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BOARD DIVERSITY NETWORKS AND EARNINGS QUALITY IN MALAYSIA

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Abstract:

This study examines the relationship between board diversity networks and earnings quality using different direct and indirect network centrality measures established by social network analysis. This study establishes the network pattern of 4416 directors consists of 4609 men and 407 women directors from a sample of 745 listed companies on Bursa Malaysia in 2011. Overall, the results show that there is a significant negative relationship between director networks and earnings quality. Additionally, the analysis on gender-based networks suggests that while the effect of men directors' networks is consistent with the main network model, the women directors create a network which capable of enhancing the company's earnings quality. The negative network effects on earnings quality most likely due to the reputation of social status, which eventually detriment the companies' value.

Keywords:

Social Network Analysis, Malaysia, Earnings Quality, Diversity, Gender

Introduction

The strength of director's networks and its impact towards company's performance has received a substantial interest in the academic and corporate world. Through multiple directorships, the director's formal appointment substantially implies that the presence of networks create flows of critical resources inside the companies (Andres et al., 2013; Hillman et al., 2000; Horton et al., 2009; Larcker et al., 2013). Prior studies on director's networks shows its potential to overcome the shortcoming discovered in previous studies related to

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multiple directorships (Hashim & Abdul Rahman, 2006; Sarkar, Sarkar, & Sen, 2008). In addition to directors' networks effects, the embedded corporate governance elements within the director's networks also potentially affects company performance (Jamaludin & Hashim, 2017).

To date, the measurement of multiple directorships directly defined as the number of directorships seats holds by an individual director, it was insufficient to further examine the strength of the connections established (Hashim & Abdul Rahman, 2006). Previous studies have associate director's networks with merger and acquisition (Renneboog & Zhao, 2014), compensation (Renneboog & Zhao, 2011), board busyness (Andres et al., 2013), company performance (Larcker et al., 2013) and financial reporting quality (Abdul Wahab et al., 2020). Similarly, this study explores the director's network by incorporating several dimensions measuring the power and influence of the networks established by the directors based on gender. Therefore, this warrants this study to explore the director's diversity-based networks pattern and its impact to the company performance.

The key issue of this study is whether board diversity networks capable to facilitate the director's activities which eventually improve company's performance (Rodrigues, 2014). For the context of this study, Board diversity refers to the variety of characteristics in the composition in the boardroom (Zainal et al., 2013), particularly director's gender. This study focusing on boardroom diversity particularly on gender- based which has become contemporary issues in corporate governance studies. To date, very little is known about the effect of social networks created by, both men and women directors (Hawarden & Marsland, 2011). Thus, this study aims to investigate the consequences of director's networks created by both men and women directors towards company performance.

In Asia, the director's appointment mostly dominated by men as compare to the U.S and Europe countries. Specifically, in Malaysia, there is significant difference of percentage of women participation in boardroom across Asia countries (McKinsey & Company, 2012). Although, the gender diversity in the boardroom is expected to affect company performance, to date, there are mixed results on the presence of gender diversity in the boardroom embedded towards company performance (Rodrigues, 2014; Rose, 2007).

This study stands on the premise that both women and men directors are strived to enhance both the individual and companies' financial and non-financial gain, which virtually extracted from their established networks with other directors and companies. The advocates of social network theory postulate that the networks created by individual or organisation is to gain power as well as influence (Renneboog & Zhao, 2011, 2014). However, the presence of women directors are also not fully marginalised which reflect the insufficient evidence of director's diversity-based networks (Hawarden & Marsland, 2011).

It is expected that, through established networks, individual or organisation capable to have control over critical resources and information and power. Particularly, companies with the ability to access control over critical resources and information are considered as powerful company in the networks. These companies able to exploit flows of critical resources and information in and out from the company through its networks.

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In this study, the empirical measure of earnings quality is the extent to which working capital accruals map into operating cash flow realisations, where a poor match signifies low earnings quality. This study defined earnings quality (EQ) as the standard deviation of residuals from regressions relating current accruals to cash flows. It is documented that poorer EQ is associated with larger costs of debt and equity.

As for director networks, it is measured using five well-known dimensions of network centrality namely degree-included, degree-excluded, eigenvector; betweenness and closeness. Based on our sample of 4,416 directors of 745 Malaysian companies during 2011, results show our network measures positively affect earnings quality, suggesting that larger and better networks allow for better information sharing.

This study contributes in the following way, first, this study offers empirical evidence from an emerging capital market with a different institutional as compare to prior studies which mainly focuses on the U.S. or U.K. settings. This study also attempts to reveals the role of gender in director networks and thus in shaping earnings quality. Finally, this study extends this strand of research by showing that the network through business elites' gender- based are also matters.

Literature Review

Directors' Networks

Literally, a director is socially embedded in a network of relationships with other from outside or within their own company (Granovetter, 1985). The director's social interconnection develops based on certain attributes such as demographic homogeneity, common social network, shared attitudes, and well-matched behavioural attitudes. The social cohesion attributes found to be a part of the director's previous social background such as attendance at the same elite educational institutions, membership in exclusive social clubs, and shared upper-class backgrounds (Hillman et al., 2007; Westphal & Stern, 2006). For instance, the combination of professional network and social network together have been shown to produce the strongest social capital (Burt, 1997). Director with stronger social capital eventually likely to influence the company through dissemination of the knowledge and skills as well as decision, which finally increase the company's earnings quality.

To date, the role of director's network in capital market establishes mix and contrasting views. The existing director's networks in Malaysia, either developing or condensing, is mainly to establish economic of scale. Subsequently, the director's network increasing and provide better access for information and resources (Renneboog & Zhao, 2011). The information or resources access facilitate directors to be resourceful and effective company's monitor as well as advisor.

Advocates of the social network theory state that the action of other directors potentially to affect other director's preferences and decisions. The idea is that the directors would not allow the behaviour of other directors to be interference by director external characteristics during the company's strategic decision making process (Brass, 2011; Otte & Rousseau, 2002). This impression excludes the director's inherent social context as part of trait, which motivate and cause the behaviour of individual directors. Contrary, the social network analyst has different viewpoint which signify the significance of director's connections within company and across companies, hence, the individual director's characteristics becoming second priority.

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Likewise, previous studies demonstrate that multiple directorships enable directors to have access to information and resources such as corporate governance best practices (Larcker et al., 2013; Omer et al., 2014; Renneboog & Zhao, 2011). Furthermore, Renneboog and Zhao (2011) argue that director's interlocks promote managerial and information influence. Consistent with the board busyness idea by Andres et al. (2013) and Granovetter (1985) that simple count of board seats insufficient in explaining the effect of board busyness to company's value.

In principle, the director's networks are simply the number of boards on which the director serve and the board size. The directors, who serve on more than one company's boardroom, are likely to generate large number of connections, which they bring to their companies. Board size, as well as director interlocks, is also an important factor in determining a board's professional connections. For instance, if one director sits on 2 boards with 12 members, that represents the same number of connections as sitting on 4 boards with 6 members.

The internal and external connection a board has, through its directors, represents the key component of company's structural network. The extent of a director's direct networks is expected to influence how well a company fulfils its resource dependence role, particularly linking the companies to its external environment to provide access to resources and therefore to enhance the company's earnings quality.

However, director with relatively large and increasing number of connections imply that the director becoming busier. This will be affecting the efficacy of director focus, resources and information hence makes the director ineffective as company's monitor and advisor. Thus, the quality of power, information or resources a director possess is meaningless due to the busyness, eventually decrease earnings quality. This circumstances are consistent with board busyness idea as suggested by Core, Holthausen and Larcker (1999), Fich and Shivdasani (2006) and Larcker et al. (2013). Further, social network theorists also argued that director with large and increasing number of multiple directorships appointment with negative effects and associated to board busyness (Andres et al., 2013; Fich & Shivdasani, 2006).

Efficient and effectiveness monitoring and advisory roles by director with large number of connections detrimental as the director becoming over obligated hence powerless to comply with requirements of their position as company's monitor and advisor. Together, any misleading managerial and information flow influence spread out within the network may negatively impact the entire related directors and companies (Larcker et al., 2013).

Specifically, previous studies have examined and categorised director's network into direct and indirect networks. Both direct and indirect director's networks uniquely measured separately as each network meant for different purposes. Barnea and Guedj (2007), Larcker et al. (2013) and Renneboog and Zhao (2011) studies further investigate the direct network measures as proxy for managerial influence and indirect network measures as proxy for information and resource flows influence.

The direct measures hypothesised as to assess the status of power or managerial influence individual director or company has in the network (Brass, 2011; Dicko & Breton, 2010; Horton & Serafeim, 2012; Kim, 2005; Renneboog & Zhao, 2011; Stuart & Yim, 2010). Bonacich (1987) and Freeman (1978) argued that both degree and eigenvector centrality frequently used as access to power by director or companies. The direct measures indicate the potential of

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director or company to access other directors' or company's resources through its position in the networks. Individual director or a company potentially become powerful through the access of resources from other director of company are then accumulated hence make the potential director or company valuable to others in the network (Smith et al., 2014).

