DETERMINANTS OF AMOUNT OF CAPITAL RAISED DURING IPO SALE

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ABSTRACT

There is no doubt that a resource crucial for the continued growth and survival of a company is capital. As a company's investment scale increases, the need for additional capital becomes paramount. One way by which a company raises capital is through initial public offerings (IPOs). However, the amount of capital raised in the IPO market varies among companies. It is on this note that this study aimed to examine the factors that affect the amount of capital a company can raise during an IPO activity. To achieve the aim of this study, data was collected from pre-IPO prospectuses of the sampled IPOs. The study made particular reference to the signalling, upper echelons and resource dependence theories to identify the pre-IPO characteristics that could influence the amount of capital a company can raise in the IPO market. The results from this study provide valuable information that could help issuers to identify appropriate mechanisms that would signal the company's quality and influence the value of the company. The results also provide hints to prospective investors on the managerial characteristics and company-specific characteristics to be considered when making investment decisions. The implication is that IPO issuers should pay attention to such criteria when making IPO decisions in order to maximize the value from the offerings. The results would also be important to several interested groups when a company undertakes an IPO decision.

Keywords: IPO proceeds, CEO's characteristics, board characteristics, growth opportunities

1.0 INTRODUCTION

A critical event in the development of a company is when a company decides to make an Initial Public Offerings (IPO). An IPO is the first outing of a company in the public domain. Although several motives (e.g. growth and prosperity of the company) are attached to IPO decisions, one important motive that stands out is the capital motive, which relates to the infusion of financial capital into the company

(Deeds, Decarolis, & Coombs, 1997; Jens, Brooks, Nicoletti, & Russell, 2006; Ritter & Welch, 2002). This has become important because the absence of financial capital may undermine entrepreneurs'/managers' decisions to pursue new projects and growth opportunities that would ensure the long-term survival of the company (Carpenter & Rondi, 2006; Daily, Certo, & Dalton, 2005; Deeds et al., 1997). Therefore the amount of capital raised is a key driver of IPO success and a short-term measure of a company's performance (Certo, Holcomb & Holmes Jr, 2009; Gulati & Higgins, 2003; Mousa, Wales, & Harper, 2015; Zimmerman, 2008). However, a better understanding of the factors that contribute to the amount of capital raised remains a crucial topic in IPO literature.

Recent IPO activities have placed the Malaysian IPO market among the top ten in the world in terms of IPO proceeds raised and the third world's biggest IPO in 2012 (Kok & Ngui, 2012; Venkat & Gangopadhyay, 2012). The event is significant in the history of the Malaysian IPO market because unlike prior years where big IPOs could not raise up to $500 million, only three IPOs raised a total amount of $1-3.2 billion in recent times. The economic significance of these figures demonstrates the desire of companies to go public through IPOs and the willingness of investors to subscribe for shares in these companies. In addition, unlike prior Malaysian IPO studies where the dominant measure of performance was underpricing, the present study considered a different measure of performance using IPO proceeds. This was because the key reason why companies undertake IPOs is to secure resources that can sustain their growth and survival. However, there is inadequate literature on factors that can affect the amount of capital raised.

Prior studies on IPO (Deeds et al., 1997; Jens et al., 2006) have argued that pre-IPO information in the prospectus can provide meaningful explanation as to the specific reasons that may affect the amount of capital raised. There is a large amount of information available in these prospectuses. Thus, identifying the relevant factors that affect the amount of capital raised was embarked upon by the present study. The study builds on the upper echelons and the resource dependence theories to select the variables that might affect the amount of capital raised. The upper echelons theory states that company performance, both in strategies and effectiveness in decision-making, is a reflection of the quality of the company's top managers; in other words, the top management team's (TMT) traits or characteristics (Carpenter, Geletkancz, & Sanders, 2004; Hambrick & Mason, 1984). The member of the TMT that happens to be the most influential is the Chief Executive Officer (CEO) (Graham, Harvey, & Puri, 2013; Yang, Zimmerman, & Jiang, 2011). CEOs are master planners and key decision-makers responsible for the day-to-day operations of the company. The CEO's decisions influence corporate outcomes (Zahra & Pearce ll, 1989) and account for the company's economic activities, most importantly, activities related to capital structure, merger and acquisitions and company performance (Graham et al., 2013; Kaplan, Klebanov, & Sorensen, 2012). Most importantly, in a situation where the credit condition is tight, CEOs with financial expertise will find a way out to raise external capital (Custódio & Metzger, 2013). In fact, when it comes to the evaluation of IPO companies, Andrews and Welbourne (2000) and Finkle (1998) emphasize that the CEO's financial background matters.

Apart from the CEO's specific credentials, the resource dependence theory provides that the board of directors plays certain key roles in the IPO process, among which

are acting as facilitators to access external capital needed for the continued growth of the company, maintaining reputation to improve the competitive advantage of the company; creating a network of contacts; and advising the company on the strategy needed for the company's strategic direction, long- term survival and success (Bertoni, Meoli, & Vismara, 2014; Finkle, 1998). For instance, Finkle (1998) noted that the higher the number of independent directors on the board of a new company, the larger the amount of capital the company would be able to generate in the external market. As such, this study considered the link between the CEO-specific credentials and the board of directors on the essential resources needed to ensure a company remains a going concern entity. Therefore, understanding the specific variables that affect the amount of capital raised is valuable for IPO studies. The remaining structure of the paper is as follows: section 2 provides a brief theoretical review; section 3 presents the review of relevant empirical literature; section 4 discusses the proposed research framework; section 5 captures the methodology, and section 6 concludes the paper.

2.0 THEORETICAL FRAMEWORK

An active IPO market is a "bellwether" for stock market development and investment opportunities (Boeh & Dunbar, 2014; Fama & French, 2004). However, there is considerable uncertainty surrounding the IPO process (Grinblatt & Hwang, 1989). Much of the uncertainty relates to the limited amount of publicly available information on historical data to prove that they are desirable investment opportunities to the parties in the IPO process. For instance, the uncertainty surrounding the company's prospects, growth opportunities and assets in place are unevenly distributed among the parties in the IPO process. All these make issuers face the challenge of gaining legitimacy and "liability of market newness" (Certo, 2003). It also makes it problematic for issuers to signal their values and prompt potential investors to improperly evaluate the true value of the IPO (Certo et al., 2009). Similarly, the uncertainties surrounding growth opportunities also make it difficult for companies to raise capital (Deeds et al., 1997). However, the reduction in the amount of capital raised at the time of an IPO could have an adverse effect on young companies that are still searching for market share (Mousa et al., 2015). In addition, access to a limited amount of information leads to the problem of information asymmetry, which in turn, leads to adverse selection costs and moral hazard problems (Akerlof, 1970; Certo et al., 2009; Leland & Pyle, 1977; Myers & Majluf, 1984); the consequence of which may force entrepreneurs/managers to forego profitable investment projects, alternate investment and financing decisions (Myers & Majluf, 1984). In order to reduce the level of information asymmetry and raise large amounts of capital, issuers take it upon themselves to signal their quality.

