Board Size, Gender Diversity and Managerial Ownership toward VAIC & Firm Value

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The purpose of this research is to analyze the direct impact of corporate governance on intellectual capital and firm value and the intellectual capital as the mediating variable between corporate governance and firm value. Data technique analysis will be run in WarpPLS software. The findings support all the proposed hypothesis, that corporate governance in both Indonesia and Malaysia have a positive significant impact on intellectual capital and value. In both countries, intellectual capital also has a positive significant impact. However, the main driver of significance on intellectual capital is different. Furthermore, intellectual capital in Malaysia is successfully mediate the relationship between corporate governance and firm value.
Keywords: Managerial Ownership, Board Diversity, Gender, Intellectual Capital, Firm Value

1. Introduction

On 2015, ASEAN was achieving a major milestone by the establishment of ASEAN Economic Community (AEC) that promotes free movement of goods, services, investments, skilled labor, and the free flow of capital[1]. Every company in ASEAN has to prepare themselves to be ready in facing the new economic culture. From the economic perspective, corporate governance is crucial in achieving an efficiency of the movement scarce funds to investment project with the highest return[2]. As the increase of attractiveness of corporate governance for Asian countries, the researchers can categorize corporate governance into two mechanisms; internal mechanism and external mechanism. Because of the availability of data and the most corporate governance research conducted on internal mechanism, this study will focus on internal corporate governance mechanisms (gender diversity, board size & managerial ownership). Knowledge-based economy, which is known as intellectual capital (IC), is also increasingly being recognized as an important strategic resource for the operation of organizations[3]. IC management can transform various intangible resources to create or maximize companies' value[4]. As mentioned above that intellectual capital can create value added for the company, then intellectual capital can increase investor confidence[5].

The result of an investigation on ASEAN-related to corporate governance, intellectual capital, and firm value are varied, depend on the industry, macroeconomic factor (country), type of company and the indicator used[6]. In creating the more meaningful result, there is a suggestion to make a comparative analysis between two countries[7]. The first country chosen as the object of this study is Indonesia, where this study is conducted. Malaysia showed the highest score for their effectiveness and efficiency of corporate governance practice compared to other most hit countries by the financial crisis[8]. Even though Malaysia seems to have a better corporate governance practice compared to Indonesia, both are quite similar in some ways; geographical proximity and cultural similarities[9, 10] and the companies are still dominated by family control – conglomerates[11]. Thus, Malaysia is chosen as the comparison country.

2. Corporate Governance in Indonesia & Malaysia

Since Asian financial crisis in 1997-1998, Indonesia and Malaysia government pushed more effort to establish good corporate governance code. Even more, Malaysia has advanced their corporate governance regulatory before financial crisis[12]. Indonesia's corporate governance motivate on the ethical driven and regulatory driven. The latest good corporate governance support the ethical driven motivation in creating checks and balance to support the transparency, accountability and the realization of responsibility to ensure company's performance[13]. While Malaysia's corporate governance code sets out the principles and the best practices to an optimal governance framework. The latest revision of code is more focus on strength of BOD, audit committee and internal audit function, aim to encourages progression and provide greater utility for companies and their stakeholders[14]. Both Indonesia and Malaysia rule companies to decide their own number of board size. Both are agree to the flexible number, which is adjusted on company needs to work as a team effectively and efficiently[14].

3. Corporate Governance Indicators

Based on the survey conducted by PWC[5], other than the expertise of board member, the proportion of women of the board is the important aspect for investors. Besides that, increasing number of the member with specific expertise are also important. Thus, board size and gender diversity are chosen as the indicator of corporate governance. Because this study will be conducted in Indonesia and Malaysia, where many researches mentioned that both of them characterize with their concentration of ownership[15], then managerial ownership is chosen as the last indicator used.

The optimum board, which should consist of executive and non-executive directors, is important for governing the company[2]. The larger board can promote a higher range of diversity, which is believed can deliver more benefits to organizations, because the company can increase the expertise needed. However, uncontrolled the larger board may also bring ineffective controls, poor communication, and coordination which can decrease the value of the benefit received[3]. According to agency theory, the larger board can contribute to the firm valuation, because the larger board can increase the monitoring role of the agency problem. According to resource dependence theory, larger board can promote diversity and expertise of pool, ideas, and skills, as well as greater opportunity to secure critical resources[16]. Board size, is defined as the total number of directors on board[3, 2, 17].

