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The Influence of Board Diversity on Financial Performance: An Empirical Study of Asia-Pacific Companies Using Regression Models

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Abstract: The study investigates board diversity and its influence on financial performance. The main purpose is to examine influence of nationality and gender diversity on financial performance according to Tobin's Q of 50 largest Asia-Pacific companies according to Forbes magazine. Data analysis is performed using Ordinary Least Square (OLS) and Two-Stage Least Square (2SLS) regressions analysis. The results show that gender diversity of board member has positive influence on financial performance. It is found that having female member in board of director provides various perspectives in decision making and leads to better financial performance. However, nationality of board member contributes no significant influence on financial performance. In addition, it is also emphasized that an economic objective should not be the only reason for increasing board diversity.

Key words: Financial performance, board diversity, board composition, corporate governance, board of director

INTRODUCTION

This study investigates the influence of board diversity on financial performance. This empirical research is conducted in Asia-Pacific regional companies based on Forbes Asia-Pacific's 50 biggest listed companies. Research on financial performance is an important topic to be observed because it is strongly related to report of management responsibility which is done annually to the public; especially for companies listed in stock exchange. Every company has an obligation to make a financial report/statement to show its financial performance. There are so many factors influencing financial performance of a company, such as corporate governance mechanism, board size and board independence (Bozec *et al*., 2010; Andres *et al*., 2005). However, this study focuses on nationality and gender diversity of board composition.

In recent years, board diversity has become an emerging issue within corporate governance practice and research. There has been an increasing focus on studies about board composition such as board size, board diversity and board independence (Carter *et al*., 2003; Andres *et al*., 2005; Erhardt *et al*., 2003). Several studies tried to relate board diversity with organizational performance. Carter *et al*. (2010) found that gender and ethnic diversity in board of director created better corporate governance which leads to more profitable business.

Some countries already set the rules for board composition. Norway, for instance, has implemented gender quota in the board of publicly listed firms in order to improve equal opportunities. Norwegian government has decided a minimum 40% of the board members must be women (Smith *et al*., 2006). Similar to the Scandinavian countries, Spain, Iceland and France also passed regulation to require a quota for the number of female board member (Adams and Ferreira, 2009; Ahern and Dittmar, 2012). In Asia, gender quota has also been introduced. Malaysia has imposed 30% quota for women on board by 2016 and Singapore has considered increasing gender diversity in board of director.

Besides the study of women on boards, the role of foreign board member is also widely discussed. For example, Choi *et al*. (2007) discussed foreign investor participation on board enhances firm performance in Korea. Then, Ruigrok *et al*. (2007) indicated foreign directors in Swiss corporations tend to be more independent. Richard (2000) reported that racial or ethnic diversity in board of director increases value and finally contribute to company performance and competitive advantage.

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Some previous studies proven clearly that board diversity is positively associated with firm financial performance (Carter *et al*., 2003; Erhardt *et al*., 2003). On the contrary, other studies shown the opposite result as there is no significant relationship between board diversity and financial performance (Adams and Ferreira, 2009; Carter *et al*., 2010; Andres *et al*., 2005; Rose, 2007). Despite, there has been mixed evidence regarding the effect of board diversity on performance, diversity in board composition is still considered favorable based on these two important reasons (Kang *et al*., 2007). Firstly, diversity increases discussion, exchange of ideas and group performance. A more diverse board provides different insights and perspectives in facing problem and finding solution. This eventually will improve organizational value and performance through better decision making. Secondly, the function of corporate boards is to protect stakeholders' interest. As a consequence, the board should comprise members that are representative of company's stakeholders. Having a more diverse board can be seen as a good way to be more 'representative'.

Henceforth, board diversity, specifically in gender and nationality, will be the main focus in this research whereby their influence on firm financial performance will be examined further. The study was conducted on the 50 best of Asia-Pacific's biggest listed companies according to Forbes magazine. These companies have more than $3 billion in their revenue or market capitalization. They were selected based on solid financial track combined with great management and entrepreneurial skill. Based on the data, hypothesis test was conducted and tested using multiple regression analysis. Based on the background and rationale of this study, the objective of this study is to examine whether nationality and gender diversity of board member influence financial performance of companies. This objective is important because the result of this study will contribute as new evidence from Asia-Pacific for the influence of board diversity on company performance.

Literature review

Financial performance: Financial performance is related to firm's ability to generate profit or income. It is often used as a general measure of business results to see how well company doing its business activities. It can also be used to compare companies within an industry. There is a wide range of financial performance measures. However, financial performance is basically divided into three general categories: investor returns, accounting returns and perceptual (Orlitzky *et al*., 2003). Firstly investor returns are measured based on shareholders perspectives (Cochran and Wood, 1984). These are market-based measures of financial performance, for instance, share prices or share price appreciation. They are related with stock market process which relies on stock return and risk, to determine stock price and also market value (Orlitzky *et al*., 2003). Secondly, the measures of financial performance are based on accounting returns. The examples are Earning Per Share (EPS), Return On Investment (ROI) and Return on Asset (ROA). These measures are related to managerial policies. Therefore, they express internal managerial performance and decision making capability, rather than external market response (Orlitzky *et al*., 2003). Lastly, perceptual measure of financial performance is related to survey. The survey aims to obtain respondent estimation of company financial performance, for example, company 'wise use of assets', 'soundness of financial position' or 'financial achievement compared with competitors' (Conine and Madden, 1980; Reimann, 1975). However, compared to the two measures mentioned earlier, this measure seems to be the most subjective.