Additionally, Westphal and Stern (2006) suggest that directors lack of social and academic credentials need to secure connections with powerful or elite group of directors to increase their probability of securing board appointment. This argument consistent with the idea by social network theorists that the larger the direct connections a director or company has, the higher the possibility it will be considered as an asset and valuable among others. (Borgatti et al., 1998). The director or company also will have greater access for resources through the connections.

The premise of their arguments is that indirect measures hypothesise as indicator of the flow of information and resources. The quality of information and resources flows within the networks relatively influenced by the quality of indirect networks itself. Social network theorist posits that the closest the distance a director to other directors in the whole network, more likely to receive information and resources flows travel faster than others.

Similarly, whenever a director often positioned in between of any pairs of directors, the director deemed to have access or control over information and resources flows within the network. The director with the highest betweenness value potentially to exploit the information and resources, and to some extent the quality of the information. The information or resources are more reliable if it is travel faster among directors in the most efficient way and less intermediaries thus improve earnings quality. However, the board busyness views create some issues, which may deter the quality managerial influence and information, or resources flows for directors with high centrality measures within the network.

The directors seek for managerial or power influence indicate the control resources access from others and at the same time enhance the prestige and elite status. Thus, directors are driven to increase and maintain large number of connections as well as being connected to other powerful directors. There is unlikely the directors able to focus effectively on the obligation as company's monitor and advisor. The busyness will distract them from fully discharge their responsibility to the company hence reducing the monitoring and advisory effectiveness. The poor and inefficient quality of information or resources eventually inadequate to be used to improve company's accounting numbers hence reducing company's earnings quality.

Director's Diversity-based Networks

The idea for more participation of women in boardroom mainly to strengthen company's corporate governance as well as increase company performance (Burgess & Tharenou, 2002; Low et al., 2015). However, women appointed as company's directors is still poorly lacking despite women population is almost half of the world's population (Bushon, 2011). Malaysian Government Transformation Programme (GTP) initiated in 2011, exclusively target 30 percent of corporate board directorships to be filled by women in 2016 (Bernama, 2013), but, the numbers are still far from government expectation. Nevertheless, Malaysian has significantly improve in promoting women interests especially in the appointment of decision making level position (Ku Ismail & Abdullah, 2009).

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Gender diversity in the boardroom is argued to have positive impact towards companies (Low et al., 2015). The presence of different gender in the boardroom are expected to provide more point of view from different background. As compare to men, women are believed to remain higher ethical values, career advancement oriented and less focus on financial benefits (Ku Ismail & Abdullah, 2009). Thus, there is less possibility for women director to practice earnings management.

Campbell and Mínguez-Vera (2008) documented that greater diversity in the boardroom has a positive impact to the company value. additionally, greater board gender diversity also found to increase company's public disclosure especially in larger companies (Srinidhi et al., 2011). This is consistent with the higher ethical values practice by women in the boardroom. However, little is known on the network's effects derived from the women directors' appointment. Nevertheless, previous studies on women directorships documented positive relationship with company performance.

Additionally, the presence of women director also believed to harmonise the company relationship with other organisations such government agencies, women's rights pressure group or non-government organisations (NGO) or employment rules and regulations (Wan Yusoff, 2010). Gender equality especially in corporate world is currently demanding. Thus, by having greater women directors with affiliation with certain NGOs or organisation could provide better representation of the society where the company is established.

Methodology

This study aims to examine the association between director's diversity- based networks and earnings quality. The main test variables are the network measurements (CENTRALITIES). Additionally, corporate governance variables are included which commonly used in prior studies. The basic regression model is shown as follows.

$$EQ_i = \beta_0 + \beta_1 CENTRALITIES_i + \beta_2 BOARDSIZE_i + \beta_3 BOARDMEET_i + \beta_4 DUALITY_i + \beta_5 BOARDIND_i + \beta_6 ACIND_i + \beta_7 ACMEET_i + \beta_8 INSTINV_i + \beta_9 AUDQ_i + \beta_{10} ETHNICITY_i + \beta_{11} POLCON_i + \beta_{12} FAMCOMPANIES_i + \beta_{13} COMPANIESIZE_i + \beta_{14} LEVERAGE_i + \beta_{15} INDUSTRIES_i + \mu_i$$

The CENTRALITIES is the general variables for five centrality network measures used in the model namely DEGREE-I, DEGREE-E, EIGENVEC, BETWEENNESS and CLOSENESS. Each of the centrality network measures is incorporated in the main regression model separately. BOARDSIZE is the total number of directors on the board of the companies, BOARDMEET is the total board meeting in a financial year. DUALITY take value of 1 if the company has duality role of CEO and chairman and zero otherwise, BOARDIND takes a value of 1 if proportion of independent directors on board is more than two-thirds.

ACIND takes a value of 1 if all the audit committee members are independent. ACMEET is the total audit committee meeting in a financial year INSTINV is the percentage of shareholdings owned by top five largest institutional investor to the total number of shares issued, AUDQ take value of 1 if the company is audited by Big 4 auditors and zero otherwise, ETHNICITY is the proportion of Bumiputera directors on the board to the total number of directors of the companies, POLCON takes a value of 1 if the company is politically connected and zero otherwise, FAMCOMPANIES takes a value of 1 if the company is family-owned,

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COMPANIESIZE is the natural log of total assets representing company size, LEVERAGE is the total debt deflated by total equity. INDUSTRIES take a value of 1 if the companies belong to the technology, trading and services, constructions, consumer products, close-end fund, and hotel, and 0 otherwise.

The objective of this study is to investigate the current state of existing research on the association between director's diversity-based networks and earnings quality. This study uses secondary data from several sources. The operationalisation of internal and external corporate governance variables to test the hypotheses gathered from the annual reports of individual publicly listed companies downloaded from Bursa Malaysia official website. Meanwhile, the accounting data collected from DataStream. Whereas other variables such as political connection, family companies, elite connection and ethnicity are collected from a range of sources such as annual report, newspapers, books, and magazines. Eviews programme used to analyse the data and provide the findings for this study.

As for Social Network Analysis (SNA), the UCINet software is used to operationalise director's centrality networks measures, namely Degree and Eigenvector centrality for direct networks and Closeness and Betweenness for indirect networks. SNA is a robust technique developed within the social sciences to analyse both director's and company's networks.

First, this study measures centrality networks at the individual director level and then develop a centrality networks measures at board-level. The centrality network measures used to determine the impact on earnings quality. This study measured both direct and indirect network. The reliability and validity of the data were appropriately emphasised consists of commission errors, edge or node attribution errors and data collection and retrospective errors (Borgatti et al., 2013). As for the dependent variable, earnings quality is measured by using accruals quality model by Francis et al. (2005). Recent studies also used the Francis et al. (2005) model because it was found to be superior to other extant methods at the time in detecting accruals quality.

The final dataset comprises information on 745 companies and 4416 individual directors from all sectors listed excluding financial sector and other selection criterion in Bursa Malaysia Berhad in 2011. All the 4416 data of directors, comprises 4009 men directors and 504 women directors, extracted from company's annual report. It is noteworthy to emphasise that in the context of social network research, limiting the network size to a specific sector, for example, to customer products sector might produce partial network structure of the overall networks for existing listed companies. The final sample and population breakdown for publicly listed companies in 2011 are as follow:

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Table 1 Derivation of Sample, 2011

	Total	Percent
Number of companies listed on the Main Board of Bursa Malaysia as of 31st December 2011	822	100.00
Less:		
Company listed under Financial Sector	36	4.38
Company with PN17 status	16	1.95
Companies with incomplete data (unavailable 2011 annual report)	23	2.80
Outliers	2	0.24
Final Sample	745	90.63

The population chosen for this study consists of eleven sectors of the economy. All banks, insurance and unit trust companies that grouped under financial sector excluded because of the substantial differences in types of operations as well as the statutory requirements differences. Moreover, these companies also have a uncommon and unique working capital structure (Abdul Rahman & Mohamed Ali, 2006; Haniffa, 1999; Peasnell et al., 2005). The listed companies with PN17 also excluded as they triggered at least one of the prescribed criteria it must comply with the provisions of paragraph 8.04 Bursa Malaysia Listing Requirements along with PN17 for Main Market issued by Bursa Malaysia. This study fully utilised the data gathered from all possible companies which fulfil the SNA requirements as the improper exclusion of any companies would affects the accuracy of network data (Borgatti et al., 2013)

Additionally, to be included in the sample, each company required to produce an annual audited financial report for year ended 2011. The exclusions also comprise of companies with incomplete financial data. The profile of the board of directors and the audit committee gathered using the company's annual audited financial report. The financial data extracted from the DataStream. Any missing financial data from DataStream also extracted from the company's annual audited financial report.