Female directors are believed to be much more likely to improve company performance and board effectiveness[17]. Based on agency theory, women can bring positive impact because of their consideration. Women consideration on board might be more activist board because outside directors could be more considerate[18]. Based on *human capital theory,* diverse people in the board of director can bring the uniqueness of human capital resources[19]. The gender diversity is defined as the proportion of women on the management board[16].

Ownership structure is usually considered as on of the core internal mechanism of corporate governance. Most of the firms tend to view management incentive plans as an effective way of reducing agency problem. The separation of ownership could generate a conflict of agency between two parties. Especially when the manager place personal interest ahead of shareholder's interest In addressing the agency problem, Jensen and Meckling (1976) suggested the increasing managerial or insider ownership[20]. Instead of the incentives in maximizing shareholder's value, managerial ownership can also increase their influences in the decision-making of firms general policies[21]. Managerial ownership is defined as the percentage of executive director's shareholding, direct and indirect[7].

4. Firm Value

In line with the increasing market competitiveness, company manager aims to maximize company value. As the firm value can contribute to the long-term growth of the company, many researchers have conducted a lot of investigation between companies' attributes and firm value. The most valuation used as the calculation is the proxy of Tobin's Q[7, 8, 16]. The higher value of TBQ shows the higher value of the company[8]. The formula to calculate Tobin's Q (TBQ) = (MVE + PS + Debts) / TA. Where: MVE = Market Value of Equity (Closing Price of Stock at the end of the year x Number of Outstanding Shares); PS = Preferred Stocks; Debt = Short-Term Debt; TA = Book Value of Total Assets.

Corporate governance, which indicated by board size, gender diversity and managerial ownership showed a positive significant impact on firm value[13, 16, 17, 22]. Thus the proposed hypothesis is **H1*:* Corporate Governance has a positive impact on the firm value.**

5. Intellectual Capital (Value Added Intellectual Capital)

There are a lot of intellectual capital measurement method. The most popular method is VAIC^{TM}, developed by Pulic. This method is widely used by researchers to measure intellectual capital in relation to corporate governance[3, 23, 24]. VAIC^{TM} links between the activities of the company, the resources used and the financial outcomes. This measurement is considered to be the universal indicator which can show the abilities of companies in value creation and represent a measure of business efficiency in knowledge-based economy[12]. The value added (VA) of intellectual capital as the difference between output and inputs. Output is the total sales; Input is the cost of brought in material, components and services. VA = OP + DC + EC + D + A. VAIC^{TM} is sum into three separate indicators; Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE) and Capital Employed Efficiency (CEE). The HCE and SCE constitute IC efficiency (ICE). HCE = VA/HC. HC as the total salaries and wages duties for companies; the lower VA and higher HC means that human capital is utilized efficiently. As the increasing both corporate governance and intellectual capital, both is believed to have the relation in order to enhance company's value. More researches also show a positive relationship between some indicators of corporate governance and intellectual capital[20, 21]. Thus, the proposed hypothesis is **H2: Corporate Governance has a positive impact on the intellectual capital**.

Intellectual capital management is one of the resources, which is about managing and transforming resources in creating company value[4]. Intellectual Capital also can be an instrument to observe organizational hidden value[15]. Several researchers concluded a positive relationship between VAIC and Tobin's Q[8, 23, 24]. The last proposed hypothesis is **H3: Intellectual Capital has a positive impact on firm value.**

6. Research Methodology

This research conducts an analysis of independent variable, mediating variable and dependent variable. Corporate Governance, whose indicators are board-size, gender diversity and managerial ownership as independent variable. Intellectual capital as mediating variable. Firm value as dependent variable. All data used in this study is a secondary data derived from annual reports, Bloomberg and Yahoo Finance. This study will be tested only on consumer goods companies on Indonesia Stock Exchange (IDX) and Bursa Malaysia from 2010 to 2015. The final sample that met all the criteria is 25 Indonesia companies (150 firm-year) and 106 Malaysia companies (636 firm-year).

The detail descriptive analysis of each indicator can be seen on Table 1. Indonesia data showed that all indices have passed all the criteria. APC, ARS and AARS, for both Indonesia and Malaysia, have P value < 0.001. AVIF and AFVIF have ideal criteria. Tenenhaus GoF of Indonesia and Malaysia are considered as medium. SPR and RSCR are on ideal criteria, which the value are 1. Both of SSR and NLBCDR have indices value of 1.which are acceptable with the indices above 0.7. In summary, the data of Malaysia and Indonesia companies passed all the indices.