Board of director: According to Thomsen and Conyon, board is a generic corporate governance mechanism that are elected by shareholder to monitor the company. As a control mechanism, the board plays an important role in corporate governance. Board provides useful function as an intermediary between owner and management.

Board system is divided into one-tier (or unitary) board and two-tier (or dual) board system. One-tier board system is characterized by one single board while the two-tier board system consists of executive or management board and supervisory board. Management board runs the business whilst supervisory board oversees the direction of business and supervises management board. In this case, there is clear separation of management and control: a member of one board cannot be member of another board. Supervisory board is elected by shareholder while management board is appointed by supervisory board (Kim *et al*., 2010; Mallin, 2010). The examples of countries with one-tier board system are India, Singapore and Malaysia while China indonesia and Taiwan are the examples of countries that have two-tier board system.

Another important issue is board size which might be varied from one company to others. Studies have shown an inverse relationship between firm value and board size (Yermack, 1996). However, empirical evidence to board size and its influence has been getting ambiguous because some other studies found conflicting evidences. Thus, it is difficult to draw the robust conclusion. One reason of this inaccurate causal interpretation could be that board size is endogenous variable.

Equally important as board size, company should also focus on board independence. The board is composed of both employee of the organization and senior or influential nonemployee (Moffett *et al*., 2006). At least one-third of the board should be non-executive director with a majority of whom should be independent. Company then should also disclose biographies of its board members and make statements to define their independence.

Corporate Governance and Board of Director in Asia: This section provides overview about corporate governance and board of director particularly in Asia. Corporate governance practice in Asia is to large extent influenced by ownership structure. For instance, dominant shareholders in Japan are typically banks or industrial groups (keiretsu) while in South Korea are often family groups or conglomerates (chaebol). In Malaysia, families are also often being dominant shareholders whereas in Chinese companies, state government has the biggest influence (Mallin, 2010). As one of corporate governance mechanisms, board of directors might also vary in Asia.

In Japan, the main business form is public limited company which is predominantly owned by keiretsu, a very strong interfirm network (Mallin, 2010). The legal system is based on civil law. Japan applies one tier board system although it uses the element of a two-tier system with a statutory board of auditors. Besides, Japan is a country with predominantly bank-based rather than equity or market based financial system (Aguilera and Jackson, 2003). In this case, banks are the key financial institutions financing the firms. Bankers also monitor companies, sometimes even more than shareholders. However, banks shareholdings have been reduced since Japan financial deregulation (Thomsen and Conyon 2012).

In South Korea, board system is one-tier or unitary system. Public limited company with family or corporate cross-holding (chaebols) as shareholders is the major business form (Mallin, 2010). The company law is common law. Internal committees might be set up such as audit, operation and remuneration committees.

Meanwhile, main business forms in China are state-owned enterprises and joint stocks companies (Mallin, 2010). China has a civil law system. This country seems to combine both Anglo-Saxon and Continental European model in its corporate governance pattern. China promotes stock options to motivate executives similar to American model but adopts dual board system as in German model. They also revealed that firms with politically connection in China show worse performance than those without political connection. However, corporate governance innovations have been performed in recent years to increase transparency and protect minority investors.

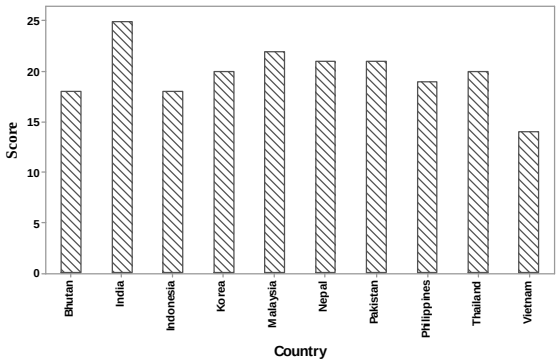

Fig. 1: Responsibility of the board of selected countries in Asia (adapted and restructured based on Gee, 2009)

Malaysia has a lot of family-owned or family-controlled companies. Bumiputra (the Malaysian people) shareholders also have important influences in governance system as Malaysian government try to increase their involvement in corporate sector (Mallin, 2010). Malaysia has one-tier board system. This country encourages its listed company to have an effective balanced board comprised of executive and non-executives directors (Mallin, 2010).

Similar with the other Asian countries in Indonesia, family ownership and conglomeration play important roles in this country. The company law is operated by using civil law. Indonesia seems to develop its corporate governance system which is adopted from Continental European model as reflected in its two-tier board systems. It consists of board of commissioners and board of directors. Board of director is a part of management or executive while board of commissioners more or less plays the role of supervisory board. Each of them has a clear authority and responsibility based on their functions. Board of commissioners is responsible in advising board of director but not allowed to make operational decision.