Result

Directors' Networks

The descriptive analysis results are used to address the objective of this study, which is to examine the existing structural pattern of social network established by 4416 directors in Malaysian publicly listed companies in 2011. This approach is appropriate to be used to describe the network graph mapped using the director's profile. This approach is consistent with work done by Borgatti et al. (2013), Etheridge (2012) and Samkin, Allen and Mundy (2009).

Table 2 report the descriptive analysis for the key social network measurements variables, namely DEGREE-I, DEGREE-E, EIGENVEC, BETWEENNESS and CLOSENESS for total sample. The CLOSENESS centrality calculated only for connected companies. DEGREE-I represents the total direct networks for each company consists of direct links outside and within a company via board of directors. It computes the total direct links exists between each company from within and outside a company. In average, companies have 12.12 DEGREE-I indicates that an average of 12 total direct links a company has with other companies, including existing direct links within the company. As per average DEGREE-I, most companies have

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small direct networks from within and other companies compare to the 745, total sample of companies.

Table 2: Social Network Descriptive Analysis for Total Sample (2011, n=745)

	Mean	Median	Max.	Min.	SD	Obs.
DEGREE-I	12.12	11.00	47.00	4.00	5.68	745
DEGREE-E	4.70	3.00	32.00	0.00	4.79	745
EIGENVEC	0.00	0.00	0.54	0.00	0.04	745
BETWEENNESS	1124.75	313.69	15281.28	0.00	1819.04	745
CLOSENESS	104.60	112.71	179.58	1.00	42.01	653

However, the standard deviation shows that the total direct links for each company varies moderately. The median of 11 also indicate that 50 percent from the total sample consists of companies with at least 11 direct links and up to the maximum 47 direct links. Whereas the remaining 50 percent with direct links between four until 10 direct links. The occurrences of direct networking from within and outside companies either by coincidence or prearrangement demonstrates the existence of networks within and outside a company where the range value is four and 47, respectively.

Noted that DEGREE-I calculates the total direct links a company has from within and outside companies. This measure is motivated by other factors controlling company's board size (Renneboog & Zhao, 2011). As the board size in the sample does varies significantly across companies, most of the variation in DEGREE-I caused by both links secured by internal and external directorships. Companies with the highest DEGREE-E tend to be more independent and in beneficial positioned. Also, company with the highest DEGREE-E manage to become the company which others will list as the important or influential company in the network (Borgatti et al., 2013). For DEGREE-E, in average, about 4.70 (approximately 5) direct links a company has with other external companies. The standard deviation at 4.79 shows the number of direct links with other companies varies significantly.

The median of 3.0 also shows that a 50 percent from the sample establish at least three direct links with other companies, up to maximum 32 direct links. Whereas the remaining 50 percent secure less than three direct links, including zero connection. It is worth mentioning that there are 92 companies without any connections established with other companies. This provides evidence the existence of unconnected or isolated companies from other companies. Additionally, the difference of average DEGREE-I and average DEGREE-E, 7.42 (12.12-4.70) indirectly implies the average board size. Therefore, the average board is seven with a range of board size is between four and 15 (Renneboog & Zhao, 2011). The DEGREE-I and DEGREE-E differences is additional evidence to calculate board size. This is consistent with Jensen (1993) recommended effective board size. Nevertheless, company with highest DEGREE-I or DEGREE-E values consider as an asset to the whole network.

The EIGENVEC centrality, another direct network measurement calculates each company's direct links centrality and to acquire the most central companies in the whole sample network (Borgatti et al., 2013; Hanneman & Riddle, 2005; Larcker et al., 2013; Renneboog & Zhao, 2011). Companies exhibit high EIGENVEC values when they are connected to highly

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connected companies. Companies with high EIGENVEC values also in position to work together in multiple business environment settings.

The average EIGENVEC is 0.003 with a median and standard deviation of zero and 0.036, respectively. This denotes that a few companies substantially above other companies and varies significantly. The range between zero and 0.535 denotes that there are companies without direct links and potential most central companies in the network. The normalised EIGENVEC indicate that each company connected with other well-connected companies at 48.3 percent.

BETWEENNESS, an indirect network measurement, indicates how often a company's falls along the shortest path between two other companies (Borgatti et al., 2013; Hanneman & Riddle, 2005; Larcker et al., 2013; Renneboog & Zhao, 2011). Therefore, a company with high BETWEENNESS value appears to be responsible for connecting many pairs of companies through the most efficient paths. Without the presence of that company, should cause many pairs of companies to be more remotely or completely disconnected (Borgatti, 2003). This will create opportunities for manipulation of information and power advantages (Borgatti et al., 1998).

The average BETWEENNESS is 1124.75 with a median and standard deviation of 313.69 and 1819.04, respectively. This shows that a few companies substantially above other companies and each company BETWEENNESS significantly varies. BETWEENNESS is zero whenever a company does not fall along the shortest path between any other two companies. It can be maximised whenever a company well- positioned along all shortest path between every pair of companies. The range is between zero and 15281.28. The normalised BETWEENNESS shows that each company has positioned itself along the shortest path of any between two companies at 40.5 percent.

CLOSENESS, and indirect network measurement, represents the total of immediate links a company has. This measurement emphasise the distance of a company to all other companies in the sample and indicate how close a company is to another companies (Borgatti et al., 1998; Lee et al., 2012). Therefore, a company with high CLOSENESS increase the possibility of acquiring information in timely manner. The average CLOSENESS is 104.601 a median and standard deviation of 112.711 and 42.013. This shows that a few companies are substantially below other companies in the network and significantly varies. The range is between one and 179.58 and denotes that there are companies are unconnected with other companies in the network and companies, which really close with other companies. There are 92 unconnected companies commonly refer as isolated companies.

Figure 1 visualised the network graph based on DEGREE-E values for the total. The network graph produced using NetDraw software, a part of UCINet software package. The network graph produced using a spring-embedded method where isolated companies are pushed out and the connected companies positioned in accordance with their direct links. The square shapes with different colours and size according to the companies DEGREE-E values represent each company. A group of companies with no direct links with other companies are located at the upper left of the graph.

The network centralisation represents the degree of inequality or variability in centrality measurements of the network (Marsden, 1990). The larger the percentage indicates the higher

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the degree of inequality of the whole network. Therefore, a network graph with high degree of inequality shows that only a company or a group of companies is the centre of the network graph. This causes all connections between directed between a pair of companies go through the central companies of group of companies. The central company or group of companies known as ego. A network may has a single or group of companies as egos (Hanneman & Riddle, 2005).

Figure 1 shows the network centralisation for DEGREE-I and DEGREE-E are 0.26 percent and 0.37 percent, respectively. It shows that there is a relatively small amount of concentration or centralisation in this whole network. This indicates that the power of each company varies rather small and overall, the positional advantages are equally distributed in this network. The BETWEENNESS network centralisation is 5.08 percent, considered relatively small concentrated and equally distributed.

