The Key Attributes of Governance and Capital Structure in Supply Chain Strategy: Complementary or Substitutive Impact?

Ahmed Ibrahim Maymoun Muazeib[1], Imam Ghozali[2], Tarmizi Achmad[3], Faisal[4]

[1,2,3,4]*Diponegoro University-Indonesia.*

[1]*Ahmed.Muazeib@yahoo.com*

[2]*Imam_Ghozali@yahoo.com*

[3]*t.achmad18@gmail.com*

[4]*faisalthahir@gmail.com*

***Abstract*— This study aimed to investigate the relationship between internal corporate governance attributes and capital structure in a supply chain process of Malaysian listed firms. Most of prior works were based on agency theory, and the results are mixed. This study endeavored to examine the complementary relationship between multiple factors of governance to avoid providing repeated evidences and or to enrich the existing literature with different perspective, which can be achieved by supply chain strategy. The study was conducted in Malaysian listed firm of period 2014-2015. Regression analysis is used in this study as statistical tool of analysis. Based on statistical analysis, the results of this study reveal that only board size, board meeting, and audit committee size are correlated to capital structure. Other variables have no effect on capital structure. The analysis also showed that attributes of governance are complements to each other, in turn; this may lead to perfection of monitoring and management of the board decision making. This study contributes to protect beneficiary parties from manager's manipulation in a supply chain strategy. Also, the results of this study can be used as a support to develop Malaysian code of governance.**

***Keywords*—** *Corporate Board, Audit Committee, Capital Structure, Complement, Supply Chain Strategy, Malaysia.*

1. Introduction

With series of collapses that rocked American high-profile firms such as WorldCom, General Electric, AOL Time-Warner, and of course Enron, governance research becomes a growing field of accounting and management study around the globe for the supply chain strategies. This failure necessitates the relevant authorities of corporate governance in many countries to reevaluate, formulate, and tighten the code of governance [1-7]. The important of corporate governance is to reduce the conflict of interests between manager and principal, and to ensure that interests are highly protected for shareholders [8-12]. In Malaysia, the investors' confidence has been shaken since the financial failure begun in capital market during 1997-98 [13,14]. To rebuild and bring back confidence of investor some Malaysian bodies consider that code of governance should become focus of attention. Finance Committee launched the code of governance in 1998 for both government and industry sectors. After that the Capital Market Master Plan was followed in 1999. Finally, Bank Negara Malaysia launched in 2001 the Financial Sector Master Plan to design the direction of financial sector [15]. Corporate governance plays an important role of business success and effective management, and still debatable and developable subject.

Previous empirical studies focused on the influence of mix corporate governance elements on corporate performance and finance. Corporate governance analysis is useful to review and make sure that the mix of finance and best practices of corporate governance in particular firm are in place. Furthermore, most previous studies have examined the relationship between mix of corporate governance elements and firm performance ignoring the complementary effect. The current study endeavors to investigate the relationship between the key corporate governance elements and capital structure of Malaysian listed firms, and to explore whether this relationship is complementary or substitutive. Thus, the contribution of this study is to identify the role of the main factors of governance in capital structure with additional analysis to test the complementary impact. These factors are; board composition, board size, board meeting, audit committee composition, audit committee size, and audit committee meeting. Therefore, revealing evidence that capital structure is structured by specific corporate governance elements. The structure of this paper is arranged as follows. First, briefly explain the background of corporate governance practices in Malaysia. Second, discuss the relevant previous literature to develop research hypotheses.

IJSCM, ISSN: 2050-7399 (Online), 2051-3771 (Print)

Data and method are prepared next. Finally show the empirical findings and conclude the paper with the discussion, limitations and avenue of the future study.

2. Background

Supply chain strategy for improving the performance in supplying, listing and providing and delivering the products or services in companies has been necessary. The code of corporate governance in Malaysia is hybrid, which is similar to United Kingdom code of governance [3]. Malaysian code of governance was formally launched in March 2000 by Finance Committee on Corporate Governance, and largely formed from recommendations of Cadbury Report and the Hampel Report (FCCG, 2000) quoted by and [16-21]. But some of these recommendations can be disputable because of the differences between Malaysian business environment and UK business environments, in terms of ownership concentration [9]. Since introducing the MCCG in 2000, Malaysian company was influenced positively by dint of reforms of best practice of governance, this code was recently reviewed in 2007 and 2012 to ensure that it remains relevant with best practices and standards of governance around the globe [6], [22]. The code of Malaysian governance was initiative started by Finance Committee in 1998 for both government and industry sectors. After that the Capital Market Master Plan was followed in 1999 for next ten years to define the oversight of Malaysian capital market. Finally, Bank Negara Malaysia launched in 2001 the Financial Sector Master Plan to design the direction of financial sector for next ten years [21]. The code was essentially issued to identify the principles and processes of governance that companies may use to achieve the optimal framework of governance [5], [23].