The signalling theory is one of the most useful theories that centres on the problem of information asymmetry and uncertainty surrounding an IPO (Certo, 2003; Spence, 1974). The theory provides a mechanism that IPO issuers can use to signal their quality to external parties in the IPO process. One primary means of achieving this is through a feature document in the IPO process often referred to as the prospectus. The prospectus is a signalling document that encompasses information relating to the business, finance, future projection, board and TMT members which are useful for investors to evaluate the company's value and make informed decisions (Bhabra & Pettway, 2003; Ferris, Hao, & Liao, 2013; Hanley & Hoberg, 2010). In the

prospectus, issuers do not only disclose information, but also disclose some of their proprietary information such as disclosure of the intended use of IPO proceeds. The use of the section on proceeds in the prospectus may provide the needed information for investors that seek to understand the intentions to use of the proceeds before making their investment decisions (Certo et al., 2009). Issuers use the disclosure of future level of investment opportunities to signal their quality (Trueman, 1986). As such, provision of detailed information on how the capital to be raised during IPO sale would be expended, enable parties in the IPO process to predict the future value of the company. Other signalling means are the quality of the underwriters who certify the issuing process and the quality of the auditors who certify the financial information in the prospectus. Titman and Trueman (1986) provide a theoretical backing for the role of underwriters and auditors in the IPO process. They claim that an auditor is solely responsible for examining the financial statement of the issuer and this information is among that included in the prospectus; while an underwriter is an investment banker that underwrites the company's shares. The quality of underwriters and auditors is a true reflection of the quality of information about the company's value and other information to be disclosed in the prospectus.

Under the signalling theory, Spence (1974) suggests that information asymmetry and adverse selection problems can be overcome through signals that would enable the market participants to distinguish between the seller of a high quality product and a low quality product. Thereafter, management and entrepreneurship literature view the use of upper echelons perspective to investigate the composition and structure that lead the company in the transformative process (Kroll, Walters, & Le, 2007). The upper echelons theory developed by Hambrick and Mason (1984) centres on the link between a company's strategic choices, performance and TMT's characteristics such as cognitive reasoning, values and perception. However, the difficulty faced by researchers in finding appropriate proxies for cognitive reasoning, values and perception has led them to rely on other observable managerial characteristics, such as education, experience, age and functional background of executives, as indicated in the upper echelons theory of Hambrick and Mason (1984) and Carpenter et al. (2004). These observable managerial characteristics serve as appropriate replacements for managers' cognitive reasoning, values, and perception. In addition, Hambrick (2007, p.334) claims that, "understanding why a company does things, or why a company performs in a particular way creates the need for the examination of the biases and the dispositions of the most powerful actors, that is the TMT". Thus, executives that oversee the company during the IPO process may affect the company's behaviour and performance. Lester et al. (2006), Higgins and Gulati (2005) and Certo (2003) suggest that the characteristics of the TMT of a company can serve as a signal for the company's legitimacy and may enable the company to gain access to external capital as well as affect investors' decisions. Consistent with this view, Zimmerman (2008) argues that TMT's heterogeneity provides a signal to potential investors about the future prospects of the company and it is associated with greater capital accumulation. Similarly, Chemmanur, Simonyan, and Tehranian (2013) mention that high quality managers may be able to convey the intrinsic value of a company to outsiders credibly, thereby reducing the information asymmetry a company may face in the equity market. The TMT is a company's critical resource that allows the company to exploit opportunities and gain competitive advantage (Barney, 1991; Wernerfelt, 1984). Higher quality managers are more credible to the equity market investors because it reduces the information asymmetry they face in

the market and outsiders' information production costs (Chemmanur, Paeglis, & Simonyan, 2010). Also, the quality of a company's management is widely used by venture capitalists and other relevant parties to assess the viability of the company before providing capital (Chemmanur et al., 2013). Underwriters and other financial intermediaries also consider the quality of TMT members, in addition to other measures of the company's quality, when choosing companies to go public (Chemmanur et al., 2013). Therefore, management quality is an important factor to consider when analysing younger, smaller, and more obscure companies, which are likely to suffer from a high degree of information asymmetry in the equity market.

For a new company, the CEO plays a crucial role in the long- term growth of the company and the time of going public (Yang et al., 2011). The CEO is the one saddled with the responsibility of making final decisions, guiding the direction of the company and integrating executives' opinions (Calori, Johnson, & Sarnin, 1994). The CEO has the power to make the final decisions and shape the vision and direction of the company (Bruton, Fried, & Hisrich, 1997). More importantly, the CEO has the prerogative power in designing and leading the board (Zahra & Pearce ll, 1989). Moreover, several CEO-specific characteristics have been linked to strategy, capital structure and corporate outcomes of a new company. These factors include the CEO's executive experience (Brouthers, Brouthers, & Werner, 2000); education (Hitt & Tyler, 1991; Wiersema & Bantel, 1992), duality (Daily & Dalton, 1992; Fischer & Pollock, 2004) and age (Daily et al., 2002).

In addition to the upper echelons theory, the resource dependence theory provides that the board of directors plays an additional role in linking the company to the external environment. The link provides the company the capacity to attain the crucial resources needed for the company to carry out various strategic decisions that are expected to enhance the company's performance and survival (Pfeffer, 1972; Pfeffer & Salancik, 1978). The theory views that the board of directors is a co-optative tool to extract resources needed for the company's subsequent performance (Zahra & Pearce ll, 1989). Using the concept of the resource dependence theory, Pfeffer and Salancik (1978) considered the organization as being dependent on the external environment. They argue that organizational effectiveness results from not only how a company manages its resources but also on its ability to secure crucial resources from the environment. The instruments used as valuation instruments to assess the organizational environment are the composition of the board and the size of the board. The implication is that, it signals whether a board is internally and externally oriented (Pfeffer, 1972). Hence, board composition and board size serve as boundary spanners that provide the company a competitive advantage through network contacts in the environment, and easy access to large amounts of external capital (Pfeffer, 1972; Zahra & Pearce ll, 1989). In addition, the board of directors is used as an instrument for partial co-optative strategies important to external organizations that are interdependent (Pfeffer, 1972). The co-optional strategy includes establishing contacts and capital raising activities. Thus, board size and board composition are related to a company's demand for capital. Birnbaum (1984) argues that a company might increase the number of directors on the board in order to reduce information asymmetry and volatility that occur as a result of environmental uncertainty.

