not significantly change the recommendation related to INEDs as in the previous MCGG. The year 2013 was also relatively stable in Malaysia both politically and economically and therefore variables tested in this study were expected to not be influenced by a large number of external factors.

#### MODEL

Regression analysis was performed to test the research hypotheses. The proposed model is as follows:

$$Q = b_0 + b_1\text{INEDFINKNOW} + b_2\text{INEDEXDIR} + b_3\text{BIG4} + \beta_4\text{BIND} + \beta_5\text{BSIZE} + \beta_6\text{FSIZE} + \beta_7\text{LEV} + \beta_8\text{CSOWN} + \beta_9\text{CSTYPE} + b_{10}\text{MOWN} + b_{11}\text{Industry} + \epsilon$$

where Q (Tobin's Q) is the main proxy for firm performance. Consistent with Chung and Pruitt (1994), Lee and Xiao (2011) and Tian and Estrin (2008), Tobin's Q was calculated using the following equation,

$$Q = (\text{MVE} + \text{BVA} - \text{BVE}) / \text{BVA}$$

where  $\text{MVE}_t$  is the market value of equity, BVA is the book value of assets, and BE is the book value of equity. Q ratio has been widely used as an indicator for firm performance (Kohlbeck & Mayhew 2010; Lee & Xiao 2011). This ratio is beneficial to reflect a firm's future and long-term financial performance (Gentry & Shen 2010).

INEDFINKNOW refers to the INEDs' financial knowledge and can be calculated based on the total number of INEDs with financial expertise divided by the total number of INEDs (Carcello & Neal 2003; Hoitash et al. 2009; Zhang et al. 2007). INEDs are considered to have accounting and financial knowledge if they have served as (a) a certified public accountant, auditor, principal, chief financial officer, controller, or chief accounting officer, or (b) a chief executive officer, president, or chairman of the board in a for profit corporation, or who has experience as a managing director, partner or principal in venture financing, investment banking, or money management (Carcello & Neal 2003; Hoitash et al. 2009; Zhang et al. 2007).

INEDEXDIR refers to the INEDs' external directorship and is measured based on the total number of external directorships held by INEDs divided by total number of INEDs (Ferris et al. 2003; Kor & Sundaramurthy 2009; Tian et al. 2011). INEDs' directorship is the most frequent measure used by prior studies to capture the INEDs' external SC (Ferris et al. 2003; Kor & Sundaramurthy 2009; Tian et al. 2011). This research however only considered outside directorships in PLCs due to limited number of companies disclosing their INEDs' directorships in private companies (Kamardin et al. 2014).

This study incorporated several control variables including audit quality (BIG4), board independence (BIND), board size (BSIZE), firm size (FSIZE), leverage (LEV), controlling shareholders ownership (CSOWN), type of controlling shareholders (CSTYPE), management ownership (MOWN), and industry classifications (INDUSTRY) that have been used in prior studies and have been proven to affect firm performance (Abdul Wahab et al. 2011; Haniffah & Hudaib 2006; Sulong & Fauzias 2008).

BIG4 is an indicator variable and is equals to "1" if the firm is audited by Big Four or otherwise "0" (Khosla 2017;

Munir et al. 2013). BIND is measured as the total number of INEDs divided by total number of directors (Abdul Wahab et al., 2011; Hasnan et al. 2016). BSIZE is the total number of directors in the board (Abdul Wahab et al. 2011; Hasnan et al. 2016; Khosa 2017). FSIZE is the natural log of total assets of the firm (Abd Rahman & Ku Ismail 2019; Munir et al. 2013). LEV is the ratio of total debt to total assets (Abdul Wahab et al. 2011; Khosa, 2017). CSOWN is a percentage of ownership belongs to the controlling shareholder (Rahmat & Ali 2016). CSTYPE is a dummy variable equals to "1" if the controlling shareholder is individual or group of family and "0" if otherwise (Rahmat & Ali 2016). MOWN is the percentage of ownership belonging to the management (Rahmat & Ali 2016). INDUSTRY is a dummy variable for industry types and it is based on industry classification by Bursa Malaysia.

