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# Board Diversity and Materiality Disclosure in Sustainability Reporting: A Proposed Conceptual Framework

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## Abstract

Sustainability reporting is one of the most important types of reporting in relation to company sustainability. An in-depth assessment of materiality disclosure in sustainability reporting is necessary to enhance the level of sustainability reporting in terms of transparency and accountability to meet the demands of stakeholders. The purpose of this paper is to provide a comprehensive review of the academic literature on board diversity and materiality disclosure in sustainability reporting and to propose a framework that could promote materiality disclosure from the perspective of governance. The contribution of this study is to add insight to the materiality concept in sustainability reporting and provide a conceptual framework based on the stakeholder theory and resource-based view theory. The proposed conceptual framework helps companies and statutory bodies to understand the influence of board diversity on the materiality disclosure in sustainability reporting as well as facilitates the effectiveness of corporate social responsibility communication.

**Keywords:** Board diversity, Materiality, Sustainability Reporting, Stakeholder Theory, Resource-Based View Theory



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## 1. Introduction

In recent years, many global leading companies have moved from corporate social reporting to sustainability reporting. Sustainability reporting is defined as the reporting practice of measuring and disclosing the company's long and short-term social and environmental performance, which ensures accountability to stakeholders and supports the company in controlling its business operations in a more sustainable way (GRI, 2013a; GRI, 2013b).

The increasing influence of stakeholders demanding sustainability information, particularly the community, policymakers, and regulators, is the main driving factor of sustainability reporting (ACCA, 2016). Stakeholders are now increasingly more interested in understanding the ways of companies in their management of environmental, corporate governance, social risks, and opportunities (Font, Guix and Bonilla-Priego, 2016). Moreover, the increasing impact of sustainability-related risks (changing of social expectations, scarcity of resources and new government legislative requirements in sustainability-related areas) is also driving companies to embed sustainability issues in response to these risks and opportunities (Fifka, 2013). Therefore, a more holistic approach to the management of the business by incorporating environmental, social and corporate governance considerations into the business strategy, will serve as a business model that supports business continuity and value creation to stakeholders (Cheng, Green, Conradie, Konishi and Romi, 2014).

Accompanying the trend in reporting is that the sustainability reports reflect the economic, social and environmental performance of the company (Hsu, Lee and Chao, 2013). Sustainability reporting is a tool in the publication of information that reflects the company's performance vis-a-vis environmental, social and governance criteria that stakeholders find important (Bursa Malaysia Securities Berhad, 2016). The reporting work involves planning the report by engaging stakeholders, identifying material aspects, collecting data, and producing the sustainability report. Sustainability reporting has significantly increased in recent years and is now used by companies as a communication channel. Sustainability reporting is aimed at influencing the public perception of a company and enhancing its image or reputation (Daub, 2007). Sustainability reporting has also become a communication channel of managing and reporting sustainability issues to stakeholders (Park and Brorson, 2005).

However, sustainability reporting does not replace traditional financial reporting, but rather it combines financial information and non-financial information together, and communicates business strategy, business performance, and environmental, social and governance issues to stakeholders (Eccles and Krzus, 2014). Sustainability reports are usually produced in isolation and thus lack a holistic and complete picture of the business as a whole. Eccles and Krzus (2014) suggested that financial performance should be linked to environmental, social, and governance performance, and then the environmental, social, and governance performance should be linked to business models and strategy.

Today's sustainability reporting environment can seem complex; however, there is one commonality amongst the different reporting initiatives, and that is materiality. Companies need to focus their sustainability reporting on the material issues that are critical to the achievement of company goals and objectives. This means that they must adopt a 'materiality' approach in defining their reporting content. GreenBiz (2014) highlighted that materiality was one of the top four sustainability reporting trends in 2014. The principle of materiality is increasingly important in sustainability reporting as it is an essential filter for determining whether the information is considered important and useful to stakeholders (Jones,



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Comfort and Hillier, 2015). To ensure accountability and transparency to stakeholders, the company should report on those sustainability issues that are considered material (GRI, 2013a; GRI, 2013b).

In a developing country, such as Malaysia, materiality disclosure in sustainability reporting is now an emerging trend. An increasing number of companies in Malaysia are actively practicing sustainability reporting. However, the adoption of sustainability reporting is fairly new for Malaysian companies and is considered to still be in its infancy stage in Malaysia. Sustainability reporting is part of integrated reporting, and Malaysian listed companies take time to embed sustainability reporting before moving to integrated reporting. Similar studies in this context are lacking in Malaysia. Thus, the objective of this paper is to propose a framework that explains the extent of material disclosure from the perspective of board diversity.