3. Literature review and hypothesis development

This section critically reviews the theoretical and empirical literature of the corporate governance attributes –capital structure relationship to develop research hypotheses of this study. This is necessary in order to enable the researcher to see the gaps that might have been left and/or to get a glance of some recommendations to conduct further studies that might have been reported in earlier studies. This study is theoretically based on agency theory. Therefore, there are two models of agency paradigms resulted in and Jensen's seminal work. Jensen and Meckling provide the first model showing that equity issuance leads to conflicts between agent and owners. The second one provides another model showing that debt financing also leads to conflicts between shareholders and debt holders. In accordance with the framework, trading off the agency cost of debt against the debt benefit can result in an optimal capital structure [13], [15].

Agency theory predicts a significant relationship between board composition and financial decision. Monitoring management can be more effectively conducted by outside directors than management directors because they play critical role as decision-makers in other firms. In addition, it is because they give more concern about their reputation in the managerial labor market [7], [8], [24], [25]. Moreover, outside directors are expected to have more objective decision and have greater expertise than related directors. Therefore, boards with higher percentage of outside directors are assumed to be much more independent. Based on corporate governance practice and SOX Act of 2002, the relationship between board composition and financial decision is likely to be significant when independent directors are better monitors of managerial and financial process.

However, empirical evidences on this relationship, in Malaysian perspective, study by (Heng, Azrbaijani, and San [22] have reported that board composition has significant positively relationship with debt to asset ratio of 75 non-financial firm during the period 2005-2008. Another study by Şener, Varoğlu, and Aren [23] they investigated the effect of board composition on firm performance of 80 Turkish listed companies. They used three measures of board composition under three environmental dimensions. They found the outsider directors have no effect on ROA in first model. And negatively significantly effect on ROA when environmental dynamism is high. Finally, outsiders have insignificant impact of all environmental dimensions in moderating model. Ibrahim & Angelidis, have examined the relationship between outsiders and corporate social responsibility, the results indicate that independent directors give more concern toward corporate social responsibility and less concern toward economic performance [11]. Uzun, Szewczyk, & Varma, 2004, have found that there is significant relationship between board composition and corporate fraud of US firm in 1978-2001 period [16]. Based on above explanations, the first hypothesis is proposed:

Hypothesis 1: Board composition of Malaysian publicly listed firms has an impact on capital structure.

There are many different perspectives on the role of board size. The board of firm, in turn, has the function of selection and reviewing nominees for positions of director and monitoring senior managers' decision. It consistent with the information requirements of more complex operations tends to require lager board [4]. Agency theory predicts a negative relationship between board size and firm value. Because the board with more than eight members is likely to function ineffectively and easier for CEO to control [13]. Empirically, some studies show mixed results, [22] have found that board size has significant negatively relationship with capital structure of Malaysian firms. In the same view by Brédart, [24] has found negative relationship between board size and financial stress of US firms. Johl, Kaur, & Cooper [25], investigate the issue of board size and firm performance of 700 financial and non-financial firms, they found board size positively related to firm performance. In New Zealand perspective, board size was found positively related to firm performance and play critical role as being moderating of this relationship. The second hypothesis of this study is as follows:

Hypothesis 2: The number of the members of director's board in publicly listed firms in Malaysia has an influence on capital structure.

This study suggests using the concept of complementarities between independent variables to figure out whether these variables have complementary or substitutive effect when they work together. In growing work, corporate governance attributes are classified as interdependent factors and complements to each other as bundle [1]. This study supposes that board size has an effective role in presence of audit committee size, the sub-hypothesis is proposed below:

Hypothesis 2a: Board Size is more effective when it works together with audit committee size rather than substituted in Malaysian listed firms.

Board meeting is considered to be an important factor since trustees or directors receive information about business of firm that enables them to act their important monitoring role. Agency theory suggests that frequent meetings of the board resulting in better performance and monitoring. This argument is proved in South Africa by Ntim & Osei [26], they provide results that the performance of firm can be improved by frequency of board meetings. One theoretical view proposes that the board activity can be highly performed by frequency of meetings during the year [17]. An opposing theoretical view suggests that frequency of board meetings is not useful to shareholders due to limited time outside directors spend with firms and additional expenses, the time can be spent for other meaningful things such as strategic management plans [18]. Johl [25], have found that board meeting has an inverse relationship with performance of Malaysian company. Another study by Vafeas, has proved that board meeting has inversely impact on firm value [17]. Negative relationship between board meeting and firm value has been explained also by Kyereboah-Coleman [31], examined 103 listed firms from South Africa, Nigeria, Ghana, and Kenya over the period 1997-2001. Inverse results in South Africa by Ntim et al., [26] they provide evidence that the performance of firm can be improved by frequency of board meetings. Also, In [27], have found inverse relationship between number of board meeting and foreign non-executive directors, CEO compensation and growth of UK largest listed firms. Therefore, based on mix evidences above the second hypothesis is proposed as followings:

Hypothesis 3: The frequency of board of directors meeting in publicly listed firms in Malaysia has an influence on capital structure.