## RESULTS

### DESCRIPTIVE ANALYSIS

Table 2 presents the descriptive statistics of the variables used in this study. The dependent variable of this study, Tobin's q (Q) represented the firm performance. The mean (standard deviation) of Q was 1.081 (0.778). For INEDs' HC and SC, approximately 44% of the INEDs are members of some accounting/professional bodies or have financial background (INEDFINKNOW). For INEDs' external directorships (INEDEXDIR), the results revealed that the average number of external directorships held by an INED was approximately 1, ranging from a minimum value of 0 to a maximum value of 5. The result is consistent with the listing requirement (LR) that allows an INED to have up to five directorships in PLCs.

For controlling variables, Table 2 reports that about 50% of the firms in the sample were audited by the Big Four firms. The results are consistent with the study by Abdul Wahab et al. (2011), Munir et al. (2013) and Rahmat and Ali (2016). The proportion of INEDs on the board (BIND) was 47%, which was beyond one third of the minimum requirement set by Bursa Malaysia and MCCG. The figure was approximately similar to the figure reported by Hasnan

et al. (2016). Further analysis however showed that there were about 8% (unreported) of the firms, where INEDs represented less than the recommended requirement.

The average board size (BSIZE) was seven members and this is consistent with studies carried out by Haniffa and Hudaib (2006) and Hasnan et al. (2016). The size of the firms (FSIZE) as measured by the log of total assets has a mean of 19.85 and in line with the findings by Abdul Wahab et al. (2011). The mean value of leverage (LEV), represented by total debts to total assets was about 37%, which indicated that some firms in this study were highly leveraged. The result was similar to the study conducted by Abdul Wahab et al. (2011) and Hasnan et al. (2016). With respect to the ownership, the results showed that the ownership structure of listed firms in Malaysia was highly concentrated. On average, the percentage of ownership belonged to the controlling shareholders (CSOWN) was about 39%. More than 50% of the controlling shareholders (CSTYPE) were individuals or family groups. The results of this study indicated that the majority of Malaysian firms are controlled by families (Munir et al. 2013) and consistent with the findings by Rahmat and Ali (2016). The level of managerial ownership (MOWN) was low with the mean of 11% and consistent with the findings reported by Abdul Wahab et al. (2011).

The correlations among variables are provided in Table 3. The correlation matrix shows that the correlations were less than 0.80, suggesting that multi-collinearity problems were unlikely (Farrar & Glauber 1967). As suggested by Gujarati (2003) and Hair et al. (2006), this research performed the variance inflation factor (VIF) as another collinearity diagnostic test. The VIF results (unreported) revealed that none of the VIF value was higher than 10, hence there was no issue of multi-collinearity.

### MAIN RESULTS

To ensure the regression analysis assumptions are met, all variables in this study were also assessed in terms of their normality and heteroscedasticity. The normality assumption was checked using graphical methods (histogram, boxplot, and Q-Q plot) and statistical tests (Shapiro-Wilk, Kolmogorov-Smirnov, and Jarque-

TABLE 2. Descriptive Statistics of the Variables

n=300	Mean	Median	Minimum	Maximum	Std.Dev.
Q	1.081	0.884	0.329	5.568	0.778
INEDFINKNOW	0.439	0.333	0.000	1.000	0.245
INEDEXDIR	1.243	1.000	0.000	5.000	1.080
BIG4	0.503	1.000	0.000	1.000	0.501
BSIZE	7.277	7.000	4.000	13.000	1.777
FSIZE	19.853	19.710	16.770	25.740	1.465
LEV	0.371	0.355	0.003	0.961	0.215
CSOWN	0.387	0.340	0.000	0.855	0.189
CSTYPE	0.507	1.000	0.000	1.000	0.501
MOWN	0.109	0.045	0.000	0.744	0.152

Notes: Please refer to Appendix A for variables' definition and measurement.

