BOARD DIVERSITY AS ANTECEDENT AND CORPORATE SOCIAL RESPONSIBILITY AS CONSEQUENCE OF EARNINGS MANAGEMENT: MALAYSIAN EVIDENCE

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UNIVERSITI SAINS MALAYSIA

2019
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by

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Thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

June 2019
ACKNOWLEDGEMENT

First and foremost, I give thanks to God, for His blessings, grace and mercy granted to me throughout all the days of my life.

Secondly, I must acknowledge my main supervisor, Professor Dr. Azlan Amran. I am very fortunate to have been his student. I have learned so much from his academic expertise as well as his example as a warm, caring person. My deep appreciation goes also to my secondary supervisor, Dr. Yuvaraj Ganesan. There are no words big enough to describe how thankful I am for all their encouragement, guidance, advice, criticism and support from the initial stage of my study to the final submission of this thesis. Both of you provided vital encouragement during challenging times and crucial feedback at important points in my analysis. It is an honour for me to have worked with both of you.

I am greatly indebted to Universiti Sains Malaysia and Universiti Utara Malaysia lecturers and examiners, especially Dr. Fathyah Hashim, Dr. Chu Ei Yet, Dr. ‘Atef Md Yusof and Professor Dr. Wan Nordin Wan Hussin for their valuable comments and suggestions. My profound gratitude goes to Malaysian Ministry of Higher Education and Universiti Utara Malaysia for funding my PhD study. Many thanks go out to all staff at the Graduate School of Business, Universiti Sains Malaysia and to all my friends who are pursuing their PhD studies.

Lastly, I would like to express my deepest gratitude to my family; my dear father who has always prayed for me to accomplish this goal, my beloved mother who has always been a rock to lean on in tough times, and my sisters and brother who have always coloured my world. Without the love and support from all of you, I would not have made it this far and successfully reached this destination.
# TABLE OF CONTENTS

ACKNOWLEDGEMENT ........................................................................................................ ii

TABLE OF CONTENTS ....................................................................................................... iii

LIST OF TABLES ................................................................................................................ ix

LIST OF FIGURES .............................................................................................................. xi

LIST OF ABBREVIATIONS ............................................................................................... xii

LIST OF APPENDICES .................................................................................................... xiii

ABSTRAK .......................................................................................................................... xiv

ABSTRACT ........................................................................................................................ xvi

## CHAPTER 1 - INTRODUCTION

1.1 Background of the Study .................................................................................. 1

1.2 Problem Statement ......................................................................................... 10

1.3 Research Questions ........................................................................................ 16

1.4 Research Objectives ....................................................................................... 16

1.5 Malaysian Institutional Setting ....................................................................... 17

1.5.1 Diversity in Malaysia Boardroom ......................................................... 19

1.5.1(a) Gender Diversity .................................................................... 19

1.5.1(b) Ethnic Diversity ..................................................................... 20

1.6 Significance of the Study ............................................................................... 21

1.6.1 Theoretical Contributions ..................................................................... 22

1.6.2 Practical Contributions ......................................................................... 23

1.6.3 Methodological Contribution ................................................................ 24

1.7 Scope of the Study .......................................................................................... 24

1.8 Definition of Key Terms ................................................................................ 25

1.9 Structure of the Thesis .................................................................................... 27

## CHAPTER 2 - LITERATURE REVIEW

2.1 Introduction ........................................................................................................ 29

2.2 Definitions of Earnings Management ............................................................ 29

2.3 Brief Overview of Corporate Governance ..................................................... 32

2.4 Board Diversity ................................................................................................ 36
CHAPTER 3 - THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

3.1 Introduction .................................................................................................. 108

3.2 Theoretical Background on Board Diversity as the Antecedent of Earnings Management ............................................................................................................. 108

3.2.1 Signalling Theory ............................................................................... 109
3.2.2 Agency Theory ................................................................................... 110
3.2.3 Human Capital Theory ........................................................................ 112

3.3 Theoretical Background on CSR as the Consequence of Earnings Management ............................................................................................................. 115

3.3.1 Legitimacy Theory .............................................................................. 115
3.3.2 Stakeholder-agency Theory ................................................................. 118
3.3.3 Signalling Theory ............................................................................... 126

3.4 Theoretical Framework of the Study ................................................................ 127

3.5 Hypotheses Development ............................................................................. 127

3.5.1 The Effect of Diversity-of-boards on Earnings Management ............ 129
3.5.1(a) Board leadership .................................................................... 129
3.5.1(b) Multiple directorships ........................................................... 130
3.5.1(c) Board size .............................................................................. 131
3.5.1(d) Non-executive directors (NEDs) commitment ...................... 133

3.5.2 The Effect of Diversity-in-boards on Earnings Management ............. 134
3.5.2(a) Gender Diversity ................................................................... 134
3.5.2(b) Age Diversity ........................................................................ 135
3.5.2(c) Ethnicity Diversity ................................................................ 136
3.5.2(d) Competency Diversity ........................................................... 137
3.5.2(e) Nationality Diversity ............................................................. 138

3.5.3 The Effect of Earnings Management on CSR .................................... 139

3.5.4 The Moderating Effect of Corporate Reputation on the Relationship between Earnings Management and CSR ................................................................................. 142

3.6 Conclusion .................................................................................................... 144
CHAPTER 4 - RESEARCH METHODOLOGY

4.1 Introduction .................................................................................................. 145

4.2 Research Paradigm ....................................................................................... 145
   4.2.1 Research Philosophy ........................................................................... 146
   4.2.2 Research Approach ............................................................................. 149

4.3 Sample Design .............................................................................................. 151
   4.3.1 Population ........................................................................................... 152
   4.3.2 Unit of Analysis .................................................................................. 153
   4.3.3 Sampling Frame .................................................................................. 153
   4.3.4 Sampling Technique ........................................................................... 154
   4.3.5 Sample Size ......................................................................................... 155
   4.3.6 Sample Procedure ............................................................................... 157

4.4 Source of Data .............................................................................................. 158

4.5 Data Collection ............................................................................................. 159
   4.5.1 Content Analysis Method ................................................................... 159
   4.5.2 Time Horizon ...................................................................................... 161

4.6 Operationalisation and Measurement of Variables ...................................... 161
   4.6.1 Measurement of Boards Diversity ...................................................... 162
      4.6.1(a) Measurement for Diversity-of-boards ................................... 162
         4.6.1(a)(i) Board Leadership ................................................................. 162
         4.6.1(a)(ii) Multiple Directorships ...................................................... 163
         4.6.1(a)(iii) Board Size ............................................................................ 163
         4.6.1(a)(iv) Non-executive Directors’ Commitment ......................... 163
      4.6.1(b) Measurement for Diversity-in-boards ................................... 164
         4.6.1(b)(i) Gender Diversity................................................................. 165
         4.6.1(b)(ii) Age Diversity ..................................................................... 165
         4.6.1(b)(iii) Ethnicity Diversity ............................................................ 166
         4.6.1(b)(iv) Competency Diversity ...................................................... 166
         4.6.1(b)(v) Nationality Diversity ......................................................... 166
   4.6.2 Measurement of Earnings Management ............................................. 167
   4.6.3 Measurement of Corporate Social Responsibility .............................. 170
      4.6.3(a) CSR Disclosure Checklist .......................................................... 171
      4.6.3(b) Development of CSR Disclosure Checklist ........................... 172
4.6.4 Measurement of Moderating Variable: Corporate Reputation ........... 177
  4.6.4(a) Reputation Disclosure Checklist ........................................... 178
4.6.5 Measurement of the Control Variables ............................................... 181
  4.6.5(a) Control Variables for Antecedent of Earnings Management 182
  4.6.5(b) Control Variables for Consequence of Earnings Management ............. 184
4.7 Empirical Procedures of Data Analysis ....................................................... 185
  4.7.1 Preliminary Analysis ........................................................................... 185
  4.7.2 Data Preparation for Multivariate Analysis ........................................ 186
4.8 Empirical Research Model ........................................................................... 186
4.9 Conclusion .................................................................................................... 188

CHAPTER 5 - RESULTS
5.1 Introduction .................................................................................................. 189
5.2 Diagnostic Tests ........................................................................................... 189
5.3 Descriptive Statistics .................................................................................... 192
  5.3.1 Descriptive Statistics for the Antecedent of Earnings Management .. 193
  5.3.2 Descriptive Statistics for the Consequence of Earnings Management and Corporate Reputation as Moderating Variable ................................................. 199
5.4 Correlation Analysis ..................................................................................... 201
  5.4.1 Correlation Analysis for the Antecedent of Earnings Management ... 202
  5.4.2 Correlation Analysis for the Consequence of Earnings Management and Corporate Reputation as Moderating Variable ............................................. 204
5.5 Multivariate Analysis ................................................................................... 205
  5.5.1 Regression Results for the Antecedent of Earnings Management..... 205
    5.5.1(a) Diversity-of-boards and Earnings Management......................... 206
    5.5.1(b) Diversity-in-boards and Earnings Management......................... 207
    5.5.1(c) Control Variables and Earnings Management......................... 208
  5.5.2 Regression Results for Consequence of Earnings Management and Corporate Reputation as Moderating Variable ............................................. 210
5.6 Summary of the Main Results ...................................................................... 213
5.7 Conclusion .................................................................................................... 214
CHAPTER 6 - DISCUSSION AND CONCLUSIONS

6.1 Introduction .................................................................................................. 215

6.2 Recapitulation of the Study .......................................................................... 215

6.3 Discussion of Findings ................................................................................. 218

6.3.1 The effect of diversity-of-boards on Earnings Management .............. 219

6.3.1(a) Board Leadership and Earnings Management ....................... 219

6.3.1(b) Multiple Directorships and Earnings Management .............. 220

6.3.1(c) Board Size and Earnings Management .......................... 221

6.3.1(d) Non-executive Directors’ Commitment and Earnings Management .................................................. 223

6.3.2 The effect of diversity-in-boards on Earnings Management .............. 225

6.3.2(a) Gender Diversity and Earnings Management ....................... 225

6.3.2(b) Age Diversity and Earnings Management ........................... 226

6.3.2(c) Ethnicity Diversity and Earnings Management ..................... 227

6.3.2(d) Competency Diversity and Earnings Management .............. 228

6.3.2(e) Nationality Diversity and Earnings Management ................. 229

6.3.3 Discussion on the Consequence of Earnings Management .............. 230

6.3.3(a) Earnings Management and Corporate Social Responsibility 231

6.3.3(b) Moderating Effect of Corporate Reputation on the Relationship between Earnings Management and Corporate Social Responsibility .................................................. 233

6.4 Implications of the Research Findings ......................................................... 234

6.4.1 Implications of Theory and Literature ........................................ 235

6.4.2 Implications on Methodology ......................................................... 237

6.4.3 Implications on Practitioners ......................................................... 238

6.5 Limitation of the Study ............................................................................. 241

6.6 Further Research .......................................................................................... 242

6.7 Conclusion .................................................................................................... 244

REFERENCES .................................................................................................... 246

APPENDICES
LIST OF TABLES

Table 2. 1 Summary of Literature on the Relationship between Structural Board Diversity and Earnings Management 67

Table 2. 2 Summary of Literature on the Relationship between Demographic Board Diversity and Earnings Management 79

Table 2. 3 Summary of Prior Research in Relation to the Relationship between Earnings Management and CSR 99

Table 4. 1 Positivistic and Interpretivist Research Paradigm 148

Table 4. 2 Sampling Frame of Listed Companies in Main Market of Bursa Malaysia 153

Table 4. 3 Analysis of Sample by Sector 157

Table 4. 4 Description of the Board Diversity Attributes Indices 167

Table 4. 5 Quality of CSR Disclosure Checklist 174

Table 4. 6 Inter-rater Reliability Test using Krippendorf’s Alpha 177

Table 4. 7 Quality of Reputation Disclosure Checklist 180

Table 5. 1 Descriptive Statistics 194

Table 5. 2 Distribution of Diversity-in-boards 196

Table 5. 3 Descriptive Statistics for Dummy Variables 199
<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.4</td>
<td>Descriptive Statistics on Disclosure Practices based on Frameworks</td>
<td>200</td>
</tr>
<tr>
<td>5.5</td>
<td>Multicollinearity Test for Antecedent of Earnings Management</td>
<td>201</td>
</tr>
<tr>
<td>5.6</td>
<td>Multicollinearity Test for Consequence of Earnings Management</td>
<td>202</td>
</tr>
<tr>
<td>5.7</td>
<td>Correlation Matrix for the Antecedent of Earnings Management</td>
<td>203</td>
</tr>
<tr>
<td>5.8</td>
<td>Correlation Matrix for the Consequence of Earnings Management and Corporate Reputation as Moderator</td>
<td>204</td>
</tr>
<tr>
<td>5.9</td>
<td>Regression Results for the Antecedent of Earnings Management</td>
<td>206</td>
</tr>
<tr>
<td>5.10</td>
<td>Regression Results for Consequence of Earnings Management and the Moderating Effect of Corporate Reputation</td>
<td>211</td>
</tr>
<tr>
<td>5.11</td>
<td>Summary of Hypotheses and Findings</td>
<td>213</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Carroll Pyramid of CSR</td>
<td>89</td>
</tr>
<tr>
<td>3.1</td>
<td>Theoretical Framework of Earnings Management</td>
<td>128</td>
</tr>
<tr>
<td>4.1</td>
<td>The Research Onion</td>
<td>146</td>
</tr>
<tr>
<td>4.2</td>
<td>Sampling Design Process</td>
<td>151</td>
</tr>
</tbody>
</table>
LIST OF ABBREVIATIONS

AGE     Age Diversity
BIG4    Audit Firm
BSIZE   Board Size
CEO     Chief Executive Officer
CFO     Cash Flow from Operations
COM     Competency Diversity
CSR     Corporate Social Responsibility
CR      Corporate Reputation
ETH     Ethnic Diversity
FSIZE   Company Size
GEN     Gender Diversity
IAFSOUR Internal Audit Function Sourcing Arrangements
LEAD    Board Leadership
LEV     Leverage
MCCG    Malaysian Code on Corporate Governance
MUL     Multiple Directorships
NAT     Nationality Diversity
NDP     National Development Policy
NEP     New Economic Policy
NEDs    Non-executive Directors
OLS     Ordinary Least Square
PLCs    Public Listed Companies
ROA     Return on Asset
WLS     Weighted Least Square
LIST OF APPENDICES

APPENDIX A Development of CSR Disclosure Checklist

APPENDIX B Development of Reputation Disclosure Checklist

APPENDIX C Proposed Disclosure Checklist and Definition for Reputation Items

APPENDIX D Summary on Variables Operationalization and Measurement

APPENDIX E Outputs from Freelon (2010)

APPENDIX F Regression Coefficient Estimation

APPENDIX G Normality Test – Normal P-P Plot

APPENDIX H Normality Test – Histogram

APPENDIX I Linearity - Scatter Plot

APPENDIX J Heteroscedasticity Test – Breusch Pagan Test

APPENDIX K Sensitivity Test for Sensitive Industry

APPENDIX L Sensitivity Test for Non-Sensitive Industry
KEPELBAGAIAN PENGARAH SEBAGAI ANTESEDEN DAN TANGGUNGJAWAB SOSIAL KORPORAT SEBAGAI KESAN KEPADA PENGURUSAN PENDAPATAN: BUKTI DARI MALAYSIA

ABSTRAK

kepelbagaian kompetensi tidak mempunyai pengaruh dalam mengurangkan pengurusan pendapatan. Beralih kepada kesan dari pengurusan pendapatan, hasil kajian melaporkan tiada perhubungan statistik dan signifikan di antara pengurusan pendapatan dan CSR. Malah, reputasi korporat juga tidak memberi kesan penyederhanaan di antara hubungan pengurusan pendapatan dan CSR. Berdasarkan hasil penyelidikan ini, pembuat dasar boleh menggunakan hasil kajian ini untuk mengiktiraf peranan penting yang dimainkan oleh beberapa sifat kepelbagaian lembaga dalam mengurangkan amalan tidak bermoral ini di Malaysia. Di samping itu, pihak berkuasa juga harus menggalakkan syarikat-syarikat untuk berusaha melaporkan pendedahan CSR yang lebih berkualiti, bukan kuantiti pendedahan semata-mata.
BOARD DIVERSITY AS ANTECEDENT AND CORPORATE SOCIAL RESPONSIBILITY AS CONSEQUENCE OF EARNINGS MANAGEMENT: MALAYSIAN EVIDENCE

ABSTRACT

Earnings management practices have escalated in recent years. The consequence of this practice is detrimental, and has received immense attention from academician and practitioners. The issue of earnings management has become a serious concern, especially in corporate governance ability as a monitoring mechanism and the consequence of earnings management manifestation. Using Agency Theory and Human Capital Theory, this research endeavours to investigate the relationship between board diversity (diversity-of-boards and diversity-in-boards) and earnings management. This research also determines to examine corporate social responsibility (CSR) as the consequence of earnings management based on Stakeholder-agency Theory and Signalling Theory. Particularly, this study investigates whether earnings management affects the quality of CSR disclosure. Additionally, this research examines the moderating effect of corporate reputation between earnings management and CSR. A total of 265 public listed companies on the Main Market of Bursa Malaysia for the year 2016 have been analysed. This study reveals that board leadership, multiple directorships, gender diversity and age diversity are significantly negative in relation to earnings management. Non-executive directors’ commitment and nationality diversity, on the other hand, are found to be significant and positively associated with earnings management. The remaining variables which are board size, ethnic diversity and competency diversity were found to have no effect in mitigating earnings management. Concentrating on
the consequence of earnings management, the findings reported no significant statistical association between earnings management and CSR. Likewise, the corporate reputation appears to have no effect on the moderating the relationship between earnings management and CSR. Based on the results of this research, policy-makers might use the study’s findings to recognise the important roles played by several board diversity attributes in alleviating the opportunistic practices in Malaysia. In addition, the authority should also encourage companies to further address the quality of CSR disclosure, instead of solely focusing on quantity.
CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Over the past few decades, the subject of earnings quality and earnings management has received extensive attention due to the high-profile corporate scandals that were deliberately conducted by some companies in the business world. In the earlier years, 1997 and 1998 specifically, the Asian financial crisis uncovered the causes of the financial crisis which are weak governance and poor governance standards (European Central Bank, 2016).

Literature has presented several definitions of earnings management¹. This current study employs the most widely used and comprehensive definitions which came from Healy and Wahlen (1999) and Schipper (1989) in the sense that these definitions refer to the management’s intention to not report actual earnings and operating activities by using their own judgment in accounting choices legitimately or illegitimately, and with the aim to achieve some particular interests.

Earnings management is a global occurrence and Malaysia is no exception to this opportunistic practice. Bhattacharya, Daouk and Welker (2003) reported that out of 34 countries, Malaysia was ranked 9th place for its critical earnings opacity and used earnings management to smooth their income to plan their tax strategies (Kasipillai & Mahenthiran, 2013). In fact, there is a growing concern over the increase in misreporting cases in Malaysia. The Securities Commission in this country reported 17 cases of earnings manipulation from 1996 to 2012 (cited in Teh, Ong & Yin, 2017). In addition, a survey conducted by KPMG from January 2010 to

¹ The terms “earnings quality” are used interchangeably in prior studies because higher earnings management represent lower earnings quality and vice versa. Thus, research on earnings quality also can be referenced in the earnings management study (Dechow et al., 2010; Healy & Wahlen, 1999).
December 2012, found that 27 per cent of the respondents had experienced unethical behaviour or misconduct in the workplace during the survey period. To be specific, the most common unethical behaviour was management conflict of interest which carried 71 per cent (KPMG, 2013). In a more current survey, PwC revealed that the issue of business misconduct increased to the percentage of 45 per cent (PricewaterhouseCoopers, 2018). Interestingly, this audit firm stated that corporate control is the least mechanism that could detect opportunistic behaviours by which indicated that there was insufficient focus on controls in the companies. Particularly, the monitoring activity is the strongest mechanism in corporate control that played its role in detecting misconducts. With regards to this concern, costly and onerous regulatory requirements especially in the internal controls and the role of boards are required to reinforce monitoring mechanism and many Malaysian companies seem to underestimate these menaces and appear uncertain in rectifying them (PricewaterhouseCoopers, 2018).

Malaysian corporate scene has also been flawed by cases of weak corporate governance which are closely related to earnings management. In relation to revenue recognition for instance, this earnings management practices has raised concern among property developers in Malaysia. In the year 2011, Mutiara Goodyear Development Bhd, a subsidiary of ATIS Corp Bhd restated their revenue due to the confusion in recognising the revenue, either percentage of completion or at the point the constructed goods delivered to the customers. As said by ATIS Corp Bhd, this issue is mainly due to the absence of a definitive national view on when revenue should be stated in the accounts of property developers (The Star, 2011). Likewise, Xerox Corp and Bausch and Lomb are the example of revenue recognition in international business environment.
Some of the other high-profile scandals that have shaken the Malaysia market sentiments were Megan Media, Transmile Group Berhad, Perwaja Steel, Malaysia Airlines System, Renong and Tat Sang. Ever since, in addition to the vast research on earnings management, corporate governance has raised discourse among researchers and became one of the most controversial topics in both academic and business press (Larcker & Tayan, 2011). The publicity and attention around those cases have questioned the transparency and credibility of financial reporting and corporate governance.