To better reforms of corporate governance, complementarities between corporate governance mechanisms should be taking into consideration. In addition, corporate governance attributes should be comprehensive rather than piecemeal [10]. This study investigates whether board meeting is complement of substitute element with audit committee size, therefore, the following hypothesis is proposed:

Hypothesis 3a: Board of directors meeting is more effective when it works together with audit committee size rather than substituted in Malaysian listed firms.

Establishing an audit committee is one of the functions of board of director. Agency theory assumes that separation between members whether work with the board or audit committee could tend to reduce principal-agent conflict and cost of this relationship. Empirically, Wang & Huynh [30], have stated that audit committee independence has moderating role and positive impact on the relationship between financial and nonfinancial firm performance. Saat, Karbhari, Xiao, & Heravi; Al-Mamun, Yasser, Rahman, Wickramasinghe, & Nathan [28, 29], have investigated the same issue in Bursa Malaysia in 221 firms, they find strong relationship between independence of audit committee members and firm performance. Therefore, the following hypothesis can be proposed:

Hypothesis 4: The audit committee composition in publicly listed firms of Malaysia has an effect on capital structure.

Size of audit committee is considered to be one of audit committee characteristics that play an important role in affecting firm value. Empirically, [28] have investigated total of 150 firms of Australia's S&P300 listed firms, the result shows that small number of audit committee with high qualification of financial expertise and more experience are positively associated with firm performance. Another study by [29], examined the effectiveness of audit committee on financial performance; their results show no significant relationship between audit size and financial firm performance. Al-Mamun et al., [29] in their study of Malaysian firms, they found positive relationship between audit size and firm performance. In UK market state that audit committee size is positively associated with intellectual capital (IC) disclosure of 100 UK listed firms. To this end, this study considers that audit committee size should be investigated in Malaysia Market. Therefore, the following hypothesis can be proposed:

Hypothesis 5: The audit committee size in publicly listed firms of Malaysia has an impact on capital structure.

The purpose of this study is to explain characteristics of corporate governance in terms of complementarities and substitute concept. This study argues that these characteristics compose complementary system, to prove that these elements are more effective when they work together. This study proposes that audit committee is more effective when it works with board size and board meeting.

Hypothesis 5a: The audit committee size is more effective when it works together with board size rather than substituted in Malaysian listed firms.

Hypothesis 5b: The audit committee size is more effective when it works together with board meeting rather than substituted in Malaysian listed firms.

Audit committee activity is one of important attributes of audit committee. The effectiveness of audit committee is related to frequency of held meetings during the year. state that more frequency of meetings of audit committee with internal auditors are much better known about accounting and audit issues [2]. This study gives much attention for audit activities and structure to produces significant and robust results of Malaysian market and this relationship will be tested as Edgeworth complement. Most of prior studies provide mixed evidences. For example, [30], provide evidence that there is no relationship between audit meetings and firm reporting fraud. Different results found by [31], show that frequency of audit meetings is positively related to intellectual capital. For Saudi non-financial firms have found that there is no influence of audit committee on firm performance [2]. For Italian non-financial listed firms [32], have proved that number of audit meetings is associated with information disclosure. In [33] opine that frequency of audit committee meetings contributes in reducing earning management. In the same line, the frequency of audit meeting might improve and enhance the effectiveness of audit committee, this argument have been discussed and supported by [34]. In [35] provides evidence from Middle East, shows that frequency of meeting has significant negative relationship with financial distress. In order to provide effective oversight and control on financial decisions, the corporate audit committee needs to have more frequency of meetings. Therefore, hypothesis can be drafted:

Hypothesis 6: The audit committee frequent meetings of publicly listed firms of Malaysia have an impact on capital structure.

3.1 Sample Selection and Data Collection Procedures

To achieve research goals the appropriate research methodology and data collection techniques shall be carefully selected. This section provides a detailed description of the stages taken to prepare for the chosen sample and analysis tool of this study.

3.2 Sample and Data Sources

This study believes that sampling is a statistical tool used to choose proper size of samples from the population. Thus, the samples will be selected from Malaysia market for two years and all sectors based on availability of data in Bloomberg Database from Malaysia community population. The study sample is not randomly selected; the sample of study was selected based on predetermined criteria using Bloomberg Data. Which means the data availability can be recognized since the company submits its data to Bloomberg.

3.3 Variables

This section provides information about variables used in this study. For discovering the relationship of conducted study, all variables should be clearly explained. This study uses dependent and independent variables to test the relationship between internal corporate governance attributes and capital structure for Malaysian market. These variables are explained as followings:

3.4 Dependent Variable

In the line with this study uses debt to equity ratio as dependent variable. This study calculates debt to equity ratio as the total debt divided by total equity.

3.5 Independent Variables

The explanatory variables in this study include: (i) board composition, (ii) board size, (iii) board meeting, (iv) audit committee composition, (v) audit committee size, and (vi) audit committee meeting. The detailed operational definitions, metrics and symbol of variables used in this study are shown in Table 1.