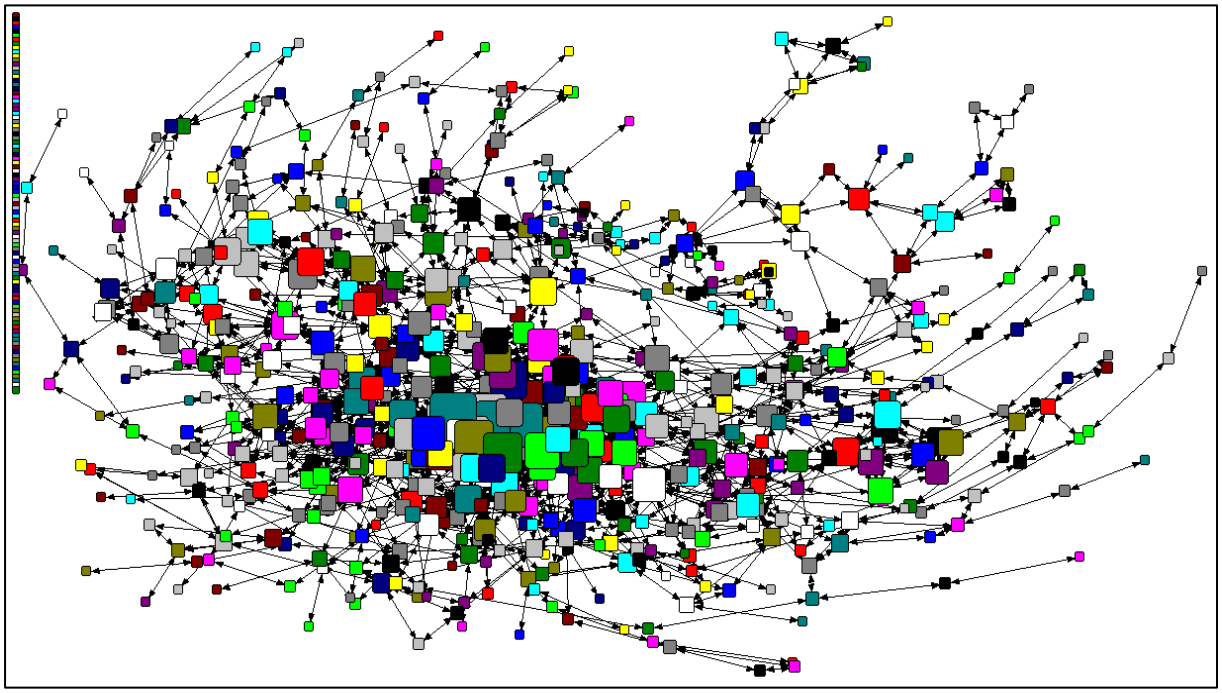

Figure 1: Network Graph for Total Companies

The CLOSENESS network centralisation, 23.59 percent, indicate there is substantial amount of concentration and unequally distributed. The EIGENVEC network centralisation is 78.20 percent shows that the network is significantly concentrated with substantial variability and unequally distributed. From Figure 1, there are specified characteristics that lead to a substantial size of social network. The substantial size of network graph contributed by the large average length path connecting companies in the network graph. This is consistent with the specified characteristics of large network suggested by Watts (1999).

In this study context, the first specified characteristics are the network is relatively large because of the large number of companies. This study considers the 745 companies, and 4416 directors contribute to the large network. Secondly, this network is relatively sparse. In average, all companies have relatively few direct connections with external companies. This is also

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indicating an average of 5 direct connections with other companies as compare to the total number of companies involve in the network.

Thirdly, this network is relatively decentralised, as there are relatively small number of companies connected to a substantial proportion of all other companies. It is shown by the DEGREE-E network centralisation in Figure 2, 0.37 percent. It also contrary with a star network which represent a centralised network where there is only one node with the most advantageous or influential position in the network. Lastly, there are local clustering. This suggest that there are companies (directors) which (who) are also connected with other companies (directors) connections. It is also known as 'friend of a friend'.

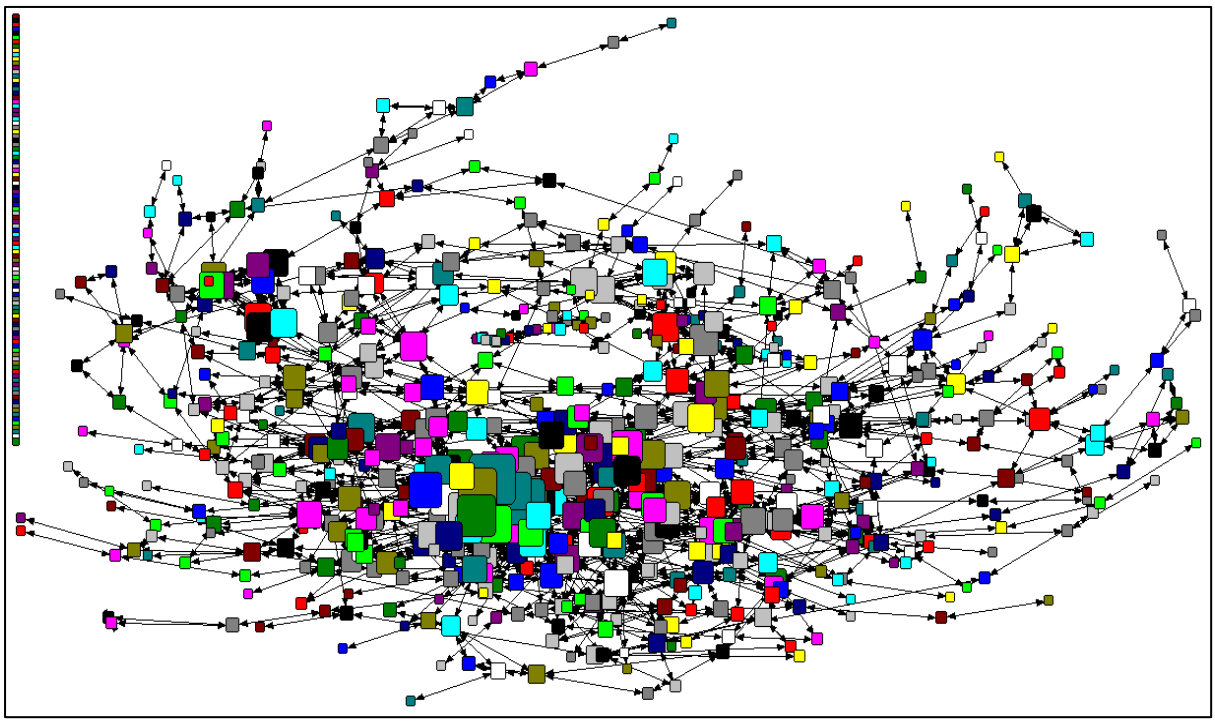

Figure 2: Network Graphs for Companies with Men Directors

Figure 2 and 3 show the network graph created based on men and women directors at company's level, respectively. As there are major difference in number of between the two group of directors, Figure 2 is similar with network graph of total sample as shown in Figure 1. The presence of men directors in all companies have equal effect at company's level. However, the network graph for women directors consists of 320 companies indicate no company considered as dominant or less strategically positioned.

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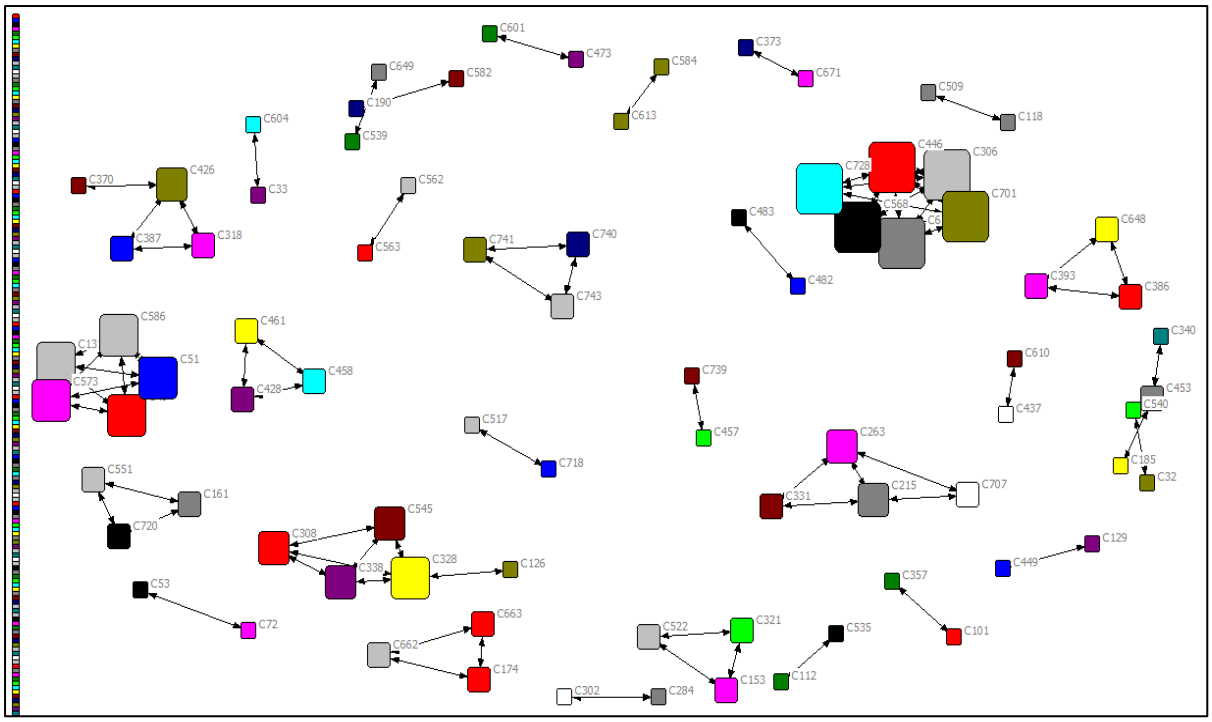

Figure 3: Network Graphs for Companies with Women Directors

Company Characteristics

Table 3 report the descriptive statistics for the sample of 745 publicly listed companies in Malaysia in 2011. The mean and median of EQ measured by Francis, LaFond, Olsson, and Schipper (2005) accruals quality model, are 0.06 and 0.04 respectively. The range is between zero to 0.91.