Agency theorist stated that the separation of ownership and control leads to goal divergence between managers and shareholders (Jensen & Meckling, 1976) which ensued to earnings management. This agency problem increases the need for effective monitoring and control over management to protect the interests of investors and stakeholders (Fama & Jensen, 1983). Prior literature corroborates that the existence of poor corporate governance may facilitate manipulation, corruption and mismanagement in business. Larcker and Tayan (2011) stated that effective monitoring and advising system done by the directors could reduce and minimise the managers’ opportunistic behaviour that caused by agency conflict. Hence, this resulted to lower earnings management practices.

In line with the definition of corporate governance, ‘…process and structure used to direct and manage the business…’ (Malaysian Code on Corporate Governance, 2012), the most imperative internal controlling and monitoring device; the directors, have the power to control, monitor and provide the fittest decisions for the management to dissuade management from opportunistic behaviours (Baldenius, Melumad, & Meng, 2014; Dechow, Sloan, & Sweeney, 1995). Fama and Jenson (1983) denote board of directors as the apex of a company’s monitoring and control
system whereby they have the power over the managers’ employment, rejection or approval of key decisions, and provide advice and expertise on managing the company. Directors are expected to assert on higher reporting quality since the reported financial and voluntary information is a crucial source of verifiable information that is useful in monitoring and evaluating the managers along with their decisions and strategies.

Due to the fear of recurrence of the economic meltdown like the previous Asian financial crisis, many countries in Asia have learnt the lesson the hard way and have rightfully strengthened their corporate governance mechanisms. Hence, Malaysia introduced Malaysian Code on Corporate Governance (MCCG) in 2000 and the code evolves and improves overtime to further strengthen corporate governance practices including board of directors’ policies. The latest revision was made in the year 2017. MCCG and Bursa Malaysia Listing Requirements have been actively develop the best regulatory and structures that company should abide and practice which include the board members’ structural attributes.

The effectiveness of board of directors is contingent on a myriad of factors. For instance, the board meeting frequency and attendance, remuneration and ownership could affect the board’s effectiveness (Kamardin & Haron, 2011). Kang, Cheng and Gray (2007) added that board diversity could also influence the board effectiveness. Hafsi and Turgut (2013) consider board diversity in terms of structural attributes (i.e. board leadership, multiple directorships, board size and non-executive directors’ commitment) and demographic attributes (i.e. gender, age, ethnic, competency and nationality). Due to the breadth of board diversity term, the researchers signify structural attributes as diversity-of-boards and demographic attributes as diversity-in-boards. This current study utilises such definition.
Carter, Simkins and Simpson (2003) is one of the earlier studies that investigated board diversity and they state that a diverse or heterogeneous group of directors possess different perspective, evaluate more alternatives and more careful in exploring the consequences of those alternatives which will result in effective problem-solving. Moreover, the researchers also indicate that heterogeneity members view issues in broader lenses, while homogeneity takes a narrow perspective. Therefore, a heterogeneous board of directors may augment the company performance.

National governments are concerned with diversity on democratic grounds. Therefore, Malaysia would be an interesting avenue as it has been known to encourage women participation and for its diverse ethnicity. With regards to gender equality, the efforts to increase women directors in the boardroom have commenced since 2011, whereby the former Prime Minister of Malaysia, Datuk Seri Najib Tun Razak set the goal to have 30 per cent women directors at the decision-making level by 2016. In the Budget 2012 speech, he stated that the government organised advanced management programmes for women with potential to become members of the board. Furthermore, the MCCG 2012 posits companies to disclose their effort in increasing the women directors in the annual reports commencing in 2012. Likewise, Malaysia also practices gender equality by integrating gender equality and women’s empowerment into poverty reduction, democratic governance, crisis prevention and recovery, and environment and sustainable environment as pledged by the United Nation (UNDP) Sustainable Development.

With regards to ethnicity, Malaysian companies are operated in a markedly multi-racial environment. Statistically, the population is dominated by the
Bumiputera\(^2\) or Malays and is followed with Chinese and others\(^3\). This unique setting requires more diversity in terms of ethnic composition of the board members than other countries that are predominantly populated by one ethnic, for instance, the United States, the United Kingdom and Hong Kong. The issue of ethnic composition can be seen as a more contentious issue since the issuance of National Economic Policy (NEP)\(^4\) which stresses on the Malays and other indigenous rights on the country’s economy, for instance, Malays dominate the country’s politic and population while Chinese controls the business transaction. Rachagan, Marshall, Poon and Satkunasingam (2015) documented that albeit Malaysia is an ethnically diverse country, business has often been run and operated within ethnic and kinship groups (i.e. family owned Chinese companies). The researchers also noted that the appointment of Malays as the directors provide the advantage of having political benefits, particularly on their political connections. Moreover, the researchers suggested that Malaysian situation is made more complicated by the political environment in which there is strong policy support for Bumiputra economic participation and strong patronage networks. Hence, the mixture of multi-racial community in Malaysia delivers an exclusive research environment and setting that is not comparable with other countries.

Despite the abovementioned unique characteristics, Amran et al. (2014) reported that Malaysia is nowhere near to its goal since the female representation of directors in companies is only at 8.34 per cent. In addition, Malaysia is experiencing ethnic homogeneity issues in the boardroom (Abdullah, Ku Ismail, & Nachum, 2016)

\(^2\) Bumiputera literally mean “the son of the soil”. It also includes Orang Asli (the aborigines) and other indigenous ethnics, such as the indigenous natives from Sabah and Sarawak.

\(^3\) To be precise, the percentage of population as at 2010 is 67.4% for Bumiputera, 26% for Chinese, 7% for others. Source taken from https://www.dosm.gov.my.

\(^4\) The NEP issued by the Malaysia government with the effort to appease the 1969 racial tensions (between Chinese and Malays)
which is probably due to the strong homophily tendencies in East Asia which include Malaysia itself. Moreover, Cheong and Sinnakkannu (2014) deem corporate Malaysia is still be divided along racial lines despite Malaysians have been propagating the reduction of racial boundaries. Hence, this shows that Malaysia companies are still averse to challenge the status quo in appointing the board members.

The concern of appointing homogeneous line of directors indicates resistance to change the status quo and is still an on-going concern. Prior studies encourage higher diversity in boardroom as it brings up the company performance. For instance, gender diversity and ethnic diversity are able to lead to superior financial performance (Cheong & Sinnakkannu, 2014; Julizaerma & Sori, 2012; Lee-kuen, Sok-gee, & Zainudin, 2017; Marimuthu, 2008). Knowing the significant role of heterogeneous directors, now is the best time to promote heterogeneity in board to steer companies away from the tired status quo. Hence, companies are encouraged to enhance their boardroom with diverse board diversity attributes (Hafsi & Turgut, 2013).

Another strand of this study is to investigate the consequence of earnings management. Earnings management has been known to be the mechanism that negatively influenced financial performance (Ching, Teh, San, & Hoe, 2015; Gill, Biger, Mand, & Mathur, 2013), value relevance (Mostafa, 2017; Shan, 2015) and reputation (Martínez-Ferrero, Rodriguez-Ariza Manuel, & Bermejo-Sánchez, 2016; Zahra, Priem, & Rasheed, 2005). Based on these detrimental effects, companies tend to search for a technique and in accordance with stakeholder theory and legitimacy theory, prior studies reported that corporate social responsibility (CSR) could fix and ameliorate their affliction caused by earnings management. Zain and Janggu (2006)
suggest that CSR facilitates companies to achieve balanced sustainability elements apart from serving as an effective mechanism to satisfy the stakeholders’ expectation. From the same token, CSR helps to improve a company’s financial performance, image and reputation as well as competitive advantage and valuation (Amran & Abdul Khalid, 2009; Kahreh, Babania, Tive, & Mehti, 2014; Saleh, Zulkifli, & Muhamad, 2010). As a result, CSR can be used as a means of improving the affected companies.

Building upon these advantages of CSR, Malaysia encourages companies to be more socially responsible by issuing several incentives. In the year 2010, Bursa Malaysia launched a comprehensive framework for the public listed companies (PLCs) as guide for sustainability reporting. Since Bursa Malaysia has always been the advocate for sustainability, it has recently developed a Sustainability Reporting Guide for assisting the PLCs to improve their sustainability-related reporting that meet the needs of various stakeholders. Since then, numerous efforts by the regulators have been established to encourage more CSR engagement by Malaysian companies. However, CSR in Malaysia is still infancy and relatively in development despite being part of the government agenda. Likewise, in terms of reporting, Sadou et al. (2017) reported that the extent and quality of CSR disclosure fails to achieve a high level of quality.

Unfortunately, in recent time, CSR has been used in multiple formations albeit its benefits. Contradicting prior findings that showed positive effects of CSR, it was revealed that CSR can also be used opportunistically; for instance, as a green washing tool whereby the management provides a positive impression of their overall environmental performance with the intention of misleading the stakeholders from their actual operations that are opposite to the announced initiatives (Bowen &
Aragon-Correa, 2014). For instance, palm oil businesses in Malaysia received unequivocal allegations regarding their extension of palm oil plantation. Some of the allegations are affecting the survival of the animal and plant species, pollutions, practicing child labour and forced labour and other adverse effects. Hence, palm oil businesses are in high inclination to improve their environmental disclosure (Othman & Ameer, 2010).

Ultimately, there are still some other egregious CSR motivations where the focus of this study is to scrutinise CSR as the consequence of earnings management, by which the management is committed to practicing CSR by misusing it to reinforce the entrenchment strategy (Cespa & Cestone, 2007; Martinez-Ferrero, Rodriguez-Ariza, & Garcia-Sanchez, 2016; Prior, Surroca, & Tribó, 2008; Surroca & Tribo, 2008). This strategic approach is proven to be misused by irrational managers in developed countries and the notion behind this approach is that this opportunistic motivation is deliberately conducted by irrational managers to mislead stakeholders from detecting their opportunistic managerial discretion and gain the stakeholders’ support (Cespa & Cestone, 2007; Choi, Lee, & Park, 2013; Prior et al., 2008). This issue of misusing CSR is less likely to be investigated in developing countries which motivate this study to delve into.

Following to the relationship between earnings management and CSR, this study would like to introduce a moderating variable that is believed to be able to moderate the respective relationship. Corporate reputation has been chosen as the moderator with the notion of strengthening the relationship between earnings management and CSR due to the pressure of sustaining and protecting the present reputation of the reputable companies.
Dechow, Ge and Schrand (2010) highlight that most of empirical studies examined earnings management subject on either its antecedents (similar to determinants and causes) or consequences (similar to outcomes) of earnings quality. The researchers regarded earnings quality and earnings management as the two sides of the same coin with the rationalization of earnings management erodes earnings quality. Additionally, they encourage future academician and researcher to execute a complete path research by which a study that examines both sides, particularly the antecedents and consequence of earnings quality. This type of research offers deeper and holistic insights that are unavailable on a partial research. Building on this proposal, this current research leverages and responds the researchers’ suggestions. Therefore, board diversity serves as the antecedent of earnings management and CSR as the consequence of earnings management.

1.2 Problem Statement

Issues in corporate governance have been the interest of many researchers from various disciplines since many years (Al-Dhamari & Ku Ismail, 2014; Amran, Lee, & Devi, 2014; Carter et al., 2003; Haniffa & Cooke, 2002; Jo & Harjoto, 2011; Xie, Davidson, & Dadalt, 2003). This interest is due to various issues that persist which require continuous effort to find the best formula for better governance. One of the issues that require strong governance is earnings management. Further, earnings management has been accepted to be included as part of various untruthful actions. As discussed in previous sections, few cases of earnings management in Malaysia give the sense of urgency in conducting this research. Hosseini, Chalestori, Hi, & Ebrahimi (2016) concede by indicating that conducting this kind of research on earnings management could provide a higher quality of understanding for the capital
market participants and insider’s decision making process (i.e. shareholders, investors, regulators, social and environmental activists and consumers).

Earnings quality is expected to be improved across time due to the introduction of several initiatives affiliated to corporate governance. In respect to earnings management, the effectiveness of corporate governance especially on board of directors is still being questioned as reported earning is still reported to be low in quality (indicated higher earnings management) (Al-Rassas & Kamardin, 2015; Mohamad, Rashid, & Shawtari, 2012; Wan Mohammad, Wasiuzzaman, & Nik Salleh, 2016) due to the incapacity of the directors in constraining earnings management. Besides, investors continue to have reservations and are less confident in regards to the boards’ ability to enhance the quality of earnings although efforts have been made by the Malaysian regulators to reform corporate governance following the Asian financial crisis (Al-Dhamari & Ku Ismail, 2014). The researchers further explained that investors rely on information of the directors to assess the reported earnings but unfortunately the research found that the directors failed to do so. The findings indicate a need to revisit the revised corporate governance regulation in the near future to restore investors’ confidence regarding reported earnings. Hence, this study attempts to renew the interest on corporate governance mechanism, specifically into leveraging the advantage of board diversity in addressing the governance issue of which represented by earnings management.

Stimulated with the approach of board diversity by Hafsi and Turgut (2013), this study implies board diversity in two dimensions. On one hand, structural board diversity attributes (namely board leadership, multiple directorships, board size and non-executive directors’ commitment) as diversity-of-boards, while on the other hand, demographic board diversity attributes (namely gender, age, ethnic,
competency and nationality) as diversity-in-boards. As the nature of both diversity-of-boards and diversity-in-boards are intertwined and tested in a study, a comprehensive and holistic discussion and insights on board’s efficiency and effectiveness can be acquired.

The effectiveness of the board has raised discourse in several parties and thus, this study would like to prove as to whether this controlling mechanism could serve its duties. Agency theorists (Fama & Jensen, 1983; Jensen & Meckling, 1976) suggest that structural attributes or diversity-of-boards can be used to establish superior monitoring and control mechanism that minimise agency cost and may affect earnings management. It is also reported that diversity-in-boards (specifically demographic board diversity) can be an instrument to enhance its overall problem-solving capacity (Becker, 1964) and enhance the extent of moral or ethical development of a company (Labelle, Gargouri, & Francoeur, 2010). The effectiveness of board requires diversity of knowledge, competencies, work experience and functional background. As such, those values are often included in the board of directors selection process (Miller & Triana, 2009). Justified from the diversity advantages, this study aims to provide empirical evidence as to whether diversified or heterogeneous boards have a significant effect on earning management.

The research into earnings management has usually involved the identification of its determinants, controlling mechanism and the environmental conditions that influence its occurrence, which also known as the antecedent variables. Hence, this study selected board diversity as the antecedent of earnings management due to its ability in influencing the occurrence of earnings management. Known as the corporate governance mechanism that supposedly alleviates earnings management, it is practical to select board diversity and investigate whether it can
effectively mitigate earnings management, be the cause of the occurrence or may be no response. Following to that, due to the occurrence of earnings management, it could also leads to CSR. Being the variable for the consequence of earnings management, this study would like to ratify in Malaysian context whether the increment of CSR was due to earnings management.

Traditionally, prior studies reported that CSR has been known to be beneficial for companies (improved performance and reputation). Therefore, companies are contending with each other to appear as socially responsible companies. However, academic research has also burgeoned with the issue of misuse of CSR against earnings management that serves as the managerial entrenchment. In relation to the underlying agency problem in earnings management, irrational managers may opt for overinvestment and increase the financial resources allocated to social and environmental concessions, namely, CSR as a hedging strategy against any disciplinary initiatives (Prior et al., 2008; Surroca & Tribo, 2008) and unfavourable media coverage.

Cespa and Cestone (2007) firstly denote that managers resort to more CSR engagements as this way may satisfy their stakeholders’ demand and expectation which could appease the negative reactions to the perceived earnings management that resulted from the agency conflict of interest. CSR can be promoted as a means of building trust and cooperative relationships with stakeholders whom manage and control key resources that hold the longevity of a company (Prior et al., 2008), allow managers to reinforce their job security (Shleifer & Vishny, 1989) and protect from costly media boycotts and stakeholders activism since the stakeholders’ demand have been satisfied with social and environmental concessions (Cespa & Cestone, 2007). Other than the issue of abusing CSR, practicing managerial entrenchment is also
deemed to be harmful to the shareholders since the incumbent managers expropriated shareholders’ power and control and transferred it to them. Hence, managerial entrenchment remains as another agency cost arising from the earlier agency conflict aroused between the managers and shareholders.

The association between earnings management and CSR has been studied mostly in the developed countries and the results are inconclusive. Previous studies reported that the positive relationship occurred when earnings management misused CSR as entrenchment mechanism and negative relationship occurred when companies practices or reports high CSR were less likely to involve in earnings management. Some of other underlying factors that also caused mixed results are the different business environment between developed countries and developing countries and also the different measurement for earnings management and CSR. Other than the Modified Jones model, prior studies used several other measurements for discretionary accruals, which is the proxy for earnings management. Dissimilar from previous studies, this study uses quality of CSR disclosure to capture the level of CSR in Malaysia which offers a more detailed measure. Nonetheless, this study expects other plausible variable that could explain the mixed results. Therefore, this study invests to examine a potential moderating variable; which is corporate reputation.

Companies can be either good reputation company or bad reputation company. According to Schwartz (2008), a good reputation company means it is profitable and fit for doing business, always strive to meet the aspirations of its many stakeholders, doing business with high integrity, honest, ethical, uncompromising about values and principal and always in tune with society. Likewise, Othman, Darus and Arshad (2011), a good reputation company is when it has done good community
services or has obtained several recognition and certification on its products and services. In addition, socially reputed companies are referred to those companies that received award or certification in various category related to CSR (Kansal, Joshi, & Batra, 2014). On the other hand, bad reputation company can be classified as company that involved with controversial industry that produce products and services harmful to human being, society and environment (Cai, Hoje, & Carrie, 2012). Knowing the importance of corporate reputation, both poor and good reputable companies practice numerous CSR activities as it is deemed to be an important device to fix poor reputation (Guillamón-Saorín et al., 2017) and sustain good reputation (Kansal et al., 2014).

However, reputable companies, primarily, are much more more obligated to be socially responsible as they receive more scrutiny from the stakeholders and even the public. It is also proven that those socially reputed companies are more prone to invest their CSR budget and report higher CSR disclosure to maintain and enhance their good reputation (Kansal et al., 2014). This is because those reputable companies are in the spotlight of multiple stakeholders, far more visible and most likely to be noticed when they did something controversial (earnings management as an example) or other misconduct. Besides, all news media and public are watching them and they tend to receive stricter treatment by the public. Fear that earnings management could destroy their reputation (Martinez-Ferrero et al., 2016), these companies shall increase their CSR to safeguard their reputation due to the harmful effect of earnings management. On this basis, corporate reputation can be a factor of moderation by strengthening the relationship between earnings management and CSR.
In summing up, studies in earnings management realm showcase equal distribution of importance in terms of its antecedent and consequences. This is because numerous studies have been diligently scrutinising both sides, either separately or simultaneously since many years ago. Hence, by incorporating both sides in one study can exhibit comprehensive coverage of knowledge.

1.3 Research Questions

This study investigates the antecedent and consequence of earnings management by addressing the following questions:

1. Do the attributes of diversity-of-boards (board leadership, multiple directorships, board size and non-executive directors commitment) affect earnings management?

2. Do the attributes of diversity-in-boards (gender, age, ethnicity, nationality and competency) influence earnings management?

3. Is earnings management associated with CSR?

4. Does corporate reputation moderate the relationship between earnings management and CSR?

1.4 Research Objectives

This study has four research objectives. The objectives are as follows:

1. To determine whether diversity-of-boards attributes (board leadership, multiple directorships, board size and non-executive directors commitment) affect earnings management.

2. To examine whether diversity-in-boards attributes (gender, age, ethnicity, nationality and competency) influence earnings management.
3. To investigate the association between earnings management and CSR.

4. To determine whether corporates reputation has a moderating effect on the relationship between earnings management and CSR.

1.5 Malaysian Institutional Setting

Malaysia is an appropriate and interesting setting to explore the antecedents and consequence of earnings management. In this section, an overview of Malaysian institutional setting is firstly introduced.

The Malaysian business environment, especially trading and commerce, originally followed the Great Britain economic system. This country was originally known as Malaya and gained its independence in the year 1957. Immediately after its independence, Malaysia boarded on a plan of rapid industrialisation and formulated its first Industrialisation Strategy in the 1970s. The diversification and industrialisation of the country’s economy were the main focus of this strategy (Siddiquee, 2006).

Upon setting the government policy agenda in Malaysia, social considerations have played a significant role. The Malaysian population consists of two main groups known as Bumiputera and non Bumiputera. The indigenous people, the Malay, are called the Bumiputera whilst the others are known as the non Bumiputera. Malaysia is highly diversified in terms of ethnicity whereby it also comprises of three main ethnic groups which are the Malay, Chinese and Indian. These multiracial attributes provide multiple inherent economic backgrounds and cultures that impacted the business environment and operation.