The remainder of the paper is organized as follows. The second section reviews the literature that has been examined in previous studies. In this section, the Malaysian context is introduced in relation to sustainability reporting. This is followed by the underpinning theory and discussion of the proposed conceptual framework in the third section, which is based on a combination of the resource-based view theory and the stakeholder theory to explain board diversity and materiality disclosure in sustainable reporting. Finally, the fourth section concludes the paper.

## 2. Literature Review

### *Board Diversity*

Board diversity is defined by Frias-Aceituno, Rodriguez-Ariza and Garcia-Sanchez (2013) as the difference in the characteristics presented by the board members. On company boards, board diversity may be represented by gender, age, ethnicity, industry background, technical skills, and commercial experience (Van der Walt and Ingley, 2003).

Van Knippenberg, De Dreu and Homan (2004) highlighted that, in general, diversity is the heterogeneity among board members, which is measured by different dimensions. These can range from age to nationality, from religious background to functional background, from task skills to relational skills, and from political preference to sexual preference. Kang, Cheng and Gray (2007) claimed that diversity could be either visible (race/ethnic background, nationality, gender or age) or less visible (educational, functional and occupational background, industry experience or company membership).

The importance of board diversity is widely recognized. Nevertheless, the empirical findings on the benefits of board diversity are mixed (Rao and Tilt, 2016). The results of Coffey and Wang (1998) showed that board diversity was positively correlated with social performance. Harjoto, Laksmana and Lee (2015) used seven different measures of board diversity across 1,499 US companies from 1999 to 2011 to examine the relationship between board diversity and corporate social responsibility. The board diversity is measured in seven dimensions; namely, tenure, power, gender, race, age, outside directorship and expertise. The findings of Harjoto *et al*. (2015) supported the stakeholder theory and argued that board diversity enhances the ability of a company to satisfy the needs of broader groups of stakeholders. From the results, it can be concluded that gender, tenure, and diverse expertise are the driving factors of corporate social responsibility activities.

Huse, Nielsen and Hagen (2009) focused on gender diversity and reported that the presence of female directors on the board had improved corporate governance. Adams and Ferreira (2009) found that female directors are more actively involved than male directors with audit committees and corporate governance



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committees, which require intense monitoring. They also found that female directors had better attendance records than male directors.

There are two major arguments regarding the link between board independence and corporate social reporting (Rao and Tilt, 2015). The first argument is that outside directors are more sensitive to society's needs, and the second is that outside directors are more interested in compliance with responsible behaviour and regulations. Besides board independence, the other widely used board diversity characteristic is board tenure. Hafsi and Turgut (2013) argued that, as the tenure increases, although the directors become familiar with company strategy, they become the captive of management. The results of Hafsi and Turgut (2013) reported that longer-tenured directors might be too close to managers and avoid any argument in the process of decision-making, whereas shorter tenured board members are too shy to speak up. This situation may lead board members to follow rather than lead when it comes to dealing with social and environmental issues.

Both theoretically and empirically, there is widespread debate about the relationship between board activity and board size, and information disclosure. Controversy also exists regarding the influence of the board independence on the volume of information published. Some previous studies found a positive link between the presence of non-executive directors and the disclosure of information (Cheng and Courtenay, 2006; Prado-Lorenzo, Gallego-Alvarez and Garcia-Sanchez, 2009b). However, Haniffa and Cooke (2005) and Prado-Lorenzo and Garcia-Sanchez (2010) found a negative relationship between board independence and the volume of information published, while Garcia-Sanchez, Rodriguez Dominguez and Gallego Alvarez (2011) found no relationship at all.

***Materiality***

The concept of materiality is from the field of accounting (Edgley, Jones and Atkins, 2015) and has now become important in sustainability reporting (non-financial reports) (Jones *et al*., 2015). Whitehead (2016) noted that financial materiality and sustainability materiality both involve identifying the most important issues, but differ in respect of the intended audience. In the financial context, materiality is used to determine whether an item is significant enough to be included in a financial report. In other words, financial materiality focuses on the issues important to investors, while sustainability materiality has a broader scope, and considers issues important to all stakeholders.

