

# Critically Discuss Whether and How Board Size Affects the Company's Decision-making

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## Abstract

The board size affects the decision-making process and the effectiveness of the board (Dwivedi and Jain, 2005). The influence of board size on corporate risk-taking, investment decisions, dividend policy, and innovation remains inconclusive due to varying perspectives based on agency theory, resource dependence theory, and institutional backgrounds. As for firms' decision-making, the company's goal is to maximize profits, so the company needs to make a series of reasonable decisions to meet the needs and expectations of shareholders in a specific environment. While smaller boards may facilitate risk-taking and investment strategy, larger boards offer diverse skills and experience for better decision-making, dividend expansion, and innovation. However, findings are limited by external factors, sample sizes, data biases, industry specificity, and cross-sectional nature of studies. Future research should consider continuous variables, larger samples, and longitudinal analysis to generalize findings across countries and industries. Therefore, in order to achieve this goal, the company needs to consider how to make decisions in the following directions, such as enterprise risk-taking, investment policy, financing policy, innovation policy and so on. This study mainly analyzes how the size of the board of directors affects the company's decision-making.

## Keywords

Board size, Decision making, Risk-taking, Dividend Policy, Innovation

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## 1. Introduction

Board is an endogenous governance mechanism to solve the agency problem between owners and operators (Jagannathan, 2000). However, the function of the board in the corporate governance structure is not only to supervise and replace the CEO, but also to make strategic decisions. The relationship between board size and decision-making may differ not only by the specific characteristics of the company but also by national systems. Countries with different social backgrounds also have different board functions, so the relationship between expected board size and performance may be different. Therefore, studying different countries helps to better understand the relationship between board size and decision-making.

Since the decision-making can influence the corporate performance, it is necessary to analyse the relationship between board size and corporate performance. Gois (2009) found that larger size of the board of directors would decrease the profitability, Tobin's Q and stock return of the company, which would weaken the effectiveness of the large board of directors. Although the monitoring ability of the board will improve with the increased number of board members, the weight of the cost associated by a larger board is greater than the positive effect brought by the monitors.

However, Dalton, Daily, Johnson and Ellstrand (1999) used meta method to study 131 samples and found a positive correlation between board size and corporate performance as it is associated with effective capital acquisition

## 2. Board size and risk-taking

Company are known to pursue better profit opportunities by taking risks (John et al. 2008). Companies can promote the long-term growth by investing in risky projects (Caprio et al., 2011), but too much risk may cause losses to the company (Chong, 2018). So, it is necessary to know the relationship between board size and the company's risk-taking.

### 2.1 The advantages of a smaller board

The bigger the board, the more dysfunctional it is, and this can lead to corporate governance in America not working the way it should. When the board size is too large, it leads to the failure of evaluating the CEO in a fairly manner during board meetings since directors will focus on being polite and will try not disrespect the CEO. This affects the decision-making and thus reduces the corporate's ability of risk-taking (Lipton and Lorsch, 1992). De Andres (2005) also came up with the same conclusion through municipal methods. Generally, larger boards have a larger size of external directors. However, since external directors tend to avoid risks, they will not invest in risky projects even if the projects are of high quality. This in turn weakens the company's innovation ability (Yemack, 1996). Zona et al. (2013) further confirmed the above views through empirical research whereby external directors are more concerned about their reputation which can be severely damaged by making wrong decisions. Therefore, by being risk-averse external directors, they may cause the company to lose risky but high-quality investment projects. Sah and Stiglitz (1986, 1991) had the same conclusion. In a large-scale board of directors, the general manager is more likely to control the board of directors (Holder-Webb et al. 2008), because the opinions of the members are diverse and lack cohesion, which is conducive to the general manager in gaining power and influence in the board of directors (Paligorova,2010). The general manager controls the board of directors through alliances, selective information channels, and other means which leads to biased company's decision-making (Kula,2005). In order to alleviate these influences, the company hires independent directors who are not associated with the company. They can be more objective in exercising their functions effectively, hence reducing the possibility of collusion with managers and preventing managers from avoiding risks in order to maximize personal interests (Sullivan, 1997).

Jensen (1976) pointed out that as the size of the board of directors increased, communication and coordination among board members would become more difficult, resulting in the inefficiency of the board of directors which may lead to a lower level of risk. And this result is supported by Cheng (2008) and Ho (2013).