Malaysia is known as a country with multicultural country with diverse ethnicity that practices different cultural values and religious beliefs. Historically,
three main ethnic groups were involved in different levels of economy back then. Traditional agricultural sector ran by the Malays were considered irrelevant to foster in the British colonial economy which hindered the Malays to grow economically (Williams, 2007). Instead, the British opted to use cheap labours from China and India to uphold more profitable exports industries.

Aspired to alleviate the poor judgment of economy stability with regards to race capability, the Malaysian government enforced a policy named the New Economic Policy (NEP) from the year 1970 until 1990 and the National Development Policy (NDP) from 1991 to 2000. The NEP can be seen as a form of government involvement in answering the 1969 ethnic rampaging with the intention of eliminating the identification of race using economic functions (Johnson & Mitton, 2003). This effort has promoted a 30% increase in the Bumiputera ownership of the corporate sector by the year 1990. Since then, the Bumiputera have been given priority for various businesses including several subsidies, business deals and capital access (Johnson & Mitton, 2003). The effectiveness of these policies led to the increase in the corporate sector that is positively linked to business and politics in Malaysia (Economic Planning Unit, 2017). The Malaysian government then introduced the NDP but is unfortunately still deemed as a pro-Malay policy, or what Torii (1997) calls “ethnicity-oriented” despite the differences in priorities and strategy between these two policy instruments.

Tracing the history of the Malaysian economy, it is essential to indicate that having a multi-racial environment has affected the economy and this issue is still being discussed until today. The next section converses the significant attributes that designated Malaysia as the most appropriate avenue to use in this study.
1.5.1 Diversity in Malaysia Boardroom

The inclusion of women and ethnic minorities on corporate boards is an emerging issue in corporate governance. Other than Malaysia, several countries (such as Belgium, Brazil, Italy and others) have introduced or in the process of forming a requirement with regards to mandatory gender quota in the boardroom (Gyapong, Monem, & Hu, 2016). With regards to some encouragements carried by the Malaysia government in promoting diversity in the board of director members, the two minority demographic attributes are reviewed. Other than their substantial influence on Malaysia, these two demographic attributes are believed to be important for promoting diversity in the boardroom as they are included in the letter dated 22 July 2014 (“Letter”) promulgated by Bursa Malaysia Berhad, clarified that PLCs is required to disclose its board of directors and workforce diversity policy in terms of gender, age and ethnicity in the annual reports that issued on or after 2 January 2015 as part of the enhanced disclosure requirements to Paragraph 15.08A of the Main Market Listing Requirements of Bursa Malaysia Securities Berhad. This serves to complement the various initiatives launched to inculcate diversity in the boardroom and workplace.

1.5.1(a) Gender Diversity

The poor representation of women in board indicates a major issue in Malaysia. The Woman, Family and Social Development Department (MWFSD) reported that in 2010, women constituted almost half of the population in Malaysia and made up 47.3 per cent of the workforce. Following to that, the government optimisms to increase the percentage to 55 per cent (The Star, 2011b). In promoting women’s role and participation on board, the government has regulated a policy that the board must
comprise at least 30 per cent of females in decision-making positions and listed companies had until 2016 to adhere such policy (The Star, 2011a). In a recent study, Amran et al. (2014) found that 8.34 per cent of the total seats of the board were occupied by female directors which is only a mere 1 per cent increase from the 2008 study, 7.7 per cent. This can indicate that Malaysian companies still have a long way to fulfil the 30 per cent board seats allocated for women. Hence, this study may provide some empirical evidence that shows a more diverse board in terms of gender diversity can improve the effectiveness of governance.

1.5.1(b) Ethnic Diversity

Ethnic diversity has been found to influence Malaysian economic and corporate governance (Abdullah & Ku Ismail, 2013; Ayoib & Nosakhare, 2015; Haniffa & Cooke, 2005). In Malaysia, the Department of Statistics reveals that the current population estimation from 2014 to 2016 comprises predominantly of Malays, Chinese and Indian. Referring to the business environment, the Malays dominate the country’s politic and population, while the Chinese controls Malaysia’s business transaction. In addition to the NEP and NDP, Bursa Malaysia has legislated that Bumiputera should hold 30 per cent equity ownership in any listed company. This continuous formulation is to strengthen the cultivation of Bumiputera participation (Marimuthu, 2010). However, as of 30th June 2015, Bumiputera-controlled PLCs accounted for only 17.4 per cent of market capitalisation on Bursa Malaysia. The formulation effectively increases the Bumiputera equity holding in the capital market (specifically rose 31 per cent from the year 2014) despite of the low percentage (The Star, 2015).
Rachagan et al. (2015) documented that the appointment of Malays as the directors provide political benefits that are consistent with policies targeted at increasing the level of importance of the Malays in business environment. Yet, the researchers suggested that this diversity is underutilised. A low ethnic diversification in board may not exhibit a culture of open-mindedness that hinders knowledge creation since directors with different ethnic backgrounds could contribute their knowledge and understanding especially to companies that are dispersed in different regions worldwide. Hence, this study is crucial to provide a stand for the policy-makers and regulators to enhance and improve ethnic diversity among board members.

Gender and ethnic diversity are the two elements that are substantial for Malaysia as the regulators have been putting much effort in promoting gender diversity as Malaysia is known as a multi-racial country. Build upon the above discussion, Malaysia can be a unique platform that substantial for this study’s contribution in knowledge. Hence, this study conforms to Malaysia institutional setting by which encouraging and searching for better and superior corporate governance mechanism along with asserting companies to truthfully contribute to the society and environment.

1.6 Significance of the Study

This study contributes to the body of knowledge in earnings management by providing new awareness on board diversity attributes roles as the antecedents and CSR as the consequence of earning management in a developing country.
1.6.1 Theoretical Contributions

Most prior studies focus on specific attributes concerning board diversity, either the demographic or structural attributes of the directors despite of apparent widespread support for board diversity. In response, this study examines both dimensions, by separating the nature of the diversity, namely, diversity-of-boards (board leadership, multiple directorships, board size and non-executive directors commitment) and diversity-in-boards (gender, age, ethnicity, competency and nationality). Moreover, this study extends the findings of prior studies by not only incorporating the most common theory which is agency theory to scrutinise the association of board diversity and earnings management. Human capital theory is also incorporated to fortify the former theory.

Furthermore, this study may add another view to the literature by explaining the issue of managers using CSR as the entrenchment strategy using stakeholder-agency theory and signalling theory. This misuse of CSR realm is still limited especially in developing countries. Thus, this study fills the gap in the Malaysia literature.

Corporate reputation is also incorporated as the moderating variable in this study. This is done mainly due to its ability to affect the relationship between earnings management and CSR by which CSR will be practiced and engaged more aggressively by the irrational managers to safeguard their position and the companies’ reputation. Hence, in accordance to legitimacy theory, corporate reputation is believed to could moderate the respective relationship.

Lastly, this study will serve as a study that takes into account both the antecedent and consequence of earnings management whereby it entails the corporate governance effects on earnings management and earnings management.
effects on CSR. This type of research is still limited as stated by Dechow et al. (2010).

1.6.2 Practical Contributions

The outcomes of this study on board diversity are valuable for the regulators and accounting standard-setting bodies in drawing superior policies for the board of directors as Malaysia has been working towards the attainment of an enriched corporate governance practice through effective board governance. The requirements for the board of directors’ selection and corporate governance are still loose. Apart from the directors’ monitoring role, this study offers empirical evidence and aims to promote a heterogeneous line of board members that possesses diverse attributes which appear to be significant in today’s business environment. This study specifically intents to validate that diversity-of-boards and diversity-in-boards as it may improve the governance among Malaysian companies.

Moreover, the empirical findings of this study may shed light for the investors, analysts and researchers to better understand how the board of directors’ diversity affects earnings management and how CSR is being exploited by irrational managers.

This study is also substantial for the investors to also pay much attention to socially responsible companies as they also have the possibility of not providing transparent reporting. Policymakers only seem to encourage companies to engage and report more CSR activities instead of motivating the desired behaviour and reporting quality disclosure which could provide more incentives for the managers to utilise CSR for opportunistic actions or as an entrenchment mechanism.
1.6.3 Methodological Contribution

This current study classifies board diversity in two terms which are diversity-of-boards and diversity in-boards. While the former will be measured using binary and ratio scale data as most prior studies employed, the latter will be measured using Blau’s Index of diversity. The rationalisations for using Blau’s Index of diversity are that it has been suggested as an optimal measure of diversity to capture variance within a group of people and a suitable measure of diversity for categorical variables. Therefore, this measurement meets the criteria of this study that contain categorical variables in the interest of examining the impact of board heterogeneity on earnings management which differ from prior studies, especially in Malaysia that have only looked into the ratio, percentage or proportion of a variable.

1.7 Scope of the Study

The study concentrates on the issue of earnings management occurring in Malaysia PLCs by examining its antecedent and consequence. Therefore, this study considers board diversity as the antecedent (specifically as the corporate governance mechanism) that could have a bearing on earnings management, while also considering the function of CSR to conceal earnings management practices. Malaysia is chosen as the country of the study because of its lower earnings quality caused by board of directors’ incapacity that led to investors’ reservations and the on-going improvements made by the regulators in enhancing corporate reporting environments. Moreover, the issue of CSR being the consequence of earnings management has been receiving immense attention by the developed countries. Since the two elements which are the earnings management and CSR are commonly carried out by companies in Malaysia, CSR being misused against earnings
management is highly possible. The sample size of this study is 265 companies that are listed on Bursa Malaysia in 2016. This present study uses secondary data available from Thomson Reuters database (Datastream) and annual reports. This study is essential because as far as the author can ascertain, none of such studies exist in Malaysia that extensively focus on the antecedent and consequence of earnings management.

1.8 Definition of Key Terms

The following section provides the definition of the key variables:

- **Earnings Management**

  Earnings manipulation reflects any illegal or legal managerial discretion; for instance, altering financial reports done by the managers with the aim of getting private gain and intentionally deceive the stakeholders about the company’s elemental business performance (Healy & Wahlen, 1999; Schipper, 1989).

- **Board Diversity**

  Fidanoski, Simeonovski and Mateska (2014) consider board diversity as the difference between individuals and groups in terms of their traits, behaviour and other characteristics.

  To be more specific, Hafsi and Turgut (2013) categories board diversity into diversity-of-boards and diversity-in-boards. Diversity-of-boards referred as the dissimilarities among boards (i.e. formal structure) and diversity-in-boards referred as the dissimilarities within boards (i.e. demographic attributes). Harjoto et al. (2014) corroborate that board diversity should be more holistic and not only focus on gender
diversity. Hence, they extend the definition by stating that board diversity presents multiple knowledge and skills (i.e. ethnic, age, competency and nationality). This study adopts the definition of Hafsi and Turgut (2013) mainly due to its comprehensive definition.

- Corporate Governance

Corporate Governance is the structure used to instruct business operations that aim to accomplish profit maximization and take into consideration of the stakeholders (MCCG, 2012).

- Corporate Social Responsibility

Corporate Social Responsibility (CSR) involves any business activities that enhance profitability, law-abiding, ethical and socially supportive (Carroll, 1979). Referring to CSR disclosure, which is the measurement for CSR, the definition of Saleh et al. (2010) will be used in this study. The researchers refer CSR disclosure as any CSR activities communicated to stakeholders and reported in the annual reports. As for CSR disclosure quality specifically, it is referred to the provision of financial and non-financial information relating to an organisation’s interaction with its physical and social environment (Guthrie & Mathews, 1985).

- Corporate Reputation

Corporate Reputation denotes to the perceptual representation of how the company’s past actions and future prospects that indicates the company’s overall appeal to its constituents compared to other leading rivals (Fombrun, 1996).
1.9 Structure of the Thesis

This chapter (Chapter 1) discusses the rationale and aims of this study. Additionally, the institutional background of Malaysia which comprehensively discusses the emergence of the Malaysian economy, the description on the development of both elements (namely corporate governance and CSR) in Malaysia as well as Malaysia’s two most substantial diversity attributes are only conversed in this chapter. The contributions and the definition of key terms were outlined in this chapter. The remainder of this thesis is as follows.

Chapter 2 discusses on the literature review of both the antecedent and consequence of earnings management will be extensively discussed. Additionally, other than reviewing previous studies, this section also discusses on the critical perspective of CSR. In addition, this chapter highlights the theoretical background to support this outcome relationship. This chapter finishes with review of corporate reputation (moderator) literature.

Chapter 3 consists of the theoretical framework and hypotheses development. Accordingly, this chapter carefully enlightens the relationship with the support of the theoretical framework and proceed to present the hypotheses that developed according to the literature and prior empirical results.

Lastly, Chapter 4 specifies the research methodology, specifically on the approaches for the hypotheses testing, sample design, source of data and data collection as well as the measures of interest for the hypotheses. Analytical procedures are presented and choices of analytical methods are justified. This chapter ends with a discussion of data analysis.
Chapter 5 presents the research results. This chapter starts its discussion with the descriptive statistics and correlation analysis. This is followed with the documentation of the results of the tested models.

Chapter 6 offers an overall summary and conclusions of the study and draws the conclusion. This chapter also focuses on the discussion for this study’s results, findings and inference with reference to the tests of the hypotheses. Lastly, it also discusses the implications, limitations and recommendations for future research.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

In relation to literature review, this chapter provides a detailed review of prior literature associated with the antecedent and consequence of earnings management, namely board diversity and CSR accordingly. This chapter starts with discussing on some of the definitions for earnings management.

2.2 Definitions of Earnings Management

Earnings management literature does not provide an unequivocal definition for ‘earnings management’. However, in reviewing the numerous number of earnings management literature, two common definitions were identified. One of the most common used definitions is from Schipper (1989, p.92) who defines earnings management as “purposeful intervention in the external financial reporting process, with the intention of obtaining some private gain (as opposed to, say, merely facilitating the neutral operation of the process)”.

Another common definition is presented by Healy and Wahlen (1999). The researchers correspond and provide that “Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers” (Healy & Wahlen, 1999, p. 366). Managers can mislead the financial report and use it for their own interest instead of the stakeholders’. Likewise, Scott (2003) stated that “Earnings management is the choice
by a manager of accounting policies so as to achieve specific objective” (cited by Ronen & Yaari, 2008). Ronen and Yaari (2008) define earnings management as a collection of managerial decisions that result in not reporting the true short-term, value-maximising earnings as known to management. In other words, the researchers capture both earnings measure economic truth and earnings that convey information to the audience. In the same vein, Fields, Lys and Vincent (2001) mention that managers exert the discretion on accounting number in either within or beyond restrictions, which resulted in earnings management. Moreover, the action can be in opportunistic or company value escalating. Hence, earnings management can be categorised to two types which are opportunistic or informative.

The literature originated from Healy (1985) will be utilised to explain opportunistic earnings management. Healy reported that managers tend to manage earnings opportunistically and expropriate shareholders’ wealth when they want to receive private gains, namely, strategically manipulating bonus income. Similarly, Cheng, Warfield and Ye (2011) stated that those companies that adopt earnings-based bonus tend to experience higher opportunistic earnings management. Meanwhile, informative earnings management indicates that managers exercise discretion to reveal to the investors on their private expectations about the company’s future cash flows. Thus, managers are actually maximising the shareholders wealth when earnings management is exploited to indicate their private or inside information (Healy & Palepu, 1995).

Additionally, it is also worth to note the definition from Dechow and Skinner (2000). The researchers discussed the concept of earnings management and how it can be distinguished from fraud. They recognised earnings management as the use of accounting choices which are allowed by Generally Accepted Accounting Principles
(GAAP). Conversely, accounting fraudulent is the use of accounting choices which do not comply with GAAP. Therefore, earnings management can be in many forms and it cannot be categorised straightforwardly since it can be conventional and legitimate accounting or to the extreme of fraud.

It is not an easy task to credibly determine the earnings management. On top of the discussion on separation between earnings management and fraud, Dechow and Skinner (2000) also stressed and admitted that it is remarkably challenging to operationalise these definitions on financial reporting system. This difficulty mainly due to the definitions of earnings management actually centred to managerial intent in nature, which is unobservable. Bedard and Johnstone (2004) stated that the components of earnings management are also fraud and therefore, there exists a grey area. The researchers have then classified earnings management as the umbrella for both practices within the GAAP and practices that do not follow the GAAP whose (irrational managers) goal is to distort the financial statements materially.

In a more recent study, Marai and Pavlovi (2013) scrutinised the differences between earnings management and financial reporting fraud. The researchers argued that the distinguishing process is complex based on these four reasoning. Firstly, earnings management and financial reporting fraud share the same elements which are to deceive or mislead the users of financial information which is deliberately done by the management. Secondly, financial fraud usually ensues from earnings management. The rationalisation is that, managers may stretch the flexibility of the GAAP beyond its legal term to the extent that this managerial intent may ultimately become a financial fraud. Thirdly, both practices are driven by the same incentives. Lastly, the application of many accounting policies shows no clear limit that beyond
which a policy is illegal. As a result, the researcher concluded that in the effort to differentiate between earnings management and fraud is challenging.

Like most of earnings management studies, this current study adopts both definitions from Schipper (1989) and Healy and Wahlen (1999) as earnings management can be comprehensively defined. These definitions point to management as the party that is responsible for making decisions that fall under the umbrella of earnings management. As a result, earnings management can be defined as a deliberate discretion that entails any manipulations which alter and influence reporting using earnings numbers or accounting items, either legitimately (within GAAP) or illegitimately (fraud).

Earnings management and earnings quality are like two sides of the same coin and are often used as interchangeable concepts. The notion is that when earnings management is high, earnings quality is low and vice versa. Dechow et al. (2010) stated that it could be assumed that earnings management eroded earnings quality. Hence, earnings quality shall be used interchangeably with earnings management in this thesis.

Since the definition of earnings management has been finalised, it is essential for this study to expansively investigate the controlling mechanism to eliminate or affect irrational practices. The next section will firstly provide a brief overview of corporate governance to provide an introduction concerning board of director.

### 2.3 Brief Overview of Corporate Governance

Without a doubt, the literature on corporate governance is ample. Hence, the focus of this study will be on the literature on corporate governance and its relationship with earnings management.
Corporate governance is known to be an important monitoring system. Furthermore, it was established to solve the agency problem through mechanisms that enhance the security of the return for investors (Jensen & Meckling, 1976). Developing company’s value is not corporate governance key intention, and thereby its obligation is to fix the conflict of interest by aligning shareholders’ and managers’ interest which demonstrate the efficacy of board function (Demsetz & Lehn, 1985; Gul & Tsui, 2001).

Corporate governance monitors and controls the management and business activities, which include controlling and monitoring the financial affairs of companies. Donaldson (1990, p.376) defines corporate governance as a structure whereby managers are controlled through the board of directors thus narrowing the scope to the board of directors and their structures. In particular, Fama and Jenson (1983) consider board of directors as the centrepiece of corporate governance. Building upon the conception, prior literature has documented that board member’s structure and characteristics have significantly impact companies’ decision in different aspects including earnings management.

Comprehending the importance of corporate governance, Malaysia has been proactively establishing superior code on corporate governance over time to facilitate the business operations and practices in this country. In general, codes on corporate governance have been developed by professional institutions to address the inadequacies in a country’s governance system. These codes were designed and aimed to increase shareholders confidence, restrain the opportunistic managerial behaviour and safeguard the transparency of reported financial statements (Aguilera & Cuervo-Cazurra, 2009; Chen & Zhang, 2014).
Before the Asian financial crisis of 1997 and prior corporate scandals that affected investors’ confidence in the capital market, the efforts to strengthen good governance practices had commenced. Some of the efforts were the introduction of the Securities and Industry Act (SIA) in 1983, Securities Commission Act in 1993, and the Code of Ethics for Directors which were introduced by the Companies Commission of Malaysia in 1996 that serve as initiatives to crafting a superior line of board directors. Ever since the occurrence of the 1997 financial crisis, this catastrophe has provided an impetus for corporate governance reforms in Malaysia. Subsequently, numerous initiatives were proposed and implemented in Malaysia. One of the significant milestones in terms of best practice transpired in March 2000. High Level Finance Committee on Corporate Governance (FCCG)\(^5\) established the Malaysian Code on Corporate Governance (MCCG 2000) which outlines the principles of best practice to aid companies in planning their own governance structure. The MCCG 2000 was completely launched on January 2001.

The recommendations of the code were essentially aimed to set out principles and best practices that could be used by the companies in their operations towards achieving optimal governance framework (Securities Commission, 2000). These forms of recommendations comprise four parts: (1) principles of corporate governance, (2) best practices in corporate governance, (3) principles and best practices for other corporate participants, and (4) the explanatory notes (Securities Commission, 2000). Part 1 addresses the board of directors, director’s remuneration, shareholders and corporate accountability and audit. Part 2 grants companies with a set of rules that facilitate them to design relevant approaches for their corporate governance structure. Part 3 states on the role of other corporate participants such as

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\(^5\) The High Level Finance Committee on Corporate Governance (FCCG) was formed in 1998 to inaugurate corporate governance framework, set out the benchmark for best practice for the industry and to provide a report on ways to improve corporate governance in Malaysia.