Table 3: Descriptive Analysis for Total Sample (2011, n=745)

	Mean	Median	Max	Min	SD	Obs.
EQ	0.06	0.04	0.91	0.00	0.09	745
BOARDSIZE	7.42	7.00	18.00	3.00	1.94	745
BOARDMEET	5.34	5.00	17.00	1.00	1.78	745
DUALITY	0.28	0.00	1.00	0.00	0.45	745
BOARDIND	0.45	0.43	1.00	0.17	0.13	745
ACIND	0.88	1.00	1.00	0.50	0.16	745
ACMEET	4.92	5.00	15.00	1.00	1.20	745
INSTINV	2.90	0.00	72.63	0.00	7.07	745
AUDQ	0.54	1.00	1.00	0.00	0.50	745
ETHNICITY	0.33	0.25	1.00	0.00	0.27	745
POLCON	0.44	0.00	1.00	0.00	0.50	745
FAMCOMPANIES	0.21	0.22	0.71	0.00	0.22	745
COMPANIESIZE	19.84	19.65	25.04	12.62	1.44	745
LEVERAGE	0.91	0.28	316.39	0.00	11.58	745
INDUSTRIES	0.50	0.00	1.00	0.00	0.50	745

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In term of board size (BOARDSIZE), the average board size is 7.42. This similar to studies by Haniffa and Hudaib (2006); Hashim and Devi (2007) and Rahman and Ali (2006). The result also consistent with Jensen (1993) for board effectiveness. The range of board size are between three and 18. As for board meeting frequency (BOARDMEET), an average of five board meeting held for the period. The range of board meeting frequency are between one and 17. The maximum board meeting frequency indicate the most active board. This consistent with Foo and Zain (2010). As for board independence (BOARDIND), about 45.11 percent of the board are independent non-executive directors. This indicates the domination of non-independent directors in Malaysian company's board composition. This consistent with Frankel, McVay and Soliman (2011) and Hashim and Devi (2007).

About 27.71 percent of companies have duality role (DUALITY) consistent with Abdullah (2004), Hamid (2008) and Haniffa and Hudaib (2006). The relatively small percentage of companies with duality role indicate that majority of companies complies with MCCG 2007 requirements which emphasised the need of separation of chairman and CEO in a company. However, this also indicate that duality role is not common in Malaysia. As for audit committee (ACIND), about 88.12 percent of audit committee dominate by independent directors. This is consistent with MCCG 2007, which requires companies to appoint at least three independent directors. In term of audit committee meeting frequency (ACMEET), in average 5 audit committee meeting held during the period. The range of meeting frequency is between one and 15.

As for institutional investors (INSTINV), the top five institutional holds on average of 2.90 percent of total shares in a company. The range is between zero to 72.63 percent of shareholdings. An average of 54.35 percent of sample companies audited by auditors from Big 4. This is lower than reported by Francis and Wang (2006) and Yatim, Kent and Clarkson (2006). As for ethnicity (ETHNICITY), on average of 32.85 percent companies with Bumiputera as directors. This indicate Non-Bumiputera directors dominating in the board composition of Malaysian companies. This lower as reported by Hashim and Devi (2009) and Rahman and Ali (2006). In term of politically connected companies (POLCON), an average of 44.04 percent companies is politically connected. This is higher than reported by Bliss and Gul (2012), of 16.92 percent.

As for family domination (FAMCOMPANIES), the average of 21.27 percent companies is dominate by family member as directors. The average company size (COMPANIESIZE), as represented by company's total assets, is RM19, 840, 000. The average company leverage (LEVERAGE) is 91 percent.

Multivariate Analysis

Director's Networks and Earnings Quality

Table 4 summarises the results for each network measurements from the multiple regressions analysis involving director's network measurements and earnings quality, measured by Francis et al. (2005) accruals quality model. The network measurements which are the primary focus are DEGREE-I, DEGREE-E, EIGENVEC, BETWEENNESS and CLOSENESS.

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The F-value for each main regression model statistically significant at 1 percent level. The adjusted R^2 for each five main model are 4.4 percent, 4.4 percent, 3.9 percent, 4.3 percent and 4.1 percent for DEGREE-I, DEGREE-E, BETWEENNESS, EIGENVEC and CLOSENESS, respectively. The adjusted R^2 for each model, which describe the total variance in the earnings quality, are low and consistent with study by Abdul Rahman and Mohamed Ali (2006) and Hashim (2009). The low adjusted R^2 might suggests that there are possibilities other variables may describe the variation in earnings quality which necessary to be analysed further (Hashim & Mohd Saleh, 2007).

Table 4 also shows that all five networks measurements tested are negative and significantly associated with earnings quality at 5 percent level. The results provide strong support that director's networks have negative and significant effects on earnings quality. Noted that EQ is measured by Francis et al. (2005) accruals quality model, which accruals quality is negatively associated with EQ. Increasing in accruals quality, reduces earnings quality. Although all network measures are negative and significantly associated with EQ, CLOSENESS have greater impact in reducing company's earnings quality as compare to other network measures towards EQ.

Looking at DEGREE-I, the result show negative and significant association with EQ. Consistent with study by Fich and Shivdasani (2006) and Fracassi and Tate (2012) that the growth of director's connections weakening the board monitoring effectiveness thus reducing the EQ. Similarly, DEGREE-E, which focuses on connections with external companies, also documents negative and significantly associated with EQ. The result consistent with study by Fich and Shivdasani (2006), Fracassi and Tate (2012), Lee, Choi, and Kim (2012) which conclude that connections with external companies negatively affect company performance and value.

Table 4: Multiple Regression Results- Main Model (n=745, 2011)

Variable	EQ 1	EQ 2	EQ 3	EQ 4	EQ 5
C	-0.243	-0.242	-0.226	-0.237	-0.226
	-4.348***	***-4.346******	***-4.332******	***-4.351******	***-4.195******
DEGREE-I	-0.227				
	-2.176*				
DEGREE-E		-0.126			
		-2.169*			
EIGENVEC			-0.001		
			-2.066*		
BETWEENNESS				-0.011	
				-1.915*	
CLOSENESS					-0.001
					-2.239*
BOARDSIZE	0.007	0.005	0.005	0.005	0.004
	3.286***	***3.290******	***3.175*****	***3.179******	***2.635*****
BOARDMEET	-0.003	-0.003	-0.002	-0.002	-0.002
	-0.734	-0.733	-0.602	-0.504	-0.420
DUALITY	-0.004	-0.004	-0.004	-0.004	-0.007
	-0.540	-0.545	-0.445	-0.551	-0.754

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BOARDIND	0.020	0.020	0.019	0.018	0.015
	1.963*	***1.959****	***1.875****	***1.800****	***1.333****
ACIND	0.004	0.004	0.004	0.005	0.005
	0.547	0.546	0.632	0.658	0.650
ACMEET	0.006	0.006	0.007	0.006	0.006
	1.470*	***1.471****	***1.500****	***1.465****	***1.321****
INSTINV	0.001	0.001	0.001	0.001	0.001
	1.570*	***1.569****	***1.530****	***1.603****	***1.426****
AUDQ	-0.011	-0.011	-0.012	-0.012	-0.010
	-1.837*	***-1.838****	***-1.926****	***-1.946****	***-1.470****
ETHNICITY	0.028	0.028	0.024	0.027	0.022
	1.868*	***1.869****	***1.580****	***1.815****	***1.301****
POLCON	-0.003	-0.003	-0.005	-0.004	-0.002
	-0.491	-0.489	-0.816	-0.691	-0.341
FAMCOMPANIES	0.041	0.041	0.045	0.040	0.038
	2.028*	***2.027****	***2.181****	***1.955****	***1.685****
COMPANIESIZE	0.006	0.006	0.005	0.006	0.006
	2.614*	***2.611****	***2.326*****	***2.565****	***2.682****
LEVERAGE	-0.001	-0.001	-0.002	-0.001	-0.002
	-0.443	-0.446	-0.577	-0.394	-0.546
Industries Fixed	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	*0.043*	*0.043*	*0.039*	*0.043*	*0.040*
F-statistic	***3.248*****	***3.248*****	***2.987*****	***3.210*****	***2.810*****
N (Companies)	745	745	745	745	653
N (Directors)	4416	4416	4416	4416	3804

EIGENVEC reports negative and significant association with EQ at 5 percent level. The EQ will reduce by 0.5162 with increase of one standard deviation of EIGENVEC. Consistent with Fracassi and Tate (2012), Lee, Choi, and Kim (2012), the results suggest that EIGENVEC detriment company's EQ. By having connection with well-connected external companies, the information flows via the connections will reducing the information value. Therefore, any information flows grant insignificant effect towards EQ. Large number of intermediaries involve within a well-connected company also reduce any positive effects of the information and may reduce EQ.