In the light of OECD (2004), Gee (2009) has conducted a comparative study about corporate governance in Asia. This study compares 10 Asian countries and reveals findings related to responsibilities of the board in Asia as presented below in Fig. 1.

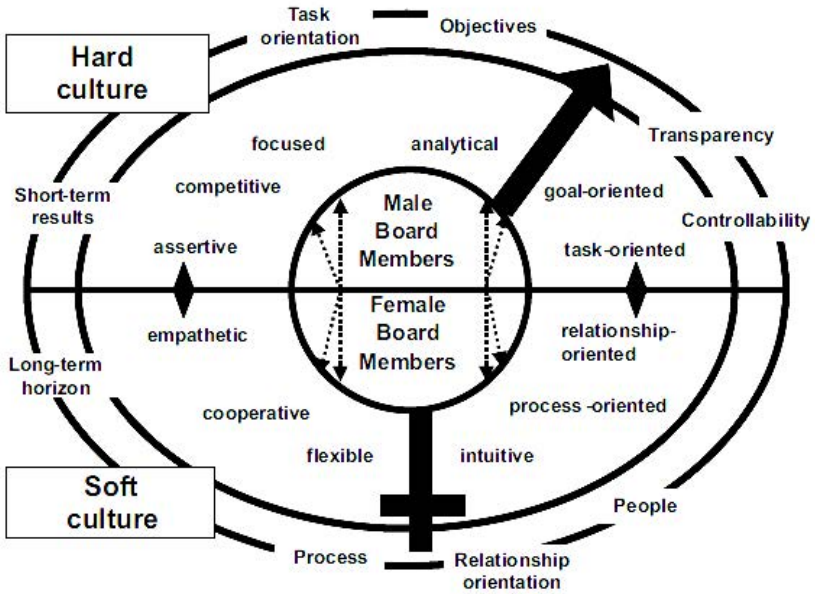

Fig. 2: Comparative strengths of board members of different gender and national culture (Hilb, 2012)

Higher score implies better responsibilities of the board on that particular country. India has the highest score which means that Indian board has the best responsibilities criteria.

Meanwhile, Vietnam is in the low end. There are several criteria assessed for responsibilities of the board in Gee (2009) which are due diligence and care; fair treatment of shareholder; compliance with law; fulfillment of board functions; independence from management and access to accurate, relevant and timely information.

Board Diversity and Firm Performance: According to Milliken and Martins (1996), board diversity is divided into observable and less visible diversity. Observable diversity consists of detectable attributes such as gender, ethnic or nationality and age. Meanwhile, less visible diversity is about background of the directors such as education or previous experience. According to Erhardt *et al*. (2003), observable diversity is also called demographic diversity and less visible diversity is called non-observable or cognitive diversity.

Presently, the majority of the board members in Western firms are white middle-aged males from the home country of the firm. This implies a limited degree of board diversity. As Hilb (2012) highlighted, board diversity is important to the creation of new idea and the best way to maximize differences is to mix ages, cultures, disciplines, genders and so on. The diversity can only become a competitive advantage when it is well managed.

A comparative strengths of board members of different gender and national culture has been proposed by Hilb (2012). Female or male board members might come from hard or soft culture as their national backgrounds. Among hard culture characteristics are assertive, competitive, focus on short-term results and task-oriented whilst soft culture characteristics are empathetic, cooperative, long-term and relationship oriented. A good example for hard culture is United States and for soft culture is Japan. In this case, nationality is regarded as a reflection of culture. Moreover individuals from different ethnic backgrounds may bring additional cultural insights to the board room shown in Fig. 2.

Prior empirical studies: A large number of prior empirical studies have been conducted to examine the relationship between board diversity and financial performance. Some of them addressed board size or board independent (Andres *et al*., 2005, Kiel and Nicholson, 2003; Nicholson and Kiel, 2007). Besides other researches focused on demographic aspect, particularly in nationality and gender diversity. Hillman *et al*., (2002), for instance, examined how female and racial minority directors in the US differ from white male directors. They found that female and African-American directors were more likely come from non-business background. In addition, they were more likely to hold advanced educational degrees and involved in multiple boards faster than white male directors.

In his research, Ruigrok *et al*. (2007) found that foreign directors tend to be more independent while

women directors were more likely to be affiliated to company by family ties. In addition, Erhardt *et al.* (2003) investigated 127 large companies in the United States to address their board demographic diversity in gender and ethnicity. The results have shown that both gender and ethnic diversity were positively associated with company performance as indicated by financial indicators.

Additionally, Carter *et al.* (2003) examined board diversity-firm value relationship and demonstrated a significant positive relationship after controlling for size industry and other corporate governance measures. Seven years later, Carter *et al.* (2010) claimed another fact that no significant relationship between gender or ethnic diversity on board and firm financial performance. Moreover, they suggest that the effect of board diversity in gender and ethnicity on firm financial performance appears to be endogenous.

Other researchers Kim *et al.* (2010) emphasized that academics research in this field echoed these dual sentiments and they were almost equally divided into whether or not board quality and firm performance are positively related. In this regard, decisions concerning the appointment of women or foreign director should not be based solely on future financial performance. The demands tend to come from internal or external calls for diversity rather than performance-based objectives (Carter *et al.*, 2010; Farrell and Hersch, 2005; Francoeur *et al.*, 2008).