TABLE 3. Pearson Correlations matrix among variables

	Q (1)	INEDFINKNOW (2)	INEDEXDIR (3)	BIG4 (4)	BIND (5)	BFSIZE (6)	FFSIZE (7)	LEV (8)	CSOWN (9)	CSTYPE (10)	MOWN (11)
1	1.00										
2	-0.06	1.00									
3	0.07	0.06	1.00								
4	0.07	-0.06	0.22***	1.00							
5	0.00	-0.20***	-0.10	-0.01	1.00						
6	0.17***	-0.14**	0.17***	0.18***	-0.37***	1.00					
7	0.10*	-0.15**	0.26***	0.39***	-0.07	0.38***	1.00				
8	0.07	-0.07	0.16**	0.05	-0.01	0.08	0.25***	1.00			
9	0.04	0.05	-0.02	0.08	-0.15**	0.02	0.09	-0.03	1.00		
10	-0.15**	0.03	-0.02	-0.21***	-0.02	-0.18***	-0.29***	-0.03	0.09	1.00	
11	-0.13**	0.08	-0.01	-0.12**	-0.15**	-0.06	-0.22***	-0.11*	0.03	0.45***	1.00

Notes: Please refer to Appendix A for variables' definition and measurement.

Significant at \*\*\*p<0.01, \*\*p<0.05, \*p<0.10

Bera). The results revealed that not all variables were normally distributed. Therefore, some corrections to the continuous variables were made by using winsorizing technique (winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentile) and log to deal with the normality problem. Leone et al. (2012) proved that 63% (532 out of 851 studies) of the accounting research used winsorizing approach to deal with outliers, suggesting that it is a normal procedure in accounting studies. The presence of heteroscedasticity was tested using

White's (1980) procedure suggested by Gujarati (2003). The results (unreported) showed that the model in this study was free from heteroscedasticity problem.

Table 4 presents the estimation of the ordinary least squares (OLS) regression results. F-value of Model 1 was 3.59, suggesting a good model fit at a significance level of p<0.01. The adjusted R<sup>2</sup> was 0.13 which indicated that 13% of the variation in the dependent variable (Q) was explained by the variables of interest.

TABLE 4. Regression results: INEDs' financial knowledge and external directorships and firm performance

Variable	Model 1		Model 2	
	Std. Coeff	t-Stat	Std. Coeff	t-Stat
Intercept	1.43	1.79*	1.49	1.88*
BIG4	0.01	0.08	0.02	0.22
BIND	0.40	0.96	0.28	0.64
BFSIZE	0.07	2.68**	0.06	2.25**
FFSIZE	-0.05	-1.13	-0.05	-1.11
LEV	0.50	2.00**	0.46	1.87*
CSOWN	0.12	0.48	0.08	0.32
CSTYPE	-0.13	-1.23	-0.12	-1.18
MOWN	-0.34	-1.35	-0.33	-1.29
INEDFINKNOW	-0.06	-0.37	-0.15	-0.27
INEDFINKNOW <sup>2</sup>			0.03	0.06
INEDEXDIR	0.02	0.77	0.23	2.31**
INEDEXDIR <sup>2</sup>			-0.06	-2.44**
Industry	Included		Included	
Adjusted R <sup>2</sup>	0.13		0.13	
F-statistic	3.59***		3.39***	
Observations	300		300	

Notes: Please refer to Appendix A for variables' definition and measurement.

Industry effects are included but not reported for brevity.

Significant at \*\*\*p<0.01, \*\*p<0.05, \*p<0.10

In the first hypothesis, a positive relationship between INEDS' financial knowledge (INEDFINKNOW) and firm performance has been predicted. Contrary with the hypothesis, this study was not able to find any relationship between INEDFINKNOW and firms' performance. Hence, hypothesis 1 (H1) was not supported. The second hypothesis predicted a positive relationship between INEDS' external directorships (INEDEXDIR) and firms' performance. However, the result did not indicate a significant relationship between INEDEXDIR and firm performance. Therefore, hypothesis 2 (H2) was not empirically supported.

Consistent with Brown et al. (2017) and Kor and Sundaramurthy (2009), one possible explanation for the non-significant results was that the relationship may be non-linear. Specifically, it is suggested that as the level of INEDS' HC and SC increases, INEDS are seen to be more effective monitors and advisors, but when the level of their HC and SC is too high, their effectiveness decreases; the negative effects of INEDS' HC and SC start to outweigh the positive effects.

Accordingly, the squared values of INEDFINKNOW and INEDEXDIR were included in the regression model to test for possible curvilinear effects. However, as argued by Lee and Xiao (2011), when a regression model has both a linear and non-linear (quadratic) forms of variable as independent variables, there will be a possibility of multi-collinearity among these variables. As suggested by Aiken and West (1991), the linear term used to construct non-linear term was mean centered to avoid the problem of high multi-collinearity. The VIF results (unreported) revealed that none of the VIF value was higher than 10, which indicated that both variables can be fitted into one regression model. Model 2 in Table 4 presents the results of the curvilinear regression analysis.