Consistent with Fich and Shivdasani (2006), Fracassi and Tate (2012), Lee, Choi, and Kim (2012), the results suggest that BETWEENNESS reducing company's earnings quality. By having board member with high BETWEENNESS value, will reducing the effectiveness monitoring role thus weaken company's earnings quality.

Another indirect network measurement, CLOSENESS also shows negative and significant association with EQ at 5 percent level. The increase of one standard deviation of CLOSENES will reduce EQ by 1.413 percentage point. The result consistent with study by Fich and Shivdasani (2006), Fracassi and Tate (2012), Lee, Choi, and Kim (2012) which conclude that each time a company closer with external companies negatively affect company performance and value.

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Network Measurement for Gender

Table 5 summarise the results analysis for director's diversity-based networks as well as similar corporate governance variables and EQ used in the main model for men. All 745 companies appointed men in their boardroom. For all 5 network centralities results for men indicate consistent findings with the main model. The presence of men in company boardroom are negatively significant towards company performance. Surprisingly, without the presence of women director's networks, the negative effect is greater as compared to the main model in Table 4. The rest of variables documented consistent with the main model.

In Table 6, this study documented different results for all three direct network measures as compare to main model in Table 4, however, only DEGREE-E is positively significant with EQ. The results indicate, somewhat, the presence of women directors in the boardroom capable to enhance company performance. However, the effect holds on for DEGREE-E where only connection with outside companies potentially create potential resources and power to women directors and exercise it within their company. Another indirect network measures, BETWEENNESS, documented consistent results with the main model in Table 4 as well as men director's networks in Table 5. The remaining corporate governance variables also documented consistent results with the main model.

Table 5: Multiple Regression Results- Men as Directors (n=745, 2011)

Variable	EQ 1	EQ 2	EQ 3	EQ 4	EQ 5
C	-0.236	-0.240	-0.226	-0.236	-0.230
	-4.458***	***-4.452******	***-4.345******	***-4.415******	***-4.202******
MEN_DEGREE-I	-0.167				
	-2.269*				
MEN_DEGREE-E		-0.118			
		-2.323***			
MEN_EIGENVEC			-0.001		
			-2.288*		
MEN_BETWEENNESS				-0.010	
				-2.352***	
MEN_CLOSENESS					-0.001
					-2.647***
BOARDSIZE	0.006	0.005	0.005	0.005	0.004
	3.521***	***3.361******	***3.192******	***3.231******	***2.657******
BOARDMEET	-0.003	-0.003	-0.002	-0.002	-0.002
	-0.699	-0.711	-0.604	-0.527	-0.434
DUALITY	-0.004	-0.004	-0.004	-0.004	-0.006
	-0.553	-0.552	-0.453	-0.530	-0.674
BOARDIND	0.020	0.020	0.019	0.019	0.015
	1.930*	***1.960****	***1.874****	***1.838****	***1.326****
ACIND	0.004	0.004	0.004	0.005	0.005
	0.578	0.568	0.636	0.704	0.702
ACMEET	0.006	0.006	0.007	0.006	0.006
	1.447*	***1.455****	***1.504****	***1.449****	***1.321****
INSTINV	0.001	0.001	0.001	0.001	0.001
	1.577*	***1.566****	***1.527****	***1.551****	***1.375****

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AUDQ	-0.012	-0.012	-0.012	-0.013	-0.010
	-1.837 **	***-1.850*** **	***-1.929*** **	***-1.969*** **	***-1.466*** *
ETHNICITY	0.027	0.027	0.024	0.027	0.023
	1.764 **	***1.808*** **	***1.594*** *	***1.792*** **	***1.335*** *
POLCON	-0.003	-0.003	-0.005	-0.005	-0.003
	-0.532	-0.519	-0.810	-0.717	-0.363
FAMCOMPANIES	0.040	0.041	0.045	0.041	0.037
	1.948 **	***2.009*** **	***2.190*** **	***2.020*** **	***1.617*** *
COMPANIESIZE	0.006	0.006	0.005	0.006	0.007
	2.588 **	***2.626*** ***	***2.332*** ***	***2.560*** ***	***2.724*** ***
LEVERAGE	-0.001	-0.001	-0.002	-0.001	-0.002
	-0.432	-0.442	-0.585	-0.391	-0.510
Industries Fixed	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.041	0.042	0.039	0.042	0.040
F-statistic	***3.147*** ***	***3.190*** ***	***3.003*** ***	***3.195*** ***	***2.803*** ***
N (Companies)	745	745	745	745	645
N (Directors)	4009	4009	4009	4009	3418

Table 6: Multiple Regression Results- Women as Directors (n=320, 2011)

Variable	EQ 1	EQ 2	EQ 3	EQ 4	EQ 5
C	-0.194	-0.184	-0.186	-0.191	-0.165
	-2.358 **	***-2.356*** ***	***-2.351*** ***	***-2.362*** ***	***-1.174*** ***
WOMEN_DEGREE-I	0.064				
	1.251				
WOMEN_DEGREE-E		0.049			
		1.821 *			
WOMEN_EIGENVEC			0.000		
			0.484		
WOMEN_BETWEENNESS				-11.656	
				-1.509 *	
WOMEN_CLOSENESS					-0.002
					-0.311
BOARDSIZE	0.005	0.005	0.005	0.005	0.005
	2.602 **	***2.639*** ***	***2.512*** ***	***2.511*** ***	0.929
BOARDMEET	0.000	0.001	0.000	0.000	0.009
	0.074	0.152	-0.028	-0.078	***1.367*** *
DUALITY	-0.013	-0.013	-0.013	-0.013	0.036
	-0.927	-0.928	-0.924	-0.939	***1.305*** *
BOARDIND	0.004	0.004	0.008	0.013	-0.024
	0.220	0.215	0.453	0.720	-0.545
ACIND	0.002	0.002	0.002	0.002	-0.011
	0.183	0.187	0.208	0.212	-0.649
ACMEET	0.012	0.012	0.013	0.014	0.012
	1.856 **	***1.808*** **	***1.812*** **	***1.865*** **	1.154
INSTINV	0.001	0.002	0.001	0.001	0.001
	3.181 ***	***3.193*** ***	***3.161*** ***	***3.137*** ***	0.444
AUDQ	-0.018	-0.019	-0.017	-0.016	-0.044

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	-1.659	***-1.699****	***-1.595****	***-1.566****	-1.239
ETHNICITY	0.031	0.031	0.033	0.033	-0.022
	1.151	1.139	1.211	1.209	-0.427
POLCON	-0.010	-0.010	-0.009	-0.009	-0.032
	-0.985	-1.040	-0.875	-0.863	-1.209
FAMCOMPANIES	0.052	0.052	0.052	0.053	-0.064
	1.625*	***1.615****	***1.604****	***1.672*****	-0.668
COMPANIESIZE	0.002	0.001	0.001	0.001	0.003
	0.454	0.342	0.387	0.423	0.396
LEVERAGE	-0.010	-0.010	-0.011	-0.011	-0.009
	-1.207	-1.139	-1.316	-1.352	-0.689
Industries Fixed	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	*0.094*	*0.095*	*0.092*	*0.053*	*0.090*
F-statistic	***2.733****	***2.772****	***2.691****	***3.732****	***2.664****
N (Companies)	320	320	320	320	81
N (Directors)	407	407	407	407	76

Discussion

This study suggests insight on network effect based on director's diversity towards earnings quality. Overall, company's networks based on director's diversity suggest that men director's network tend to reduce earnings quality. The findings are consistent with main regression for overall model tested earlier. Nevertheless, men as directors are likely resourceful and dominant in Malaysian capital market. This study also demonstrates no evidence that diversity effects whether men potentially extract the resources for benefits of the company.

Also, the women are highly likely to unintentionally adapting with the values and beliefs from the dominant group. These findings support studies by Brass (1985) and Rose (2007) suggesting that men are valued as more influential and resourceful as compare to women in an organisation, which causes any cultural values and knowledge shared by women to be immaterialised by the companies.

Contrary, the findings fail to support that a women director's network significantly effects earnings quality. Regardless, for the insignificant women director's direct internal connections, surprisingly the effects are positive, suggesting it could potentially improve earnings quality. The insignificant effect might be due to the small number of women appointed into the boardroom. This suggest that women are less influential but nevertheless resourceful. However, due to less influence in the boardroom as compared to men, the resources are unlikely to be exploited for company's benefit.

Surprisingly, the study finds significant and positive effects toward earnings quality, thus suggesting that the presence of women direct connections with external companies are highly likely to improve earnings quality. It was debated that women have higher ethical values and appeared to be less focus on personal financial and achievement factors (Ku Ismail & Abdullah, 2009). Therefore, there is possibility that presence of women director's influence and power within a company could enhance company's values.