Addressing endogeneity issue, several previous researches discuss about it. Borsch and Koke (2002) pointed out that endogeneity is caused by structural reverse causality and spurious correlation. Structural reverse causality means that the influence of board diversity on firm performance is not necessarily to be ex ante (Bozec *et al.*, 2010). It is plausible that better performing companies may enhance board diversity to address public concerns (Anderson *et al.*, 2011). Therefore, it is difficult to distinguish whether a diverse board increases firm performance or high performance firms demand for board diversity (Ahern and Dittmar, 2012; Oxelheim *et al.*, 2013).

Furthermore, Amar *et al.* (2013) suggested a balance board diversity to best serve firm's purpose. However, they argued that board diversity's effect on firm performance was multi-factorial where it depends on contextual factors such as corporate complexity and managerial control. In circumstances where complex business environment exists, it might be beneficial to have varying capabilities and talents in board diversity. However, the effect can be different when it comes to lower level of operation complexity (Anderson *et al.*, 2011; Amar *et al.*, 2013). In their research, they attempted to reduce the endogeneity issue by using instrumental variable and two-stage least square regression as suggested by Oxelheim and Randøy (2003).

Hypothesis Formulation: This research proposes two hypotheses in which financial performance is the dependent variable for both. In the first hypothesis, gender diversity roles as the independent variable which is measured by the number of female director. The second independent variable is nationality which is measured by the number of foreign director.

The involvement of women in business is increasing and followed by greater number of women assigned to the board. Ratio of women directors is positively associated with board strategic control and board effectiveness (Nielsen and Huse, 2010). The role of women on board can increase board development activities and decrease level of conflict. Women have different leadership styles compared to the opposite gender. In addition, Adams and Ferreira (2009) found that female directors have better performance and attendance than male directors. Female directors are also more likely to join monitoring committees and gender-diverse boards allocate more effort in monitoring.

Regarding firm financial performance as previously mentioned, Erhardt *et al.* (2003) found that the percentage of women in board of director is positively associated firm financial performance. In accordance with this, Carter *et al.* (2003) indicated a significant positive relationships between board diversity and firm value. They stated that the proportion of female director increases with firm size and board size. However, this proportion decreases when the number of inside director increases. Hence, the first hypothesis can be formulated as follows:

- H_1: Gender diversity of board member does not have positive influence on financial performance

Another variable which can affect firm financial performance is nationality diversity in board of director. Regarding to this, Ruigrok *et al.* (2007) indicate that foreign board members are more likely to be independent and hold lower numbers of directorships in other companies. Peterson *et al.* (2007) also examined participation of African-Americans on board of director and board committees of the US Fortune 500. They found that ethnic plays a role in determining assignment to corporate board committees.

Choi *et al.* (2007) investigated the valuation impact of outside independent director requirement in Korea after Asian financial crisis. One of the findings was a positive

effect of foreign directors on firm financial performance. Additionally, Oxelheim and Randoy (2003) analyzed the effect of foreign board member on corporate performance and their result shows a significant positive impact. They note that recruitment of an outsider Anglo-American director indicates a significantly higher firm value than Anglo-American director and this can be seen as an alternative to reduce cost of capital.

Moreover, Carter *et al.* (2003) also conducted a research on directors from ethnic minorities in US Fortune 100 firms. They concluded a significant positive relationship between those ethnic minorities on board and firm value. Correspondingly, Erhardt *et al.* (2003) support that foreign or minority director positively influences financial performance. Thus, the second hypothesis is:

- H_2: Nationality of board member does not have positive influence on financial performance

There are three control variables used in this study, namely: board size, board independent and firm size. Oxelheim and Randøy (2003) included those control variables in their research on the impact of foreign board membership and firm value. Moreover, Carter *et al.* (2003) also find that the proportion of women and ethnic minorities on boards increases along with firm size and board size. Erhardt *et al.* (2003) add firm size as a control variable when examining board diversity and firm performance. Large firms are more likely to have international activities and complexity that calls for diversity (Oxelheim *et al.*, 2013). Then, board size is included as larger boards are inherently more diverse (Anderson *et al.*, 2011). Further, greater director independence from management potentially improves monitoring and controlling roles of the board and independent directors might be more heterogeneous (Anderson *et al.*, 2011). Therefore, board independence is also added as control variable.

MATERIALS AND METHODS

Research model: In this research, the definition of hypothesis will be formulated according to the following scheme where variables of board independence, board size and firm size are set to be controlled (Fig. 3).