3.0 REVIEW OF LITERATURE

The amount of capital raised during an IPO is considered as the sign of a successful IPO and a short-term measure of the company's performance (Deeds et al., 1997; Jens et al., 2006). In fact, venture- backed biotechnology IPOs use the total amount of capital raised as a measure of listing success (Stuart, Hoang, & Hybels, 1999). In addition, Jens et al. (2006) claim that IPOs that have raised more capital are lowly under-priced and "leave less amount of money on the table". This suggests that the capital motive of IPO decision plays a central role in IPO-related activities, most especially for technology companies that rely on a raising a pool of capital to finance their investment scale, such as Research and Development (R&D).

However, there are several factors that can affect the amount of capital raised during an IPO sale. Among the factors that have been considered by prior scholars are: company's scientific capabilities in terms of intangible assets (Deeds et al., 1997), certain pre-IPO financial information (Williams & Young, 2012), TMT's heterogeneity in terms of functions, education, age and tenure (Zimmerman, 2008), board composition (Finkle, 1998), and geographical location (Amini, 2013). However, there is a dearth of literature on the influence of the CEO's specific characteristics, most especially in the Malaysian equity market. Deeds et al. (1997) used a sample of 92 US biotechnology IPOs to examine the impact of firm specific information on the amount of capital raised. Through regression analysis, they found that the number of products in development, the number of times employees' work has been cited and the geographical location of a company have significant positive impacts on the amount of capital raised. They conclude that these are signalling information potential investors consider as prior knowledge on whether a company would be able to generate revenue and profit in the future. Jens et al. (2006) used a sample of 34 Australian biotechnology IPOs during the period of 1994 and 2004. Using regression analysis, they found that the number of products in the process of development has a positive influence on the amount of capital raised. Similarly, Amini (2013) used a sample of small British IPOs to examine the impact of the geographical location on IPO proceeds. The results showed that the proximity of the geographical location of a company to London has a positive influence on the amount of capital raised.

Other factors that have been identified in the literature are a number of patent counts and pre-IPO R&D expenditure. Jens et al. (2006) and Deeds et al. (2004) report that the number of patent counts is positively associated with the amount of capital raised. In addition, Williams and Young's (2012) results show that companies with high R&D expenditure can raise large amounts of capital during the IPO sale. In a similar way, Alimov and Hertzel (2012) document that there is a positive relationship between the amount of capital raised, companies' intangible assets and R&D intensity. In contrast, Deeds et al. (1997) find that the number of patent counts and pre-IPO R&D expenditure have no significant direct influence on the amount of capital raised. In another related study, Fukugawa (2012) examined whether the patent quality of biotechnology start-ups affects companies' intention to go public at one point in 2005 and their actual IPO in 2009. The results indicated that the simple patent counts had no impact on start-up companies' intention to go public in 2005, but patents quality, which is represented by forward citations has a positive impact

on whether a start-up went public in 2009. This indicates that the stock market values patent quality and not patent counts.

Besides pre-IPO intangible assets, Williams and Young (2012) and Deeds et al. (1997) suggest that investors' assessment of the company's future value should be based on other factors like board composition and TMT's characteristics. Prior research has indicated that the quality and reputation of a company's management affects various aspects of its IPO activities (Chemmanur & Paeglis, 2005). Most equity issued by a company with higher quality managers attracts reputable underwriters, larger offer size and select high quality projects, i.e. projects characterised by larger Net Present Value (NPV) for any given scale (Chemmanur et al., 2010; Chemmanur et al., 2013). In fact, they serve as a protective shield for the company in a transformational event such as the IPO (Fischer & Pollock 2004), whereby they increase IPO participation by financial market players (e.g. more institutional investors), bring about early listing of IPO, yield higher IPO and are expected to have a better post-IPO operating performance, which may affect IPO market valuations and other IPO characteristics (Chemmanur & Paeglis, 2005; Chemmanur et al., 2013). Higher quality management is more likely to go public than be acquired or stay private (He & Li, 2014). Also, companies with high quality management go public at a younger age. Considering the nature of IPO companies, which are mostly composed of young companies, Kroll et al. (2007) suggest that the best team for such companies is the board structure that comprises a majority of original TMT members rather than independent outside members. Compared to independent outside members who are responsible for providing strategic advice, and counselling the management, original TMT members have deep knowledge about the company's vision are in the best position to provide oversight function, and work towards the long-term prospects of the company.

4.0 RESEARCH FRAMEWORK

The influence of CEO-specific characteristics on corporate strategic decisions has been acknowledged by financial economists (Bertrand & Schoar, 2003; Graham et al., 2013; Hu & Liu, 2014). As such, CEO-specific characteristics could influence the amount of capital raised during an IPO because the decision to go public is a crucial strategic and financial decision in a company's life. Among these credentials are the educational background of the CEO, his age and CEO duality.