Hsu *et al*. (2013) pointed out that a major risk in sustainability reporting is that the board of directors only publishes what they consider material information. It is important to adopt the materiality concept to guide reporters to focus on the major aspects of sustainability performance that are most relevant to stakeholders (Etzion and Ferraro, 2010). Omitting material information means that information has zero value to the company. Materiality determination is not limited to financial information. A matter is considered material if it is substantially likely that the information will influence the decisions of a stakeholder (GreenBiz, 2016).

Materiality is a fairly new concept in the sustainability reporting field (Unerman and Zappettini, 2014) and is a useful tool to distinguish material information from the insignificant or immaterial information (Edgley, 2014). A recent study by Nishant, Goh and Kitchen (2016) also addressed the concept of materiality and its importance, because treating all financial ratios equally may not be practical for companies. They argued that, from the stakeholder theory perspective, materiality in sustainability should reflect those issues that the company considers important enough to influence stakeholder



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perception. Therefore, nowadays, companies tend to report these specific materiality issues in their sustainability reports.

***Sustainability Reporting in Malaysia***

Sustainability reporting is widely used by companies as an effective mechanism for communicating social and environmental responsibility to stakeholders (Hsu *et al*., 2013). In 2006, Bursa Malaysia introduced a requirement for Main Market listed companies and ACE market listed companies to disclose their corporate social responsibility activities in their annual reports. However, this requirement focused more on the social aspects of the business (community and people), and thus, had limited impact on value creation. Companies have tended to focus on philanthropic activities, and not address sustainability issues pertaining to their business operations (Bursa Malaysia Securities Berhad, 2016).

In 2012, Bursa Malaysia re-positioned its 2006 corporate social reporting framework to an initiative for business sustainability, which supports stakeholder value creation, and emphasizes that sustainability should be the main focus of every responsible company. In 2016, Bursa Malaysia published a sustainability reporting guide to aid listed companies to meet the sustainability expectations of a variety of stakeholders. The listing requirements require listed companies to make sustainability-related disclosure in their annual reports. Main Market listed companies with a market capitalization (excluding treasury shares) of RM2 billion and above, as at 31 December 2015, are required to disclose a 'sustainability statement' of the management of material economic, environmental, social risks and opportunities with effect from the reporting period ending 31 December 2016. The sustainability statement should contain balanced, comparable and meaningful information (Bursa Malaysia Securities Berhad, 2016).

Empirical research on corporate social responsibility has reached a considerable level in South-East Asia, especially in Malaysia. Malaysia is the subject of relatively early comparative studies (Foo and Tan, 1988). Andrew, Gul, Guthrie and Teoh (1989) found that country-specific factors influence corporate social responsibility in Malaysia. A study was conducted by Teoh and Thong (1984), which found that the nationality of the company and company size had an impact on information disclosure in Malaysia. Haniffa and Cooke (2005) found a positive correlation between company size and information disclosure. However, no relationship between company size and information disclosure was reported by Ahmad, Hassan and Mohammad (2003). The findings of empirical studies on the relationship between industry and information are equally mixed. Haniffa and Cooke (2005), and Saleh, Zulkifli and Muhamad (2010) found that industry had an impact on information disclosure, but Ahmad *et al*. (2003) did not find any relationship between industry and information disclosure.

The results in respect of leverage are mixed, as Chandler and Ismail (2005) found a positive relationship with information disclosure whereas Ahmad *et al*. (2003) found an inverse relationship between leverage and information disclosure. Several earlier studies examined corporate social responsibility and ownership. Said, Hj Zainuddin and Haron (2009) used content analysis to extract the corporate social responsibility disclosure from annual reports and company websites in Malaysia. The results revealed that audit committee and government ownership were positively correlated with the corporate social responsibility disclosure. Saleh *et al*. (2010) confirmed earlier estimations that there was a positive relationship between institutional ownership and corporate social responsibility disclosure.



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Smith, Yahya and Marzuki Amiruddin (2007) examined the extent to which the environmental disclosures in annual reports of listed companies in Malaysia were correlated with corporate characteristics. They found that environmental disclosure was negatively correlated with financial performance. Abdullah, Mohamad and Mokhtar (2011) used the proportion of pages in an annual report and a corporate social responsibility disclosure checklist to explore the extent and quality of corporate social responsibility disclosure in Malaysia. The results revealed that boards of family-owned companies were negatively correlated with the quality of corporate social responsibility disclosure. They contended that the lack of a strong relationship between board independence and corporate social responsibility disclosure could be due to the fact that corporate social responsibility initiatives were strategic in nature. In addition, they also found that company size, performance and leverage significantly influence corporate social responsibility.