7. Research Result and Analysis

The data gathered from Indonesia and Malaysia showed that Indonesia data is more superior compared to Malaysia data. This event may due to the economic condition in Indonesia and Malaysia. Indonesia's real GDP growth was higher than Malaysia since 2010[24]. In both Indonesia and Malaysia, all indicators of corporate governance have a positive and significant impact on firm value. Thus, hypothesis 1 is accepted. Gender diversity in the board becomes increasingly important by adding some value added within the companies. The importance of gender diversity is supported by human capital theory[18], agency theory[19], stewardship theory[22], competence-based theory and resource dependency theory[25]. The current fact on Indonesia and Malaysia demographic and the represented of women on board also agree on the importance of gender diversity on the board. The increasing percentage of women on board in Indonesia[26] and the development of Women Director's Registry[27] support the positive impact of women on board.

Board size is mentioned as the most important indicator of corporate governance in Indonesia and Malaysia. According to agency theory in Jensen and Meckling (1976), the corporate member should provide an expert advice, supervise or monitoring role to other members and seek discipline from management to ensure that all managers pursue the interest of shareholders. According to resource dependence theory, having larger board member means can diverse the member in experiences, ideas, and skills as well as greater opportunity to secure critical resources, contact and contracts[6]. All sample companies used in this study are limited liability companies, which are big and have higher complexity. Higher complexity can mean the higher diversification, larger assets and more relying on debt financing. Thus, the context of Indonesia with larger board size, it is expected that board of commissioners has more member with specific experiences and expertise in order to increase the quality of advice and their monitoring role on the board of directors. The larger board directors itself is expected to increase the capabilities in dealing with business complexity and undertake various strategic actions. In Malaysia, a company with unitary board system, larger board can be interpreted as companies have bigger outsider companies, thus can increase the pooling of expertize and experiences to monitor the managers in day-to-day activities[16].

The managerial ownership significantly positive affect firm value of the companies. According to agency theory, ownership structure within the companies can lead in solving the separation of ownership and issues in who should be in control[14]. According to stewardship theory, there are situational and psychological factors that incline individuals' decision to be steward or agents. Through the rational process, the agents as individuals have capability to learn and change their preferences as they interact throughout time[16].

The result of hypothesis 3 test, both in Malaysia and Indonesia, is accepted. The result is supported by the economic condition currently in ASEAN. By maximizing the intellectual capital, companies can maximize the exploitation of available resources more effectively and efficiently, especially in the knowledge-based economy nowadays[8]. This maximization of intellectual capital is in accordance with competence-based theory. According to resource dependence theory, intellectual capital is a resource of the company as the core of value creation and competitive advantage for companies. Human Capital as the employee capabilities is considered as the most important, that can create intangible asset and has direct impact on firm performance or valuation. Structural capital also seen as foundation stone in the organization can provide supportive environment for employee. Thus, employee can increase productivity and decrease total cost of production, and eventually increase companies' profit[23].

8. Conclusion and Suggestion

From above analysis, it can be concluded that corporate governance in both Indonesia and Malaysia positively affect intellectual capital and firm value. The intellectual capital in both countries also have a significant and positive impact on firm value. Even more, the intellectual capital in Malaysia can partially mediate the relationship between corporate governance and firm value. However, the significant impact of both countries are affected by different phenomenon, which is reflected in their countries.

As the importance role of board size, gender diversity and managerial ownership, companies still have to consider the amount of board size. They have to ensure that the incremental cost of each member of board should be offset with the increment benefit for companies. The companies can reference 8-11 members in their board[28, 29]. Malaysia companies should be more concern on their managerial ownership. The data indicated that 31% are on decline effect to firm value & IC. They are better to reduce until < 18% or increase > 64%[21]. Indonesia companies should be more focused to improve the recognition of women on their board. Data statistically conclude that women bring positive impact to firm value and intellectual capital.

This study provides not only pragmatism contribution for companies and stakeholders, but also incremental and practical contribution for the researchers. However, there are still many opportunities that can be pursued in the future. Future research can add more variables, used different indicators, tested on other countries and test on different object.