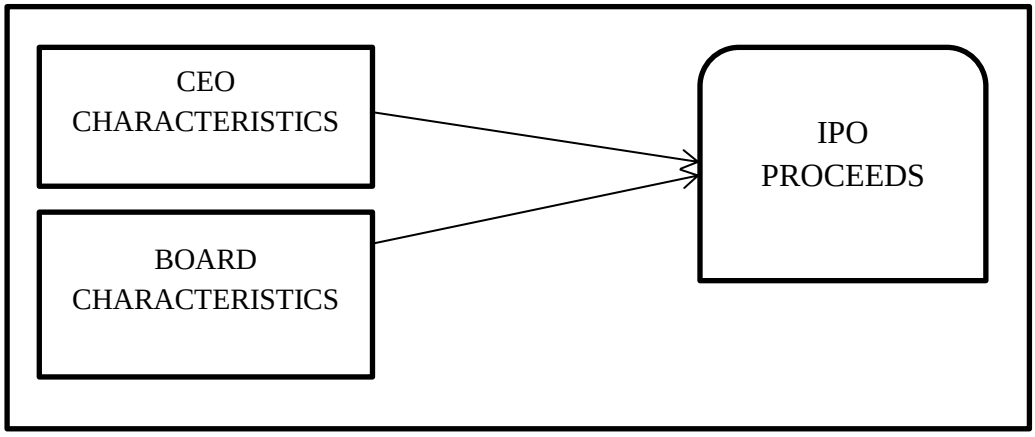

Figure 1. Research framework

Bach and Smith (2007) claim that the managerial strategic concerns during an IPO process include pressures on stable and short-term returns, investors relations and inquiries, and external filling obligations. Andrews and Welbourne (2000) and Finkle (1998) argue that when it comes to the valuation of IPO companies the CEO's financial background matters. The authors conclude that CEOs with financial backgrounds provide the link to financial institutions and other conglomerates that may assist the company to raise large amounts of capital. More importantly, in circumstances where the credit condition is tight, a CEO with financial expertise raises external funds (Custódio & Metzger, 2013). In essence, these types of CEOs better align with the investment environment pressure to perform well at the time of an IPO. They understand the financial way of doing things and have a crucial understanding of market indicators. As a result, entrepreneurs are very selective on the type of CEO that could manage the company when going public. In addition, Zimmerman (2008) reports that TMT's heterogeneity (e.g. CEO's functional and educational backgrounds) has a significant positive influence on the amount of capital raised at an IPO. Finkle (1998) reports that CEOs with financial backgrounds and who were previously university professors are positively related to the amount of capital raised at an IPO. Similarly, Quintana-garcía (2011) found that functional diversity of TMT members, i.e. their experience in relation to finance, has a positive influence on the amount of capital raised. Likewise the employment history of TMT members is a signal of the company's legitimacy, which in turn influences investors' decisions (Higgins & Gulati, 2006). Similarly, Davidsson and Honig (2003) examined the impact of entrepreneurs' formal education on nascent entrepreneurs' success in terms of sales, profitability and survival after 18months of existence. They reported that entrepreneurs, who had taken business classes as formal education, had a significant association with achieving survival.

In addition to CEO's financial expertise, Frydman (2005) documents that MBA holders have general managerial knowledge that can be used in different industries, compared to a degree in engineering or sciences that may only be valuable in specific industries. Similarly, Bertrand (2009) claims that MBA holders are always hopeful of getting to the hierarchy position of a company, and in most cases, they lead prosperous companies. Therefore, MBA holders are practically groomed compared to MSc holders who are more theoretically oriented. MBA holders receive high salary and high social status that can boost their network in the business environment. The MBA degree encourages team work and nurtures a broader perspective of the company on various strategic issues (Geletkanycz & Black, 2001). Bertrand and Schoar's (2003) empirical results show that managers with MBA degrees follow, on average, more aggressive strategies. These aggressive strategies include investment in higher levels of capital expenditure, less R&D, holding more debts and paying low dividends. CEOs with MBA degrees also exhibit higher investment cash flow sensitivity (Hu & Liu, 2014). In addition, CEOs with MBA degrees are positively associated with higher operating returns on assets (Bertrand & Schoar, 2003). In another related study, Colombelli (2015) documents that CEOs with postgraduate qualifications positively influence the company's growth. In addition, Pukthuanthong-Le and Sundaramurthy (2009) document that a CEO's educational level (e.g. Master's degree or higher) is positively related to IPO performance. Vogel, Puhan, Shehu, Kliger, and Beese's (2014) experimental analysis indicates that an entrepreneur's educational background and age have positive impacts on the willingness of respondents to invest in a venture capital. All these

suggest higher quality CEOs are associated with various outcomes. As a result, investors are likely to value CEOs with financial expertise, MBA and other qualifications, or more importantly, higher educational qualifications because this type of CEO is more likely to engage in more aggressive strategies and pursue growth opportunities and high quality investment that will motivate the investors to subscribe to the company's shares.

Also, when it comes to decision- making, a CEO's age can be influential. For instance, Vogel et al.'s (2014) experimental analysis indicates that age is positively related to the venture capitalist's willingness to invest in the company. The age of an individual is expected to influence the individual's commitment to undergo change related to strategic decision choices (Hambrick & Mason, 1984; Wiersema & Bantel, 1992). An individual's perspective, belief and network are affected by age (Richard & Shelor, 2002). Older generation CEOs are more conservative and risk-averse, whereas the younger generation CEOs are more willing to undertake risks (Bertrand & Schoar, 2003). For example, older CEOs engage in lower capital expenditure, lower financial leverage and higher cash holdings. Such CEOs are very reluctant to invest in growth opportunities because of the risks involved; they have difficulties in learning new behaviour and lack the ability to think of new ideas. In contrast, younger CEOs are risk-tolerant and engage in innovative strategies (Hambrick & Mason, 1984; Jain & Tabak, 2008; Yim, 2013). Younger CEOs initiate mergers and acquisitions, and most companies they manage have historical and future rates of growth (Graham et al., 2013). For instance, Yang et al.'s (2011) study on the impact of CEO's age at the time of going public, indicates that CEO's age is positively related to the time a company goes public. They conclude that companies with younger CEOs will go for IPOs in their early life with the aim of investing in growth opportunities. Moreover, growth motive is one of the main motives for an IPO decision; thus, younger CEOs are more likely to raise large amounts of capital at IPO because investment in growth opportunities would facilitate the company's growth and the ability to remain competitive. Because of the uncertainty surrounding the future outcome of growth opportunities, older CEOs might not be too interested in engaging in capital projects or R&D. An empirical study by Colombelli (2015) shows that the CEO's age is negatively related to a company's growth. On the contrary, Yim (2013) claims that younger CEOs are more likely to engage in acquisitions because they have longer career horizons to reap the benefits. Consistent with the author's assertion, the result shows that younger CEOs undertake acquisitions to pursue the anticipated financial benefits. Therefore, a younger CEO is likely to embark on growth opportunities, which may possibly facilitate the amount of capital anticipated to be raised during an IPO sale. Since literature suggests that age and risk-taking are associated, younger CEOs are likely to engage in growth opportunities. The study also suggests that younger CEOs are likely to raise large amounts of proceeds from equity.