Data collection and sample selection: Secondary data is employed in this research by which the unit of analysis is company or organization level in Asia. In relation to the time horizon, this is a longitudinal study which combines cross sectional and time series data. The observed data as population is all companies in Asia-Pacific. From the

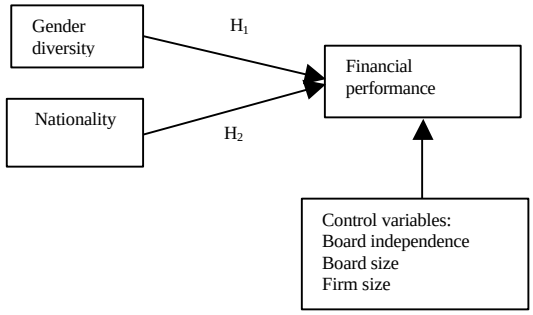

Fig. 3: Research model

population data, sample of companies were taken based on Forbes Asia-Pacific's 50 biggest listed companies 2013. Those companies have been selected by Forbes Asia based on certain criteria such as minimum $3 billion of annual revenue or market capitalization. Each company's track record also has been reviewed for profits, revenue, returns on capital and share-price movements. Company with too much debt or owned by government at least half of the shares was eliminated. As for this study, the analyzed data are those companies during 5 year (from 2008 up to 2012).

The sample was selected based on purposive sampling method. It is a non-probability sampling technique in which sample members are selected based upon some appropriate characteristics Zikmund *et al.*, 2013). From the 50 companies examined in this research, only 37 of them could be processed in data analysis. The rest of the companies could not provide sufficient data needed. Hence, 37 companies multiplied by 5 year equals to 185 observations in total.

Research variables:

Financial performance: In this research, financial performance was employed as the dependent variable. It reflects how efficient a company uses its capital to generate profit (Van Horne, 1998). It was measured by Tobin's Q in and the data were obtained from data stream. According to (Chen and Tan, 2012), the Tobin's Q is calculated as:

$$\text{Tobin's Q} = \frac{\text{(Equity market value + Liabilities book value)}}{\text{(Equity book value + Liabilities book value)}}$$

In the equation, annual market value is used for equity market value while common stock is used for equity book value.

Nationality and gender diversity: The independent variables of this research were nationality and gender

diversity. Gender diversity was measured by the number of female director while nationality was measured by the number of foreign director on board. Data for female and foreign director information were obtained from the annual reports from each company. Annual reports provide sufficient information related to gender. It was identified by photographs and biographical information of board of directors in the annual report for each company. For foreign director, if they were not stated in the annual report, names and biography information were used to identify their origin. Those sources were rechecked by using other web-based data such as company account in Forbes, Bloomberg's Executive Profile and Biography, local publication, etc. The aim of this verification was to secure its validity (Oxelheim *et al*., 2013).

Board independence, board size and firm size: According to Carter *et al*. (2003), Erhardt *et al*. (2003) and Oxelheim and Randoy (2003). there are three control variables, namely board independence, board size and firm size**.** Board independence is measured by the number of independent director on board. The data sources for independent director and board size were firms' annual reports. Besides, natural logarithm of total assets is used as a proxy of firm size.

RESULTS AND DISCUSSION

The data were analyzed using multiple regression analysis. The sample consisted of nine Asian countries, namely: China; Hong Kong; South Korea; Indonesia; Philippines; Singapore; Thailand; India; and Australia. For the board system of the sample member, there were 24 companies with one-tier board system while the rest of 13 companies used two-tier board system. Table 1 presented the descriptive statistics of sampled companies which consist of 185 observations from 37 companies during five years in form of sample mean, the mean value, minimum value, maximum value and standard deviation of each variable.

Since linear regression analysis requires normality of the data in this research, normality test was performed graphically using histogram of residuals and normal probability plots. It was found that the data came from normally distributed population. Meanwhile, for heteroscedasticity test, plot of residual versus predicted value was conducted. It was found that no issues for heteroscedasticity. Meanwhile, testing for the presence of multicollinearity was conducted using tolerance and VIF (Variance Inflation Factor). The result for multicollinearity and autocorrelation test was described in Table 2 in which small VIF values in the table indicated that no issues of multicollinearity in the data.

Table 1: Descriptive statistics of the sampled companies

Variables	Mean	SD	Minimum	Maximum
Firm performance	0.54	0.18	0.10	0.930
Gender diversity	0.96	0.89	0.00	5.000
Nationality diversity	1.43	1.59	0.00	6.000
Board independence	4.29	1.66	2.00	9.000
Board Size	10.50	2.59	7.00	16.00
Firm Size	18.23	2.32	13.26	26.81

Table 2: Multicollinearity diagnostics

	Collinearity	
Variables	Tolerance	VIF
Gender	0.812	1.231
Nationality	0.855	1.129
Independence	0.774	1.293
Board Size	0.710	1.408
Firm Size	0.933	1.072

Table 3: Results of multiple regression analysis

Variables	Standardized coefficients	SE	t-values	p-values
Gender	0.213	0.014	3.092	0.002
Nationality	-0.050	0.008	-0.712	0.477
Independence	-0.380	0.008	-5.398	0.000
Board size	0.347	0.005	4.725	0.000
Firm size	0.301	0.005	4.965	0.000

In the modelling section, results of multiple regression analysis in Table 3 indicated that the F value of was 16.265 and its significance is 0.000 ($p<0.05$). This means that at least an independent variable has significant contribution to the response variable. The result of coefficient of determination, R^2, shown that 31.2% of the variance in financial performance were explained by the independent variables.