Table 1. Variables Definitions

Variables	Operational Definition	Metrics	Symbol	Scale
Corporate Governance				
Board Composition	The board which has a majority of outside directors who do not have engagement to firm business to avoid conflict of interest.	The percentage of independent directors on the board	BComp	Ratio
Board Size	The number of directors on the board including CEO and Chairman of firm.	The number of directors on the board.	Bsize	Nominal
Board Activity	The number of meetings that should be hold for each accounting year to discuss policy issues related to firm activity.	Frequency of meetings of board of directors	Bmeet	Nominal
Audit Committee Composition	Audit committee is in charge of overseeing the financial statements and disclosure; the members should be made up of outside directors who are independents.	The percentage of independent directors on the committee.	ACComp	Ratio
Audit Committee Size	The number of members who overseeing the quality of financial report and accounting information for each accounting year.	The number of members on audit committee.	ACsize	Nominal
Audit Committee Activity	The members meet at least once a year to discuss and review the financial report and all financial transactions of accounting period.	Frequency of meetings of audit committee	ACmeet	Nominal
Corporate Finance				
Debt to equity Ratio	The ration that refers to mix of equity and debt to finance the assets of firm.	Total debt divided by total equity.	Der	Ratio

4. Method

For hypothesis testing, regression analysis will be used in this study, and also to discover the relationship between corporate governance factors and debt to equity ratio based on new theoretical framework. More specifically, the regression will identify the relationship among dependent and independent variables. The following equation represents the general model in this study:

$$Y = a+\beta1\ X1+\beta2\ X2+\beta3\ X3+\beta4\ X4+\beta5\ X5+\beta6\ X6+E \qquad (1)$$

Where:

y = is total debt divided by total equity; α is the intercept.

β = slope of the independent variables.
X = independent variables.
E = error term.

4.1 Descriptive Statistic and Empirical Results and Discussion

This section provides interpretations to the results of study and discusses the statistical methods that have been used to test the data in Malaysian market. Besides, this section is important to provide support for the argument that capital structure can be explained by the main internal corporate governance. Also, the nexus between corporate governance and capital structure is explained and elaborated in detail. Then, the complementarities tests of governance factors and corporate capital structure are presented. Finally, some additional important tests are carried out, for example, Heteroscedacity, Autocorrelation, Multicollinearity, and normality or error test.

4.2 Descriptive Statistic

Tables 2 and 3 show the descriptive statistics of the main independent and dependent variables used in this study based on the selected samples in developing markets. The descriptive statistics are provided for Malaysian market as below:

Table 2. Descriptive Statistic for Malaysian Listed Firms

Variables	N	Minimum	Maximum	Mean	Std. Deviation
LNDer	92	-2.18	6.39	3.8236	1.51463
LNBsize	92	1.61	2.71	2.1801	.23311
LNBcomp	92	3.43	4.49	3.8903	.25867
LNBmeet	92	1.10	3.04	1.9687	.43605
LNACsize	92	1.10	1.79	1.2697	.19567
LNAComp	92	4.09	4.61	4.4380	.18274
LNACmeet	92	.69	2.89	1.7708	.40578

Source: SPSS 22 output, 2018.

The table above shows the minimum value of debt to equity ratio of firms in Malaysian market is -2.18 and the maximum value is 6.39. The mean for debt to equity ratio is 3.8236. The mean for debt to equity ratio is 3.4755. Based on that, the descriptive statistic shows that firms of Malaysian market issue more debt.
As it is shown in table above, the minimum value of board size of Malaysian firms is 1.61, and maximum value is 2.61. And the mean of board size is 2.1801. The mean value of board size appends credence to the results by [36], they suggest that the smaller board members are more effective and productive at monitoring of firm. This also consists with findings of [37]. This also can be explained by [38], has found that large firms with large board size tend to have negative relationship to firm performance of UK firms.
The minimum value of board composition in Malaysian market is 3.43 and the maximum value is 4.49. And the mean of board composition is 3.8903. In [39], find that board with independent members is more monitoring and more closely to shareholders objectives.
The minimum value of board meeting of Malaysian firms is 1.10 and maximum value is 3.04. The mean of board meeting is 1.9687. Based on the literature, more number of meetings of the board of director the more productive output.
The minimum value of audit committee size for Malaysian firms is 1.10, and the maximum value is 1.79. And the mean value of audit committee size for Malaysian firms is 1.2697. The analysis results to adds credence to the output by Aldamen et al., [27].
The minimum value of audit committee composition of Malaysian firms is 4.09, and maximum value is 4.61. The mean value is 4.4380.
The minimum value for audit committee meeting of Malaysian firms is .069, and maximum value is 2.89, while the mean value is 1.7708.