As shown in Model 2, the squared term of INEDS' financial knowledge (INEDFINKNOW<sup>2</sup>) was insignificant, thus the existence of nonlinear relationship between INEDS' financial knowledge and firm performance was failed to be verified. However, the coefficient of INEDEXDIR<sup>2</sup> was negative and statistically significant (Model 2,  $\beta = -0.06$ ,  $p < 0.05$ ), supporting the inverted U-shaped relationship between INEDS' external directorship and firm performance. The turning point of the relation between INEDEXDIR and firm performance was computed based on the coefficient of linear term divided by the coefficient of non-linear term ( $-\beta \text{INEDEXDIR} / 2\beta \text{INEDEXDIR}^2$ ) (Kamardin 2014; Koh 2003; McConnell & Servaes 1990). The result showed that the turning point was at INEDEXDIR 1.92 [ $-0.23 / (2 * -0.06)$ ], indicating that INED with less than two external directorships perform better, and holding more than that will diminish their monitoring and advising effectiveness.

## DISCUSSION AND CONCLUSION

This research has examined the effects of INEDS' financial knowledge and external directorships on firm performance using Malaysian PLCs from the year 2013 as a sample. It

was revealed that INEDS' financial knowledge did not have a linear or curvilinear relationship with firm performance. There are two possible explanations for the insignificant results as suggested by Persons (2005). First, INEDS as part time board members, may not spend much time reviewing firm's financial statements and control. Therefore, it may be difficult that even INEDS with financial knowledge can provide sound recommendations to management and effectively monitor them. Second, the presence of more INEDS with financial knowledge on the board raises a free rider problem. In this situation, each INED views the importance of his or her contribution as being reduced, therefore, leading him or her to become less vigilant. Therefore, lack of time and free rider problem may counteract the benefits of INEDS' financial knowledge. These factors may possibly explain the insignificant findings of this study.

For INEDS' external directorships, it was discovered that the variable did not have a linear relationship with firm performance. However, further analysis suggested a curvilinear relationship particularly an inverted U-shaped relationship between INEDS' external directorships and firm performance. This means that as INEDS' external directorships increases, firm performance also increases at first, but begins to decrease beyond a certain level (turning point at around INEDEXDIR = 2). In other words, firm performance begins to deteriorate when INEDS hold more than two external directorships. The results suggest that INEDS may face trade-off between the accumulation of resources and busyness effects. At a lower level of multiple directorships, serving on multiple boards may signal a superior quality of INEDS (Fama 1980; Vafeas 1999) hence providing them with valuable sources of knowledge and information on different management skills and business network contacts (Kor & Sundaramurthy 2009). These could subsequently enable INEDS to enhance board functions and shareholders' values (Mace 1986). At this level, the benefits of resources accumulation of resources outweigh the cost of busyness. However, being appointed onto many boards can make them too busy and overly committed, thus the costs of being busy outweigh the benefits of resources accumulation. This, in turn, could undermine their monitoring and advising abilities, and adversely affect the firm performance (Fich & Shivdasani 2006; Kor & Sundaramurthy 2009).

The findings offer several important implications for firms, theories, regulators, and policy makers. First, the results suggest that a reasonable caution must be exercised by firms before appointing an INED into the board. INEDS' HC and SC in the form of knowledge, expertise, experience and connection need to be thoroughly assessed to ensure that the appointed INEDs add value to firms. Next, the findings of this study extend the literature on board capital in developing markets by showing how INEDS' financial knowledge and external directorship shape the ability of INEDS to perform their governance roles. Specifically, the results lend partial support to the RD, HC, and SC theories. Furthermore, the results underscore the importance of

the LR (2012) and MCCG (2012) recommendations of limiting the number of directorships held by an INED to help strengthen their role as corporate monitors.