At the IPO stage, potential investors critically examine and value the company's strategic direction. However, the bulk of the strategies are initiated by the CEO. CEO duality occurs when an individual holds both the CEO's and the Chairperson's positions. The link between the separation of CEO's/Chairperson's position is still a contentious issue to the extent that proponents of the dual leadership structure argue whether CEO duality is or is not effective (Daily & Dalton, 1992; Finkelstein & D'Aveni, 1994; Howton et al., 2001). On the one hand, the concurrent holding of

these two positions may lead to ineffectiveness of the board. This is because concentration of power in a single individual can increase the potential conflict of interest between potential investors and managers of IPO companies, thereby limiting the monitoring capacity of the board (Howton et al., 2001; Jensen, 1993). On the other hand, the separation of the positions of CEO/Chairperson may also create potential rivalry between the CEO and the Chairman depending on the costs and benefits of separating the positions. Notably, retaining the power of the CEO/Chairman in a single person enables the CEO/Chairman to act fast on issues, but may reduce effective monitoring by the board and create opportunity for the manager to engage in opportunistic behaviour rather than to work in the company's interest (Finkelstein & D'Aveni, 1994). The opportunistic behaviour may further exacerbate the level at which issuers underpriced their offerings (Certo et al., 2001). Therefore separation of the roles of Chairman and CEO allows the board to monitor the CEO more effectively, which in turn can reduce agency cost, while a CEO concurrently holding the Chairperson's position exacerbates agency cost (Fama & Jensen, 1983). For example, Xu and Xia's (2012) study reveals that CEO duality leads to overinvestment of IPO proceeds. Nevertheless, there are several potential benefits of CEO duality, especially in a young company aiming to go for IPO. For instance, Daily, McDougall, Covin, and Dalton (2002) highlight the benefits of CEO duality to include "clear lines of reporting authority, a centralized organizational spokesperson, and communication of strong firm leadership to external constituents" (p. 395). These benefits would allow the company with a CEO/Chairperson to arrange the resources and partners necessary to time the IPO process more quickly than a company where the two positions are held by two different individuals. In addition, Pfeffer and Salancik (1978) stress that a single individual holding the mantle of leadership increases a company's responsiveness and ability to secure critical resources needed for the long -term growth of the company. Similarly, Mak and Roush (2000) document that IPO companies with dual CEO positions have more growth opportunities. Based on the potential benefits of having the leadership of a company in a single hand, the study anticipated that the increase in responsiveness of the company to secure critical resources for growth opportunities as a result of CEO duality would enable the company to raise large amounts of capital when going public.

Furthermore, other internal control mechanisms that can also link the company to the external environment in order to secure critical resources are board size and board independence. For instance, Pfeffer (1972) claims that board size is associated with the ability of the company to extract critical resources such as the generation of capital, allocation of budget and leverage from the external environment. Goodstein, Gautam, and Boeker (1994) argue that board size is a measure of the company's ability to form environmental links to secure critical resources. In fact, larger boards create more effective external linkages (Pfeffer & Salancik, 1978). In contrast, Yermack (1996), Jensen (1993) and Lipton and Lorsch (1992) document that larger boards could be less effective than smaller boards due to directors free -riding. Oversized boards reduce corporate governance effectiveness because this type of board might be reluctant to replace the CEO when a company is confronted with deteriorating performance (Chang, Lin, Tam, & Wong, 2010). However, larger boards reduce the uncertainty surrounding the IPO and signal that the company has access to a wide range of resources via board members (Daily et al., 2005). Larger boards are beneficial for IPO companies because they are mostly young companies

with limited track records available to the public. Therefore, larger boards would possess diverse experience, more knowledge and strategic advice that would improve the company's market share and legitimacy (Coles, Daniel, & Naveen, 2008; Dalton, Daily, Johnson, & Ellstrand, 1999). Although Finkle (1998) fails to find a significant association between board size and amount of capital raised, he argues that board size could influence the quality of strategic decision provided by the directors. For instance, companies with larger board size are assumed to have directors with various educational and industrial expertise that can help in the implementation of several strategic decisions of the company. In circumstances where the CEO's dominance is significant, a larger board size would tend to increase the capability of the board to govern the company and reduce the dominating role of the CEO.

In addition, the presence of independent directors on the corporate board provides valuable sources of information and resources that might enhance the performance of the company (Finkle, 1998). A prestigious board of directors is considered as a valuable, rare, inimitable, and non-substitutable resource that can provide the IPO company valuable assets that can enhance the future performance of the company (Daily et al., 2005). Since the IPO is a transitory stage as well as a rebirth of a new company, the composition of the board of directors is very important in this emblematic situation (Finkle, 1998). A board with predominately outside directors is expected to operate as a signal that effective monitoring and control systems are in place (Daily et al., 1999). In addition, the presence of independent directors on the board enhances the board's effectiveness (Fama & Jensen, 1983; Hermalin & Weisbach, 1991). As such, studies have documented an inverse relationship between board independence and IPO underpricing (Chahine & Filatotchev, 2008; 2011; Filatotchev & Bishop, 2002; Hearn, 2012; Howton et al., 2001). The service offered by outside directors is considered as a prestigious assignment that signals effective monitoring and that control systems are in place (Shivdasani, 1993). For instance, Fama and Jensen (1983) and Hermalin and Weisbach (1991) cite that the presence of independent directors on the board enhances board effectiveness and mitigates agency problems. McWilliams and Sen (1997) and Byrd and Hickman (1992) used the percentage of independent directors as a measure of monitoring effectiveness. They argue that boards with a majority of independent directors can effectively block the managerial decisions that may lower shareholders' wealth. In addition, Gompers (1995) suggests that effectively governed companies tend to receive more investor patronage. In light of the aforementioned benefits of having the majority of the board members as independent directors, the study argues that the higher the proportion of independent directors on the board, the more the investors' patronage, thereby providing a better chance for the company to raise large amounts of capital when going public.

5.0 RESEARCH METHOD

The data set for the study was extracted from the IPO prospectuses of all companies that undertook IPO during the period of 2005 and 2015. The unit of analysis was the company, and the population of the study comprised 301 IPOs. However, in order to be able to compare the expected results with prior studies in the developed markets, the study excluded financial IPOs (e.g. REITs, SPACs and close- ended funds) from the population of the study. Also, to achieve the objective of the study, a linear and a non-linear regression analysis were employed. The preliminary analyses included

descriptive statistics, correlation statistics, regression analysis and other robustness tests. However unlike prior studies (Amini, 2013; Deeds et al., 1997; Williams & Young, 2012) that employed the standard regression analysis in the form of the Ordinary Least Square (OLS) Regression, this study employed a more sophisticated regression approach (Quantile regression) to examine the relationship between the IPO proceeds, CEO's characteristics, board size and board composition. This was because the amount of capital raised might be highly skewed or dispersed. As such, factors affecting the amount of capital raised might have different influences on the level of capital raised. In addition, econometric scholars (e.g. Hao & Naiman, 2007; Koenker & Hallock, 2000) have criticised the use of OLS as regression estimate because it is based on the mean value of the conditional distribution of the dependent variable. Relying on the mean conditional distribution of the dependent variable provides an incomplete picture or a partial view for a set of conditional distribution of the dependent variable and is sensitive to outliers. In light of this, quantile regression provides full characterization of the conditional distribution of the dependent variable in different quantiles and elaborates more on different points of a conditional distribution. It also establishes a parsimonious way of depicting the whole distribution and provides much value-added information if the relationship between the dependent and the explanatory variables move across its conditional distribution. As a result, this study dused quantile regression analysis to examine the relationship between CEO's characteristics, board size and composition of IPO proceeds.