Gender diversity of board member has significant positive influence on financial performance with t-statistic was 3.092 and its p-value was 0.002 ($p< 0.05$). This meant the H_1 was supported. However, the nationality of board member did not have any significant influence on financial performance ($p = 0.477$). In this situation, the H_2 was not supported. Meanwhile, all of the three control variables, namely board independence, board size and firm size showed significant influence on financial performance with p-values of 0.000. As aforementioned, two-Stage Least Square (2SLS) regression was also performed after ordinary least square regression to mitigate endogeneity by using firm size as instrumental variable. Results of both regression analyses were displayed in Table 4.

Output from both OLS and 2SLS regressions indicated similar results where the endogeneity was not a major problem in this research. The F statistics in the two-stage least square regression was smaller than the one in the ordinary least square, even though both are significant ($p = 0.000$). This implied that both models are suitable for the data. The R square for two-stage least square regression is slightly better ($R^2 = 22.8\%$).

Table 4: Results comparison between OLS and 2SLS

Variables	Statistics measures	Ordinary Least Square (OLS)	Two-Stage Least Square (2SLS)
	R^2	0.312	0.228
	F (Sig.)	16.265 (0.000)	13.270 (0.000)
Gender	Standardized β	0.213	0.166
	t (Sig.)	3.092 (0.002)	2.306 (0.022)
Nationality	Standardized β	-0.047	-0.098
	t (Sig.)	-0.712 (0.477)	-1.422 (0.157)
Independence	Standardized β	-0.38	-0.391
	t (Sig.)	-5.398 (0.000)	-5.246 (0.000)
Board size	Standardized β	0.347	0.421
	t (Sig.)	4.725 (0.000)	5.541 (0.000)
Firm size	Standardized β	0.301	
	t (Sig.)	4.965 (0.000)	

Similarly in two-stage least square regression, gender diversity of board member also showed significant positive influence. The t statistic for the variable was 2.306 ($p = 0.022$). For nationality diversity of board member, the t-statistic was not significance ($p = 0.157$). Meanwhile, the control variables except firm size have significant contribution at alpha of 0.05. Since both variable produced p values of 0.000).

There were conflicting evidences of the relationship between gender diversity and firm performance (Ahern and Dittmar, 2012; Carter *et al*., 2003). Some studies proven that gender diversity in board composition have positive relationship on financial performance (Campbell and Mínguez-Vera, 2008; Carter *et al*., 2003), whereas some other studies revealed that they did not contribute any significant effects (Ahern and Dittmar, 2012; Carter *et al*., 2010). Erhardt *et al.* (2003) found that board diversity was positively associated with financial indicators of firm performance. Then, Anderson *et al.* (2011) highlighted that having a diverse pool of directors bears a positive relationship on financial performance meaning that greater board heterogeneity improves firm performance. Their results provided fairly compelling evidence that board diversity influenced firm performance, not the other way around. Moreover, Campbell and Mínguez-Vera (2008) also found that female directors have a positive effect on firm value. Likewise, their result of the opposite causal relationship was not significant. Finally, Carter *et al.* (2003) also highlighted a significant positive relationship between women on board of director and financial performance.

Some studies revealed that gender diversity in board of director positively influenced financial performance Consistent with some previous evidences (Campbell and Mínguez-Vera, 2008; Carter *et al*., 2003; Erhardt *et al*., 2003). This implied that the presence of female director enhances financial performance of the company. Thus, having female board member could be an economic advantage. Female directors establish a more diverse board which enables a broader range of perspectives and opinions to be considered, for instance in case of conflict.

Compared to the other parts of the world, women presence in Asian top executives is still very limited. To large extent, this is, perhaps, related to Asian culture where Asian women are demanded to take care of family more than men. They should be able to play both roles as a mother or wife and a career woman. This leads to dramatically decrease of women participation in middle or top management from where future directors normally are recruited. In conclusion insignificant number of women on board was not caused by men blocking their way but primarily due to the lack of candidates.

Hence asian firms are recommended to increase the number of women on board since assigning female director is beneficial as proven in this research. However, this decision should not be based solely on future financial objective of the firm. Ahern and Dittmar (2012), examined the effect of Norwegian gender quota and they highlighted that it enforces younger and less experienced female board, nicknamed as golden skirt, added to the board room. This sounds a bit risky from economic point of view but, on the other hand, it promotes gender equality.

In relation to the level of nationality diversity in the board room, former evidences revealed that nationality diversity has a positive relationship on financial performance (Carter *et al*., 2003; Oxelheim and Randøy, 2003). However, another study indicated no significant effects (Carter *et al*., 2010). Oxelheim and Randøy (2003) obtained a significant positive impact of having foreign director on firm value. Erhardt *et al.* (2003) and Carter et al. (2003) also found that foreign directors enhanced financial performance. However, Carter *et al.* (2010) supported the theoretical position of no significant effect, either positive or negative.

Similar to Carter *et al.* (2010), this research found no significance influence of foreign directors on financial performance. In other words, appointing foreign director does not contribute significant value for company. This might be explained by the reason that benefit of having foreign director is limited. It depends on operational complexity of the firm, for instance, having foreign sales; having international subsidiaries; or other international activities (Anderson *et al*., 2011).