Table 3. Correlations Coefficients Results for Sample of Study

	Variables	LNACmeet	LNAComp	LNBcomp	LNBsize	LNACsize	LNBmeet
Model 1	LNACmeet						
	LNAComp	-.062					
	LNBcomp	-.141	-.302				
	LNBsize	-.289	-.034	.401			
	LNACsize	.182	.353	-.285	-.295		
	LNBmeet	-.704	.085	-.039	.106	-.382	

Table 3 above shows some variables have a moderate correlation and some do not. For example, audit committee meeting has the highest negative value of correlation in model with value of 70.4% which means this correlation is moderate linear relationship. Audit committee meeting is also negatively and significantly correlated with board size which was valued at 29%. In addition, audit committee composition is negatively correlated with board composition at value of 30%, and positively correlated to audit committee size with value of 35%. Board composition is positively correlated to board size at value of 40% and negatively correlated to audit committee size at value of 29%. Board size is negatively correlated to audit committee size with value of 30% but is not correlated to board meeting. Finally, audit committee size is negatively correlated to board meeting at value of 39% which indicates to moderate level of coefficient correlation.

Complementarities of Corporate Governance Attributes Tests

The tables 4, 5, 6, and 7 show the results of complementary test of internal corporate governance factors and their influence on capital structure. This test is performed to gauge the value of internal corporate governance in both countries. The first removed variable is board size to test whether board size is the Edgeworth complement of audit committee size in the model. The results (See table 4) provides changing in significance level of audit committee size in model.

Table 4. Effect on Audit Committee Size after Removal of Board Size

Variables	Before Remove	After Remove
Constant	.909	.258
LNBcomp	.939	.366
LNBmeet	.021	.041
LNACsize	.048	.180
LNACComp	.959	.980
LNACmeet	.479	.968
R-squared	.149	.094
Adjusted R-squared	.088	.040
Durbin-Waston	2.176	2.181
F-statistic	2.429	1.746

Based on the above information in table 4, the test has proved changing in significance level of audit committee size in the model. The P value in original model is statistically significant at 0.048 but after remove the board size, the audit committee size becomes insignificant at P value of 0.180. This means (hypothesis 2a) is accepted in the model. Therefore, the removal of board size has influenced the relationship between audit committee size and financial decision. This indicates that these attributes are Edgeworth complements.

Table 5. Effect on Board Size after Removal of Audit Committee Size

Variables	Before Remove	After Remove
Constant	.909	.691
LNBcomp	.939	.613
LNBmeet	.021	.094
LNBsize	.023	.079
LNACComp	.959	.493
LNACmeet	.479	.730
R-squared	.149	.108
Adjusted R-squared	.088	.055
Durbin-Waston	2.176	2.220
F-statistic	2.429	2.034

In the table above is shown the result in the model after removal of audit committee size. In addition, this removal creates changing in coefficient of board size. The p-value in original model is statistically significant at 0.023 but this value turned into insignificant of 0.079 after removal. Therefore, these variables are Edgeworth complementary.

Table 6. Effect on Audit Committee Size after Removal of Board Meeting

Variables	Before Remove	After Remove
Constant	.909	.786
LNBcomp	.939	.870
LNBsize	.023	.046
LNACSize	.048	.247
LNACComp	.959	.805
LNACmeet	.479	.195
R-squared	.149	.092
Adjusted R-squared	.088	.038
Durbin-Waston	2.176	2.205
F-statistic	2.429	1.707

Table 6 shows that audit committee size in the model is affected by removal of corporate board meeting from the original model. The p-value in original model is statistically significant at the 0.05 level. This p-value becomes .247 in new model; this means removal the board meeting effects the relationship between audit committee size and debt to equity ratio. Therefore, the audit committee size is Edgeworth complement with board meeting in the model.

Table 7. Effect on Board Meeting after Removal of Audit Committee Size

Variables	Before Remove	After Remove
Constant	.909	.691
LNBcomp	.939	.613
LNBsize	.023	.079
LNBmeet	.021	.094
LNACComp	.959	.493
LNACmeet	.479	.730
R-squared	.149	.108
Adjusted R-squared	.088	.055
Durbin-Waston	2.176	2.220
F-statistic	2.429	2.034

The table above introduces whether corporate governance bundle works together as substitutes or complements. The analysis in the model proves that board meeting is affected after removing audit committee size from the original model. The p-value of board meeting in the original model is 0.021, after removal audit committee size, the p-value becomes 0.094. It can be concluded that audit committee size and board meeting affect the capital structure when they work together.

5. Empirical Results and Discussion

The first hypothesis is consistent with the expectation of study where the result shows that there is a significant relationship with contrary sign between board size and financial decision of Malaysian firms. This result is in the line with the prior results of [40], In [41], that board size is correlated significantly with financial performance. Another results from comparative analysis between Singapore and Malaysia by [42] that boar size is related to lower abnormal working capital accruals (accounting quality). Nevertheless, the finding also is different from that of study by [43] that board composition is not related to financial performance of a firm. These different findings may be due to different samples and corporate governance code in which these investigations were based. This result is supported by agency theory which suggests that the conflict of interest leads to bad governance, thus and logically, large board size leads to miscommunication and understanding among board's members, and this decreases the quality of control and decision-making due to ineffective board "free-riders".