On October 2007, this code was revised (MCCG 2007) to strengthen the directors and audit committee roles and responsibilities such as the frequency of meetings, continuous training for the audit committee and its appointment criteria whereby it is required to comprise of at least three members which are all non-executive directors; and majority of whom are independent. Some of the other enhancements were the appointment of directors and nominating committees’ roles eligibility standards. Moreover, all PLCs are also required to conduct an internal audit (Securities Commission, 2007).

Malaysia has continued improving its code on corporate governance. In July 2011, the Securities Commissions Malaysia designed Corporate Governance Blueprint 2011 which outlines an enhanced corporate governance landscape. Some of the core reasons for introducing these initiatives are to encourage excellent compliance in corporate governance and reinforce its culture. From this Blueprint introduction, this code (MCCG 2012) was issued. MCCG 2012 concentrates on magnifying board structure and composition by comprehensively addressing the directors to be dynamic and accountable beneficiaries to the company as a whole. Their duties have also been emphasised whereby they are expected to be effective stewards and guardians of the company and ensure the company to conduct in compliance with laws and ethical values. Furthermore, the code encourages companies to formulate policies and procedures in assuring compliance with the Bursa Malaysia stipulated disclosure requirements. In addition to that, MCCG 2012 also emphasised on having board members that are able to bring value to board
deliberations and improve the recruitment process whereby the Nomination Committee has to ensure diversity from the industry, technical, business and gender aspects. Lastly, shareholders rights are also emphasised in this code (Securities Commission, 2012).

On 26th April 2017, Securities Commission Malaysia has released the latest MCCG (MCCG 2017, onwards). This latest revision focuses on three broad areas which are board composition, gender diversity on boards and tenure of independent directors. In contrast to MCCG 2012, MCCG 2017 requires to have at least half of the board in companies to be independent directors, to openly disclose their policies for appointing more women to the board as well as set targets and measures towards meeting those targets, and the length of the directors tenure remains unchanged which is 9 years, but shareholders’ annual approval is required from nine to 12 years only. Despite of the existence of this current MCCG, this study would not employ such changes as our sampling period will only include 2016.

This section follows with an extensive discussion on a corporate governance mechanism which is board diversity (in this study it serves as the antecedent). This mechanism functions as the management’s monitoring and advisory mechanism in a company that is believed to have the ability to affect earnings management.

2.4 Board Diversity

Diversity aims to reflect perspective diversity and increase access to resources and the talent pool. Perspective diversity generates better deliberations (Jehn, Northcraft, & Neale, 1999) and creates a culture of communication and questioning (Van Knippenberg, De Dreu, & Homan, 2004). Correspondingly, a heterogeneous group of board members that comprises of individuals from dissimilar background grasp
better outcomes and brings different perspectives as compared to the homogenous groups as the former draw upon different life experiences. With regards to the better access of resources and talent pool, Pfeffer and Slancik (1978) state that by bringing a group of diverse individual together, boards gain access to broader sets of knowledge, skills and talent as well as increase creativity and innovation.

Carter et al. (2003) outline five advantages of board diversity. First, a company could gain a higher understanding of the marketplace as the diversity of a company match with the diverse potential customers and suppliers that could eventually penetrate markets. Second, demographic variables (namely age, race and gender) may enhance creativity and innovation as those attributes tend to vary systematically (Robinson & Dechant, 1997). Third, heterogeneous group of director view different perspective, evaluate more alternatives and more carefully explores the consequences of those alternatives which will result in effective problem-solving. Fourth, heterogeneity members view issues in broader lenses, while homogeneity takes a narrow perspective. The idea is that diverse board members give a better understanding of the environment complexities and more astute decisions. Finally, board diversity encourages more effective global relationships because cultural sensitivity is crucial in an international environment and ethno-cultural diversity encourages corporate leaders to be more sensitive to other cultures.

Despite the purported benefits of diversity, it may also come at a cost. An American sociologist, Blau (1977) introduced a concept of status distance or the status differential between individuals. The researcher stated that individuals that have similar status prone to have similar experiences and attitudes which could form high-quality relationships, whereas individuals with dissimilar status could decrease the likelihood of having high-quality relationships. Disagreement and lack
cohesiveness are some of the negative effects brought by heterogeneous groups. In addition, some prior work supports the tenets. Lau and Murnighan (1998) stress that there will be a tendency of individual groups to degenerate into few subgroups based on one or more attributes that is called “group fault lines”. This backdrop happens when individuals perceive demographically dissimilar group members as having different values and views. Hence, these conflicts weaken the team consensus (Hambrick, Cho, & Chen, 1996) and lead to unnecessary conflict and animosity. Diverse boards could also become divisive and conflict could stifle rather than encourage meaningful discussion in board meetings (Ruigrok, Peck & Tacheva, 2006). Likewise, personnel differences poses conflicts in the workplace and could overtly betrayed the interests of the group (Hilscher & Şişli-Ciamarra, 2013). Hence, diversity can also be deemed as a double-edge sword.

Although there has been mixed evidence and constant debate in empirical research regarding board diversity, based on previous literature, board diversity is still desirable. As have been discussed, a heterogeneous board with diverse cognitive abilities, values, behavioural, psychological and social beliefs is expected to enhance the exchange of knowledge and ideas among the board members in making sound and fruitful decisions (Jehn et al., 1999; Schippers et al., 2003). On top of that, superior decision making can be obtained as diversity reduces individual biases and prejudices. Carter, D’Souza, Simkins and Simpson (2010) postulated that board diversity (gender and ethnic) could lead to better corporate governance which leads to more profitable business. Fidanoski et al. (2014) also infer that diverse groups have greater variety of ideas and divergent perspectives in identifying, developing and selecting decisions in corporate innovation strategies that vital for gaining competitive advantage. Moreover, the ground of equal opportunities infers that equal
distribution of capacities and abilities (regardless of discriminative features, namely, gender or ethnicity) among people. Thus, management and directors should also be drawn from and represent an equitable labour pool (Brammer, Millington, & Pavelin, 2007).

The next section comprehensively reviews board diversity literature and will be separated into two dimensions as per Hafsi and Turgut (2013). Board diversity encompasses diversity-of-boards (structural attributes) and diversity-in-boards (demographic attributes).

2.4.1 Diversity-of-boards Literature

Board of directors is deemed to be the epitome of the highest level of control in a company (Donaldson, 1990) that has the power to manage and control management’s activity as well as providing sound governance. This review discusses the board responsibility and dedication in discharging its role, in the light of looking into the structural attributes of the board.

2.4.1(a) Board Leadership

An important mechanism of board structure is its leadership which is reflected in the positions of chairman and CEO (Vintila & Duca, 2013). Combined leadership structure occurs when the CEO wears two hats, one as the CEO and the other as the chairman. Malaysia Code on Corporate Governance (MCCG) 2012 recommends the separation of the top two positions of the board (CEO and Chairman) and chairman is required to be a non-executive director for effective corporate governance.

Review of the board leadership literature based on their theoretical justifications from agency theory and stewardship theory. Separation of the role of
CEO and chairman is primarily grounded in the agency theory (Dalton, Daily, Ellstrand, & Johnson, 1998) because the role of the board of directors is to monitor management to protect the interests of the shareholders (Fama & Jensen, 1983). An independent chairman shall discharge independent monitoring on CEO that may magnify board monitoring functions. Prior studies documented that the existence of CEO duality have a significant negative impact on company’s performance (Mohd, Abdul Latif, Kamardin, Che Adam, 2016; Rahman, Ibrahim, & Ahmad, 2017; Rutledge, Karim, & Lu, 2016) and the separate leadership receive higher shareholders’ confidence (Rahman et al., 2017).

Contradictory to agency theory, stewardship theory stated the argument that CEO duality is an essential contributor to the unity of the company (Donaldson & Davis, 1991). Unlike agency theory, stewardship theory considers the directors as an instrument of assistance to a steward CEO instead of acts as a controlling mechanism. The theory supports combined leadership, in the light of entrusting the powers of two influential positions to an individual committed to the betterment of shareholders. Likewise, this theory does not put the CEO under monitor and control of the owners but it empowers them to take and make autonomous executive action. David and Donaldson (1997) disprove on the assumption of opposing interest between CEO and shareholders, but both parties have an interest in maximising the long-term stewardship of a company and thus the interest already well-aligned. Additionally, the directors and CEO will also cooperate with each other as their goals are similarly aligned which is the successful performance of themselves as well as the company. Therefore, stewardship theory does not support the necessity to separate the role of CEO from Chairman. Bansal and Sharma (2016) endorse stewardship theory and reported a positive relationship between CEO duality and
company performance. In the same vein, Larcker and Tayan (2016) stated that mandating separation could cause duplication of leadership, impair decision-making and create internal confusion on a company that already has an effective duality.

Abdullah (2004) postulates that monitoring role will be severely impaired should the monitoring and the implementation roles are vested in a single person and the dominant CEO which will lead to ineffective monitoring of the management by the board. Particularly, combined leadership increases managerial discretion as its leader is also the leader of the board. Alternatively, the researcher points out that decision could be reached faster when one person oversees both tasks since he is aware of the management activities. Besides, should the head of the hierarchy is in a non-independent position, the tendency of having biased behaviour is more likely to exist as he has some interest or relation to the company and may have the freedom to manage the company without constraint (Al-Zyoud, 2012). Furthermore, a non-independent chairman is more likely to withhold information (such as voluntary disclosure) to outsiders compared to the independent ones that motivated to disclose information as the latter are expected to augment the monitoring role by providing an independent check on the CEO (Chau & Gray, 2010).

Other than CEO duality, previous studies also examined board leadership from independent chairman perspective. In particular, independence of a chairman is vital for a company as his or her independent judgment would not be impaired since the chairman does not have any pecuniary relationship or transactions with the company (Fama & Jensen, 1983). This selection of measurement is supported by Chau and Leung (2006) who stated that agency costs could be alleviated when a company appoints an independent chairman. Additionally, this measurement is conducted by Al-Dhamari and Ku Ismail (2014) and Habbash et al. (2012) as most of
the studies’ sample have separated the role between CEO and chairman. Therefore, these studies used chairman independence as the measurement for board leadership.

**2.4.1(b) Multiple Directorships**

Multiple directorships is defined as sharing a common member on respective boards of directors or as a circumstance in which a person affiliated with one organisation sits on the board of directors of another organisation (Reppenhagen, 2010). Corporate governance and director interlocks vary by country. In Malaysia, a number of directorships have been improved over time to search for the fittest number of directorship allowed for a director. As of January 2015, Bursa Malaysia Listing Requirement has reduced and limited the number of directorships to hold no more than five. Hence, this study considers the current requirement to analyse the data.

While directors undoubtedly play a vital role in organisations (Fama & Jensen, 1983), studies have found both positive and negative performance and governance effects resulting from multiple directorships. Its effect can be viewed from two perspectives. Firstly, quality perspective or experience hypothesis illustrates multiple directorships a proxy of high director quality (Fama & Jensen, 1983). Directors with multiple directorships assist other members to be more apparent in making decisions as they have the attributes based on knowledge, contextual background, skills and experience to compare the finest board operations from other companies (Haniffa & Cooke, 2002). Besides, directors tend to have more than one directorships as external directorships may have also contributed an important source of incentives for external directors to build their reputation as expert monitoring individuals (Fama & Jensen, 1983). Additionally, prior studies reported that knowledge, expertise, and skill of these members help firms to improve
corporate governance effectiveness and financial reporting through diligent monitoring (Clements, Neill, & Wertheim, 2015; Hashim & Rahman, 2011) and also create more transparency in decision making as they can provide insights into the board functions that have been received from other companies (Haniffa & Cooke, 2002). This notion is in line with the resource dependence theory.

Conversely, busyness hypotheses describe that by serving on multiple boards, directors may have threatened their available time for board meetings which limit their ability to discuss and provide useful advice (Lipton & Lorsch, 1992). More importantly, in accordance with agency theory (Eisenhardt, 1989; Fama & Jensen, 1983), when used in excess, multiple directorships are most likely to expose directors to many cues which they are unable to reconcile and their primary role becomes compromised. The directors may have to shrink their responsibilities as they are too busy and occupied with commitments in other organisations. Busy directors might impair other forms of agency costs which may worsen the monitoring effectiveness. Thus, having excessive multiple directorships would negatively impact company performance and management oversight (Kamardin & Haron, 2011). Also, directors with multiple seats (or busy directors) exhibit higher tendency to be absent from board meetings and providing monetary inducement failed to enhance the directors’ attendance (Jiraporn, Davidson, DaDalt, & Ning, 2009).

The two hypotheses seem to be competing or perhaps are dependent on the company-specific characteristics. In a comprehensive research performed by Lee and Lee (2014), the research provides findings that covered both developing countries (Indonesia, Malaysia, Philippines and Thailand) and developed countries (Hong Kong and Singapore). Tied with the issue of agency problems, the researchers found that multiple directorships are inversely related to company valuation from
developing countries with weak shareholder rights and investor protection. The idea is that, when controlling shareholder holds high voting rights to cash-flow rights, multiple directorships reduce company valuation. However, performances for companies in developed countries that have high external financing needs are found to be positively related to the beneficial effect of multiple directorships. The researchers further postulated that the results varied in accordance to the different country-level governance institutions and company characteristics. Similarly, Clements et al. (2015) documented that corporate governance effectiveness prevailed when a director seats in a company within the same industry in which experience hypothesis is more pronounced.

2.4.1(c) Board Size

Fama and Jenson (1983) posit that the primary board function is to monitor and control the management’s actions. The literature suggests that the size of the board can add to the diversity of perspectives, provide greater choices among solutions and more decision criteria to achieve the board’s goals and objectives on behalf of investors (Kamardin & Haron, 2011).

Despite its ability to improve company performance, there is no optimal size for a board. The MCCG 2012 and the Bursa Malaysia Listing Requirement were silent on the number of directors that should sit on board. However, it was recommended that the board size should not be too big nor too small but sufficient to allow for active and effective participation and that they should be able to discharge their duties effectively.

Academician offered different opinions with regards to the optimum number of directors in a board. For instance, Lipton and Lorsch (1992) suggest that the ideal
board size is when it does not exceed eight or nine directors. In the same point of view, when the board is less than seven or eight members, the board can be coordinated appropriately (Jensen, 1993). Further, Vafeas (2005) states that the board cannot operate effectively in either too small or too large number of directors by which may have a non-linear relationship. In Malaysia, the board size is commonly at eight (8) directors (Abdul Rahman & Mohamed Ali, 2006; Al-Dhamari & Ku Ismail, 2014).

In light of agency theory, the agency proponents contend that boards with a smaller size will ensue with greater efficiency, strategic discussion, coordination and communication since monitoring duties have been minimised. Larger boards can result in a free-rider problem since directors may rely on other directors to monitor managers and cause the overall monitoring to decrease. Jensen (1993) stated that as the board size gets bigger, greater emphasis on politeness and courtesy at the expense of truth and frankness arises in the boardroom. The researcher suggests that smaller boards enhance communication, cohesiveness and coordination, which enhances the effectiveness of monitoring. This proposition is backed by empirical evidence from the "for profit" literature, that shows smaller board size is associated with a higher firm value (Yermack, 1996). Therefore, when additional member is included on the board, a potential trade-off could occur between coordination and diversity.

On the other hand, from the resource dependence theory perspective, a larger board size is more likely perform to be vigilant in monitoring the management as the company could position sufficient amount of skilled directors to control the management (Kiel & Nicholson, 2003). Pfeffer and Slancik (1978) were also in favour of a larger board size. The rationalisation behind this approach is that a larger number of directors may have greater command in reducing dependency on external
resources as they have more environmental linkages than smaller boards. Likewise, these directors can enjoy more diversity in terms of members’ experience and skills that may serve as the sources of advice and counsel.

The question of what constitutes an appropriate board size is still a relevant topic in corporate governance. The findings of previous studies have shown inconclusive results about board size. In relation to company performance, Haniffa and Hudaib (2006) reveal that board size has a positive correlation with accounting performance while it had a negative correlation with the market performance, indicating that the market views big size board of directors as ineffective. Likewise, Nguyen, Rahman, Tong and Zhao (2016) found that companies with larger board size incurred higher operating costs and this caused a negative association with company valuation. In addition, board size can be in a significantly weak negative relationship with ROA yet also to be insignificant to ROE (Zabri, Ahmad, & Wah, 2016). In contrast, several prior studies reported a positive relationship with company performance in the argument of larger board is more efficient in monitoring and creating value for companies (Johl, Kaur, & Cooper, 2015; Romano & Guerrini, 2014).

Additionally, empirical findings from prior researchers documented a smaller board is positively related to disclosure. Torchia (2016) reported that a larger board failed to provide a higher level of financial transparency and disclosure due to inefficient board-working style. The findings supported by Vafeas (2000) whereby the researcher stated that investors placed a higher value to the earnings information provided by companies with smaller boards compared to the larger ones. On the other hand, CSR disclosures appear to be significantly related to larger board size. The positive relationship can be conjectured with the view of larger company size
should be proportionate with a larger board to contribute greater efficiency in terms of workload allocation and responsibility distribution (Jizi, 2017).

2.4.1(d) Non-executive Directors (NEDs) Commitment

The nature of board composition and its bearing on company value creates discourse among researchers. Directors can be classified into executives and non-executive directors (NEDs). Further, NEDs comprise of independent NEDs and non-independent NEDs.

In comparison to executive directors, Raheja (2005) argued that NEDs are scarce in terms of familiarising themselves with the company operationalisation as these directors are company’s part-time employees. Besides, the executives are known to be far more experienced and hold firm-specific information, thus are intrinsically beneficial to boards. However, this trait could motivate them to act in self-interest and expropriate the company and shareholders wealth.

Agency theory sustains and is in favour of the role of NEDs. NEDs offer an independent monitoring and improve company performance albeit having less detailed knowledge about the daily operations of the company. NEDs serve as the optimum regulators to protect shareholders from the self-interest of the management which validates their board function. They may serve as a hole-in-the-wall to the outside world. Hence, NEDs can be assumed as the tool that connects companies’ external and internal environments to develop efficient management (Johnson, Daily, & Ellstrand, 1996; Zahra & Pearce, 1989). Accordingly, higher proportion of NEDs in board designates a greater board function and subsequently alleviate the conflict of interest (Fama & Jensen, 1983; Shleifer & Vishny, 1997) by diligently supervising the managers or executive directors who have the tendency to act against the
shareholders wealth due to opportunistic behaviour of these managers (Jensen & Meckling, 1976).

Prior studies commonly investigated the company size and independence of the board of directors. This study is enthused by Habbash, Salama and Dixon’s (2012) view on measuring board commitment focusing on the NEDs in governing the company. The respective study used NEDs fees as a proxy for NEDs efforts and activity. Of late, the demand for NEDs is increasing due to recent changes and emphasis on corporate governance principles and regulations. Hence, it is plausible to believe that effective NEDs would usually set in highly paid company’s boards.

While NEDs fees are often immaterial to a company’s bottom line in absolute terms and may be small relative to executive remuneration, it is still an important aspect of a company’s governance. According to Hampel (1998, p.11), “NEDs remuneration can be a useful and legitimate way of aligning the directors’ interests with those of shareholders”. In the same line of argument, Jensen and Murphy (1990) suggest that when NEDs hold substantial equity, their interests with shareholders are ‘better’ aligned and they are best motivated to act on behalf of shareholders. Mallin (2007) concedes that the amount of time and efforts devoted by the NEDs should be paid adequately and accordingly. However, in contrast with Jensen and Murphy, the researcher contends that NEDs should be avoided from being remunerated with share options as this may distract them with a company’s short-term share price. Additionally, NEDs are improbable to incur attendance problem when board meetings fees are higher and appear to perform their job effectively even though they were provided with small financial rewards (Adams & Ferreira, 2008). Accordingly, it is crucial for the company to increase the fees to attract high-quality NEDs as well as be paid a fee that matches their commitment.
2.4.2 Diversity-in-boards Literature

The literature on demographic board diversity is scarce as compared to the literature on diversity of board structure, despite its promising ability in improving performance. By having numerous attributes, this study intent to utilise demographic attributes to investigate if board diversity diminish earnings management practices. This subsection will firstly review the demographic attributes.

2.4.2(a) Gender Diversity

The key stakeholders, customers, employees and investors demanded greater diversity in board representation in relations to gender (Brammer et al., 2007). It could be argued that it is unethical and immoral to exclude women from boards due to the gender difference. Hence, several countries have introduced gender quota in boards. For instance, Sweden has threatened to make gender diversity a legal requirement should companies do not voluntarily reserve a minimum of 25 per cent of their board seats. In most extreme case goes to Norway, whereby since January 2008 all listed companies must abide by a 40 per cent gender quota for female directors and should the companies failed to comply, the companies shall face dissolution. Malaysia is in the same boat as Norway since the listed companies are required to provide 30 per cent of the seats to female directors and the government provided until the year 2016 for the listed companies to adhere.