6.0 CONCLUSION

An IPO is a unique event in a company's life-cycle because most companies are young start -ups with untraceable record in the public area. In this circumstance, prospective investors have limited amount of information with no substantial assets in place when subscribing for a company's shares. For this stated reason, it is argued that investors subscribe for growth options since the most intended use of the proceeds is mainly for growth opportunities. However, the ex-ante uncertainty surrounding the growth opportunities is difficult for investors to ascertain and this may affect the amount of capital expected from the IPO sale. To ascertain the uncertainty surrounding the future cash flow of growth opportunities, the upper echelons and the resource dependence theories assert that corporate strategies are influenced by the psychological characteristics of a company's TMT. However, an important figure among the TMT members is the CEO. Therefore, if the psychological characteristics of the TMT can influence corporate strategies, it is expected that the CEO's characteristics, board size and board composition should correlate with the amount of capital raised. Based on these assertions, the study examined factors affecting the capital motive of going public, which is a reflection of the company's investment plans; thus companies that have raised large amounts of capital from the equity offerings are more likely to be companies with a large number of future investment opportunities. In addition, the performance of IPO is of paramount concern to various parties that are interested in the IPO company's performance. More importantly, the IPO proceeds is a measure not only of IPO performance (Gulati & Higgins, 2003); but also an indication of how the market values a company at the time of an IPO (Finkle, 1998). Hence, the results from the study will be intriguing in the sense that it will highlight specific information that potential investors and analysts might find helpful to assess the performance

prospects of the IPO company. By implication this would assist potential investors to evaluate IPO investment opportunities. Therefore, it is apparent that IPO investors pay close attention to the strength and competence of a company's high level decision-makers.

7.0 REFERENCES

Alimov, A., & Hertzel, M. G. (2012). *Legal Institutions and Capital Raising Activities of Newly Public Firms*.

Amini, S. (2013). The amount of raised capital by small IPOs: Spatial effect on the UK alternative investment market. *International Journal of Entrepreneurial Behavior & Research*, *19*(3), 344-358.

Andrews, A. O., & Welbourne, T. M. (2000). The people/performance balance in IPO firms: The effect of the chief executive officer's financial orientation. *Entrepreneurship Theory and Practice*, *25*(1), 93-106.

Akerlof, G. a. (1970). The market for "lemons": Quality uncertainty and the market mechanism. *The Quarterly Journal of Economics*, *84*(3), 488–500. doi:10.2307/1879431

Bach, S. B., & Smith, A. D. (2007). Are powerful CEOs beneficial to post-IPO survival in high technology industries? An empirical investigation. *The Journal of High Technology Management Research*, *18*(1), 31-42.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99-120.

Bertoni, F., Meoli, M., & Vismara, S. (2014). Board independence, ownership structure and the valuation of IPOs in Continental Europe. *Corporate Governance: An International Review*, *22*(2), 116-131.

Bertrand, M. (2009). CEOs. *Annual Review of Economics*, *1*, 121–150. doi:10.1146/annurev.economics.050708.143301

Bertrand, M., & Schoar, A. (2003). Managing with style : The effect of managers on firm policies. *The Quarterly Journal of Economics*, *118*(4), 1169–1208.

Bhabra, H. S., & Pettway, R. H. (2003). IPO prospectus information and subsequent performance. *Financial Review*, *38*(3), 369–397. doi:10.1111/1540-6288.00051

Boeh, K., & Dunbar, C. (2014). IPO waves and the issuance process. *Journal of Corporate Finance*, *25*, 455–473. doi:10.1016/j.jcorpfin.2014.02.001

Birnbaum, P. H. (1984). The choice of strategic alternatives under increasing regulation in high technology companies. *Academy of Management Journal*, *27*(3), 489-510.

Brouthers, L. E., Brouthers, K. D., & Werner, S. (2000). Perceived environmental uncertainty, entry mode choice and satisfaction with EC-MNC performance. *British Journal of Management*, *11*(3), 183-195.

Bruton, G., Fried, V., & Hisrich, R. D. (1997). Venture capitalist and CEO dismissal. *Entrepreneurship: Theory and Practice*, *21*(3), 41-55.

Byrd, J., & Hickman, K. (1992). The case for independent outside directors. *Journal of Applied Corporate Finance*, *5*(3), 78-82.

Calori, R., Johnson, G., & Sarnin, P. (1994). CEOs' cognitive maps and the scope of the organization. *Strategic Management Journal*, *15*(6), 437-457.

Carpenter, M. A., Geletkancz, M. A., & Sanders, W. G. (2004). Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. *Journal of Management*, *30*(6), 749–778. doi:10.1016/j.jm.2004.06.001

Carpenter, R. E., & Rondi, L. (2006). Going public to grow? Evidence from a panel of Italian firms. *Small Business Economics*, *27*, 387–407. doi:10.1007/s11187-005-4323-3

Certo, S. T., Holcomb, T. R., & Holmes, R. M. (2009). IPO research in management and entrepreneurship: Moving the agenda forward. *Journal of Management*. *35*(6), 1340-1378.

Certo, S. T. (2003). Influencing initial public offering investors with prestige: Signaling with board structures. *Academy of Management Review*, *28*(3), 432–446. doi:10.5465/AMR.2003.10196754

Certo, S. T., Covin, J. G., Daily, C. M., & Dalton, D. R. (2001). Wealth and the effects of founder management among IPO-stage new ventures. *Strategic Management Journal*, *22*(6-7), 641–658. doi:10.1002/smj.182

Chahine, S., & Filatotchev, I. (2011). The effects of corporate governance and audit and non-audit fees on IPO value. *The British Accounting Review*, *43*(3), 155-172.

Chahine, S., & Filatotchev, I. (2008). TheEeffects of information disclosure and board independence on IPO discount. *Journal of Small Business …*. Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/j.1540-627X.2008.00241.x/full

Chang, X., Lin, S. H., Tam, L. H., & Wong, G. (2010). Cross-sectional determinants of post-IPO stock performance: Evidence from China. *Accounting & Finance*, *50*(3), 581-603.