This study finds that board independent is positively and not significantly associated with financial decision. The results of this study show that the high proportion of board members is not effective in monitoring the financial decision for Malaysian listed firms. This supports the results by

Şener, Varoğlu, and Aren [23], Rashid, Afzalur, Anura De Zoysa, Sudhir Lodh, that there is no significant influence between outside directors and firm performance. In addition, there is no optimal board independent for all firms, since each member of the board has different education and skills [23]. This result does not support agency theory perspective where agency theory assumes that conflict of interest can be mitigated when the outside directors are independent. This finding is supported by the argument that smaller board is likely to have less independent members. This result may be because board size in this research sample is negligible. Descriptive statistic shows a board size mean of only 2 members. Small board gives low level of independence. Thus, it is unlikely that less independence can mitigate the possible conflict of interests between management and investors. Another reason may support this result is most of Malaysian firms are oriented and controlled by family business.

This study states that board meeting is negatively and significantly associated with debt-to-equity ratio. A plausible explanation of this finding is that number of meetings of the board of directors is a sign to regular monitoring of financial decisions quality of a firm rather than an indication of the board's urgent meeting request for special cases. This research provides evidence that number of meetings may affect firm financial decision. This evidence is supported by prior results by Ntim and Osei [26] that board meeting is significantly and positively correlated with firm performance.

Another study by Aldamen et al [27], provides evidence that the smaller size of audit committee with more financial expertise is more likely to have a positive influence on firm performance of Australian listed firms. This result is consistent with perspective of Jensen [13], where this study assumes that smaller size of audit members is more beneficial than lager size, because large number of members gives room for much discussion and different opinions, and then the free riders problem arises. As conclusion, this study recommends that the size of members should not be too small and not too large. The small size suffers from lack of advice based on experience, while too large size increases the free-riders. Finally, the size of members should be somehow that the value of firm increase.

Audit committee composition hypothesis shows a negative influence and insignificant relationship with financial decision. This result can be explained that independent members have no role to play in data sample of Malaysia.

Inconsistent with this study's hypothesis of audit committee activity, the audit committee meeting is negatively and insignificant associated with debt-to-equity ratio. A plausible explanation of this result is that the number of meetings during the year is not enough for Malaysian company to enhance corporate governance effectiveness where the mean of meetings is only 1.78; this number is small to provide a high quality of accounting information and best decision for finance choice. This study suggests that members of audit committee should meet frequently to help board of directors to reduce and meet best mix of finance resource. Another suggested reason which may preclude the audit committee to work efficiently is that the lack of chance to assess the independence and suitability of external auditors where the Malaysian code of governance 2012 recommends that audit committee should have procedures and policies to appraise the independence of external auditors.

6. Conclusion

(i) There is a positively and significantly relationship between board size and debt to equity ratio.
(ii) There is a positive and insignificant relationship between board composition and debt to equity ratio.
(iii) There is a positively and significantly relationship between board meeting and debt to equity ratio.
(iv) There is a negatively and significantly relationship between audit committee size and debt to equity ratio.
(v) There is a negative effect and insignificant relationship between audit committee composition and debt to equity ratio.
(vi) There is a negative effect and insignificant relationship between audit committee meeting and debt to equity ratio.
(vii) Audit committee size has complementary effect when it works with board size.
(viii) Board size has complementary effect when it works with audit committee size.
(ix) Audit committee size has complementary effect when it works with board meeting.
(x) Board meeting has complementary effect when it works with Audit committee size.

Based on above results, it can be concluded that corporate governance attributes are important tools to enhance the best choice of finance in developing countries by supply chain strategy. Despite possible limitations of this study, this study contributes to the existing literature, the influence of corporate governance attributes on capital structure in Malaysian market. This study also provides evidence that good practice of corporate governance helps board of director to make efficient financial decision in presence of corporate audit committee. In practice, this study has implications for firms' needs to satisfy creditors, shareholders and of course to attract potential investors. Study the influence of monitoring tools such as main attributes of corporate governance allows the decision makers to estimate the role of these tools in enhancing the perception of interested parties toward the firm. If mentioned parties are able to have accessibility to accounting information, their financial decision can be more effective and accurate. This study reveals results that will enable shareholders, investors, creditors, and other interested parties to ameliorate their decision-making. It is useful to measure the different mechanisms of corporate governance to allow beneficiary parties to be careful of managers' manipulation and policy. The relevant authorities of corporate governance, especially in Malaysia, can use this research as empirical support to develop their guidance and recommendations on code of corporate governance. The results of this study can be also employed by stock exchange bodies in improving the quality of accounting information. To improve and amend the code of corporate governance in particular country, the empirical results should be taken into consideration. This study offers evidence for improving the code of corporate governance in Malaysia. The results of this research also help to identify which corporate governance factors are likely to influence on capital structure in Malaysia market. The results show that board size, board meeting, and audit committee size are important factors, and that small boards and frequency of meeting sitting on the board are effective in choosing of best mix of finance for Malaysian market.