Many studies have investigated the appointment of women on boards from a shareholder value and company performance or business perspective (Abdullah & Ku Ismail, 2013; Adams & Ferreira, 2009; Gul, Hutchinson, & Lai, 2013; Srinidhi et al., 2011). Gul et al. (2013) argue that board diversity expands organisational values

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6 Malaysia public listed companies were given time until the year 2016 for them to adjust and comply.
and performance by providing the board with new vision and perspective. They further indicate that greater knowledge, creativity and innovation can be derived from the board diversity and provides a higher competitive advantage to the company. Fulfilling moral obligation could be a socially responsible act in itself, therefore, a company should not ignore female talent pool.

Admittedly, gender diversity received more attention from the rest of other demographic diversity attributes. Srinidhi et al. (2011) argue that female directors have different experiences in comparison to the males which could enhance the decision-making process. In addition to that, females also tend to facilitate better discussions, leading to better communication and a better ability to monitor and improve the monitoring process of the company. In the same vein, Arun, Almahrog, and Aribi (2015) describe females as more ethical, less aggressive and more risk-averse in comparison to male. The trait of risk-averse may results companies to experience fewer huge losses and display less risk (Perryman, Fernando, & Tripathy, 2016).

Interestingly, the concept of men is more likely to take risks than women need to be reframed. The definition of risk is different between male and female. The former invested themselves in risks that involve physical and financial terms, whilst the latter tend to be out from their comfort zone and take risk that may hurt their reputation. Hence, women take just as many risks as men (Sundheim, 2013; Devine, 2017).

Uniquely, female directors can be more valuable in industries where females constitute majority of the customers because they are more likely to commiserate more insightfully with market place dynamics (Daily & Dalton, 2003). Adams and Ferreira (2009) explained that line of directors that comprises of more female
directors are deemed to be more observant, provide more rigorous corporate governance practices, better attendance and participation. The researchers also contended that women evaluate information and consider risk and reward differently than men who exhibit greater diligence in monitoring. Further, it is also reported that gender-diverse boards allocate more effort to monitoring. Building upon these arguments, Post and Byron (2015) summarised by saying that males and females have different “cognitive frames” (p. 1548) which affect the decision-making process and both genders are intrinsically different with one another.

Adams and Ferreira (2009) found that the having higher proportion of women on board negatively influences company performance. Carter et al. (2010) did not find a relationship between women in the board of directors and company performance. Meanwhile, using Blau’s Index of diversity to gauge gender diversity, it was found that gender diversity is positively related to company’s CSR activities (Harjoto et al., 2014). Boards that encompasses of both male and female directors could reach decisions that portray a logical and ethical balanced stands that leads towards sound corporate governance and professionalism. Gender-based differences could potentially affect the corporate governance of a company and the occurrence of earnings management. In other words, these gender-based differences may affect the reporting of financial information (Krishnan & Parsons, 2008).

2.4.2(b) Age Diversity
Companies are facing age discrimination issue whereby the dissociation between younger and older employees might be stronger than between employees of different units (Kunze, Boehm, & Bruch, 2011). However, the age range of directors is an important indicator of board diversity. Moreover, directors’ age can be an indicator
of their business experience and maturity (Hafsi & Turgut, 2013). Lines of directors who differ in age have different qualities, insights, perspectives of the world and are a better representation of the society. McIntyre et al. (2007) and Ararat, Aksu and Cetin (2010) agreed and reported that age diversity is positively related with company performance. Hence, most boards require some spread and dispersion in age.

Studies show that directors who are younger are likely to provide and engage in less stable and volatile strategies although these strategies may impact the company performance (Child, 1974; Hambrick & Mason, 1984). Child (1974) posits that a company with younger directors tends to pursue innovation or growth strategies than their older counterparts. Jhunjhunwala and Mishra (2012) concurred that younger directors appear to be more energetic and yield greater risk appetites while older ones are more likely to be conservative with a steady personality.

Hambrick and Mason (1984) mentioned that older directors are likely to be more conservative and produce morally balanced judgements. However, Davidson et al. (2007) as cited in Hongxia and Wallace (2009) found that older CEOs, who are near retirement, have higher income-increasing. This is mainly due to the time horizon of the executives as they may be more concerned with current or short-term performance as they are at the edge of retirement. Another plausible reason is they care less about the future or long-term performance.

Houle (1990) uniquely described the directors’ age tier by distinguishing boards into three groups. He documented that younger directors are more innovative and have the energy and drive to succeed and are well-prepared for their management to ensure the bright future of the companies, while the older ones possess the valuable and necessary experience and connections. The middle-aged
directors are more focused on their responsibility in the company and society. Relying on the above discussion, given that younger, middle-aged and older directors can bring variations in ideas and thoughts which can be translated to productive corporate decisions, having greater diversity in terms of age can consider a range of decisions and can benefit from each other’s strengths.

Nevertheless, due to these differences, age discrimination may occur. Kunze et al. (2011) found that this perceived negative age-discrimination climate in turn negatively associated with organisational performance. This research is supported by a more current research. Joseph (2014) stated that age diversity is found to be negatively related to their performance due to the difference in terms of organisation culture, human resource practices, nature of work and business strategy. Therefore, age diversity could deteriorate teamwork amongst employee.

Incorporating board of directors into the picture, board age diversity is identified to be negatively associated with profitability due to discrepancy on risk, prudence and wealth which spark intragroup conflicts (Talavera, Yin, & Zhang, 2018) and does not influence corporate performance (Ferrero-Ferrero, Fernández-Izquierdo, & Muñoz-Torres, 2015).

2.4.2(c) Ethnic Diversity

Besides the conventional corporate governance mechanism, diversity in culture and religion is recognised to have a substantial impact on any country’s corporate governance systems. Hence, Davis (2005) urges that future researchers need to understand the institutional arrangement (i.e. politics) and the cultural roots to supplement the discrepancy in the current corporate governance research. Therefore,
research in examining the effectiveness of diverse ethnicity in a board is gradually increasing.

Ethnicity is an origin of a group identity and reflects a group of people who regards themselves to be different from others. The ethnic groups are united by common traditional, cultural, linguistic, ritualistic, behavioural and religious traits. Race and ethnic diversity appear to increase group conflict, reduce communication, and interfere with cooperation (Carter et al., 2010).

Ethnicity is also designates as a source of status (in example respect and prestige), such that some ethnic groups are ascribed higher status than others (Blau, 1977). This suggests that significant prejudice and discrimination between members of different ethnic groups could arise and prejudice among members of different ethnic groups tends to be more prevalent in communities composed of one low status ethnic subgroup and one high status ethnic subgroup. Additionally, Blau (1977) stresses on the status distance between individuals, whereby as the status distances, it leads to higher degree of dissimilarity between members of different ethnic groups which decreases the likelihood that they will form high-quality relationships. Superior or fruitful decision-making process could not be achieved and thus, negatively affects performance. A high-quality relationship in similar ethnic groups is stronger since individuals tend to have interpersonal attraction, liking and trust. For this reason, the researcher believes that ethnic integration is a good thing while segregation is the opposite.

In contrary, diversification on the board with diverse ethnic minorities will improve firm value. Grounded with human capital theory and resource dependence theory, Carter et al., (2010) pointed out that diverse ethnicity amongst board members and ethnic minority brings unique benefits and resources due to the
different backgrounds and human capital. Bringing diverse ethnic experiences into boardroom broadens the board’s decision-making process that is related to matters that are peculiar to an ethnic group. The researchers extend their notions and state that boardroom with diverse gender and ethnic will channel unique information and skill sets to the management which allow them to develop optimal decision at the corporate level. Lastly, product and labour markets tend to have positive impression and perception on companies that have a diverse line of directors.

A study conducted in Malaysia by Abdullah and Ku Ismail (2013) showed that higher diversified line of directors that comprises of multiple races could pass culturally significant attributes that differ from other ethnic groups. Moreover, the researchers stated that holding directors from the Malaysia’s main ethnicities (Malays, Chinese, Indian and others) can be beneficial for commercial reasons. For instance, higher understanding of the culture and sensitivity sets by an ethnic. Furthermore, having diverse ethnicity in boardroom increases the company reputation.

Abdullah (1992) as cited in Haniffa and Cooke (2002) claimed that Malays are rated lower on individualism which is partly attributed to the fact that Islam emphasised the importance of societies group than individual. Haniffa and Cooke (2005) found that Malay directors have higher level of voluntary disclosure which indicated that they have fewer tendencies in managing earnings which is consistent with the Islamic business ethics that encourage transparency. The researcher further explained that Chinese reflected more individualistic behaviours and more secretive in their disclosure which are probably due to their entrepreneurial skills that have a greater influence on the Malaysian economy, communal ideology and ethnic polarisation. In contrast, Wan Mohammad et al. (2016) stated that the appointment
on Malay directors in Chinese companies is merely symbolic in nature as they seemed to be driven by the purpose of rent-seeking.

Using the proportion of minority directors as the measurement for ethnic diversity, Marimuthu (2008) and Rachagan et al., (2015) revealed that ethnic diversity enhances company financial performance. Therefore, Malaysian companies should make the fullest use of this opportunity as a multi-racial country. The researchers further suggest that increase in ethnic diversity promotes higher innovativeness and creativity, better quality of managerial decisions and eventually superior level of company performance.

2.4.2(d) Competency Diversity
The competency of a directors can be evaluated in six areas which are values, aptitudes, skill, knowledge, cognitive style and demeanor (Hambrick & Mason, 1984). Likewise, those who have external information with sufficient knowledge and power are more superior in achieving director goals thus, directors’ intellectual competence generally reflected by their education level (Cheng, Chan, & Leung, 2010). Competency diversity refers to the combinations of diverse competencies and capabilities that communally epitomise the pool of social capital in discharging the board utilities (Carpenter & Westphal, 2001). Thus, to assure the effectiveness of the monitoring financial reporting process, the directors are expected to possess accounting knowledge to control any manipulation done by the management and make information more transparent. In Malaysia, the revised MCCG 2007 stated that to bring an independent judgement, it is essential to appoint a competent and skilful individual who has the aptitude of handling strategic or peculiar issues and resources.
Competence can be obtained from knowledge and experience. To be able to evaluate and access the company’s financial reports based on the company’s business activities, board of directors should be equipped with adequate knowledge and experience in the company’s business, and have the ability to comprehend the financial performance reports (Hermawan, 2011) because the financial performance reported is one of the information used in evaluating the management action. Therefore, the presence of more qualified members extends knowledge base, enhance a more thoughtful processing of problems and stimulate board members to consider other alternatives that will benefit the company well-being (Cox & Blake, 1991).

Director education degree is regarded as an indicator of directors’ knowledge, cognitive orientation and skill base (Hambrick & Mason, 1984). Hilmer (1998, p. 62) mentioned that board members who are advanced with higher qualifications will safeguard an operational board, as they bring “high levels of intellectual ability, experience, soundness of judgement and integrity” (as cited in Abu Siam, Laili, & Khairi, 2015). Moreover, the directors assist the company through a mix of competencies and capabilities that facilitates diverse standpoints decision-making process (Carpenter & Westphal, 2001). Members with higher educational qualifications in general or own intensive qualification like PhDs in particular, are more likely to provide ample of advanced ideas with analytical complexity and rigour that could lead to inimitable view on strategic issues (Westphal and Milton, 2000 as cited in Post & Byron, 2015).

Barton, Coombes and Wong (2004, p. 61) proposed that to perform their responsibility effectively, the boards must have the ability for “asking management tough questions, actively helping to set corporate strategy, monitoring risk
management, contributing to CEO succe$$ions plan and ensuring that companies set
and meet their financial and operating targets”. Hence, this ability can only be
achieved should the board have the vital knowledge and expertise to fully discharge
such duties.

Haniffa and Cooke (2005) reveal a positive association between general
business and directors’ accounting education that demonstrates accountability and
credibility of the boards. Yermack (2006) found that director’s professional
qualifications particularly in the area of accounting and finance significantly
influence the share price reactions. Fidanoski et al. (2014) also reported that a well-
educated board member on company’s financial performance provides a new
impetus in building a corporate strategy. Similarly, board with expertise diversities is
deemed to be one of the driving factors of CSR activities (M. Harjoto et al., 2014).

Referring to the prior literature, it can be concluded that more diverse boards
possesses more diverse knowledge bases and perspectives necessary to develop and
evaluate solutions to solve complex problems.

2.4.2(e) Nationality Diversity

The growing trends of globalisation and business expansion have changed the way
businesses work whereby companies tend to bring in more foreigners on their boards
(Oxelheim, Gregoric, Randoy, & Thomsen, 2013). The researchers also further stated
that having more foreign directors enhanced the financial internalisation rather than
international sales. This is because the foreign directors have better understanding of
the international business environment and regulatory regimes as well bring or
provide access to larger pool of capital (international resources), alternative
investment and operating decision that might not be well-thought-out by the local board members.

Discussion within the boardroom and monitoring process may be improved as Gul et al. (2011) explained that those foreign directors are more likely to exhibit independent thinking and feel less reluctant to raise controversial issues. Cox and Blake (1991) show that nationally diverse directors respond more favourably to changes in business environment. The notion is that foreign directors bring different viewpoints to the boardroom given their different background and experiences. However, Lehman and Dufrene (2008) found that nationally diverse may increase the probability of cross-cultural communication problem, therefore, reduce the effectiveness of board diversity (as cited in Protasovs, 2015). However, foreign directors also tend be less well-equipped to monitor the management since they are not familiar with local governance, rules and regulations especially the accounting systems.

Prior studies report inconclusive results on the functionality of nationality diversity. Foreign directors hold more input and resources such as diverse opinion, language, culture and norms which could enhance decision-making. These traits appear to be positively related with CSR disclosure (Ibrahim & Hanefah, 2016), innovation performance (Ariff, Salleh, Mohd Noor, Mohamad, & Ismail, 2017) and operating performance (Estélyi & Nisar, 2016).

With regards to the board diversity attributes discussed previously, it is crucial to determine whether these proposed attributes of directors (both diversity-of-boards and diversity-in-boards) have an impact on earnings management. Each diversity attribute brings different and unique role that may influence earnings management in their own way as they improve the effectiveness of board function.
Hence, the next section provides some relevant prior literature on the relationship between board diversity and earnings management to examine the effect of these variables on earnings management.

2.5 Literature of Board Diversity and Earnings Management

Antecedent variables acted as the variables that influence the occurrence of a dependent variable. For instances, previous studies have examined the company characteristics, ownership structure and incentives to engage in earnings management as the antecedent variables. This study chose board diversity as the antecedent variables due to its effect the earnings management practices. Prior studies reported inconclusive results on how board diversity could influence earnings management. Some of the studies reported that board diversity mitigates earnings management which in line with its role as a corporate governance mechanism. However, few previous studies also reported that board diversity could lead to earnings management which contradict to its actual role. Hence, by having board diversity as antecedent variables, it is a practical choice as the findings would be beneficial for multiple stakeholders.

This section is divided into two subsections. The first subsection outlines several previous studies on the relationship between diversity-of-boards (structural attributes) with earnings management. Further, the second subsection highlights on previous studies that examined the relationship between diversity-in-boards (demographic attributes) with earnings management.
2.5.1 Literature of Diversity-of-boards and Earnings Management

A substantial number of literatures has scrutinised the relationship between structural attributes and earnings management. The structural attributes discussed in this study are board leadership, multiple directorships, board size and non-executive directors (NEDs) commitment. Some studies focus on a specific or single attribute while other studies may have incorporated several attributes to examine their relationship with earnings management.

2.5.1(a) Board leadership

By bestowing decision management and decision control to one individual, the board’s effectiveness in managing the management activities will be deteriorated and lead to failure in internal control systems (Jensen, 1993; Fama & Jensen, 1983). Prior studies that examined dual leadership produced varied results. CEO duality positively influence earnings management due to the excessive power held by the same person (Razak & Palahuddin, 2014; Gulzar & Wang, 2011), whereas separate leadership curbed the misconduct as it enhances independence of the board and checks and balances in the top management of companies (Mohamad et al., 2012). The quality of boardroom’s decisions shall enrich when the two positions are held by different individual since the positions were created and made by different or diverse thoughts or judgments. Therefore, the diverse experiences and knowledge embedded in different individuals will not impair their judgment and could effectively discharge each position. Holtz and Sarlo Neto (2014) examined the effect of board leadership on quality of accounting information and found that separation of the two positions increase the accounting information relevance. However, Yasser and Mamun (2016) found that board leadership was not associated with company performance and
financial reporting quality in Asia-Pacific countries (namely Australia, Malaysia, the Philippines and Pakistan).

Habbash et al. (2012) reported mixed results for the chairman independence effects on earnings management based on two independence codes. The researchers found that a chairman who is an independent director in accordance to the UK corporate governance code criteria increases earnings management while an independent chairman using the code independence criteria set for NEDs diminishes earnings management. Notably, the UK corporate governance code criteria consider the chairman independence only on his appointment; regardless of his status subsequently, by which contradict to the strict independence criteria for the NEDs. Therefore, the researchers believed that the leniency of the UK corporate governance code criteria has caused the results to be varied between the codes. Al-Dhamari and Ku Ismail (2014) investigated the relationship in Malaysian companies and reported that investors of companies with an independent chairman able to evaluate better earnings quality in terms of its sustainability, predictability and informativeness. In addition, it is worth to note that the research was conducted in adhering to MCCG 2007 requirement which differ from the current MCCG 2012. The former only recommended a clear separation between the chairman and CEO while the latter extended the requirement by indicating that a chairman should also be the non-executive director. To provide timely empirical evidence, this current study shall measure the chairman independence by determining the chairman as an independent and non-executive director which may provide different result.
2.5.1(b) Multiple directorships

Multiple directorships are commonly being tested from quality hypothesis and busyness hypothesis. On one hand, this board structure gives greater access to information from more than one company which result in the directors gaining a wide range of knowledge, expertise, and skill (Clements et al., 2015). Likewise, this attribute produces higher diversity of knowledge since directors with multiple directorships collect valuable information from different companies. However, Chiu, Teoh and Tian (2013) found that earnings management spreads from company to company via board of directors connections due to the sharing of board members’ knowledge and experiences.

On the other hand, most studies are on the side of the busyness hypothesis that can be explained by agency theory. Having multiple directorships overstretch directors’ time which eventually led to lower earnings quality and higher earnings management (Baatour, Othman, & Hussainey, 2017; Franklin, 2013; Machuga & Teitel, 2009) because the directors were incapable of adequately monitoring and controlling the management which is in agreement with agency theory. However, a study conducted in Malaysia PLCs documented non-linear results by which the presence of multiple directorships increases earnings quality but when there were too much (beyond 75 per cent) of multiple directorships, the earnings quality deteriorated (Hashim & Rahman, 2011).

Empirically, studies that have examined the relationship between multiple directorships and earnings management are still few. Iturriaga and Rodríguez (2014) and Hashim and Rahman (2011) documented non-linear result where the presence of multiple directorships director improves monitoring mechanism due to the gain of beneficial experience and knowledge outside of the company, while too many
members of the board with multiple directorships deteriorate earnings quality. In addition, Baatour et al. (2017) assert that multiple directorships positively influence real earnings management (activities that affect company’s fundamental performance such as through sales manipulation) which imply the busyness hypothesis, but insignificant impact on accrual-based earnings management. Jamaludin, Sanusi and Kamaluddin (2015) reported absolute result indicating that the busyness of the directors does not influence other directors to manage earnings. Therefore, the results vary depending on which hypothesis the researcher stands on.

This study adhered to the requirement for number of directorships outlined by Bursa Malaysia that allowed high number of directorship (25 directorships at that time; 10 directorships for PLCs, and 15 directorships for unlisted companies). Chapter 15 Corporate Governance “Main Market Listing Requirements” revised and narrowed the number of directorships by allowing only five (5) directorships per director. This current study aims to provide some timely evidence as to whether the current regulation gives different findings and results.

2.5.1(c) Board size

Board size has too received mixed findings. Previous studies stated that larger board size mitigated earnings management since the boardroom possesses diverse knowledge and experiences that are useful for proper monitoring and controlling (Al-Dhamari & Ku Ismail, 2014; Amran, Ishak, & Abd Manaf, 2016; Aygun, Ic, & Sayim, 2014; Yasser & Mamun, 2016). Moreover, prior studies that discuss from the resource dependence theory perspective stated that a larger board could enhance the monitoring of management. In contrast, studies that advocate agency theory have depicted that larger board size is able to exacerbate earnings management since the
presence of free-rider problem and poor coordination or communication between members (Abdul Rahman & Mohamed Ali, 2006) and is not efficient to minimise earnings management (Ishak & Haron, 2011). Additionally, smaller board appeared to be less burdened with bureaucratic problem, easier to coordinate and eliminate the free-rider problem since a smaller group forces members to be more engaged (Yermack, 1996). Furthermore, board size does not seem to influence the monitoring role by the directors (Kamardin & Haron, 2011).