Chemmanur, T. J., Simonyan, K., & Tehranian, H. (2013). The role of management quality in the IPOs of venture-backed entrepreneurial firms. *Available at SSRN 2245374*.

Chemmanur, T. J., Paeglis, I., & Simonyan, K. (2010). Management quality and equity issue characteristics: A comparison of SEOs and IPOs. *Financial Management*, *39*(4), 1601-1642.

Colombelli, A. (2015). Top management team characteristics and firm growth: Evidence from a sample of listed companies. *International Journal of Entrepreneurial Behavior & Research*, *21*(1), 107-127.

Coles, J. L., Daniel, N. D., & Naveen, L. (2008). Boards: Does one size fit all? *Journal of Financial Economics*, *87*(2), 329-356.

Custódio, C., & Metzger, D. (2013). How do CEOs matter ? The effect of industry expertise on acquisition returns. *The Review of Financial Studies*, *26*(0), 2007–2047. doi:10.1093/rfs/hht032

Daily, C. M., Certo, S. T., & Dalton, D. R. (2005). Investment bankers and IPO pricing: Does prospectus information matter? *Journal of Business Venturing*, *20*(1), 93–111. doi:10.1016/j.jbusvent.2003.10.003

Daily, C. M., McDougall, P. P., Covin, J. G., & Dalton, D. R. (2002). Governance and strategic leadership in entrepreneurial firms. *Journal of Management*, *28*(3), 387-412.

Daily, C. M., & Dalton, D. R. (1992). The relationship between governance structure and corporate performance in entrepreneurial firms. *Journal of Business Venturing*, *7*(5), 375-386.

Dalton, D. R., Daily, C. M., Johnson, J. L., & Ellstrand, A. E. (1999). Number of directors and financial performance: A meta-analysis. *Academy of Management Journal*, *42*(6), 674-686.

Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, *18*, 301–331. doi:10.1016/S0883-9026(02)00097-6

Deeds, D. L., DeCarolis, D., & Coombs, J. (1997). The impact of firm specific capabilities on the amount of capital raised in an initial public offering: Evidence from the biotechnology industry. *Journal of Business Venturing*, *8*(1), 97–100. doi:10.5465/AMBPP.1996.49787

Fama, E. F., & French, K. R. (2004). New lists: Fundamentals and survival rates. *Journal of Financial Economics*, *73*, 229–269. doi:10.1016/j.jfineco.2003.04.001

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law and Economics*, *26*(2), 301–325.

Ferris, S. P., Hao, Q., & Liao, M. Y. (2013). The effect of issuer conservatism on IPO pricing and performance. *Review of Finance*, *17*, 993–1027. doi:10.1093/rof/rfs018

Filatotchev, I., & Bishop, K. (2002). Board composition, share ownership, and underpricing of U.K. IPO firms. *Strategic Management Journal*, *23*(10), 941–955. doi:10.1002/smj.269

Finkle, T. (1998). The relationship between boards of directors and initial public offerings in the biotechnology industry. *Entrepreneurship: Theory and Practice*, *22*(1986), 5–29.

Finkelstein, S., & D'aveni, R. A. (1994). CEO duality as a double-edged sword: How boards of directors balance entrenchment avoidance and unity of command. *Academy of Management Journal*, *37*(5), 1079-1108.

Fischer, H. M., & Pollock, T. G. (2004). Effects of social capital and power on surviving transformational change: The case of initial public offerings. *Academy of Management Journal*, *47*(4), 463-481.

Frydman, C. (2005). Rising through the ranks: The evolution of the market for corporate executives, 1936-2003. *V Columbia University*, 0–56. Retrieved from http://www.nber.org/public_html/confer/2006/si2006/dae/frydman.pdf\nhttp://mitsloan.mit.edu/finance/pdf/frydman-090208.pdf

Geletkanycz, M. A., & Black, S. S. (2001). Bound by the past? Experience-based effects on commitment to the strategic status quo. *Journal of Management*, *27*(1), 3-21.

Goodstein, J., Gautam, K., & Boeker, W. (1994). The effects of board size and diversity on strategic change. *Strategic Management Journal*, *15*(3), 241-250.

Gompers, P. A. (1995). Optimal investment, monitoring, and the staging of venture capital. *The Journal of Finance*, *50*(5), 1461-1489.

Graham, J. R., Harvey, C. R., & Puri, M. (2013). Managerial attitudes and corporate actions. *Journal of Financial Economics*, *109*, 103–121. doi:10.1016/j.jfineco.2013.01.010

Grinblatt, M., & Hwang, Y. C. (1989). Signalling and the pricing of new issues, *44*(2), 393–420.

Gulati, R., & Higgins, M. C. (2003). Which ties matter when? The contingent effects of interorganizational partnerships on IPO success. *Strategic Management Journal*, *24*(July 2002), 127–144. doi:10.1002/smj.287

Hao, L., & Naiman, D. Q. (2007). *Quantile regression. Quantitative applications in the social sciences.*

Hambrick, D. C. (2007). Upper echelons theory: An update. *Academy of Management Review*, *32*(2), 334-343.

Hambrick, D. C., & Mason, P. A. (1984). Upper Echelons : The organization as a reflection of its top managers. *The Academy of Management Review*, *9*(2), 193–206. doi:10.2307/258434

Hanley, K. W., & Hoberg, G. (2010). The information content of IPOPprospectuses. *Review of Financial Studies*, *23*(7), 2821–2864. doi:10.1093/rfs/hhq024

He, S., & Li, W. . (2014). *Human capital , management quality , and the exit decisions of entrepreneurial firms*. http://dx.doi.org/10.2139/ssrn.1787690

Hermalin, B. E., & Weisbach, M. S. (1991). The effects of board composition and direct incentives on firm performance. *Financial Management*, 101-112.

Hearn, B. (2012). The contrasting effects of board composition and structure on IPO firm underpricing in a developing context. *International Review of Financial Analysis*, *21*, 33-44.

Higgins, M. C., & Gulati, R. (2006). Stacking the deck: The effects of top management backgrounds on investor decisions. *Strategic Management Journal*, *27*(1), 1–25. doi:10.1002/smj.495

Hu, C., & Liu, Y.-J. (2014). Value diversity: CEOs' career experiences and corporate investment. *Journal of Corproate Finance*. doi:10.1016/j.ajem.2014.01.059

Jain, B. A., & Tabak, F. (2008). Factors influencing the choice between founder versus non-founder CEOs for IPO firms. *Journal of Business Venturing*, *23*, 21–45. doi:10.1016/j.jbusvent.2005.11.001

Jens, P., Brooks, R., Nicoletti, G., & Russell, R. (2006). Capital raising by Australian biotechnology IPOs: Underpricing, money left and proceeds raised. *Accounting Research Journal*, *19*(02), 31–45.

Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance*, *48*(3), 831-880.

Kaplan, S. N., Klebanov, M. M., & Sorensen, M. (2012). Which CEO characteristics and abilities matter? *Journal of Finance*, *67*(3), 973–1007. doi:10.1111/j.1540-6261.2012.01739.x

Koenker, R., & Hallock, K. (2000). Quantile regression: An introduction. *Symposium on Econometric Tools*, *15*, 1–24. Retrieved from https://www.econ.uiuc.edu/~roger/research/intro/rq.pdf

Kok, C., & Ngui, Y. (2012). Malaysia ' s IHH jumps 14 percent as world ' s no . 3 IPO debuts jam. *Reuters*, pp. 4–7. Kuala Lumpur/Singapore. Retrieved from http://www.reuters.com/article/2012/07/25/us-malaysia-ihh-ipo-idUSBRE86O03J20120725

Kroll, M., Walters, B., & Le, S. (2007). The impact of board composition and top management team ownership structure on post- IPO performance in young entrepreneurial firms. *Academy of Management Journal*, *50*(5), 1198–1216. doi:10.2307/20159920

Leland, H., & Pyle, D. (1977). Informational asymmetries, financial structure, and financial intermediation. *The Journal of Finance*, *XXXII*(2), 371–387. Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/j.1540-6261.1977.tb03277.x/full

Lester, R.H., Certo, S.T., Dalton, C.M., Dalton, D.R., & Cannella, A.A., Jr. (2006). Initial public offering investor valuations:An examination of top management team prestige and environmental uncertainty. *Journal of Small Business Management*, *44*(1), 1–26.

Lipton, M., & Lorsch, J. W. (1992). A modest proposal for improved corporate governance. *The Business Lawyer*, 59-77.

Mak, Y. T., & Roush, M. L. (2000). Factors affecting the characteristics of boards of directors: An empirical study of New Zealand initial public offering firms. *Journal of Business Research*, *47*(2), 147-159.

McWilliams, V. B., & Sen, N. (1997). Board monitoring and antitakeover amendments. *Journal of Financial and Quantitative Analysis, 32*(04), 491-505.

Mousa, F.-T., Wales, W. J., & Harper, S. R. (2015). When less is more: EO's influence upon funds raised by young technology firms at IPO. *Journal of Business Research, 68,* 306–313. doi:10.1016/j.jbusres.2014.07.003

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*. doi:10.1016/0304-405X(84)90023-0

Pfeffer, J. (1972). Size and composition of corporate boards of directors: The organization and its environment. *Administrative Science Quarterly*, 218-228.

Pfeffer, J., & Salancik, G. R. (1978). The external control of organizations: A resource dependence perspective. New York: Harper & Row.

Quintana-García, C. (2011) Technological assets and top management teams: Their impact on the capital raised by research-intensive firms going public. DRUID 2011 on Innovation Strategy and Structure Organizations Institutions Systems and Regions.

Richard, O. C., & Shelor, R. M. (2002). Linking top management team age heterogeneity to firm performance: Juxtaposing two mid-range theories. *International Journal of Human Resource Management, 13*(6), 958-974.

Ritter, J. R., & Welch, I. (2002). A review of IPO activity, pricing, and allocations. *Journal of Finance, 57*(4), 1795–1828. doi:10.2307/3094524

Shivdasani, A. (1993). Board composition, ownership structure, and hostile takeovers. *Journal of Accounting and Economics, 16*(1), 167-198.

Spence, M. (1974). Competitive and optimal responses toSsignals: An analysis of eficiency and distribution. *Journal of Economic Theory*, *332*, 296–332.

Stuart, T. E., Hoang, H., & Hybels, R. C. (1999). Interorganizational endorsements and the performance of entrepreneurial ventures. *Administrative Science Quarterly*, *44*(2), 315-349.

Titman, S., & Trueman, B. (1986). Information quality and the valuation of new issues. *Journal of Accounting and Economics*, *8*(2), 159–172. doi:10.1016/0165-4101(86)90016-9

Trueman, B. (1986). The relationship between the level of capital expenditures andFfirm value. *The Journal of Financial and Quantitative Analysis, 21*(2), 115. doi:10.2307/2330732

Venkat, P. R., & Gangopadhyay, A. (2012). Malaysia IPO ranking to struggle in '13. *Deal Journal*, 12–14. Retrieved from http://blogs.wsj.com/deals/2012/12/12/malaysia-ipo-ranking-to-struggle-in-13/

Vogel, R., Puhan, T. X., Shehu, E., Kliger, D., & Beese, H. (2014). Funding decisions and entrepreneurial team diversity: A field study. *Journal of Economic Behavior & Organization*, *107*, 595-613.

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, *5*(2), 171-180.

Wiersema, M. F., & Bantel, K. A. (1992). Top management team demography and corporate strategic change. *Academy of Management Journal*, *35*(1), 91-121.

Williams, D. R. (2013). Human and financial capital as determinants of biopharmaceutical IPO de-listings. *Journal of Business Research*, *66*(12), 2612–2618. doi:10.1016/j.jbusres.2012.05.019

Williams, D. R., & Young, C. C. (2012). The role of pre-IPO financial indicators and intermediaries in aftermarket performance and survival in the US

biopharmaceutical market. *Journal of Pharmaceutical Innovation, 7*, 127–139. doi:10.1007/s12247-012-9131-0

Xu, X., & Xia, Y. (2012). Internal corporate governance and the use of IPO over-financing: Evidence from China. *China Journal of Accounting Research, 5*(3), 231–249. doi:10.1016/j.cjar.2012.08.003

Yang, Q., Zimmerman, M., & Jiang, C. (2011). An empirical study of the impact of CEO characteristics on new firms' time to IPO. *Journal of Small Business Management, 49*(2), 163–184. doi:10.1111/j.1540-627X.2011.00320.x

Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics, 40*(2), 185-211.

Yim, S. (2013). The acquisitiveness of youth: CEO age and acquisition behavior. *Journal of Financial Economics, 108*(1), 250–273. doi:10.1016/j.jfineco.2012.11.003

Zahra, S. A., & Pearce, J. A. (1989). Boards of directors and corporate financial performance: A review and integrative model. *Journal of Management, 15*(2), 291-334.

Zimmerman, M. A. (2008). The influence of top management team heterogeneuity on the capital raised through an initial public offering. *Entrepreneurship Theory and Practice, 32*(215), 391–415.