These study limitations are namely, sample, data, and variables limitations. Nonetheless, a great effort and focused were made to accomplish and achieve the research objectives. And this effort helped to answer research questions of this study. The study sample is not randomly selected; the sample of study was selected based on predetermined criteria using Bloomberg Data. Because there are a limited number of firms that submitted their data to Bloomberg system, it is very difficult to select firms randomly. And this led to smaller size of sample. Finally, this research uses only Malaysian data, care should be considered for more than one country where large area of study contributes and nourishes the existing literature and the results can be more generalized. Another limitation in this study is number of variables; the selection of a certain set of corporate governance measurements and capital structure proxies is a limitation that needs to be taken into consideration to study more and mix proxies for independent and dependent variables.

With respect to future line of the research, care should be taken to increase the sample size and corporate governance attributes, particularly the inclusion of external mechanisms of governance that may have an effect when they are mixed with internal characteristics of governance. In addition, the need to investigate the effect of corporate governance measurements when external factors of governance are introduced will make the results of the study more robust. More importantly, the previous literature provides a sample selection bias to developed and developing markets. A possible second avenue for study, this study suggests the effort should be devoted to examine bigger size of sample for more than one market and to take the economics and political aspects into consideration, this is can be a great interest for future study.

References

[1] Aguilera, R. V., Filatotchev, I., Gospel, H., & Jackson, G. (2008). An organizational approach to comparative corporate governance: Costs, contingencies, and complementarities. Organization science, 19(3), 475-492.

[2] Al-Matari, Y. A., Al-Swidi, A. K., Fadzil, F. H. B., Fadzil, H., & Al-Matari, E. M. (2012). Board of Directors, Audit Committee Characteristics and the Performance of Saudi Arabia Listed Companies. International Review of Management and Marketing, 2(4), 241.

[3] Bin-Zulkafli, A., AdulSamad, M., & Ismail, M. (1999). Corporate governance in Malaysia. Malaysian Institute of Corporate Governance, 18(1).

[4] Boone, A. L., Casares Field, L., Karpoff, J. M., & Raheja, C. G. (2007). The determinants of corporate board size and composition: An empirical analysis. Journal of Financial Economics, 85(1), 66-101.

[5] Ghosh, A. A., & Moon, D. (2010). Corporate debt financing and earnings quality. Journal of Business Finance & Accounting, 37(5-6), 538-559.

[6] Haniffa, R., & Hudaib, M. (2006). Corporate governance structure and performance of Malaysian listed companies. Journal of Business Finance & Accounting, 33(7-8), 1034-1062.

[7] Ibrahim, N. A., & Angelidis, J. P. (1995). The corporate social responsiveness orientation of board members: Are there differences between inside and outside directors? Journal of Business Ethics, 14(5), 405-410.

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

[9] Kajola, S. O. (2008). Corporate governance and firm performance: The case of Nigerian listed firms. European Journal of Economics, Finance and Administrative Sciences, 14(14), 16-28.

[10] Vafeas, N. (1999). Board meeting frequency and firm performance. Journal of Financial Economics, 53(1), 113-142.

[11] Vafeas, N., & Theodorou, E. (1998). The relationship between board structure and firm performance in the UK. The British Accounting Review, 30(4), 383-407.

[12] Wahab, E. A. A., How, J. C., & Verhoeven, P. (2007). The impact of the Malaysian code on corporate governance: Compliance, institutional investors and stock performance. Journal of Contemporary Accounting & Economics, 3(2), 106-129.

[13] Heng TB, Azrbaijani S, San OT. Board of directors and capital structure: Evidence from leading Malaysian companies. Asian Social Science. 2012 Mar 1;8(3):123.

[14] Şener İ, Varoğlu A, Aren S. Board composition and organizational performance: Environmental characteristics matter. Procedia-Social and Behavioral Sciences. 2011 Jan 1;24:1481-93.

[15] K. Johl S, Kaur Johl S, Subramaniam N, Cooper B. Internal audit function, board quality and financial reporting quality: evidence from Malaysia. Managerial Auditing Journal. 2013 Oct 7;28(9):780-814.

[16] Ntim CG, Lindop S, Osei KA, Thomas DA. Executive compensation, corporate governance and corporate performance: A simultaneous equation approach. Managerial and Decision Economics. 2015 Mar;36(2):67-96.

[17] Aldamen H, Duncan K, Kelly S, McNamara R, Nagel S. Audit committee characteristics and firm performance during the global financial crisis. Accounting & Finance. 2012 Dec;52(4):971-1000.

[18] Saat NA, Karbhari Y, Xiao JZ, Heravi S. Factors affecting independent audit committee members' effectiveness–The case of listed firms on Bursa Malaysia. World Review of Business Research. 2012;2(3):132-47.

[19] Al-Mamun A, Yasser QR, Rahman MA, Wickramasinghe A, Nathan TM. Relationship between audit committee characteristics, external auditors and economic value added (EVA) of public listed firms in Malaysia. Corporate Ownership & Control. 2014;12(1):899-910.