Prior studies reported inconclusive results. Latif and Abdullah (2015) documented an insignificant association between board size and earnings management in Pakistani companies while non-linear relationship was identified in companies listed in Portugal whereby as board size increases, the earnings management practices were most likely occur (Alves, 2011). In contrary, a study conducted in China documented smaller boards are more likely to be involved in earnings management as they tend to encourage and approve risky policy (Huang & Wang, 2015). Focusing on previous research conducted in Malaysia, Jamaludin et al. (2015) found no significant relationship for board size and earnings management in government-linked companies. Research conducted in PLCs particularly showed a positive (negative) relationship between board size and earnings management (earnings quality). The idea is that a larger board creates higher difficulty in reaching timely decisions due to the existence of rival factions and cliques that may slow the proceeding (Abdul Rahman & Mohamed Ali, 2006; Al-Dhamari & Ku Ismail, 2014). From this current study’s observation, similar results could also be reported despite the different measurements for earnings management whereby the former used discretionary accruals, while the latter used earnings persistence, earnings predictability and earnings informativeness as the proxy for earnings management.
This current study adopts discretionary accruals to measure earnings management which similar to the study conducted by Abdul Rahman and Mohamed Ali (2006). This study aims to provide timely results since the previous study are rather timeworn and the recent business environment has certainly changed as compared to the year the study was conducted.

2.5.1(d) Non-executive directors (NEDs) commitments

Lastly, as far as the author can ascertain, only one study has measured the board of directors activity using non-executive directors (NEDs) commitment, specifically using NEDs fees. Habbash et al. (2012) depicted that when the NEDs were paid commensurate to the amount of time and effort invested, the board functions increased and resulted in optimum commitment to manage and control the management. This eventually alleviated earnings management. Additionally, a considerable amount of remuneration is important to attract professional new blooded NEDs who could provide fresh ideas, exchange different perspectives and collaborate with the present ones. As a result, it is important for the NEDs fees to be remunerated accordingly. Stimulated by the mentioned study, this current study shall employ NEDs fees to measure the commitment carried out by the NEDs in Malaysia companies. The findings are useful for companies to create a remuneration package that is aligned with the time and efforts contributed. Table 2.1 summarises the literature that studied the relationship between diversity-of-boards and earnings management by outlining the measurement for earnings management and board diversity, the sample size and the findings of the research.
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<thead>
<tr>
<th>Author(s)</th>
<th>The measurement for earnings management</th>
<th>The measurement for board diversity</th>
<th>Sample</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ishak and Haron (2011)</td>
<td>Discretionary accruals: Modified Jones model (1991)</td>
<td>Board size</td>
<td>A sample of 236 public listed companies in Bursa Malaysia in 2009</td>
<td>Board size positively related with earnings management</td>
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<tr>
<td>Author(s)</td>
<td>The measurement for earnings management</td>
<td>The measurement for board diversity</td>
<td>Sample</td>
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<td>Habbash et al. (2012)</td>
<td>Discretionary Accruals: Kothari et al. (2005) cross-sectional modified Jones model</td>
<td>Board leadership: Non-executive directors (NEDs) commitment (fees) and chairman independence</td>
<td>A sample of 227 companies from FTSE350 British companies in 2005 and 2006</td>
<td>NEDs and chairman independence significantly negative with earnings management</td>
</tr>
<tr>
<td>Chiu et al. (2013)</td>
<td>Restatement</td>
<td>Multiple directorships</td>
<td>A sample of 894 companies for the year 1997 until 2002 from U.S. Government Accountability Office’s</td>
<td>Negative relationship between multiple directorships and earnings quality</td>
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<td>Author(s)</td>
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<td>Yasser and Mamun (2016)</td>
<td>Discretionary accruals: Ashbaugh et al. (2003), Kothari et al. (2009) and Chen et al. (2010)</td>
<td>Board leadership and Board size</td>
<td>A sample of 330 firm-years from Australia, Malaysia, the Philippines and Pakistan 2011 to 2013</td>
<td>Insignificant relationship between board leadership and earnings management and positive relationship between board size and earnings management</td>
</tr>
<tr>
<td>Amran et al. (2016)</td>
<td>Discretionary accruals: Manaf et al. (2014)</td>
<td>Board size</td>
<td>A sample of all Malaysia public listed companies in the year 2009-2012</td>
<td>Negative relationship between board size and earnings management</td>
</tr>
</tbody>
</table>
2.5.2 Literature of Diversity-in-boards and Earnings Management

When studying the relationship between demographic diversity and earnings management, most prior studies investigated the perspective of single attribute impact and not from the diversified or heterogeneous perspective. Hence, this study intent to provide empirical evidence that measures the impact of diversified demographic board on earnings management.

2.5.2(a) Gender diversity

Demographic board diversity has received substantial interest and attention among researchers regardless of countries, especially gender diversity. Most research in this area employed the proportion of female directors as the measurement. Some of the findings indicated a negative association between gender diversity and earnings management with the justification that gender diversity of directors on the boardroom improves the effectiveness of monitoring (Arun et al., 2015; Kim, Jeong, Kang, & Lee, 2017; Krishnan & Parsons, 2008; Srinidhi et al., 2011). However, prior studies also documented a positive relationship (Buniamin, Johari, Raida & Rahman, 2012; Peni & Vähämää, 2010) whereby female directors could also be associated with earnings management practices. A current research performed in French companies documented that female directors are far more active in their monitoring role and provide superior supervision which enhance board activism and efficiency, and that led to dissociation with earnings management (Damak, 2018). Ittonen, Vähämää and Vähämää (2013) and García-Sánchez, Martínez-Ferrero and García-Meca (2017) postulated that by having female participation on boards, the quality of earnings improved as they have a higher tendency to respect ethical values and regulations. Meanwhile, Abdullah and Ku Ismail (2016) stated that women directors
could not restrain earnings management practices most likely due to their inability to influence the male counterparts on the issue of earnings management by which male directors are far more aggressive and dare to partake in risky practices.

The previously mentioned studies specifically investigated the role of female directors on earnings management, which differ from the aim of this current study. Scrutinising gender diversity in the boardroom received little attention in earnings management literature. Thus, this scarcity motivates this study to look into gender diversity. Further, other than aligning with Malaysia government in encouraging women working together with the men in board, this current study believes that both genders bring different ideas, roles and characters. External stimuli from the opposite characteristics warrants that multiple aspects of costs and benefits have been taken into account in the decision making process. Therefore, a board with highly diversified gender may augment the monitoring and advisory roles which eventually mitigate earnings management practices.

2.5.2(b) Age diversity

Age diversity in boards is rarely evaluated despite its substantial influence on the board. Based on the literature review, most prior studies explored age diversity impact on company performance, valuation and none on earnings management yet. Jhunjhunwala and Mishra (2012) found that age diversity that is measured based on the range of ages from maximum to minimum did not show any significant results with company performance. In addition, Abdullah and Ku Ismail (2013) suggested that boardroom that has high diversity of age would have less biased towards particular age segment of the market and even in the company due to dissimilar experiences and knowledge. These researchers stated that younger directors appear to
be more open and lenient to new approaches as they are more likely to appoint female directors while the older directors prefer to sustain the status quo in the boardroom. However, they found a negative relationship between age diversity and corporate performance among Malaysian companies. The accounting performance would be better should the board dominated by the older directors and the market appears to be indifferent with the issue of age diversity. In addition, this study only measured two ranges of age (less than 60 years and above 60 years) which are probably not too exhaustive in determining the impact of age diversity. Using a different measurement, that is the ratio of standard deviation of board age diversity, Talavera et al. (2018) found that age diversity failed to improve bank performance.

In a more advanced research, Ferrero-Ferrero, Fernández-Izquierdo and Muñoz-Torres (2015) examined three types of age diversity. The result indicated that age diversified board team positively impact corporate performance as it encompassed different age generations in a balanced way that translate richer information. Older directors can provide experience and wisdom, middle-age directors carries the major positions of active responsibilities and the younger directors have the drive, energy and plans ahead for the future. However, the researcher did not find any substantial impact on the remaining types of age (separation and disparity) on corporate performance.

Also defined as generational diversity, Harjoto, Laksmana and Yang (2018) provide interesting discussion with regards to age diversity. The relationship between age diversity and risk taking is complex. This is because, risk taking propensity could decrease due to decreasing learning ability or the ability to process information as people age and experience major life events that could affect the willingness to take
risk. Hence, this justification fit to explain on why does the younger directors are risk taker and the older directors are risk averse.

Building on the discussion above, this current study is keen to explore its effect on earnings management by categorising the age generations into five (5) subgroups which may provide more in-depth findings (Harjoto et al., 2014). Likewise, Bursa Malaysia is also attentive on age diversity role, thus, requiring all PLCs to disclose the board of directors and workforce diversity policy in terms of demographic including age.

2.5.2(c) Ethnic diversity

Ethnic diversity has also received little attention from the researchers, particularly regarding its association with earnings management. Looking from the company performance perspective, Marimuthu (2008) measured ethnic diversity using the Herfindahl-Hirschman Index and reported a significant positive relationship with company financial performance in Malaysia. The researcher emphasises on the presence of Groupthink, by which the problem of resource and creativity deficiency could increase when the board members are of the same ethnic group. Likewise, Abdullah and Ku Ismail (2013) obtained similar results where ethnic diversity brings higher performance despite using different measurements to gauge ethnic diversity (a value of 1 is used should the company appointed all three main races in Malaysia).

Concerning its influence on earnings management, Abdul Rahman and Mohamed Ali (2006) pointed out that ethnicity (particularly Malay directors) is unable to mitigate earnings management since Bumiputera or Malays were more individualistic since the implementation of the NEP and NDP albeit Islam emphasis on groups and societies. Similar to the mentioned study, one study that appears to be
more recent reported that Malay directors are positively associated with earnings management (Wan Mohammad et al., 2016). The researchers posited that the earnings management practice were higher due to the existence of rent seeking opportunities by the Malay directors in Chinese business community and poor governance structures in the companies. In addition, the researches deduced that Malays are passive observers and lack of credibility in monitoring the management behaviour, which can be concluded that the appointment of Malay directors is an act of compliance symbolically. Since limited studies have examined ethnic diversity in board and multi-cultural is a significant attribute for Malaysia, this current study shall answer the call and provide the evidence as to whether ethnic diversifies board and able to improves earnings quality since each ethnic holds different characters and backgrounds which influence their way of thinking and attitude.

Referring to the previously mentioned studies, these demographic attributes have also been examined from one ethnic only. In other words, prior studies were inclined to investigate the impact of one ethnic (i.e. Malay) on earnings management rather than the heterogeneity in ethnicity. Thus, the influence of ethnic diversity is yet to be studied in Malaysia.

2.5.2(d) Competency diversity

Studies on the association between competency diversity amongst board members and earnings management are relatively minimal albeit its contribution to the boardroom. Examining from different assessments, companies with well-educated board members are more profitable and overvalued in the market (Fidanoski et al., 2014).
The competency of a director can be measured differently and has presented mixed results. However, Rahman and Mohamed Ali (2006) measured competency based on the age of the directors’ tenure and stated that directors in Malaysian companies ineffectively discharge their duty and did not have adequate knowledge in evaluating or assessing financial statements. Using the proportion of professional qualified directors, Buniamin et al. (2012) reported board competency did not influence the practice of earnings management. Ghazalat, Islam, Mohd Noor, & Abu Haija (2017) found a negative relationship where appointing more directors with financial expertise reduced earnings management. On the contrary, Ahmed (2013) found disputable results whereby financial expertise diversity was positively related with earnings management. She posited that this result occurred possibly due to the companies studied, whereby most of the companies employed financial literate directors in cadre while some of the companies did not have even a single director holding financial degree. These two studies used a number of directors who possessed professional education or qualification in accounting and finance yet documented mixed findings.

Following the review of prior studies, this current study aims to investigate the heterogeneous perspective, by which has mixed and diversified directors who have different types of services and employments disciplines, and not merely looking into the accounting and finance disciplines (Harjoto et al., 2014). The rationalisation for choosing this measurement is that decision-making process requires assorted knowledge and even involves uncommon issues that have probably never been experienced by the directors who only hold professional education and qualification in accounting and finance.
2.5.2(e) Nationality diversity

Nationality diversity used to receive little attention in board performance literature. Nonetheless, due to business expansion and globalisation in the recent time, academicians are currently examining the foreign directors’ functions toward the local business. One of regularly cited studies, Ruigrok, Peck and Tacheva (2007) have explored the effectiveness of foreign directors’ representation on the board functions and dynamic. The researchers reported that foreign directors extend board international exposure and networks. Moreover, the presence of outside directors who came from different domain in the team is more likely to demonstrate independent thinking and convey different standpoints to the table. These attributes facilitate the board performance (Srinidhi et al., 2011). Similarly, Du, Jian and Lai (2017) used the sample of Chinese companies and indicated that the presence of foreign directors mitigated earnings management.

However, these directors could also decrease company performance as nationality diversity creates miscommunications and integration problems between directors and will eventually impair board functions. Ayoib and Nosakhare (2015) examined the association between foreign director and environmental disclosure and found that companies with foreign directors disclosed more as a precautionary legitimation strategy to ensure continuous inflows of foreign capitals and to give a socially responsible impression to the investors. A recent study by Hooghiemstra, Hermes, Oxelheim and Randøy (2016) initially postulated that foreign directors may increase the board’s ability to ensure the quality of financial statement and may spark more careful considerations as they bring different viewpoints given their unique backgrounds and experiences which domestic members do not possess as well as practicing more openness and frankness in performing monitoring tasks, but, the
result indicated otherwise by which it significantly associated to higher levels of earnings management. The researchers stated that the differences in accounting knowledge and unfamiliarity with local accounting rules drove the result. The researchers extended their statement by stating that more knowledge in accounting rules is crucial as the foreign directors need to recognize critical accounting issues which involve high levels of earnings management.

Additionally, foreign directors may also exacerbate earnings management due to linguistic differences. Forbes and Milliken (1999) stated that by using English language as the lingua franca of boards, a director’s proficiency in the said language may impair his cognitive processing, communication abilities and self-confidence; which limit his contribution in the boardroom discussion. Therefore, directors on the board failed to achieve their full potential mainly due to the shortage of specific knowledge and interaction difficulties.

Despite of the potentials it might offer, the level of foreign directorships in Malaysia showed a slight increase but is expected to show more a promising result in the near future (Zainal, Zulkifli, & Saleh, 2013). This current study aims to provide findings that involve globalising and diversifying the boardroom in Malaysia as mixing directors from different nationalities may enhance board functions.

Based on the literature review for both diversity-of-boards and diversity-in-boards, it can be noted that all structural and demographic attributes were associated with earnings management albeit of their varied findings. Hence, they can be employed in the context of this study which employs a developing country, Malaysia that holds a distinctive institutional setting and environment, especially for its governance. This country has been consistently improvising its corporate governance regulations relating to board of directors for them to act and conduct business in an
optimal, transparent and accountable manner which consequently minimise earnings management. Table 2.2 summarises the literature that studied the relationship between diversity-in-boards and earnings management by outlining the measurement for earnings management and board diversity, the sample size and the findings of the research. The next section looks in several of the approaches that facilitate the detection of earnings management.

2.6 Approaches to Detect Earnings Management

Dechow and Schrand (2004) posited that the sign of earnings management could be achieved by considering several incentives or motivations to manage earnings. Dechow and Skinner (2000) and Jackson and Pitman (2001) posited three main incentives that initiate managers to manage earnings, which are contractual incentives (Chu & Song, 2012; Sulong, Sanusi, & Ibrahim, 2014) market incentives (Kamel, 2012; Premti, 2013) and regulatory incentives (Chen, Wang, & Zhao, 2009; Moyer, 1990).

Considering the many motivations that encourage managers to manage earnings, Beneish (2001) outlined several techniques to detect earnings management. Referring to the first approach, total accruals serve as the starting point to measure earnings management which later will be decomposed into discretionary (DA) and non-discretionary accruals (NDA); the former is the measure for earnings management.
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>The measurement for earnings management</th>
<th>The measurement for board diversity</th>
<th>Sample</th>
<th>Findings</th>
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Table 2. 2. Continued.

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<tr>
<th>Author(s)</th>
<th>The measurement for earnings management</th>
<th>The measurement for board diversity</th>
<th>Sample</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buniamin et al. (2012)</td>
<td>Discretionary accruals: Modified Jones model (1991)</td>
<td>Gender diversity (proportion of female directors) and competency diversity (proportion of professionally qualified directors)</td>
<td>Top 100 companies in Malaysia corporate governance (MCG) index for the year 2008</td>
<td>Positive relationship between gender diversity and earnings management while no relationship between competency diversity and earnings management</td>
</tr>
<tr>
<td>Author(s)</td>
<td>The measurement for earnings management</td>
<td>The measurement for board diversity</td>
<td>Sample</td>
<td>Findings</td>
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<tr>
<td>Abdullah and Ku Ismail (2016)</td>
<td>Discretionary accruals: Kothari et al. (2009)</td>
<td>Gender diversity (value of 1 of at least one female director)</td>
<td>All public listed companies in Malaysia for the year 2008 to 2011</td>
<td>Insignificant relationship between gender diversity and earnings management</td>
</tr>
</tbody>
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Table 2. Continued.

<table>
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<tr>
<th>Author(s)</th>
<th>The measurement for earnings management</th>
<th>The measurement for board diversity</th>
<th>Sample</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kim et al. (2017)</td>
<td>Discretionary accruals: Kothari et al. (2005)</td>
<td>Gender diversity (proportion of female directors)</td>
<td>A sample of 9,872 company-years of Korean listed companies from 2002 to 2010</td>
<td>Negative relationship between earnings management with female directors in top management</td>
</tr>
</tbody>
</table>
The computation of discretionary accruals was first introduced by Healy (1985). This model has been known to be the easiest model since it treats total discretionary accruals (TDA) (managerial discretion) as equivalent to total accruals (TA). The company’s operating cash flows are used as the substitution for NDA. The difference between the net operating income and the operating cash flows shows the amount of TA. Due to its advantage of being the simplest model, Kaplan (1985) commented that by having both DA and NDA in determining the total accruals, this is highly restrictive considering the fact that economic conditions and company performance may impact the level of working capital accruals.

Following Kaplan’s comment, Jones (1991) controls the economic circumstances effect on NDA and relaxes the assumption that NDA are constant. This model regresses TA on the level of property, plant and equipment (PPE) and movements in sales. The gross value of PPE and movement in revenue are used to control for changes in NDA. Specifically, revenue acted as a control as it is the company operation’s objective measure whereby it is not affected by any manipulation by the managers yet and the rest is used to control for the portion of TA related to non-discretionary depreciation expense. Chapter 4 (specifically Section 4.5.2) explains the generation of DA thoroughly. Dechow et al. (1995) modified Jones’ model and propose that the first structure needs to be fixed with the change in receivables (lagged) as the credit sales could also initiate the earnings manipulation via inflated receivables. The generation of DA for the modified Jones model can be referred in Chapter 4 (Section 4.5.2). This model will be employed to measure the earnings management in this current study. Both the Jones model and the modified Jones model are commonly used for separating DA and NDA.
Another approach to measure earnings is the earnings smoothness. This approach is based on the volatility of earnings relative to some benchmark, for instance cash flow. Gaio and Raposo (2011) state that earnings smoothing is beneficial to the managers as they can use their private information about future income to smooth out transitory fluctuations, therefore, achieving a well-represented and useful reported earnings number. However, Leuz, Nanda and Wysocki (2003) contend and state that earnings smoothness is an undesirable earnings characteristic since managers can manipulate earnings smoothness by timing the recognition or changes in accounting policies. The last approach is the earnings distribution method which is introduced by Burgstahler and Dichev (1997). This approach is significantly different from the rest as it does not require estimating abnormal accruals and examining the reported income distribution thresholds. Earnings distribution can be interpreted by looking into the frequency of reporting.

After carefully illustrating several approaches to measure earnings management, this section concludes the first part of this study which is discussing the antecedent of earnings management. The other part involves a discussion on the consequence of earnings management which follows after this section.

2.7 Consequences of Earnings Management

This section reviews previous literature on the consequence of earnings management on CSR for Malaysia public listed companies. To date, the research that explores both the companies’ internal governance structure and consequences of earnings management is scarce (Ching et al., 2015). With regards to the study of consequence, many prior studies have assessed the effects of earnings management (i.e. on companies’ value and performance as well as financial reporting quality) and mixed
findings were revealed. Only few studies have focused on the CSR as the outcome of earnings management from the managerial entrenchment perspective. Also, most of the studies were conducted in developed countries. This comprehensive section captures several literatures that studied the effects of earnings management (i.e. on companies’ value and performance and financial reporting quality) and follows with the effects on CSR.

2.7.1 Other Types of Earnings Management Consequences

An issue that is central in accounting research when discussing earnings management is the extent to which managers manage reported earnings to satisfy their own interest. Should this event took place, the true value of economic performance of the company has been masked by the earnings management and further, obfuscate the actual valuable financial information (Dechow & Skinner, 2000).

A number of studies have reported the relationship between earnings management and company value. Gill et al. (2013) scrutinised the effect of earnings management on the companies’ value and the result indicated that the market responds to manager’s behaviour on managing earnings or acting on their own interest by lowering the price of shares. Likewise, Chiraz and Anis (2013) reported that companies with higher earnings aggressiveness in the IPO process tend to suffer from subsequently poor returns and to delist for performance.