Furthermore, Oxelheim *et al.* (2013) discussed to which extent foreign board member needed. They found that not only international operation is related to board internationalization but also financial internationalization. Ownership structure determines the need of board internationalization. Foreign shareholders were more

confident when their interest accommodated by foreign board member; moreover when they are the same nationality. In this case, the role of foreign director has a propensity for monitoring rather than advising.

Aguilera and Jackson (2003) examined determinants for differences in corporate governance practice across the globe. In countries where market-based systems are dominant, households invest in companies and minority shareholder interests are emphasized. This financial system demands for very strict corporate governance practices to satisfy its dispersed shareholders. The empirical evidences for those countries showed that foreign directors increase firm performance (Carter *et al*., 2003; Oxelheim *et al*., 2013; Oxelheim and Randoy, 2003). In Asia, family ownership, bank-based financial system and strong inter-firm network are predominant. The demand of good corporate governance comes from more concentrated parties. The practice does not seem as strict as in countries with market-based financial system. This can be a reason why board internationalization in Asia does not significantly contribute to enhance firm performance.

CONCLUSION

This research aimed to investigate the influence nationality and gender diversity in board of director on financial performance as measured by Tobin's Q. The first research finding suggested that gender diversity has a positive influence on firm financial performance. This evidence is consistent with the notion that having female directors on the board can increase financial performance as highlighted by Erhardt *et al*. (2003). They argued that assigning women director explores beyond traditional talent pool; reflects diversity in firm's customer and employee based better; and thereby enhances firm performance. Similarly, Campbell and Mínguez-Vera (2008) also found positive association of female director and financial performance. In addition, their result suggests that spurious correlation or structural reverse causality is not significant.

Furthermore, the second finding implied that there is no significant influence contributed by nationality diversity of board member. In other words, foreign directors do not affect financial performance of the company they serve. This finding is consistent with the result obtained by Carter *et al*. (2010). They highlighted a contingency explanation that the effect of nationality diversity in board of director on financial performance can be different under different circumstances at different times.

CONCLUSION

In conclusion, companies are recommended to enhance diversity in board of directors since it is beneficial for their performance and board effectiveness. However, establishing board diversity by assigning female and foreign directors should not be based only on economic reason but also other reasons related to public policy such as equality or board representativeness. Diversity in board of director will better represent company's stakeholders. With the breadth of perspectives, a diverse board also enables to bring various skills and deeper insight to the board room. Hence, it will lead the board process to be improved both in decision making and problem solving.

There are a number of limitations in this study. Firstly, the sample of this study is relatively small and with more time available one should have enlarged the sample. However, since this is a longitudinal study, the combination of data from 37 companies during five years obtains a significant number of total observations in which each firm-year observation would not be totally independent from other firm-year observation in the same company. Secondly, this study looks only into a few dimensions of diversity and do not address issues such as diversity of language and diversity of competencies.

Future studies are suggested to accommodate more measures of diversity, for instance, diversity in education, age, tenure, etc. The sample and variable should be expanded. Future research also can try to link board diversity and performance by using moderator variables, such as board effectiveness or context-specific assessment such as board performance in crisis situation.

REFERENCES

Adams, R.B. and D. Ferreira, 2009. Women in the boardroom and their impact on governance and performance. J. Financial Econ., 94: 291-309.

Aguilera, R.V. and G. Jackson, 2003. The cross-national diversity of corporate governance: Dimensions and determinants. Acad. Manage. Rev., 28: 447-465.

Ahern, K.R. and A.K. Dittmar, 2012. The changing of the boards: The impact on firm valuation of mandated female board representation. Q. J. Econ., 127: 137-197.

Amar, B.W., C. Francoeur, T. Hafsi and R. Labelle, 2013. What makes better boards? A closer look at diversity and ownership. Br. J. Manage., 24: 85-101.

Anderson, R.C., D.M. Reeb, A. Upadhyay and W. Zhao, 2011. The economics of director heterogeneity. Financial Manage., 40: 5-38.

Andres, D.P., V. Azofra and F. Lopez, 2005. Corporate boards in OECD countries: Size, composition, functioning and effectiveness. Corporate Governance Int. Rev., 13: 197-210.

Borsch, S.A. and J. Koke, 2002. An applied econometricians' view of empirical corporate governance studies. Ger. Econ. Rev., 3: 295-326.

Bozec, R., M. Dia and Y. Bozec, 2010. Governance-performance relationship: A rexamination using technical efficiency measures. Br. J. Manage., 21: 684-700.

Campbell, K. and A. Minguez-Vera, 2008. Gender diversity in the boardroom and firm financial performance. J. Bus. Ethics, 83: 435-451.

Carter, D.A., B.J. Simkins and W.G. Simpson, 2003. Corporate governance, board diversity and firm value. Financial Rev., 38: 33-53.

Carter, D.A., D.F. Souza, B.J. Simkins and W.G. Simpson, 2010. The gender and ethnic diversity of US boards and board committees and firm financial performance. Corporate Governance Int. Rev., 18: 396-414.