### 2.2 The advantages of a larger board

Based on the resource dependence theory, the size of the board of directors can be used as a measure of an enterprise's ability to obtain key resources and important information from the outside world and also used to reflect the information breadth of the board of directors' ability to argue about decision-making and consulting. The larger the board size, the more likely it is to reduce the risk taken by the company (Provan, 1980; Ocasio, 1994; Bermig & Frick,2010).

Zabri (2016) studied bankrupt companies in the retail industry and found that the probability of bankruptcy was inversely proportional to the size of the board of directors. The reason was that the diversified expertise of the larger board of directors improved the scientific decision-making of the board. Risky firms are willing to work with larger boards because they need advice and monitoring (Coles, Daniel, & Naveen, 2008). Pathan (2009) showed that total equity risk and system risk were positively correlated with board size. The bigger the board of directors is, the more power the CEO has, and the more likely the CEO is to invest in risky projects (Adams, Alemida, and Ferreira, 2005). This is because a large board of directors can also be represented by the power of the CEO, who will choose risky investments for his or her own benefit .

## 3. Board Size and Investment decisions

Whether the relationship between investment and board size is negative or positive, firms which are willing to strengthen their investment strategy consider having a smaller board. On the other hand, some

studies found that a bigger board promotes a multitude of skills, knowledge and experience which further helps to make better investment decisions.

### 3.1 Positive findings

Viewed from a firm's perspective, larger boards are tied with numerous benefits (Judge and Zeithaml, 1992). The presence of additional directors creates a pool of expertise and knowhow and enables a greater sharing of ideas and advice which executives can tap into. For those who advocate resource dependency, larger boards improve the company's ability to cope with issues linked to the environment as well as promote a smooth trading relationship with business partners (Pfeffer and Salancik, 2003). Hence, empirical studies suggest that board size is positively tied to the size of the company, diversification, and internationalization (Sanders and Carpenter, 1998). These simply point out that larger boards are more proficient at making notable contributions in strategic planning as they can incorporate a variety of ideas and come up with different solutions.

Based on former studies, the finding suggests an optimistic link between company performance and board size (Dalton et al., 1999) as a bigger board promotes a multitude of skills, a pool of knowledge and experience, as well as a more competent workforce (Kiel & Nicholson, 2003) which translate into an effective monitoring of the management (Abidin et al., 2009) and the workload can also be shared among many people (Alzoubi, 2012). A positive relationship between board size and accounting quality which ultimately impacts the relationship with investment level was observed by Peasnell et al. (2005). Gois (2009) found that a bigger board allows for a plain sailing monitoring of the management. This may, in turn, lead to lower accounting discretion which could improve accounting information quality and reduce the risk of overinvestment and underinvestment.

Board size equally plays a fundamental role in providing a firm with the required resources. Having more directors is analogous to having more competence, information, and recommendations that the firm can make use of (Haynes and Hillman, 2010; Goodstein et al., 1994). In addition, as larger boards are generally associated with external parties, this will likely boost a firm's accessibility to various resources as the directors can easily secure important resources (Jackling and Johl, 2009). On that account, larger boards may optimize the firms' ability to deal with environmental shocks and to associate themselves with business partners (Pfeffer and Salancik, 2003), and these can prove to be useful in dealing with instabilities which could jeopardize the business (Ruigrok et al. 2006).

### 3.2 Negative findings

Previous studies founded on the impact of board size on decision making suggest that the costs of the big size are superior to its benefits (Goodstein et al., 1991). This research is further backed up by the result that firms with higher growth prospects are linked with smaller boards (Denis and Sarin, 1999). Smaller boards are better suited to act as a cohesive unit and the directors are more active in strategic decision-making. Studies carried out by Rahman and Ali (2006), and Gill and Mathur (2011) reported that a larger board size can hinder a firm's performance as the bigger the board size, the greater is the underinvested capital leading to lower investment efficiency. Thus, a smaller board is more effective as the decision-making process is not lengthy and communication issues can easily be managed. Yermarck (1996), Eisenberg et al. (1998), and Hermalin and Weisbach (2001) are all of the opinions that smaller board size is more suitable at dealing with issues relating to monitoring, communication, inefficiency, and free riders. Hence, it is pivotal that quality is at the forefront instead of quantity for the effective management of the company.