Finally, this research has its own limitations, hence, several suggestions for future research are proposed. The first suggestion is to use primary information obtained via survey or interview with the INEDs to gauge their direct psychological information instead of using secondary data to measure INEDs' HC and SC. Secondary data provide limited evidence regarding the qualitative nature of the INEDs' knowledge, experience, and connection. Second, two proxies to capture INEDs' HC and SC, i.e. INEDs' financial knowledge and INEDs' external directorship ties were used. INED's HC and SC are notably known as multidimensional in concept (Gayle et al. 2015) that represent INEDs' skills, knowledge, and connection (Hillman & Dalziel 2003; Johnson et al. 2013). Therefore, using different constructs to measure INEDs' HC and SC could yield different results. Some cautions should also be taken into account when interpreting the results of this research.

#### REFERENCES

- Abdul-Wahab, E.A., Haron, H., Lok, C.L. & Yahya, S. 2011. Does corporate governance matter? Evidence from related party transactions in Malaysia. In *International Corporate Governance: Advances in Financial Economics 14* edited by K. John & A.K. Makhija, Emerald Group Publishing Limited.
- Abd Rahman, I.M. & Ku Ismail, K.N.I. 2018. The moderating effect of culture on the relationship between women directors and CSR disclosures in Malaysia. *Asian Journal of Accounting and Governance* 9: 133-141.
- Agrawal, A. & Chadha, S. 2005. Corporate governance and accounting scandals. *Journal of Law and Economics* 48(2): 371-406.
- Aiken, L.S. & West, S.G. 1991. *Multiple Regression: Testing and Interpreting Interactions*. Newbury Park: Sage.
- Annuar, H.A. & Abdul Rashid, H.M. 2015. An investigation of the control role and effectiveness of independent non-executive directors in Malaysian public listed companies. *Managerial Auditing Journal* 30(6/7): 582-609.
- Ararat, M., Orbay, H. & Yurtoglu, B.B. 2010. The effects of board independence in controlled firms: Evidence from Turkey. *SSRN Electronic Journal*. doi:10.2139/ssrn.1663403
- Barroso-Castro, C., Villegas-Periñan, M.D.M. & Casillas-Bueno, J.C. 2015. How boards' internal and external social capital interact to affect firm performance. *Strategic Organization* 14(1): 6-31.
- Bebchuk, L. & Hamdani, A. 2017. Independent directors and controlling shareholders. *University of Pennsylvania Law Review* 165(6): 1271-1315.
- Becker, G. 1962. Investment in human capital: A theoretical analysis. *Journal of Political Economy*, LXX, 9-49.
- Bourdieu P. 1986. The forms of capital. In *The Handbook of Theory: Research for The Sociology of Education*, edited by: Richardson J.G. New York: Greenwood Press.
- Brown, J.A., Anderson, A., Salas, J.M. & Ward, A.J. 2017. Do investors care about director tenure? Insights from executive cognition and social capital theories. *Organization Science* 28(3): 471-494.
- Bursa Malaysia Listing Requirements. 2012. <http://www.bursamalaysia.com/market/regulation/rules/listing-requirements/main-market/listingrequirements>
- Carcello & Neal. T.L. 2003. Audit committee characteristics and auditor dismissals following "new" going-concern reports. *The Accounting Review*, 78 (January): 95-117.
- Carcello, J.V., Hollingsworth, C.W. & Neal, T.L. 2006. Audit committee financial experts: A closer examination using firm designations. *Accounting Horizons*: 351-373.
- Carpenter, M.A. & Westphal, J.D. 2001. The strategic context of external network ties: Examining the impact of director appointments on board involvement in strategic decision making. *Academy of Management Journal* 44(4): 639-660.
- Cavana, R.Y. & Delahaye, B.L. 2001. *Applied Business Research: Qualitative and Quantitative Methods*. Milton: Wiley & Sons Australia.
- Chen, H.L., Chang, C.Y. & Hsu, W.T. 2017. Does board co-working experience influence directors' decisions toward internationalization? *Management International Review* 57: 65-92.
- Chen, Y., Wang, Y. & Lin, L. 2014. Independent director's board network and controlling shareholders' tunneling behavior. *China Journal of Accounting Research* 7: 101-118.
- Chung, K.H. & Pruitt, S.W. 1994. A simple approximation of Tobin's q. *Financial Management Autumn*: 70-74.
- Coleman, J. S. 1990. *The Foundations of Social Theory*. Cambridge, Mass: Harvard University Press.
- Core, J., Holthausen, R. & Larcker, D. 1999. Corporate governance, chief executive officer compensation, and firm performance. *Journal of Financial Economics* 51: 371-406.
- Dahya, J., Dimitrov, O. & McConnell, J.J. 2008. Dominant shareholders, corporate boards, and corporate value: A cross-country analysis. *Journal of Financial Economics* 87(1): 73-100.
- Dalziel, T., Gentry, R.J. & Bowerman, M. 2011. An integrated agency-resource dependence view of the influence of directors' human and relational capital on firms' R&D spending. *Journal of Management Studies* 48(6): 1217-1242.
- De Villiers, C., Naiker, V. & Van Staden, C.J. 2011. The Effect of Board Characteristics on Firm Environmental Performance. *Journal of Management* 37(6): 1636-1663.
- DeFond, M.L., Hann, R.N. & Hu, X. 2005. Does the market value financial expertise on audit committees of boards of directors? *Journal of Accounting Research* 43(2): 153-193.
- Devos, E., Prevost, A. & Puthenpurackal, J. (2009). Are interlocked director's effective monitors? *Financial Management Winter*: 861-887. doi: 10.1111/j.1755-053X.2009.01059.x
- Fama, E.F. 1980. Agency problems and the theory of the firm. *Journal of Political Economics* 88: 288-307.
- Fama, E.F. & Jensen, M.C. 1983. Agency problems and residual claims. *Journal of Law and Economics* 26(2): 327-349.
- Farrar & Glauber. 1967. Multicollinearity in regression analysis. *Review of Economics and Statistics* 49: 92-107.
- Felo A.J., Krishnamurthy S. & Solieri S.A. 2003. Audit committee characteristics and the perceived quality of financial reporting: an empirical analysis. <http://ssrn.com/abstract=401240>
- Ferris, S., Jagannathan, M. & Pritchard, A. 2003. Too busy to mind the business? Monitoring by directors with multiple board appointments. *Journal of Finance* 58: 1087-1111.
- Fich, E.M. & Shivdasani, A. 2006. Are busy boards effective monitors? *The Journal of Finance* 61(2): 689-724.