Ahmed Haji (2013) used a self-constructed corporate social responsibility checklist to examine the extent and quality of corporate social responsibility disclosures of 85 public listed companies for 2006 and 2009. The results revealed that company size, director ownership, and government ownership had an impact on the quality of corporate social responsibility disclosure for 2006. Board size was found to positively affect corporate social responsibility disclosure for 2006 and 2009.

A study by Shamil, Shaikh and Krishnan (2014) found that sustainability reporting was positively influenced by board size and dual leadership, while, sustainability reporting was negatively influenced by boards with female directors. They also found that sustainability reporting was influenced by company size and company growth. In addition, their results also revealed that younger companies were likely to adopt sustainability reporting. Another study, conducted by Amran and Haniffa (2011), proved that a government-linked company in the plantation industry, which was large in size, had a significant influence on sustainability reporting.

In summary, several studies examined the impact of corporate social reporting on financial performance (Chandler and Ismail, 2005; Smith *et al.*, 2007), while others analyzed the internal and external determinants of corporate social reporting and sustainability reporting in Malaysia (Saleh *et al*., 2010; Abdullah *et al.*, 2011; Amran and Haniffa, 2011; Ahmed Haji, 2013; Shamil *et al*., 2014); however, their studies did not take the materiality concept into consideration. Hence, this study contributes by helping to fill this gap.

## 3. Underpinning Theory and Proposed Framework

The stakeholder theory suggests that boards of directors, being major control mechanisms in the company, are both responsible and accountable to a wider group of stakeholders. The stakeholder theory has been used to explain the reporting activity in previous studies (Prado-Lorenzo *et al*., 2009b; Fasan and Mio, 2016). However, this study suggests that the stakeholder theory cannot be used in isolation, and that the additional aspect of board diversity, and how it jointly influences reporting, needs to be included. Therefore, the resource-based view theory is used, which highlights that board diversity enhances the resources available to the board and thereby improves network connections. This, in turn, helps the company in understanding and responding to its environment, including its stakeholders (Bear, Rahman and Post, 2010). This study proposes that a greater diversity of board members should lead to better understanding and, therefore, reporting, of diverse stakeholder needs.



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***Stakeholder Theory***

The stakeholder theory has been used almost exclusively from a company perspective. The stakeholder theory was developed by Freeman (1984), started from the strategic management theory dealing with how companies interacted with their stakeholders and evolved into a more comprehensive theory that addresses different aspects of business-society relations.

The stakeholder theory addresses the expectations of specific stakeholder groups within society and considers the effect of stakeholders' expectations on information disclosure as some stakeholder groups are more powerful than others (Font *et al.,* 2016). Stakeholder support is crucial to the long-term business survival; therefore, companies must adjust their business activities to address stakeholder concerns and their needs. Companies are responsible and accountable to a variety of stakeholders for their social and environmental impact on society (Hillman and Keim, 2001). Therefore, the board of directors is expected to consider and respond to stakeholder needs and to report on the material aspects of social and environmental activities to the stakeholders.

The stakeholder theory supports the disclosure of material information (Nishant *et al*., 2016). Information is a key element in the process of decision-making. For example, a stakeholder, such as an investor, would extract as much information as required from the company to make an informed decision (Amran, Rosli and Mohd Hassan, 2008). Boards should disclose material information on their social and environmental activities to inform stakeholders that the company is meeting their needs and expectations. Reporting on material sustainability information provides greater transparency and achieves greater accountability for the stakeholders (Vaz, Fernandez-Feijoo and Ruiz, 2016).

***Resource-based View Theory***

The resource-based view theory argues that it is the specific resources of the company that drive business continuity and sustainability (Barney, 1991). Sustainability is the key to business success today. The resource-based view theory considers that business success is dependent on the company's capacity to integrate and make proper use of available resources (Nakabiito and Udechukwu, 2008).

From the resource-based view perspective, board members are viewed as being a key resource in the company and have an impact on strategic decision-making, such as disclosure of information (Hafsi and Turgut, 2013), as board members are considered to be the major decision makers in the corporate social responsibility activities of the company. Board members play a central role in influencing information disclosure (Fasan and Mio, 2016), and are accountable to a wide range of stakeholders (Rao and Tilt, 2015).

The board is a decision maker and has an active role in seeking external resources, minimizing environmental uncertainty, and establishing an essential link with other companies (Pfeffer, 1981). Therefore, companies need the board to be an essential resource to provide a link between their company and other companies. Arena, Bozzolan and Michelon (2015) used the resource-based view theory to explain the moderating effect of the boards on the relationship between optimism and future environmental performance.