Moreover, the consequences of these practices are beyond detrimental, whereby a company’s value, assets, transactions, reputation and corporate image could be damaged (Fombrun, Gardberg, & Barnett, 2000). Lower corporate reputation entails an individual loss of management reputation (Zahra et al., 2005). A study conducted by Martínez-Ferrero, Rodriguez-Ariza Manuel and Bermejo-
Sánchez (2016) analysed international listed companies and concentrated on family companies. The study reported that the empirical evidence showed a negative impact of these discretionary accounting practices on corporate reputation.

One of the recent studies, Mostafa (2017) examined the relationship between earnings management and value relevance and concluded that companies involved in manipulation earnings resulted in lesser value relevance compared to high operating ones. This is primarily because that the users of financial statements are generally more cautious of low operating performance companies since opportunistic earnings management is more likely to occur in such companies as compared to high operating companies. Similarly, Shan (2015) reported that a negative impact of value relevance for the companies engaged in earnings management is more prevalence than companies that have not engaged in earnings management engagement.

Corresponding to the above earnings management consequences may cause negative effects to a company. However, this study would not be looking into the consequences mentioned above. The next section follows with a discussion of CSR being the consequence of earnings management. In addition, a critical perspective of CSR will also be discussed whereby it discusses the abused utilization of CSR.

2.8 Corporate Social Responsibility as the Consequence of Earnings Management

This section will firstly review the definition and conceptualisation of corporate social responsibility (CSR) and is followed by CSR critical perspective, whereby it investigates other use of CSR in this current business environment. Next, after this section, the theoretical background and previous literature will be discussed.
2.8.1 Definition and Conceptualisation of CSR

Many companies have integrated CSR in their corporate policies. By investing in CSR initiatives, companies aim to receive a variety of benefits, including high financial performances (Ching et al., 2015; Gill et al., 2013). To begin with, CSR has been defined and studied in many different disciplines and creates a complexity of CSR conceptualisation. CSR has been known as a broad avenue where scholars and practitioners have come up different kind definitions and concepts of CSR. However, there is still no unanimity on a universally acceptable CSR definition (Carroll, 1991; Mcwilliams & Siegel, 2001) whereby its definitions can range from very theoretical and normative to very practical ones.

CSR has been conceptualised by many scholars in relatively broad terms and the definitions vary with regard to the actions and policies that constitute this form of responsibility (Aguinas & Glavas, 2012). The concept of corporate social responsibility (CSR) is often defined as the integration of social and environmental concerns in a company’s operations and in its interactions with stakeholders on a voluntary basis.

CSR is an emerging concept that currently does not offer one universally accepted definition. Generally, CSR is understood to be the ways companies integrate social, economic and environmental concerns into their values, decision making, culture, operations and strategy in an accountable and transparent manner which establish better practices within the company, create wealth and improve the social connection.

The concept of social responsibility was discussed as early as the 1930s (Carroll, 1979) and continues to evolve after Bowen’s definitive book about the

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7 The ISO 26000 Working Group on Social Responsibility recognises CSR from many core issues.
objectives and values of society was published in 1953. Bowen, the ‘Father of CSR’, has defined CSR as the obligation of businessman to be responsible for the consequences of their actions in terms of the values to society (as cited in Carroll, 1999).

During the late 1970s, Carroll (1979) introduced the most comprehensive CSR framework and widely accepted foundation for denoting CSR concepts and definitions. Firstly, economic refers to a business’s responsibility to maximise profitability and growth while legal element reflects that all companies are expected to operate and comply with laws and regulations (i.e. legal requirements by the federal, state and local governments). Ethical element strengthens the responsibility of respecting other people’s right and meets the society’s right that have been expected and placed on them and lastly, the discretionary or philanthropic element encompasses those activities that meet the societies’ needs. Some examples of the philanthropic activities are providing donations, sponsoring social programs, initiating awareness campaigns and others. Furthermore, in short, as stated by Carroll (1991), companies should be profitable, obey the law, be ethical and be a good citizenship. As for the above components, Carroll’s definition portrays comprehensive responsibilities of a business.

The twenty-first century has witnessed that more focus has been given to the implementation of CSR initiatives and empirical study of CSR impacts to accommodate the business environment in the 2000s era. Carroll indicated that there is the need to shift to global corporate citizenship perspective (Carroll & Shabana, 2010). He justified that this era required companies to also be socially and environmentally responsible apart from performing well in terms of its primary objective, which is maximising their value. He also modified and added new
dimensions into the CSR conceptualisation which are geographic and culturally-bounded.

![Carroll Pyramid of CSR](image)

**Figure 2.1. Carroll Pyramid of CSR**
Source: Carroll (1991)

### 2.8.2 Development of Corporate Social Responsibility in Malaysia

In Malaysia, the Security Commission has played a significant role in providing best practices and guidance for Malaysia companies to be more socially responsible. As early in 2006, a voluntary guidance standard for the CSR implementation related practices was developed to promote common understanding in the CSR area and facilitate the process of clarifying the relationship between social responsibility principles and organisation governance frameworks. Furthermore, Bursa Malaysia launched its CSR framework that provides guidance on how listed companies develop CSR strategies, reports and communicate with the information to stakeholders. In the similar year, Silver Book was created to assist the government-linked companies (GLCs) to be proactive in contributing to the society whilst creating value for their shareholders. This programme may be comprehensive since it
addressed the tools, methodologies and processes of execution. Later, in the year 2007 which was following to the CSR framework, Bursa Malaysia required PLCs to report any CSR activities in the annual reports.

The Malaysian government has consistently taken diverse efforts to promote CSR activities especially for listed companies. For instance, tax incentives were granted for companies who practise CSR. Besides, sustainability is also part of the New Economic Model (NEM) objective. Other than the comprehensive framework launched by Bursa Malaysia, Business Sustainability Programme was also launched in 2010 to highlight and guide the respective directors to ensure the management integrates sustainability elements into their business strategies. The 2014 Budget introduced an Environment, Social and Governance (ESG) Index that is able to raise the profile of socially responsible listed companies and in the support to the ESG Index, Valuecap, a national investment organisation, allotted RM1 billion to invest in those companies as an incentive to perform more CSR activities. As quantified in 2016 Budget, government stated that to ensure the sustainability of nation’s natural resources, the degree of productivity, innovation and green technology have been strengthened.

On top of that, in October 2015, Bursa Malaysia launched a new Sustainability Framework that comprises of the amendments to the Listing Requirements and the issuance of Sustainable Reporting Guide and Toolkit. Focusing on materiality, governance and management, the aim of this new framework is to encourage listed companies to combine investor relations and sustainability teams. Additionally, the reporting guide and toolkit provides specific guidance on the information should be disclosed in the annual report when making

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8 As stated in Securities Commission Malaysia’s website (www.sc.com.my)  
9 As stated in UNICEF Malaysia, “Corporate Social Responsibility Policies in Malaysia”
Sustainability Statement in accordance with the Listing Requirements of Bursa Malaysia.

In a more recent event, the latest Companies Act 2016 was introduced in Part II of 5th Schedule to optionally include a Business Review as part of the contents in Directors’ Report. In relation to CSR, it is encouraged to report information about environmental matters (including any company’s business that impacted the environment), company’s employees and any social and community issues (including any policies related to CSR and effectiveness of those policies) (Companies Commission of Malaysia, 2016).

Referring to the mentioned efforts above, the authority bodies in Malaysia have embarked on several actions to encourage companies to be more committed in performing CSR activities. As such, companies need to utilise these occasions and return the favour to the society and environment which could signal to the community that they are socially responsible.

2.8.3 Critical Perspective of CSR

CSR is subjected to too much debate and criticism. Moreover, CSR is obviously not a univocal concept since the meaning of CSR has been in constant flux throughout its history (Carroll, 1999; 1979). Free market liberals have argued that the responsibility of corporations is to make money for the owners (Friedman, 1970). Over the last few decades, the role of business has changed, that is, it is not only a profit maximising entity, but has evolved to satisfying wide social responsibility to the stakeholders. Unfortunately, till now, CSR is presented as an oxymoron that challenged the fundamental understanding and notions of what a business ought to be about (Bakker, 2016).
As the intensity of competition increases in the world of business, companies intensify their ways of achieving competitive advantage and adopt ways that enable them to counteract that competition. Banerjee (2008) also opined a critical view saying the unanimity in outlining CSR definitions and conceptualisation among academicians and practitioners has caused the philosophy to be misused by big company to legitimise its operation at a cost to societal interest. In the same vein, this issue of ambiguity in CSR definitions still persist. The variations and lack of uniformity in CSR definitions and conceptualizations have led to greater confusions to the extent of damaging the actual efforts. Further, this confusion may have been exploited by the companies to use it for their opportunistic interests. The unanimity in outlining CSR definitions and conceptualization has caused the philosophy to be misused by some companies to legitimize their operation at a cost to societal interest. Hence, companies have the need to develop strategic business-society relations.

Businesses understand that stakeholders are able to provide a range of resources that are required for them to conduct and sustain their businesses. As a result, this creates mutual obligation with stakeholders that provide them with a “license to operate” in return for their provision of socially acceptable and legitimate (Dowling & Pfeffer, 1975; Guthrie & Parker, 1989; Suchman, 1995). Thus, CSR may be regarded as devices of publicity, a mere public relations tool in the form of “window dressing” or green washing (Spence, 2011; Yildirim & Urper, 2013).

Griffin and Weber (2006) viewed window dressing as activities served to alter public perceptions by communicating positive social responsible behaviour while rejecting internalisation of CSR policies. This action has the ability to mislead consumers with regards to the companies’ environmental practices as well as the environmental benefits of their products or services. From poor environmental
performance company, so as to deliberately conceal their faults and improve their images, green washing seems to be one of the techniques to reach the objectives. This strategy has escalated in recent decade when companies aggressively spend more time and money in declaring to be “green” via advertising and campaigning instead of operating and implementing business practices that minimize environmental impact. Indeed, the ambiguity of words such as “green” and “environmentally friendly” may indicate deceptive advertising tactics and therefore, obscure the consumer. Similarly, for industrial sensitive companies, CSR concepts can be misused as a sheer window dressing, which is to divert stakeholder’s attention inspecting the impact that the companies could cause to the social and physical environments in which they operate (Spence, 2011).

Mahoney et al. (2013) depicted that those companies that use standalone CSR Reports have higher CSR performance of CSR performance scores to publicise stronger social and environmental records to stakeholders. Businesses are most likely to be conscious in disclosing necessary information related to CSR activities and may have only reported positive impact activities or about aims and intentions rather than actual actions since reporting regulations seem to be deficit. Likewise, rhetoric and well thought words that practically explain the form of business hypocrisy tend to be embedded in the report. Hence, the traditional notion that CSR facilitates companies to respond to stakeholders’ expectation associated to socially responsible activities has been abused and caused dispute around business environment.

Building on those arguments, CSR could be opportunistically used in order for the companies to grasp the distinct quality from other companies. Critics believe that CSR can be a hoax to the society by which CSR programmes are undertaken and publicised to distract the public from the core issues. Bowen and Aragon-Correa
(2014) claimed that CSR could be utilised as a green washing tool whereby the management provides a positive impression of their overall environmental performance with the intention of misleading the stakeholders from their actual operations that contradict the announced initiatives.

Other than serving as a public relation tool, companies are also motivated to engage in more CSR practices companies could enjoy tax exemption. Ghosh (2015) reported that the Bangladesh government has the policy of tax exemption over the percentage of profit used in any sector as CSR activities. Thus, companies are attracted to such initiatives to make the number against the CSR account appear higher. Not only Bangladesh, as mentioned in Chapter 2, the Malaysian government has also taken diverse efforts to promote CSR activities and one of them is providing tax incentives for companies who practise CSR which cover a variety of social and environmental actions. Hence, those assertions indicate that companies are starting to use CSR beyond its common roles. In other words, CSR is now employed by the companies either as their selling gambits or with the intention of receiving some returns from the voluntary practices.

With the effort to fix the exploitation of CSR, Darus (2012) proposed that companies, especially in Malaysia, need to cease on abusing CSR activities for such purposes; whereby companies are anxious to be socially acceptable among society but their true colours are actually opposite to what have reported. Those glossy annual reports which have been sugar coated with numerous eco-images and self-laudatory disclosures should be swapped with more valuable information. For instance, financial information and voluntary disclosure, these could be utilised by the stakeholders and investors to make fruitful investment decisions.
This section provides a critical review of the uncommon use of CSR. This shows that CSR can be misused by companies as CSR is known to be the mechanism that is able to fix companies’ complication or use it for their advantage. Despite the unusual uses of CSR, this study is interested in understanding the role of CSR being used against earnings management. The next section reviews some of the prior literature that studied the association between earnings management and CSR.

2.9 Literature on Earnings Management and CSR

The relationship between earnings management and unethical behaviour by the management in Malaysia can be exemplified by several cases such as Transmile, Megan Media, Malaysia Airlines System and Port Klang Free Zone (Norwani, Mohamad, & Tamby Chek, 2011) and Mutiara Goodyear Development Bhd (The Star, 2011). Recently, more studies have started to analyse the association between earnings management and CSR including the developing countries. Table 2.3 summarises the finding of these studies.

The relationship between earnings management and CSR were varied as documented in Table 2.3. Thus, it is concluded that there is no unanimity in the previous literature on the possible relationship between earnings management and CSR. On one hand, prior studies reported a positive relationship between the respective variables. Chih, Shen and Kang (2008) examined companies from 46 countries and found that majority of the socially responsible companies also engaged in earnings management. The researchers justify the positive relationship occurred due to the inclination of CSR-minded companies to smooth earnings to ensure that reported earnings are more predictable and thus, implanting stable earnings volatility. Besides, managers could also have multiple objectives or no objective at all. Hence,
they are left unaccountable for their stewardship of the company’s resources and CSR may provide the managers more impetus to conduct earnings management to mask their rent-seeking activities from the outsiders. Gargouri et al. (2010) showed that corporate social performance (CSP) dimensions concerning the environment and employees are positively associated with earnings management. The researchers posited that the result could be attributed to the costs borne by companies that engaged in environmental activities which lessen financial performance and give managers an incentive to manage earnings. CSP seems to create collusion between managers and employees where the aim of which is to share the earnings management’s benefits. Salewski and Zulch (2014) examined companies from the Europe countries and reported that companies with more earnings management also have higher CSR score, report bad news less timely and have lower quality accruals.

Interestingly, this positive relationship could be a tool to avoid negative consequence of earnings management. In this sense, companies whose managers are discreet in their managerial decision making are prone to carry out ethical and socially oriented actions. Prior et al. (2008) studied companies from 26 countries reported and stressed that CSR can be used as an entrenchment mechanism whereby the managers misuse it as a hedging strategy that could protect them from any disciplinary actions by the affected shareholders. Colluding with other stakeholders could provide them additional support to reinforce their entrenchment strategy. One of the recent studies, Martinez-Ferrero et al. (2016) also depicted similar findings as the previously mentioned studies. The notion behind these findings is that those managers that involved in earnings management resorted to CSR as a way of ward off stakeholder activism and vigilance.
This revolutionary of CSR function was also tested in Asian economies. Choi et al. (2013) empirically provide the evidence on Korean listed companies that CSR was misused to hide their poor financial performance and disguise the managers’ managerial opportunism. On top of that, this managerial opportunism behaviour is more apparent in chaebol companies (companies that are owned by large family business conglomerate) and to those companies with high concentrated ownership. This is because, earnings management practices in chaebol companies often used for expropriation of activities by owner families which indicate weak internal corporate governance. The researchers also pointed out the issue of highly concentrated ownerships that allow the controlling party to exercise stronger discretionary control over companies’ resources. Therefore, this situation increase the needs for the owner to elevate and maintain good relationships with stakeholders and hide their opportunistic behaviours by strengthen their commitments in CSR.

Besides, Choi et al. (2013) also highlighted about the real corporate cases in Korea. It has been reported that chaebol companies heighten their allocation in donations following to negative news of prosecutions or allegations about owner families. For instance, the chairman of Samsung Group announced a plan for donation to a charity following to the media coverage of doubtful internal transaction and illegal political donations. This opportunistic act surely demonstrates that doing CSR could appease the negative reaction by the stakeholders. Ultimately, the incentive to use CSR to support entrenchment should be greater in companies with concentrated ownership.

On the other hand, some of the studies pointed out that companies that reported and practised CSR responsibly were for the sake of sustaining the needs of stakeholders (Choi & Pae, 2011; Kim et al., 2012). Empirical evidence in support of
this view shows that companies with high earnings quality, that is lower earnings management, have greater CSR practising (Alsaadi, Jaafar, & Ebrahim, 2013; Hong & Andersen, 2011; Kim et al., 2012; Scholtens & Kang, 2012). This negative relationship indicates financial reporting quality is being dealt with transparency and reliability.

Besides, companies that do not received incentives to manipulate earnings give more attention to issues that relevant to their stakeholders. Hence, it is a normal obligation for them. Grougiou, Leventis, Dedoulis and Owusu-ansah (2014) stated this notion is closely related to social norm whereby those managers that actively manage earnings have not internalised the endorsed norms associated with CSR which thus, abandon their involvement in CSR or even demonstrate indifferent and unconcerned attitude towards it. In the same line of argument, those irrational managers will not be motivated with social commitment and engage in lesser CSR activities since their fundamental concern is to manipulate earnings (Martinez-Ferrero, Gallego-Alvarez, & Garcia-Sanchez, 2015).

With regards to the review of literature, it was observed that the relationship between earnings management and CSR were most carried out in developed countries. It is important for this study to be conducted in developing country (specifically, Malaysia) as this country is also involved in earnings management practices and practising a reasonable amount of CSR. Hence, CSR can most likely be misused by managers in Malaysia companies as an entrenchment mechanism against earnings management. Table 2.3 summarises the literature that studied the relationship between earnings management and CSR by outlining the measurement for earnings management and CSR, the sample size and the findings of the research.
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<thead>
<tr>
<th>Author(s)</th>
<th>The measurement for CSR</th>
<th>The measurement for earnings management</th>
<th>Sample</th>
<th>Results</th>
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<tbody>
<tr>
<td>Chih et al. (2008)</td>
<td>Segregated into 2 groups: (1) CSR firms are constituents in the FTSE4Good Indexes;</td>
<td>Earnings smoothing, earnings aggressiveness and earnings losses and decreased avoidance.</td>
<td>A sample of 1,653 companies in FTSE4Good Indexes and FTSE All-World Developed Index from 46 countries during the financial year of 1993-2002.</td>
<td>CSR mitigates earnings smoothing and earnings losses, while earnings aggressiveness increases</td>
</tr>
<tr>
<td>Prior et al. (2008)</td>
<td>CSR scores developed by SiRi Pro database</td>
<td>Discretionary Accruals</td>
<td>A multi-national panel sample of 593 companies from 26 countries in 2002 and 2004 SiRi Pro database.</td>
<td>Positive relationship between earnings management and CSR.</td>
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Table 2. Continued.