- Francis, B., Hasan, I. & Wu, Q. 2012. Do corporate boards affect firm performance? New evidence from the financial crisis". Discussion Papers, Bank of Finland Research, November.
- Gayle, G.-L., Golan, L. & Miller, R.A. 2015. Interlocked executives and insider board members: An empirical analysis. *Working Paper*, Carnegie Mellon University.
- Gentry, R.J. & Shen, W. 2010. The Relationship between accounting and market measures of firm financial performance: How strong is it? *Journal of Managerial Issues* 22(4): 514-530.
- Gujarati, D.N. 2003. *Basic Econometrics*. New York: McGraw Hill Book Co.
- Guner, A.B., Malmendier, U. & Tate, G. 2008. Financial expertise of directors. *Journal of Financial Economics* 88: 323-354.
- Hair, J., Black, W., Babin, B., Anderson, R. & Tatham, R. 2006. *Multivariate Data Analysis*. Sixth Edition. Uppersaddle River, N.J.: Pearson Prentice Hall.
- Haniffa, R. & Hudaib, M. 2006. Governance structure and performance of Malaysian Listed Companies. *Journal of Business Finance and Accounting* 33(6/7): 1034-1062.
- Hasnan, S, Daie, M. S. & Hussain, A. R. M. 2016. Related party transactions and earnings quality: Does corporate governance matter?. *International Journal of Economics & Management* 10(2): 189-219.
- Hillman, A.J., Withers, M.C. & Collins, B.J. 2009. Resource dependence theory: A review. *Journal of Management* 35(6): 1404-1427.
- Hillman, A.J. & Dalziel, T. 2003. Boards of directors and firm performance: Integrating agency and resource dependence perspectives. *Academy of Management Review* 28(3): 383-396.
- Hoitash, U., Hoitash, R. & Bedard, J. 2009. Corporate governance and internal control over financial reporting: a comparison of regulatory regimes. *The Accounting Review* 84(3): 839-867.
- Johnson S.G., Schnatterly, K. & Hill, A.D. 2013. Board composition beyond independence: Social capital, human capital, and demographics. *Journal of Management* 39(1): 232-262.
- Kamardin, H. 2014. Managerial ownership and firm performance: The influence of family directors and non-family directors. *Ethics, Governance and Corporate Crime: Challenges and Consequences* 6: 47-83.
- Kamardin, H., Abdul Latif, R., Taufil Mohd, K.N. & Che Adam, N. 2015. Multiple Directorships and the Monitoring Role of the Board of Directors: Evidence from Malaysia. *Jurnal Pengurusan* 42: 51-62.
- Khanna, P., Jones, C.D. & Boivie, S. 2014. Director human capital, information processing demands, and board effectiveness. *Journal of Management* 40(2): 557-585.
- Khosa, A. 2017. Independent directors and firm value of group-affiliated firms. *International Journal of Accounting and Information Management* 25(2): 217-236.
- Kim, Y. 2007. The proportion and social capital of outside directors and their impacts on firm value: Evidence from Korea. *Corporate Governance: An International Review* 15: 1168-1176.
- Kim, Y. & Cannella, A.A. Jr. 2008. Toward a social capital theory of director selection. *Corporate Governance: An International Review* 16: 282-93.
- Kirkpatrick, G. 2009. Corporate Governance and the Financial Crisis. Working paper, OECD.
- Koh, P.S. 2003. On the association between institutional ownership and aggressive corporate earnings management in Australia. *The British Review* 35: 105-128.
- Kohlbeck, M. & Mayhew, B.W. 2010. Valuation of firms that disclose related party transactions. *Journal of Accounting and Public Policy* 29(2): 115-137.
- Kor, Y.Y. & Sundaramurthy, C. 2009. Experience-based human capital and social capital of outside directors. *Journal of Management* 35(4): 981-1004.
- Krejcie, R.V. & Morgan, D.W. 1970. Determining sample size for research activities. *Educational & Psychological Measurement* 30: 607-610.
- Krishnan, J. 2005. Audit committee quality and internal control: An empirical analysis. *The Accounting Review* 80(2): 649-675.
- Kroll, M., Walters, B.A. & Wright, P. 2008. Board vigilance, director experience, and corporate outcomes. *Strategic Management Journal* 29(4): 363-382.
- Lee, S. & Xiao, Q. 2011. An examination of the curvilinear relationship between capital intensity and firm performance for publicly traded US hotels and restaurants. *International Journal of Contemporary Hospitality Management* 23(6): 862-880.
- Leone A., Minutti-Meza, M. & Wasley, C. 2015. Influential observations and inference in accounting research. *Working Paper*, University of Miami.
- Li, J. 1994. Ownership structure and board composition: A multi-country test of agency theory prediction. *Managerial and Decision Economics* 15(4): 359-368.
- Mace, M.L. 1986. *Directors: Myth and Reality*. Boston, MA: Harvard University Press.
- Malaysian Code on Corporate Governance. 2000. Kuala Lumpur: Securities Commission.
- Malaysian Code on Corporate Governance. 2007. Kuala Lumpur: Securities Commission.
- Malaysian Code on Corporate Governance. 2012. Kuala Lumpur: Securities Commission.
- Malaysian Code on Corporate Governance. 2017. Kuala Lumpur: Securities Commission.
- Masulis, R., Ruzzier, C., Xiao, S. & Zhao, S. 2012. Do independent expert directors matter? *Working paper*. University of New South Wales, Universidad de San Andrés, University of Minnesota, Shanghai University of Finance and Economics.
- McConnell, J. & Servaes, H. 1990. Additional evidence on equity ownership structure and firm performance. *Journal of Financial Economics* 27(2): 595-612.
- McMullen, D., Raghunandan, K. & Rama, D.V. 1996. Internal control reports and financial reporting problems. *Accounting Horizons* 10(4): 67-75.
- McNulty, T. & Pettigrew, A. 1999. Strategists on the Board. *Organization Studies* 20: 47-74.
- Md. Nor, H. 2019. Related party transactions, independent directors and firm performance: Malaysia evidence. Unpublished PhD. Thesis., Universiti Utara Malaysia, Kedah, Malaysia.
- Md. Nor, H. & Ku Ismail, K.I. 2017. The moderating effects of independent directors' human capital on the relationship between related party transactions and firm performance: Evidence from Malaysia. *Jurnal Pengurusan* 51: 37-52.
- Melkumov, D. & Khoreva, V. 2015. The effect of board capital and conflict on the tasks of the board of directors. *International Studies of Management & Organization* 45(1): 60-79.
- Mire, S.L. 2016. Independent directors: Partnering expertise with independence. *Journal of Corporate Law Studies* 16(1): 1-37.
- Munir, S., Mohd Salleh, N., Jaafar, R. & Yatim, P. 2013. Family ownership, related-party transactions and earnings quality.