Contrary to findings for direct connections internally and with external companies, this study suggests that the presence of women in company's direct connections with external company

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are highly likely to enhance earnings quality. The women directors are in position to gain benefits when directly connected with external companies and thus highly likely gain support from external companies and become influential person in the company. The direct connections with external companies facilitate in improving women directors' potential thus enabling them to discharge their role effectively.

Besides being able to deliver different perspectives, knowledge, and values to share, women directors are likely to share these values effectively with and from external companies thus would result a better financial reporting quality and promote better corporate governance. The findings support prior studies by Ruigrok, Peck, and Tacheva (2007), Singh and Yusof (2005) and Zahra and Pearce (1989). As for indirect connection, the findings are only consistent with main regression for overall model whenever women director play a role as intermediaries and are unlikely to enhance earnings quality due to an increase of busyness.

Conclusion

Firstly, this study attempts to investigate the current structural network pattern at company's level using the connections established through their formal multiple directorship's appointment. Based on the sample of 4416 directors and 745 companies, this study documented that there is negative association between directors' networks and earnings quality. The finding of this study supports the argument that networks created by director's formal appointment most likely to exercise power and influence over critical resources and information. Eventually, this practice would keep the director busy maintaining their networks thus could prevent them from discharge their fiduciary role effectively.

Additionally, either larger networks established by directors or companies are inefficient to flow the critical resources and information for the benefits of the company. The purpose of network to extract these critical resources and information, which are supposed to enhance earnings quality, fail to support the arguments of positive effects of networks to earnings quality. Larger or more central networks hinder companies to utilise the extracted critical resources and information.

This study also extends the investigations on the associations by incorporating the diversity-based network effects on earnings quality. While the men as director networks are consistent with the main regression model, the women as director bring slightly adverse effects. Women's direct network significantly and positively affects earnings quality, while indirect networks reduce earnings quality. This study supports the argument that women effectively play their role as monitor and advisors to the companies.

The presence of women as directors has receive growing attention as part of board diversity. This is consistent with Ku Ismail Abdullah (2009) which provide evidence that women participation in the boardroom potentially to improve earnings quality due to their high ethical values as compare to men. But, the effect does not support when it comes to indirect measures which suggest that women's networks are not fully utilised (Hawarden & Marsland, 2011; Huse & Solberg, 2006).

This study findings extend the literature of director's networks by providing network from different perspective, through the extraction of network effects based on director's diversity. This study suggest that Malaysia has a limited pool of potential women director to be appointed

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as company's directors, therefore, suggesting some practical implications to the current policies. Firstly, the number of multiple directorships hold by each individual director is importance as the ideal number of directorships potentially to improve earnings quality. Secondly, the selection and nomination of directors should solely focus on directors' quality characteristics rather than reputation or connections during the selection of new or re-appoint directors.

References

Abd. Hamid, A. (2008). The Corporate Governance Structures of GLCs and NGLCs and Firm Performance in Malaysia. In *(Unpublished Doctorate's Thesis)* (Issue September). University of Exeter.

Abdul Rahman, R., & Mohamed Ali, F. H. (2006). Board, Audit Committee, Culture and Earnings Management: Malaysian Evidence. *Managerial Auditing Journal*, *21*(7), 783–804. https://doi.org/10.1108/02686900610680549

Abdul Wahab, E. A., Jamaludin, M. F., Agustia, D., & Harymawan, I. (2020). Director Networks, Political Connections and Earnings Quality in Malaysia. *Management and Organization Review*, *16*(2).

Abdullah, S. N. (2004). Board Composition , CEO Duality and Performance among Malaysian Listed Companies. *Corporate Governance*, *4*(4), 47–61. https://doi.org/10.1108/14720700410558871

Andres, C., Bongard, I. Van den, & Lehmann, M. (2013). Is Busy really Busy? Board Governance Revisited. *Journal of Business Finance and Accounting*, *40*(9–10), 1221–1246. https://doi.org/10.1111/jbfa.12051

Barnea, A., & Guedj, I. (2007). Director Networks and Firm Governance. In *Unpublished Working Paper*.

Bernama. (2013). Sasaran Wanita Pembuat Dasar. *Utusan Malaysia*, 27.

Bliss, M. A., & Gul, F. A. (2012). Political Connection and Cost of Debt: Some Malaysian Evidence. *Journal of Banking & Finance*, *36*(5), 1520–1527. https://doi.org/10.1016/j.jbankfin.2011.12.011

Bonacich, P. (1987). Power and Centrality: A Family of Measures. *American Journal of Sociology*, *92*(5), 1170–1182. https://doi.org/10.1086/228631

Borgatti, S. P. (2003). The Key Player Problem. In R. Breiger, K. Carley, & P. Pattison (Eds.), *Dynamic Social Network Modeling and Analysis: Workshop Summary and Papers* (pp. 241–252). National Academies Press. http://www.nap.edu/catalog.php?record_id=10735

Borgatti, S. P., Everett, M. G., & Johnson, J. C. (2013). *Analyzing Social Networks*. Sage Publications Ltd.

Borgatti, S. P., Jones, C., & Everett, M. G. (1998). Network Measures of Social Capital. *Connections*, *21*(2), 27–36. http://www.insna.org/PDF/Connections/v21/1998_I-2.pdf#page=29

Brass, D. J. (2011). A Social Network Perspective on Organizational Psychology. In *Industrial/Organizational Handbook* (pp. 1–29).

Burgess, Z., & Tharenou, P. (2002). Women Board Directors : Characteristics of the Few. *Journal of Business Ethics*, *37*, 39–49.

Burt, R. S. (1997). The Contingent Value of Social Capital. *Administrative Science Quarterly*, *42*, 339–365.

Bushon, R. B. (2011, March 15). Women on Companies Boards. *The Star*.

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DOI: 10.35631/IJEMP.413005

Campbell, K., & Mínguez-Vera, A. (2008). Gender Diversity in the Boardroom and Firm Financial Performance. *Journal of Business Ethics*, *83*(3), 435–451. https://doi.org/10.1007/s10551-007-9630-y

Core, J. E., Holthausen, R. W., & Larcker, D. F. (1999). Corporate Governance, Chief Executive Officer Compensation, and Firm Performance. *Journal of Financial Economics*, *51*(3), 371–406. https://doi.org/10.1016/S0304-405X(98)00058-0

Dicko, S., & Breton, G. (2010). Social Network and Firm Performance: An Empirical Analysis of Canadian Boards. *CAAA Conference 2010*. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1533931

Etheridge, D. R. (2012). Director Interlocking in Australia. In *(Unpublished Doctorate's Thesis)*. University of Western Australia.

Fich, E. M., & Shivdasani, A. (2006). Are Busy Boards Effective Monitors? *Journal of Finance*, *61*(2), 689–724. https://doi.org/10.1111/j.1540-6261.2006.00852.x

Foo, Y.-B., & Mat Zain, M. (2010). Board Independence, Board Diligence and Liquidity in Malaysia: A Research Note. *Journal of Contemporary Accounting & Economics*, *6*(2), 92–100. https://doi.org/10.1016/j.jcae.2010.10.001

Fracassi, C., & Tate, G. (2012). External Networking and Internal Firm Governance. *Journal of Finance*, *67*(1), 153–194. http://ssrn.com/abstract=1213358

Francis, J., Lafond, R., Olsson, P. M., & Schipper, K. (2005). The Market Pricing of Accruals Quality. *Journal of Accounting and Economics*, *39*(2), 295–327. https://doi.org/10.1016/j.jacceco.2004.06.003

Francis, J. R., & Wang, D. (2008). The Joint Effect of Investor Protection and Big 4 Audits on Earnings Quality Around the World. *Contemporary Accounting Research*, *25*(1), 157–192. https://doi.org/10.1506/car.25.1.6

Frankel, R., McVay, S., & Soliman, M. T. (2011). Non-GAAP Earnings and Board Independence. *Review of Accounting Studies*. https://doi.org/10.1007/s11142-011-9166-3

Freeman, L. C. (1978). Centrality in Social Networks Conceptual Clarification. *Social Networks*, *1*(3), 215–239. https://doi.org/10.1016/0378-8733(78)90021-7

Granovetter, M. S. (1985). Economic Action and Social Structure: The Problem of Embeddednes. *American Journal of Sociology*, *91*(3), 481–510.

Haniffa, R. M. (1999). Culture, Corporate Governance and Disclosure in Malaysia Corporations Volume I. In *(Unpublished Doctorate's Thesis): Vol. I* (Issue February). University of Exeter.

Haniffa, R. M., & Hudaib, M. (2006). Corporate Governance Structure and Performance of Malaysian Listed Companies. *Journal of Business Finance & Accounting*, *33*(7–8), 1034–1062. https://doi.org/10.1111/j.1468-5957.2006.00594.x

Hanneman, R. A., & Riddle, M. (2005). *Introduction to Social Network Methods* (2nd ed.). University of California. http://faculty.ucr.edu/~hanneman/

Hashim, F., & Mohd Saleh, N. (2007). Voluntary Annual Report Disclosures by Malaysian Multinational Corporations. *Malaysian Accounting Review*, *6*(1), 129–156.