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***Board Diversity and Materiality Disclosure in Sustainability Reporting***

In this paper, board diversity is classified into the diversity of boards and diversity in boards. The diversity of boards refers to dissimilarities in board attributes (Hafsi and Turgut, 2013), while board attributes are related to the boards' formal structure. Boards can be differentiated by three variables: board size, board independence, and board activity. The diversity in boards refers to dissimilarities in the attributes of the directors (Hafsi and Turgut, 2013). Director attributes are related to the diversity within a given board, such as director gender, director experience, and director tenure.

This paper examines the relationship between the diversity of boards and materiality disclosure by examining three different characteristics of the board; namely, board size, board independence, and board activity. In addition, the influence of diversity in boards on materiality disclosure is another focus area of the current study. To explore the relationship between diversity in boards on materiality disclosure, this paper examines three different characteristics of the directors; namely, director gender, director experience, and director tenure.

***Board Size***

The corporate governance literature on board size provides different arguments for the relationship between board size and information disclosure. Lipton and Lorsch (1992) found that a large board may lead to a lack of cohesiveness and to boards not being able to work towards a common objective. Said *et al*. (2009) found a positive relationship between board size and information disclosure. They argued that large boards consist of directors with different expertise and that this enhances the quality and quantity of information disclosed. Although the studies by Karamanou and Vafeas (2005), and Cheng and Courtenay (2006) reported no relationship between board size and information disclosure, a negative relationship between board size and information disclosure was reported by Prado-Lorenzo and Garcia-Sanchez (2010). This paper proposes that a large board has a positive effect on the materiality disclosure in sustainability reporting, and, hence, the following hypothesis is proposed:

*H1 Larger board size positively influences the materiality disclosure in sustainability reporting.*

***Board Independence***

Board independence is an important aspect of corporate governance. An independent board is considered a control mechanism to manage the actions of directors and to ensure that shareholders' objectives are achieved (Fama and Jensen, 1983). Board independence is often related to the existence of non-executive directors. External or non-executive board members are normally expected to apply greater independence and objectivity in managing business operations than executive directors (Prado-Lorenzo *et al*., 2009a). This enhances the increased volume of information disclosed, as it directly impacts on external directors' experience and reputation (Rao and Tilt, 2015). However, Haniffa and Cooke (2005) found a negative relationship between board independence and information disclosure. This paper proposes that more independent boards will actively engage stakeholders during the material determination process to identify the material issues and disclose material information in sustainability reporting. Therefore, the following hypothesis is proposed:

*H2 A more independent board positively influences the materiality disclosure in sustainability reporting.*



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***Board Activity***

Regarding the impacts of board activity on information disclosed, there are two opposing positions. On the one hand, it is argued that more frequent board meetings may be a sign of its non-efficacy, and thus adversely affects business performance (Frias-Aceituno *et al*., 2013), while, on the other, it argues that an active board is more effective because more frequent meetings enable the board members to better supervise the managing of the company and show a greater interest in disclosing information, and, thus, keep stakeholders better informed (Lipton and Lorsch, 1992). However, Karamanou and Vafeas (2005) concluded that there is no link between board activity and the quality of information disclosed. Based on the above evidence, the following hypothesis is proposed:

*H3 Board activity positively influences the materiality disclosure in sustainability reporting.*

***Director Gender***

The presence of female directors on boards has a positive influence on the performance of the company (Adams and Ferreira, 2009; Betz, Connell and Shepard, 2013), because female board members incorporate the roles of mother and wife in their working environment, and apply ethical criteria that differ from those of men (Kessler-Harris, 1989). These behaviour patterns are related to the disclosure of more information concerning social and environmental issues (Prado-Lorenzo and Garcia-Sanchez, 2010). Bear *et al*. (2010) found a positive relationship between female directors and corporate social responsibility disclosures. Based on the above empirical findings, this paper proposes that a female presence on the board leads to more disclosure of material information in sustainability reporting. Therefore, the above discussion leads to the following hypothesis.

*H4 Women on the board positively influences the materiality disclosure in sustainability reporting*.

***Director Experience***

Director experience is related to the social behaviour of a company. The directors' industry background has an impact on social issues (Sutcliffe and Huber, 1998). Some directors may be outsiders to the company, yet be cognizant and familiar with ''the industry recipes''. The outlook of these directors is less narrow but still confined to the industry experience with social issues. These directors are more willing to accept the changes and take into consideration the expectations and needs of various stakeholders (Guthrie Datta and Deepak, 1997). Based on past literature, this paper proposes that directors with a diverse industry background are likely to pay more attention to the social performance of the company. Consequently, the following hypothesis is proposed.