- Asian Academy of Management Journal of Accounting and Finance* 9(1): 129-153.
- Nahapiet, J. & Ghoshal, S. 1998. Social capital, intellectual capital, and the organizational advantage. *Academy Management Review* 23(2): 242-266.
- Omer, T.C., Shelley, M.K. & Tice, F.M. 2014. Do well-connected directors affect firm value? *Journal of Applied Finance* 24(2): 17-32.
- Persons, O. 2005. Relation between the new corporate governance rules and the likelihood of financial statement fraud. *Review of Accounting and Finance* 4(2): 125-148.
- Petra, S.T. 2005. Do outside independent directors strengthen corporate boards? *Corporate Governance* 5(1): 55-64.
- Pfeffer, J. 1972. Size and composition of corporate boards of directors: the organization and its environment. *Administrative Science Quarterly* 17: 218-228.
- Pfeffer, J. & Salancik, G.R. 1978. *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper & Row.
- Rahmat, M.M. & Ali, S.H.A. 2016. Do managers reappoint auditor for related party transactions? Evidence from selected East Asian Countries. *Jurnal Pengurusan* 48: 47-60.
- Sekaran, U. 2000. *Research Methods for Business: A Skill Building Approach*. Third Edition. USA: John Wiley & Sons.
- Sulong, Z. & Fauzias, M.N. 2008. Dividends, ownership structure and board governance on firm value: Empirical evidence from Malaysian listed firms. *Malaysian Accounting Review* 7: 55-94.
- Tian, J., Haleblan, J. & Rajagopalan, N. 2011. The effects of board human and social capital on investor reactions to new CEO selection. *Strategic Management Journal* 32(7): 731-747.
- Tian, L. & Estrin, S. 2008. Retained state shareholding in Chinese OLC: Does government ownership always reduce corporate value? *Journal of Comparative Economics* 36: 74-89.
- Vafeas, N. 1999. Board meeting frequency and firm performance. *Journal of Financial Economics* 53: 113-142.
- Valenti, A. & Horner, S.H. 2010. Corporate directors' social capital: How centrality and density impact board monitoring. *Journal of Applied Business and Economics* 11(4): 117-127.
- White, H. 1980. A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica* 48: 817-838.
- Zhang, Y., Zhou, J. & Zhou, N. 2007. Audit committee quality, auditor independence, and internal control weaknesses. *Journal of Accounting and Public Policy* 26(3): 300-327.