Alternatively, a bigger board size could cause issues in making the strategic decision making. The very fact that there are diverse perspectives jumbled together can end up in conflicts, causing a lack of trust as well as hostility among board members. As the process of reaching a consensus becomes more complex and uncertain, larger boards can split among themselves and favor their own interests rather than achieving the objectives of the whole group.

## 4. Board size and dividend policy

Dividend policy is one of the important decisions to be made in corporate finance. It not only reflects the company's operating performance, but also relates to the company's image and the interests of shareholders, and then have a significant impact on the long-term survival and prospects of the firm. Whether or not to issue dividends and how much dividends are paid depends on the amount of the company's undistributed profits and is affected by the opinions of shareholders. Dividend policy is an important means for company managers to keep finances in order, and also an indispensable financial strategic choice to adjust the stock price to balance the interests of all parties. It has always been a hotspot and problem in researching corporate finance. Lintner (1956) and Modigliani (1961) pioneered modern dividend research but have not yet reached a unified conclusion.

#### 4.1 Positive findings

From the perspective of resource dependence, a larger board size can promote the expansion of the company's performance because it will allow the company to pay more dividends. The expansion of the size of the board of directors not only makes the board more willing to distribute cash dividends, but also makes it easier for the board to accept the supervision of external institutions such as capital markets, investment institutions and banks, and to reduce the agency costs of the company by issuing cash dividends (Easterbrook, 1981 ). The results of some research support this statement. Cheng S.(2015) selected the panel data of 16 listed banks of the Shanghai and Shenzhen Stock Exchanges from 2008 to 2011 after the system reform of shareholding and performed regression analysis on the measurement model through the SPSS 20.0 software. Finally, the board size and cash dividend distribution were obtained. The intensity was significantly positively correlated at the 5% level. This shows that the expansion of the size of the board of directors can provide more advantages, on the one hand, improve the rationality of the board's policy formulation, effectively alleviate agency conflicts, and reduce the phenomenon of free-riding; on the other hand, strengthen the checks and balances between directors and monitor each other. The company's performance will be improved, so the company's distribution of Tianjin dividends will also increase. Dan P. (2017) also believe that directors can give managers strong advice to drive managers to make decisions that are beneficial for the company's performance. Allen F. and Michaely R. (2003) obtained an empirical analysis and research that the corporate size is positively related to the cash dividend payment level, because, for large companies, the business scope is broader, the ability to resist risks is stronger, the cash flow is more stable, and cash dividends Payout rates will be higher than for smaller companies. Redding analyzes the impact of company size and liquidity on dividend distribution. The study found that company size and liquidity affect payout policy. The larger the shareholder and the more liquid the company, the more inclined it is to pay cash dividends. Yarram S. R. and Dollery B. (2015) analyzed the data sample of 413 non-financial companies in Australia, used the possibility of paying dividends to model this binary variable as a function of different sets of variables and analyzed the dividend payout of companies. The study found that size has a significant positive impact on Australian companies' dividend payments, thus supporting the agency cost perspective of dividend policy.

#### 4.2 Other Findings

Despite extensive research, board size has a significant positive impact on company dividends. However, other researchers have come to different conclusions through empirical analysis. Kaimin L. (2014) took annual data of A-share listed companies from 2008 to 2012 as a sample to explore the possible effect on the structural characteristics, behavioral characteristics and composition characteristics of the board on the speed of cash dividend payment. The results show that the number of independent directors has a significant positive correlation with the company's cash dividend payment strength, while the degree of board leadership dispersion, board size, board meetings, and the firm's cash dividends strength have a significant negative correlation. Yuzheng L. (2017) analyzed 585 companies from 2003 to 2013 that have been listed in the Shanghai Stock Exchange as research samples, and performed descriptive statistical analysis of balanced panel data and multiple regression analysis of fixed effects to research what elements affect cash paid for the distribution of dividends. Comparing and analyzing what influences the characteristics of the board of directors on the level of cash dividend payment and got another different conclusion: there are significant differences in cash dividend payment levels between different industries; the size of the board of directors and the level of dividends have an inverted U-shaped relationship.

## 5. Board size and Innovation

For the effective implementation of R&D activities, knowledge, skills, and resources are demanded by firms from experts and teams from different fields. Firms dealing with high information-processing demands are offered greater assistance by large boards equipped with a vast amount of knowledge and resources (Goodstein et Al, 1994 & Jackling and Johl, 2009). Furthermore, firms are better able to grasp complex environments and to come up with appropriate solutions hence improving the quality of strategic investment decisions in R&D and innovation. Hence the impact of the outside directors seems to validate its positive effect on decisions towards innovation.