*H5 Director experience positively influences the materiality disclosure in sustainability reporting.*

***Director Tenure***

Director tenure is related to directors' experience as board members and also to their knowledge of the company (Hafsi and Turgut, 2013). According to the findings of Rao and Tilt (2015), director tenure has an impact on business performance. A longer tenure is related to familiarity with the company's strategic



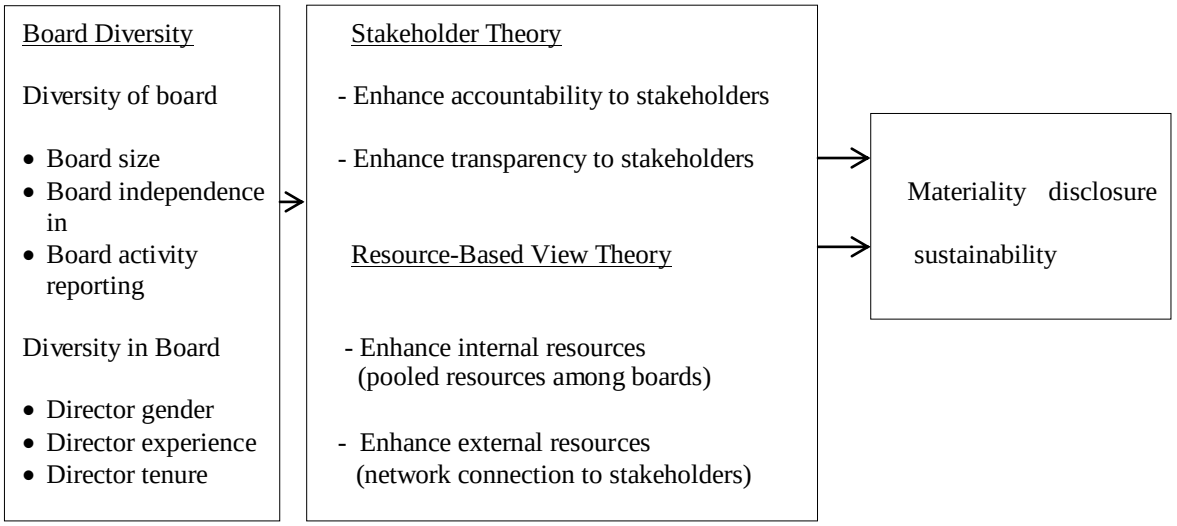
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issues and reporting practices (Kesner, 1988), while, shorter tenure directors are generally less familiar with the company's operations. A recent study by Rao and Tilt (2016) found that a diversity of tenure is expected to generate a balance that is favourable to social and environmental performance. This study proposes that longer tenure is expected to generate a balance favourable to the disclosure of material information in sustainability reporting. Therefore, the following hypothesis is proposed.

*H6 Director tenure positively influences the materiality disclosure in sustainability reporting.*

The proposed conceptual framework for this paper is shown in Figure 1, which proposes that there is a linkage between board diversity and materiality disclosure in sustainability reporting based on a combination of the stakeholder theory and the resource-based view theory.

**Figure 1: Proposed Conceptual Framework**




## 4. Conclusion

This paper provides an understanding of the influence of board diversity on materiality disclosure in sustainability reporting. From a theoretical standpoint, this paper contributes to the literature by proposing a conceptual framework based on the stakeholder theory and resource-based view theory.

From the resource-based view theory perspective, boards of directors are key decision makers in the company and could influence the ways in which the company provides non-financial information to stakeholders. This paper proposes that board diversity could enhance the internal resources among the board and also enhance the external resources through network connections with a broader group of stakeholders. From the stakeholder theory perspective, reporting on the material aspects of sustainability information provides greater transparency and achieves greater accountability for the stakeholders. This study extends the previous academic literature on corporate governance and sustainability reporting, in particular, board diversity and the materiality concept.



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On the practical side, this paper provides Malaysian regulators, practitioners, stakeholders and reporting companies with interesting insights into the material issues and aspects of sustainability reporting that need further development and improvement of policy and practice. Malaysian regulators may, therefore, want to formulate more specific and detailed disclosure requirements, rather than the current general mandatory requirement to enhance the material information disclosure in sustainability reports.

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