Hashim, H. A. (2009). Board of Directors, Ownership Structure, Ethnicity and Earnings Quality: Malaysian Evidence. In *(Unpublished Doctorate's Thesis)* (Issue April). University of Malaya.

Hashim, H. A., & Abdul Rahman, M. S. (2006). Multiple Board Appointment: Are Directors Effective. *International Journal of Business and Social Science*, *2*(17), 137–144. http://search.proquest.com/docview/904523125/fulltextPDF/139CE83AF8E4C17C5DB/8?accountid=14645

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DOI: 10.35631/IJEMP.413005

Hashim, H. A., & Devi, S. S. (2007). Corporate Governance, Ownership Structure and Earnings Quality: Malaysian Evidence. *Research in Accounting and Emerging Economics*, *8*, 97–123.

Hashim, H. A., & Devi, S. S. (2009). Board Characteristics, Ownership Structure and Earnings Quality: Malaysian Evidence. In M. Tsamenyi & S. Uddin (Eds.), *Corporate Governance in Less Developed and Emerging Economies (Research in Accounting in Emerging Economies)* (Vol. 8, pp. 97–123). Emerald Group Publishing Limited. https://doi.org/10.1016/S1479-3563(08)08004-3

Hawarden, R. J., & Marsland, S. (2011). Locating Women Board Members in Gendered Director Networks. *Gender in Management: An International Journal*, *26*(8), 532–549. https://doi.org/10.1108/17542411111183866

Hillman, A. J., Cannella, A. A. J., & Paetzold, R. L. (2000). The Resource Dependence Role of Corporate Directors: Strategic Adaptation of Board Composition in Response to Environmental Change. *Journal of Management Studies*, *37*(2), 235–255.

Hillman, A. J., Shropshire, C., & Cannella, A. A. J. (2007). Organizational Predictors of Women on Corporate Boards. *Academy of Management Journal*, *50*(4), 941–952. https://doi.org/10.5465/AMJ.2007.26279222

Horton, J., Millo, Y., & Serafeim, G. (2009). *Paid for connections or too connected to be good ? Social Networks and Executive and Non-Executive Directors Compensation*.

Horton, J., & Serafeim, G. (2012). Security Analyst Networks , Performance and Career Outcomes. *Journal of Finance (Forthcoming)*, 1–37. http://ssrn.com/abstract=1522313

Huse, M., & Solberg, A. G. (2006). Gender Related Boardroom Dynamics: How Women Make and Can Make Contributions on Corporate Boards. *Women in Management Review*, *21*(2), 113–130. http://www.boeckler.de/pdf/v_2006_03_30_huse3_f5.pdf

Jamaludin, M. F., & Hashim, F. (2017). Corporate Governance, Institutional Characteristics, and Director Networks In Malaysia. *Asian Academy of Management Journal of Accounting and Finance*, *13*(132), 135–154. https://doi.org/10.21315/aamjaf2017.13.2.7

Jensen, M. C. (1993). The Modern Industrial Revolution , Exit , and the Failure of Internal Control Systems. *Journal of Finance*, *48*(3), 831–880. https://doi.org/10.1111/j.1540-6261.1993.tb04022.x

Kim, Y. (2005). Board Network Characteristics and Firm Performance in Korea. *Corporate Governance: An International Review*, *13*(6), 800–808. https://doi.org/10.1111/j.1467-8683.2005.00471.x

Ku Ismail, K. N. I., & Abdullah, S. N. (2009). Will Representation of Women on the Board of Directors Mitigate Earnings Management? *International Postgraduate Business Journal*, *1*(1), 17–27.

Larcker, D. F., So, E. C., & Wang, C. C. Y. (2013). Boardroom Centrality and Firm Performance. *Journal of Accounting and Economics*, *55*, 225–250. https://doi.org/10.1016/j.jacceco.2013.01.006

Lee, J.-H., Choi, C., & Kim, J. M. (2012). Outside Directors' Social Capital and Firm Performance: A Complex Network Approach. *Social Behavior & Personality*, *40*(8), 1319–1331. https://doi.org/10.2224/sbp.2012.40.8.1319

Low, D. C. M., Roberts, H., & Whiting, R. H. (2015). Board gender diversity and firm performance: Empirical evidence from Hong Kong, South Korea, Malaysia and Singapore. *Pacific-Basin Finance Journal*, *35*, 381–401. https://doi.org/10.1016/j.pacfin.2015.02.008

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IJEMP
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DOI: 10.35631/IJEMP.413005

Marsden, P. V. (1990). Network Data and Measurement. *Annual Review of Sociology*, *16*(1), 435–463. https://doi.org/10.1146/annurev.so.16.080190.002251

McKinsey & Company. (2012). Women Matter : An Asian Perspective. In C. Süssmuth-Dyckerhoff, J. Wang, & J. Chen (Eds.), *Women Matter Asia*. McKinsey & Company. www.mckinsey.com

Omer, T. C., Shelley, M. K., & Tice, F. M. (2014). Do Well-connected Directors Affect Firm Value? *Journal of Applied Finance*, *24*, 17–32.

Otte, E., & Rousseau, R. (2002). Social Network Analysis: A Powerful Strategy, also for the Information Sciences. *Journal of Information Science*, *28*(6), 441–453. https://doi.org/10.1177/016555150202800601

Peasnell, K. V., Pope, P. F., & Young, S. (2005). Board Monitoring and Earnings Management : Do Outside Directors Influence Abnormal Accruals ? *Journal of Business Finance & Accounting*, *32*(October), 1311–1346.

Renneboog, L., & Zhao, Y. (2011). Us knows us in the UK: On director networks and CEO compensation. *Journal of Corporate Finance*, *17*(4), 1132–1157. https://doi.org/10.1016/j.jcorpfin.2011.04.011

Renneboog, L., & Zhao, Y. (2014). Director networks and takeovers. *Journal of Corporate Finance*, *28*, 218–234. https://doi.org/10.1016/j.jcorpfin.2013.11.012

Rodrigues, I. F. D. S. (2014). Nationality Diversity on Board of Directors and its Impact on Firm Performance. In *(Unpublished Master's Thesis)*. Tilburg University.

Rose, C. (2007). Does Female Board Representation Influence Firm Performance? The Danish Evidence. *Corporate Governance*, *15*(2), 404–413. https://doi.org/10.1111/j.1467-8683.2007.00570.x

Samkin, G., Allen, B., & Mundy, D. (2009). The Social Network of New Zealand Directors : An Exploratory Study. *AFAANZ Conference 2009*, 5–7.

Sarkar, J., Sarkar, S., & Sen, K. (2008). Board of Directors and Opportunistic Earnings Management : Evidence from India. *Journal of Accounting, Auditing & Finance*, 517–551.

Smith, J. M., Halgin, D. S., Kidwell-Lopez, V., Labianca, G., Brass, D. J., & Borgatti, S. P. (2014). Power in Politically Charged Networks. *Social Networks*, *36*, 162–176. https://doi.org/10.1016/j.socnet.2013.04.007

Srinidhi, B., Gul, F. A., & Ng, A. C. (2011). Does Board Gender Diversity improve the Informativeness of Stock Prices? *Journal of Accounting and Economics*, *852*.

Stuart, T. E., & Yim, S. (2010). Board interlocks and the propensity to be targeted in private equity transactions. *Journal of Financial Economics*, *97*(1), 174–189. https://doi.org/10.1016/j.jfineco.2010.03.012

Wan Yusoff, W. F. (2010). Characteristics of Boards of Directors and Board Effectiveness : A Study of Malaysian Public Listed Companies. In *(Unpublished Doctorate's Thesis)*. Victoria University.

Watts, D. J. (1999). Networks, Dynamics, and the Small-World Phenomenon. *American Journal of Sociology*, *105*(2), 493–527. https://doi.org/10.1086/210318

Westphal, J. D., & Stern, I. (2006). The Other Pathway to the Boardroom : Interpersonal Influence Behavior as a Substitute for Elite Credentials and Majority Status in Obtaining Board Appointments. *Administrative Science Quarterly*, *51*, 169–204.

Yatim, P., Kent, P., & Clarkson, P. (2006). Governance Structures, Ethnicity, and Audit Fees of Malaysian Listed Firms. *Managerial Auditing Journal*, *21*(7), 757–782. https://doi.org/10.1108/02686900610680530

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Zainal, D., Zulkifli, N., & Saleh, Z. (2013). Corporate Board Diversity in Malaysia : A Longitudinal Analysis of Gender and Nationality Diversity. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, *3*(1), 136–148.

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