However, we observed that the shareholders' interests is not maximized by the presence of both inside and outside directors since there is hardly any evidence that outsiders performed better than insiders. Additionally, usually outside directors lack key knowledge of the firm compared to the insides, as well as they are unfamiliar with the activity and resources of the firms, including innovative ones. Some studies found that larger boards are often linked with poor internal dynamics, the launching speed of R&D and innovative projects can be hindered. In the framework of agency theory, an empirical study is conducted based on the data comparison of 501 Chinese listed companies from 2004 to 2008, and the results showed that there was a negative correlation between board size and technological innovation.

Other studies found that the director board size can have a different impact on the company's innovation decisions. As director board size changes from small to medium to large, the process also changes affecting each stage's corresponding corporate research and development decision-making to be different. For instance, found that the board size seems to have, first, a positive impact on innovation start-up and, then, a negative effect with the increase of directors in their composition. De Andrés et al. (2005) further confirmed that there is an optimal board size which is more efficient and has a positive influence in making R&D and innovative decisions. Clearly, the director board size and the intensity of the investment in research and development will present an inverted U-shaped relationship. This means that there is a critical point below which it becomes more innovative as larger boards tend to invest more in research and development. When board size exceeds a tipping point, the effect is reversed (Kang, 2018). Dan (2017) also found that the board size should be controlled in a reasonable proportion, and the appropriate introduction of independent directors is conducive to the improvement of innovation ability of enterprises. Shapiro (2015) used the threshold panel model which was adopted to study the listed companies in manufacturing and high-tech industries, and it was concluded that the optimal board size should be 7 or 9. It was found that in 78% of the sample enterprises consisted of more than nine board members, indicating that the companies having larger board size will tend to avoid innovative projects. Rossi (2015) believes the company's personnel power structure may be affected by the director's board size. The more centralized the power, the easier the coordination among the members. This kind of efficient director board is more conducive to the firm innovation. However, when there are more board members speaking for shareholders, the company's investment innovation decisions may not be easy to reach a unified agreement. He studied the listed companies of strategic emerging industries and concluded that smaller board of directors make better research and development investment decisions. Malamud (2019) also found that the number of external independent directors can significantly reduce agency costs caused by the separation of ownership and control. Based on this theory, it can be believed that external independent directors can actively promote the implementation of research and development investment decisions and the development of technological innovation activities.

## 6. Limitation and Conclusion

There is no uniform conclusion about the influence of board size on corporate risk-taking, investment decisions, dividend policy, and innovation. For risk-taking, the view that smaller board size is beneficial can be discussed based on agency theory and organizational behavior, and the view that larger board size is beneficial can be discussed based on resource dependence theory. For investment decisions, whether the relationship between investment and board size is negative or positive, firms that are willing to strengthen their investment strategy consider having a smaller board. On the other hand, some studies found that a bigger board promotes a multitude of skills, knowledge, and experience which further helps to make better investment decisions. For dividend policy, a larger board size can promote the expansion of the company's performance because it will allow the company to pay more dividends from the perspective of resource

dependence. For innovation, the larger the size of the board of directors, the richer the background of the members, the more extensive experience can be provided in the research and development decision-making, and the lower the decision-making risk. Hence, the increase in the size of the board of directors is conducive to innovation to some extent, and then to the improvement of corporate performance.

The reason why there is no unified conclusion is that in countries with different institutional backgrounds, the functions of boards are different, and therefore the expected board size - risk relation may be expected to differ (Guest, 2008). If the company is not considered in economic factors, legal factors and other external influences the final conclusion may be different because the role of the board of directors is the impact of the external environment. Some studies used categorical variables to represent investment inefficiency. Hence, future research can use continuous variables instead. Also, different studies used different sample sizes and different periods. Some of the data collected were from only one country and would be potential bias concerning the relationships between R&D investment and board size. In other words, this limits the ability to generalize the findings to other countries. Moreover, some findings are limited to a particular industry only. A future comparative country-to-country or industry-wide study is recommended. Some studies are cross-sectional in nature and therefore do not really allow us to control for largely unobservable, or firm-specific differences. Further studies can consider other types of analysis such as longitudinal analysis.

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