[20] Wang Y, Huynh G, Williamson C. Integration of Google Maps/Earth with microscale meteorology models and data visualization. Computers & Geosciences. 2013 Dec 1;61:23-31.

[21] Kyereboah-Coleman A. Corporate governance and firm performance in Africa: A dynamic panel data analysis. Studies in Economics and econometrics. 2008 Jan 1;32(2):1-24.

[22] Ojeka S, Iyoha FO, Obigbemi IF. Effectiveness of audit committee and firm financial performance in Nigeria: an empirical analysis. Journal of Accounting and Auditing: Research & Practice. 2014.

[23] Ojulari O. Corporate governance: The relationship between audit committees and firm values. Retrieved November. 2012;2:2014.

[24] Salloum RG, Thrasher JF, Getz KR, Barnett TE, Asfar T, Maziak W. Patterns of waterpipe tobacco smoking among US young adults, 2013− 2014. American journal of preventive medicine. 2017 Apr 1;52(4):507-12.

[25] Yermack D. Higher market valuation of companies with a small board of directors. Journal of financial economics. 1996 Feb 1;40(2):185-211.

[26] Guest PM. The impact of board size on firm performance: evidence from the UK. The European Journal of Finance. 2009 Jun 1;15(4):385-404.

[27] Ryan Jr HE, Wiggins III RA. Who is in whose pocket? Director compensation, board independence, and barriers to effective monitoring. Journal of Financial Economics. 2004 Sep 1;73(3):497-524.

[28] Klein A. Audit committee, board of director characteristics, and earnings management. Journal of accounting and economics. 2002 Aug 1;33(3):375-400.

[29] Deli DN, Gillan SL. On the demand for independent and active audit committees. Journal of Corporate Finance. 2000 Dec 1;6(4):427-45.

[30] Abbott LJ, Parker S, Peters GF. The effectiveness of Blue Ribbon Committee Recommendations in mitigating financial misstatements: an empirical study. Working paper. 2000 Nov.

[31] Eisenberg D, Lüthy R, Bowie JU. [20] VERIFY3D: assessment of protein models with three-dimensional profiles. InMethods in enzymology 1997 Jan 1 (Vol. 277, pp. 396-404). Academic Press.

[32] Uwuigbe U, Jafaru J, Ajayi A. Dividend policy and firm performance: A study of listed firms in Nigeria. Accounting and Management Information Systems. 2012;11(3):442-54.

[33] Bradbury PJ, Zhang Z, Kroon DE, Casstevens TM, Ramdoss Y, Buckler ES. TASSEL: software for association mapping of complex traits in diverse samples. Bioinformatics. 2007 Jun 22;23(19):2633-5.

[34] Dalton DR, Daily CM, Ellstrand AE, Johnson JL. Meta-analytic reviews of board composition, leadership structure, and financial performance. Strategic management journal. 1998 Mar;19(3):269-90.

[35] Rashid A, De Zoysa A, Lodh S, Rudkin K. Board composition and firm performance: Evidence from Bangladesh. Australasian Accounting, Business and Finance Journal. 2010;4(1):76-95.

[36] Bermig A, Frick B. Board size, board composition, and firm performance: Empirical evidence from Germany. Board Composition, and Firm Performance: Empirical Evidence from Germany (June 10, 2010). 2010 Jun 10.

[37] Ahmadpour A, Samimi AJ, Golmohammadi H. Corporate governance and capital structure: Evidence from Tehran Stock Exchange. Middle-East Journal of Scientific Research. 2012;11(4):531-5.

[38] Rajendran K, Nimalthasan P. Capital structure and its impact on firm performance: A study on Sri Lankan listed manufacturing companies. Kajananthan R, Nimalthasan P (2013) Capital structure and its impact on firm performance: A study on Sri Lankan listed manufacturing companies. Merit Research Journal of Business and Management. 2013 Dec 31;1(2):037-44.

[39] Alagathurai A. A nexus between liquidity & profitability: a study of trading companies in Sri Lanka. Ajanthan, A.(2013). A Nexus Between Liquidity & Profitability: A Study Of Trading Companies In Sri Lanka. European Journal of Business and Management. 2013 Mar 7;5(7):221-37.

[40] Shoroki MR, Nasiripour AA, Kavousi E. The effect of applying equipment's in electronic business on increasing insurance influent coefficient in Iran Insurance Co. Advances in Environmental Biology. 2014 Dec 15:106-14.

[41] Muller PA, Vousden KH. Mutant p53 in cancer: new functions and therapeutic opportunities. Cancer cell. 2014 Mar 17;25(3):304-17.

[42] Farokh, S., & Vakili fard, H. R. (2017). Investigation of impact of public ownership on the quality of benefit in the accepted firms of Tehran's securities and exchange organization. *UCT Journal of Management and Accounting Studies, 5*(1), 8-11.

[43] Imran, O. A., Abed, W. N. A. D., & Jbarah, A. N. (2019). Speed control of universal motor. *International Journal of Power Electronics and Drive Systems*, *10*(1), 41.