Acknowledgments

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Figure caption

Figure 1. Model Analysis

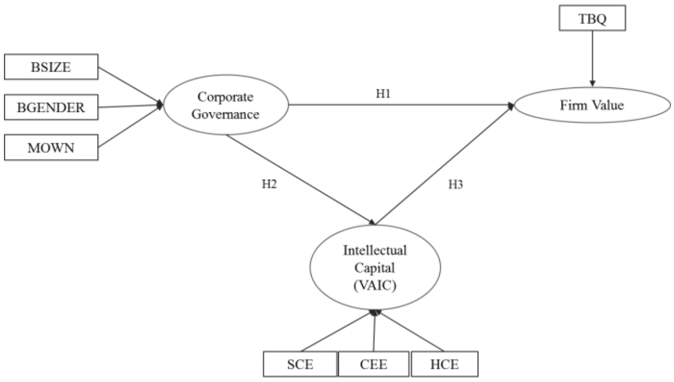

Figure 1. Model Analysis

Table captions

Table 1. Detail Descriptive Analysis of Indicator
Table 2. Weight Indicator

<table>
<tr><th rowspan="2">Country</th><th colspan="2">Corporate Governance</th><th colspan="2">Intellectual Capital</th><th rowspan="2">Country</th><th colspan="2">Corporate Governance</th><th colspan="2">Intellectual Capital</th></tr>
<tr><th>Indicator</th><th>Weight Indicator</th><th>Indicator</th><th>Weight Indicator</th><th>Indicator</th><th>Weight Indicator</th><th>Indicator</th><th>Weight Indicator</th></tr>
<tr><td rowspan="6">Indonesia</td><td>BODsize</td><td>0.378</td><td rowspan="2">HCE</td><td rowspan="2">0.653</td><td rowspan="3">Malaysia</td><td>BODsize</td><td>0.735</td><td>HCE</td><td>0.615</td></tr>
<tr><td>BOCsize</td><td>0.288</td><td>BODmown</td><td>-0.404</td><td>SCE</td><td>-0.32</td></tr>
<tr><td>BODmown</td><td>-0.251</td><td rowspan="2">SCE</td><td rowspan="2">0.654</td><td>BODgender</td><td>0.451</td><td>CEE</td><td>0.646</td></tr>
<tr><td>BOCmown</td><td>0.293</td></tr>
<tr><td>BODgender</td><td>-0.115</td><td rowspan="2">CEE</td><td rowspan="2">-0,042</td></tr>
<tr><td>BOCgender</td><td>-0.263</td></tr>
</table>

Table 1. Detail Descriptive Analysis of Indicator

<table>
<tr><th rowspan="2">Country</th><th colspan="3">Type of Variable</th><th colspan="3">Type of Effect</th><th rowspan="2">Explanation</th><th>Hypothesis</th></tr>
<tr><th>Independent</th><th>Dependent</th><th>Mediating</th><th>Direct</th><th>Indirect</th><th>Total</th><th>Accept/Reject</th></tr>
<tr><td rowspan="3">Indonesia</td><td>Corporate Governance</td><td>VAIC</td><td>-</td><td>0.121 (0.065)</td><td>-</td><td>0.121 (0.065)</td><td>α = 10%</td><td>H2 is accepted</td></tr>
<tr><td>Corporate Governance</td><td>TBQ</td><td>VAIC</td><td>0.319 (<0.001)</td><td>0.030 (0.298)</td><td>0.349 (<0.001)</td><td>The model has insignificant indirect effect</td><td>HI is accepted & No mediation</td></tr>
<tr><td>VAIC</td><td>TBQ</td><td>-</td><td>0.251 (<0.001)</td><td>-</td><td>0.251 (<0.001)</td><td>α = 5%</td><td>H3 is accepted</td></tr>
<tr><td rowspan="3">Malaysia</td><td>Corporate Governance</td><td>VAIC</td><td>-</td><td>0.145 (<0.001)</td><td>-</td><td>0.145 (<0.001)</td><td>α = 5%</td><td>H2 is accepted</td></tr>
<tr><td>Corporate Governance</td><td>TBQ</td><td>VAIC</td><td>0.163 (<0.001)</td><td>0.087 (<0.001)</td><td>0.250 (<0.001)</td><td>The model has a positive significant indirect effect</td><td>HI is accepted & Partial mediation</td></tr>
<tr><td>VAIC</td><td>TBQ</td><td>-</td><td>0.598 (<0.001)</td><td>-</td><td>0.598 (<0.001)</td><td>α = 5%</td><td>H3 is accepted</td></tr>
</table>

Table 2. Weight Indicator