Chen, S. and H. Tan, 2012. Region effects in the internationalization-performance relationship in Chinese firms. J. World Bus., 47: 73-80.

Choi, J.J., S.W. Park and S.S. Yoo, 2007. The value of outside directors: Evidence from corporate governance reform in Korea. J. Fin. Quant. Anal., 42: 941-962.

Cochran, P.L. and R.A. Wood, 1984. Corporate social responsibility and financial performance. Acad. Manage. J., 27: 42-56.

Conine, T.E. and G.P. Madden, 1986. Corporate social responsibility and investment value: The expectational relationship. Handbook Bus. Strategy, 1987: 1-18.

Erhardt, N.L., J.D. Werbel and C.B. Shrader, 2003. Board of director diversity and firm financial performance. Corporate Governance: An Int. Rev., 11: 102-111.

Farrell, K.A. and P.L. Hersch, 2005. Additions to corporate boards: The effect of gender. J. Corporate Finance, 11: 85-106.

Francoeur, C., R. Labelle and B. Sinclair-Desgagne, 2008. Gender diversity in corporate governance and top management. J. Bus. Ethics, 81: 83-95.

Gee, M.R.W., 2009. Corporate Governance in Developing Economies. In: Corporate Governance in Developing Economies, Robert, W.M. (Ed.). Springer, New York, USA., ISBN:978-0-387-84832-7, pp: 3-22.

Hilb, M., 2012. New Corporate Governance: Successful Board Management Tools. 4th Edn., Springer, Berlin, Germany, ISBN-13: 9783642235955, Pages: 237.

Hillman, A.J., A.A. Cannella and I.C. Harris, 2002. Women and racial minorities in the boardroom: How do directors differ?. J. Manage., 28: 747-763.

Kang, H., M. Cheng and S.J. Gray, 2007. Corporate governance and board composition: Diversity and independence of Australian boards. Corporate Governance: Int. Rev., 15: 194-207.

Kiel, G.C. and G.J. Nicholson, 2003. Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance. Corporate Governance: Int. Rev., 11: 189-205.

Kim, K.A., J.R. Nofsinger and D.J. Mohr, 2010. Corporate Governance. Prentice Hall, Boston, Massachusetts,.

Mallin, C.A., 2010. Corporate Governance. Oxford University Press, Oxford, England,.

Milliken, F.J. and L. Martins, 1996. Searching for common threads: Understanding the multiple effects of diversity in organizational groups. Acad. Manage. Rev., 21: 402-433.

Moffett, M.H., A.I. Stonehill and D.K. Eiteman, 2006. Fundamentals of Multinational Finance. Addison-Wesley, Boston, Massachusetts,.

Nicholson, G.J. and G.C. Kiel, 2007. Can directors impact performance? A case-based test of three theories of corporate governance. Corporate Governance: Int. Rev., 15: 585-608.

Nielsen, S. and M. Huse, 2010. The contribution of women on boards of directors: Going beyond the surface. Corporate Governance Int. Rev., 18: 136-148.

OECD., 2004. OECD Principles of Corporate Governance 2004. OECD Publication Services, Paris, France, ISBN-13: 9789264015975, Pages: 68.

Orlitzky, M., F.L. Schmidt and S.L. Rynes, 2003. Corporate social and financial performance: A meta-analysis. Organiz. Stud., 24: 403-441.

Oxelheim, L. and T. Randoy, 2003. The impact of foreign board membership on firm value. J. Banking Finance, 27: 2369-2392.

Oxelheim, L., A. Gregoric, T. Randoy and S. Thomsen, 2013. On the internationalization of corporate boards: The case of Nordic firms. J. Int. Bus. Stud., 44: 173-194.

Peterson, C.A., J. Philpot and O.K.C. Shaughnessy, 2007. African American diversity in the boardrooms of the US fortune 500: Director presence, expertise and committee membership. Corporate Governance Int. Rev., 15: 558-575.

Reimann, B.C., 1975. Organizational effectiveness and management's public values: A canonical analysis. Acad. Manage. J., 18: 224-241.

Richard, O.C., 2000. Racial Diversity, business strategy and firm performance: A resource-based view. Acad. Manage. J., 43: 164-177.

Rose, C., 2007. Does female board representation influence firm performance? The Danish evidence. Corporate Governance Int. Rev., 15: 404-413.

Ruigrok, W., S. Peck and S. Tacheva, 2007. Nationality and gender diversity on Swiss corporate boards. Corporate Governance Int. Rev., 15: 546-557.

Smith, N., V. Smith and M. Verner, 2006. Do women in top management affect firm performance? A panel study of 2,500 Danish firms. Int. J. Prod. Perform. Manage., 55: 569-593.

Van-Horne, J.C., 1998. Financial Management and Policy. 11th Edn., Prentice-Hall, USA.

Yermack, D., 1996. Higher market valuation of companies with a small board of directors. J. Financial Econ., 40: 185-211.

Zikmund, W.G., B.J. Babin, J.C. Carr and M. Griffin, 2013. Business Research Methods. 9th Edn., Cengage Learning, Boston, Massachusetts, USA., Pages: 666.