Hamezah Md Nor\*

Center of Governance Resilience and Accountability  
Faculty Economics and Management  
Universiti Kebangsaan Malaysia  
43600 UKM Bangi Selangor  
Malaysia  
E-mail: miezah@ukm.edu.my

Intan Maiza Abd Rahman  
Center of Governance Resilience and Accountability  
Faculty Economics and Management  
Universiti Kebangsaan Malaysia  
43600 UKM Bangi Selangor  
Malaysia  
E-mail: intanmaiza@ukm.edu.my

\*Corresponding author

## APPENDIX A.

## Definition and Measurement of the Variables

Variables	Definition	Measurement
INEDFINKNOW	INEDs' financial knowledge	Total number of INEDs with financial knowledge divided by total number of INEDs
INEDEXDIR	INEDs' external directorship	Total number of external directorships held by INEDs divided by total number of INEDs
BIG4	Audit firm	A dummy variable equal to "1" if the firm is audited by Big 4, and "0" otherwise
BIND	Board independence	Total number of INEDs divided by total number of directors
BSIZE	Board size	Total members of the board of directors
FSIZE	Firm size	Natural log of total assets of the firm
LEV	Leverage	Total debt divided by total assets
CSOWN	Controlling shareholders ownership	A percentage of ownership belongs to the controlling shareholde
CSTYPE	Types of controlling shareholders	A dummy variable equal to "1" if the controlling shareholder is individual or group of family and "0" otherwise
MOWN	Managerial ownership	A percentage of ownership belongs to management.