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<tr>
<th>Author(s)</th>
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<th>The measurement for earnings management</th>
<th>Sample</th>
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<tr>
<td>Choi and Pae (2011)</td>
<td>The ethical commitment index developed by Choi and Jung (2008).</td>
<td>The degree of faithful representation, the degree of accounting conservatism and the quality of accruals.</td>
<td>A sample of 242 Korean companies listed on either KOSPI or KOSDAQ market in 2004.</td>
<td>Lower earnings management for ethically committed companies management</td>
</tr>
<tr>
<td>Hong and Andersen (2011)</td>
<td>Segregated into 2 groups: (1) socially responsible companies (SRFs), those with a positive CSR index (from KLD database) and (2) less SRFs which have a CSR index less than or equal to zero.</td>
<td>Accruals Quality</td>
<td>A sample of 8,078 non-financial US companies from the Compustat North America Tape and merge this data set with the CSR data from the KLD database through the year 1995-2005.</td>
<td>Positive relationship between more socially responsible companies and accruals quality</td>
</tr>
<tr>
<td>Kim et al. (2012)</td>
<td>A CSR constructed, measured as total strengths minus total concerns in KLD's five social rating categories: community, diversity, employee relations, environment and product.</td>
<td>Discretionary accruals (Kothari et al., 2005), Real activities manipulation (Cohen et al., 2008) and Accounting and Auditing Enforcement Releases (Dechow et al., 1996).</td>
<td>28,741 company-year observations between 1991-2009 from KLD data and the Compustat database.</td>
<td>Socially responsible companies are less likely (1) to manage earnings through discretionary accruals (2) to manipulate real operating activities and (3) to be the subject of SEC investigations</td>
</tr>
<tr>
<td>Author(s)</td>
<td>The measurement for CSR</td>
<td>The measurement for earnings management</td>
<td>Sample</td>
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<tr>
<td>Choi et al. (2013)</td>
<td>Total scores of seven categories (soundness of capital structure, fairness of trade, contributions to communities, consumer protection and satisfaction, environmental protection, employee satisfaction and contributions to economic growth of KEJI Index</td>
<td>Discretionary Accruals (modified Jones model)</td>
<td>A sample of 2,042 company-year observations in the year 2002-2008 from the KEJI Index, Data Guide and database published by the Korea Listed Firms Association.</td>
<td>Positive relationship for concentrated ownership and earnings management whereby managers misuse CSR to obscure their irrational practice</td>
</tr>
<tr>
<td>Author(s)</td>
<td>The measurement for CSR</td>
<td>The measurement for earnings management</td>
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<tr>
<td>Scholtens and Kang (2013)</td>
<td>CSR data was adopted from the Asian Sustainability Rating (ASR) report in 2009 and Compustat’s Global Vantage database for financial data in 2004–2008 with CSR for 2008 as reported by ASR in 2009.</td>
<td>Earnings smoothing and earnings aggressiveness.</td>
<td>A sample of 139 companies in ten Asian countries (namely Australia, China, Hong Kong, India, Japan, Malaysia, Pakistan, Philippines, Singapore and Thailand).</td>
<td>Lesser earnings management for socially responsible Asian companies</td>
</tr>
<tr>
<td>Grougio et al. (2014)</td>
<td>CSR activities rating provided by KLD Research &amp; Analytics, Inc.</td>
<td>Loan loss provisions and realized securities gains and losses</td>
<td>A sample of 116 commercial banks listed in the U.S. during the five-year period 2003–2007</td>
<td>Positive relationship between earnings management and CSR, whilst the reverse relationship is not significant.</td>
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<tr>
<td>Salewski and Zulch (2014)</td>
<td>CSR data provided by Kirchhoff ConsultAG (KC) a German consulting firm.</td>
<td>Discretionary accruals, accounting conservatism and quality of accruals.</td>
<td>A sample of 258 observations from 2005-2009 of the largest European companies applying IFRS based on the 2009 “Good Company Ranking” and Thomson Reuters Datastream. The majority of the observations originate from Germany, France and the United Kingdom.</td>
<td>Higher earnings management for socially responsible companies</td>
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<td>Author(s)</td>
<td>The measurement for CSR</td>
<td>The measurement for earnings management</td>
<td>Sample</td>
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<td>Martinez-Ferrero et al. (2015)</td>
<td>CSR scoring taken from EIRIS database and questionnaire</td>
<td>Discretionary Accruals (modified Jones model)</td>
<td>A sample of 1960 international listed non-financial companies for the period 2002–2010</td>
<td>Negative relationship whereby more socially responsible companies are less likely to practise EM and companies involve in earnings management do not give rise to CSR</td>
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<td>Martinez-Ferrero et al. (2016)</td>
<td>CSR was determined from the non-weighted sum of environmental issues, human rights, relations with stakeholders and the board.</td>
<td>Discretionary accrual Jones (1991) and Dechow et al. (1995)</td>
<td>A sample of 9,594 observations obtained from 20 countries in the year 2002-2010 (United States, United Kingdom, Canada, Australia, Germany, Netherlands, New Zealand, Austria, Denmark, Finland, Sweden, Switzerland, France, Italy, Spain, Belgium, Japan, Singapore, Korea and Hong Kong)</td>
<td>Positive relationship between managerial discretion and CSR</td>
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2.10 Corporate Reputation as Moderator for Consequence of Earnings Management

Corporate reputation as described by Fombrun (1996, p.72) is “a perceptual representation of a company’s past actions and future perceptual representation of a company’s past actions and future prospects that describes the firm’s overall appeal to all of its key constituents when compared with other leading rivals”. Dowling (2004) further address corporate reputation (CR) as an overall rating assessed by people’s perception as to whether the companies are operating in a poor or excellent way. Reputable companies build confidence and trust among the stakeholder whereas poor reputable companies fail to obtain such values.

There are solid explanations to believe that CR has the power to propel business success. Corporate reputation reflects as an image and character of a company in relation to value judgment that has been developed over its consistency, soundness and integrity (Bennett and Kottasz, 2000). From the definitions of CR provided, all the scholars agree with the significance of this intangible asset.

Reputation can be considered as a tool that is used to signify a company’s perceived capacity to meet their stakeholders’ expectation (Waddock, 2000). Roberts and Dowling (2002) further asserted that good corporate reputation is crucial because of its potential for value creation but also the difficulty of imitating its intangible character. As such, it is agreed by many management scholars that a successful CR have the power to increase a company’s financial performance and able to sustain superior profits over time.

CSR influences CR in different aspects; by which companies practise CSR as an instrument to influence public perceptions and legitimise their actions (Abu Bakar & Ameer, 2010; Saleh et al., 2010) and to protect and enhance their reputation and
image (Abu Bakar & Ameer, 2010; Hooghiemstra, 2000; Saleh et al., 2010). CSR reporting is a potentially powerful medium for companies to influence these perceptions, contributing towards maximising the earning potential of their corporate reputation (Unerman, 2008). Furthermore, Melo and Garrido-Morgado (2012) posited that CSR is a key driver of CR since it has the potential to foster hard-to-duplicate competitive advantage.

Prior studies suggested that CSR serves the key impetus for CR due to its potential to foster this intangible yet salience resource for the company (Bebbington, Larrinaga, & Moneva, 2008; Fombrun, 1996). For instance, Bebbington et al. (2008) stated that harmful social or environmental cases affect the company’s reputation which has a second-order impact on its legitimacy. Poor reputable business entities need to be aware of the shortcoming, therefore, they are encouraged to improve the stakeholders’ beliefs. As regards to the abovementioned claim, Schreiber (2008) augments the view by saying that companies that seek for better reputation need to not only emphasise their legal and economic responsibilities but also fulfil the ethical and social responsibilities. Furthermore, Odriozola and Baraibar-diez (2017) quantified that the level of quality in sustainability reports that are developed by the company able to enhance its credibility and improves stakeholders’ perception that ultimately led to improved corporate reputation.

Interestingly, Cai et al. (2012) state that reputation influences the degree of companies engaging into CSR activities. The researchers contend that poor reputable companies or companies that are involved in controversial sectors may have stronger initiative in committing CSR as a way of management self-serving behaviour in the effort of covering their misconduct and achieving legitimacy. Although this strategy is in the basis of legitimacy theory, that is giving the impression of legitimate, this
type of companies will struggle to convince the stakeholders of their intention. Stakeholders may devalue these companies as they perceive them to have double role in engaging social responsible actions while operating in controversial sectors. As a result, this will aggravate the initial (poor) reputation as the strategy to engage in CSR could add more uncertainty from the stakeholders on the companies’ operationalisation and future cash flows.

Nonetheless, the importance of protecting or maintaining reputation is much more prevalent for reputable companies. Given this, these companies tend to make greater CSR disclosure to maintain their CSR image (Kansal et al., 2014). Using awards and certifications received by companies as their proxy for CSR, Kansal et al. (2014) indicated that those reputable companies are encouraged to communicate their CSR activities. Moreover, these companies are more inclined to spend their CSR budget and make higher CSR disclosure because of their reputations. Furthermore, Abu Bakar and Ameer (2010) also concluded that reputable companies demonstrated higher concentration about their CSR activities and information disclosed in the annual report are more readable as they wish the stakeholders to straightforwardly grasp the reported information.

The rationalisation of CR influencing CSR is that reputable companies receive and even suffer greater scrutiny and attention from the general public (Graafland, 2017). These companies are deemed to be more visible and easily be recognized by the stakeholders due to their image of being the market leaders in their organizational field. This situation can be called as reputational liability effect whereby companies with good reputation have set themselves up to be targeted by stakeholders. As such, they are under great pressure to exhibit socially responsible behaviour due to their visibility within the society.
Based on the above discussion, reputation is substantially vital for a company to remain relevant and legitimate, improve their current state of operation and giving back to the society and environment. One of the ways to be ranked as reputed companies is to increase their commitment in engaging into CSR. This study designates CR as the factor of moderation in the earnings management and CSR relationship with the notion of those companies that involved in earnings management shall have greater commitment to CSR to sustain and improve their reputation. Hence, CR has the potential to influence the association between earnings management and CSR.

2.11 Conclusion
Overall, most literature has examined the effect of board diversity on specific attributes, providing little coverage in terms of selecting the variables to examine and the findings of studies on the relationships demonstrated mixed results. A large body of these studies (both the effect of board diversity on earnings management and the effect of earnings management on CSR) have been conducted with companies in developed countries. Hence, conducting this study in Malaysia could serve empirical evidence to the regulators and policymakers so that they could make sound decisions in improving the Malaysian governance system. This country has been proactive in encouraging companies to run business and report financial quality in a transparent and accountable manner as well as acting in a socially responsible manner towards all stakeholders. Hence, all the traits are relevant and applicable to this current study.
3.1 Introduction

In the previous chapter, this study reviewed the empirical evidence of the antecedent and consequence of earnings management (Chapter 2). This chapter discusses the theoretical background that explains the antecedent and consequence of earnings management; particularly the effect of board diversity on earnings management (diversity-of-boards and diversity-in-boards), the effect of earnings management on CSR and the moderating role of corporate reputation on the relationship between earnings management and CSR.

3.2 Theoretical Background on Board Diversity as the Antecedent of Earnings Management

The literature review in previous chapter indicates that of board diversity holds simultaneous implications of several attributes about corporate governance. Therefore, a single theoretical approach is implausible to provide an adequate explanation. Consequently, this study employs theoretical pluralism to further explain the relationship between board diversity and earnings management.

Agency theory has been extensively utilised to provide a detailed explanation in various phenomena relating to corporate governance. This theory is also known as the umbrella theory among other theories in corporate governance realm. However, Eisenhardt (1989) contends that the complexity of the phenomenon requires other theoretical perspectives to further discuss it. Likewise, as regards to board diversity, Carter et al. (2010) conducted a comprehensive research whereby it explores
multiple theories to support the role of gender and ethnic diversity. Additionally, the researchers also mentioned that agency theory conferred that diversification of board could increase heterogeneity which can result in superior board function and reduce agency conflict. Hence, this supports that a single theoretical approach is not sufficient to facilitate the discussion.

Previous studies also outlined several other possible theories that underpin the studies related to earnings management. Positive accounting theory explains that managers tend to use different accounting practices to affect the result of the company, commonly to affect the compensation, debt and size (Watts & Zimmerman, 1990). Similarly, the threshold management theory states that managers managed earnings to reach a level of expected result or their threshold (Burgstahler & Dichev, 1997).

This section will firstly discuss signalling theory as this theory is one of the theories that motivate the occurrence of earnings management. It then follows with the detailed explanation on agency theory and human capital theory, by which the theories that this study will employ.

### 3.2.1 Signalling Theory

The concept of signalling theory is that reporting earnings is seems to be a way for companies to send signals to investors and the overall market about their performance. Spence (1973) specified that this theory is fundamentally concerned with reducing information asymmetry between two parties (controlling shareholders and outside investors) and to signal to outsiders that a firm is performing better than its peers (Miller, 2002). Moreover, the credibility of information is crucial in ensuring lower information asymmetry (Hughes, 1986). Furthermore, in making
decisions, investors critically rely on the information delivered by companies (Abhayawansa & Abeysekera, 2009). Hence, this indicates that managers may manage or alter the reported earnings to give an impression of healthier company performance that would attract external stakeholders.

The justification indicates that signalling theory is better fit for researchers who are keen to understand the effect of managing earnings to signal excellent business performance. Hence, signalling theory does not fit this research very well as this study would like to examine the role of boards on mitigating earnings management. However, signalling theory will be further explored for theoretical background for consequence of earnings management.

3.2.2 Agency Theory
Jensen and Meckling's (1976) view on the agency theory as the causes of earnings management has been frequently used to explain the opportunistic financial reporting. Jensen and Meckling (1976, p. 308) define agency relationship as a “contract under which one or more persons (the principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent”. This relationship is required to be managed properly to assure the agents may act in the best interest of the principal. However, when both parties are anticipated to maximise their own utility, this could be a signpost that the agent is most likely to manage earnings at the expense of the principal’s interest to maximise his own wealth.

Particularly, agency problem arises when the separation of ownership and control within a company may result in suboptimal decision making (Eisenhardt, 1989). Additionally, the increasing size of the company has led to the separation of
ownership and control between the agent and principal (Fama & Jenson, 1983; Jensen & Meckling, 1976). Relying on this classification, Jensen and Meckling (1976) model this condition as an agency relationship where the principal is unable to directly observe the agent’s action and behaviour that could produce moral hazard, agency costs increased. Following this, earnings management behaviour can be defined as “residual loss”, according to the definition provided by Jensen and Meckling (1976, p.308). It refers as a form of agency cost that incurred due to the misalignment of interest between agents and principals which is also recognised as opportunistic discretions. Jiraporn, Miller, Yoon and Kim (2008) have proved that agency theory could explain the idea behind the occurrence of earnings management since it occurs when there is a poor association between management and shareholders wealth maximisation.

Agency theory is concerned with resolving agency conflict and the fundamental issue in corporate governance is whether shareholders’ interest can be effectively protected or not. The issue of separation of ownership has regulated companies to select the fittest, appropriate and sound governance mechanisms with the aim of ensuring an effectual alignment of interest between principals and agents. Demsetz and Lehn (1985) opine that one of corporate governance’s primary objectives is to fix agency problems by ensuring that the interests of both parties are aligned. Jensen and Meckling (1976) stated that a board of directors serve the role as the representatives of the principals. Similarly, Healy and Palepu (2001) propose that directors serve as a vital device to control and restraint the management in the shareholders’ best interests which diminish agency conflict.

Agency theory also provides the rationale for the board’s critical function of monitoring management on behalf of the shareholders (Fama & Jensen, 1983).
Boards is recognised as the ultimate and placed at the highest level of the management hierarchy and hold great responsibilities and have the fiduciary role of leading the company to accomplish competitive advantage goals by carefully monitoring the management activities for the shareholders’ wealth to be secured. They are supposed to discharge the responsibility as the watcher on behalf of the shareholders (Abdollah & Mohd Nasir, 2004).

Carter et al. (2010) affirm that board of directors’ fiduciary commitment is to secure shareholders’ interest that being prioritised by the management. The researchers further mentioned that agency theory has posited that diversified board of directors would create superiority as higher board diversity increases heterogeneity. Therefore, a heterogeneous line of board members creates more capacities to monitor management, reduces agency conflict and increase the capability to mitigate earnings management.

3.2.3 Human Capital Theory

Human capital is an intangible and intellectual asset of a company and can be defined as a measure of economic value of an employee’s skill set. According to Becker (1964, 1993), human capital theory addresses to the role of an economic actor’s (individual) qualification, experience and skills that can be utilised and may have positive or negative effects on a company. It reflects the resources embedded within people. Becker further maintains that knowledge able to increase an individual’s cognitive abilities that lead to more productive and efficient potential activities. Becker narrates, “In human capital theory, people rationally evaluate the benefits and costs of activities such as education, training, expenditures on health, migration, and the formation of habits that radically transform the way they are”
Hence, the researcher considered this theory as a broad theory that explains an individual’s decisions to invest in themselves as economic actors to gain increased economic and other benefits.

First and foremost, human capital is not only derived from formal education, but also includes experiences and practical learning that take place during the job, as well as non-formal education, such as specific training courses that are not a part of traditional formal educational structures. Thus, broad labour market experience, as well as specific vocationally oriented experience, are theoretically predicted to increase human capital (Becker, 1964). Moreover, education reflects not only the information learned but also the individual’s intelligence (Becker, 1993). Hence, this theory stresses the importance of educations and experiences an individual has gained throughout his growth.

Although this theory primarily involves education, several researchers suggested that human capital characteristics can be seen as the skills and experiences a director brings to the decision-making process (Johnson, Schnatterly, & Hill, 2013; Kesner, 1988). This is because the characters of a director are unique resources and these will affect what directors pay attention to and how they structure the most appropriate and fittest decisions. The concept of human capital has been extended by several scholars based on the classification. Prior studies reported that women are just as well-qualified as men, and ethnic minority is also as superior as ethnic majority, in terms of their characteristics, levels of education and the experience of being the minority (Carter et al., 2010; Terjesen et al., 2009).

This theory suggests that a board can maximise its human capital sources by carefully selecting the members of the board. Kesner (1988) stated that director that carries unique and extensive human capital sources have higher possibility or
chances to be considered for directorships. Moreover, it is suggested that corporate board structured along demographic diversity, for instance gender, ethnicity and age is efficient in its monitoring role and protects the interest of the shareholders as well as the stakeholders (Kang et al., 2007). Hillman, Cannella and Harris (2002) mentioned that by choosing directors who possess diverse backgrounds and characteristics, a company can benefit this attributes as compared to a homogeneous line of board. For instance, looking into gender and ethnic, the minority (female and minority ethnic) tends to assimilate into more traditional behaviour and adapt the customs of the existing board members as well as able to address different environmental dependencies. Further, Hillman et al. (2002, p. 749) also argue that ‘race and gender are often considered proxies of different perspectives individuals bring to organisations’. Therefore, diverse human capital held in a board should lead to aberrant and idiosyncratic views and backgrounds.

Line of directors who possess superior amounts of human capital must be beneficial to the company. The rationalisation behind this claim is that they are more intelligent, retain more skills and experience, and are able to generate intellectual ideologies from some particular issues (Dalziel, Gentry, & Bowerman, 2011). They are expected to apprehend complex information quickly (Carpenter & Westphal, 2001) therefore, greater levels of human capital within the board members help them to effectively discharge their job. Blair (2011) also noted human capital as the most important factor of production and source of economic wealth and the engine of economic growth over time.

Among other corporate governance theories, human capital theory could provide convincing theoretical basis for board diversity and its effect on company performance. However, Carter et al., (2010) initially posit that human capital theory
does not specifically predict a link between board diversity and financial performance of a company but it is highly suggestive of deriving a positive relationship. Carter et al. (2010) point out that diversity in the board hold unique human capital and provide different sets of information for management to make better decision which will result in different effect on board functions. With that being said, company performance may have been affected by board diversity as a result of unique human capital in the board of directors (Carter et al., 2010).

This study employs two theories which are agency theory and human capital theory. The first theory appears to be the fundamental theory to explain the board’s fiduciary role, while the latter serves to explain the inherent characteristics of the individual which seems to reinforce the fundamental concept of agency theory. The next section investigates the theoretical background for CSR that serves as the consequence of earnings management.

### 3.3 Theoretical Background on CSR as the Consequence of Earnings Management

Several theories that can explain the effect of earnings management on CSR are discussed in this chapter, including legitimacy theory. The literature shows that the legitimacy, stakeholder-agency and signalling theories are the most effective theories to test and explain the relationship between earnings management and CSR as well as the moderating variable of corporate reputation.

#### 3.3.1 Legitimacy Theory

Legitimacy theory is defined as “a generalised perception or assumption that the actions of any entity are desirable, proper or appropriate within some socially
constructed system of norms, values, beliefs and definitions” (Suchman, 1995, p. 574). In essence, this theory suggests that companies are expected to act in a socially acceptable manner to access resources, gain approval of their goals and place in society and guarantee business survival (Guthrie and Parker, 1989). Moreover, companies are continuously seeking to ensure that they are operating within the bounds and norms of their respective societies. According to Grahovar, (2011), respective theory is frequently used in the field of corporate social reporting.

O’Dwyer (2002) proposes that the aim of disclosing environmental and social information is for a company to influence the public’s judgment of either in repairing the loss of legitimacy or giving the impression of having a social conscience and enlightened self-interest. With regards to the growing awareness of environmental concern nowadays, this theory emphasises on how a company will react to a particular community’s expectations.

Company legitimacy is not a steady state and can fluctuate. The notion behind this statement is that the legitimacy of a company will only be tarnished when stakeholders questioned their legitimacy that has been caused by some incidents. Since social views are the foundations on legitimacy, which can change over time, thus, resulting to the non-static company’s legitimacy state. Legitimacy gap appears when company’s activities and social values do not correspond with each other (Grahovar, 2011). In other words, companies need to practise and operate in a socially responsible way and their actions need to be validated by the society to avoid from losing their legitimacy which could lead to cessation in business operation (Guthrie & Parker, 1989).

Lindblom (1994) posits that to alleviate legitimacy gap, a company could 1) changes its output, methods or goals to conform with the society’s expectation and
then inform the publics of the changes 2) changes the society’s view without amending the company’s actual behaviour 3) manipulates the society’s view by deflecting their attention to other issues 4) change the external expectations of the company’s behaviour. Following the above strategies, the researchers deemed that disclosure in the annual report serves as an effective mechanism to inform the public about the company’s environmental performance (Cho & Patten, 2007; Gray, Kouhy & Lavears, 1995).

Although most of company may opt CSR to preserve or improve perceptions of its legitimacy, company could also utilise CSR as a means of enhancing image and corporate reputation as well as anticipating or avoiding social pressure (Gray et al., 1995). For instance, should the company receive bad perception for their business operation (i.e. emission or pollution), the manager shall strategically highlight other best activities that they have completed to raise positive images (i.e. charities and any socially responsible activities). These arguments are in line with one of Lindblom’s (1994) approaches abovementioned, which is to divert the public’s attention on the bad news with other (positive) news that could give a better impression of the company. Kim, Park and Wier (2012) stated that companies engage in more CSR activities with the hope of projecting transparent and accountable image to the stakeholder groups and proceed to gain the legitimacy of their activities which will result in winning the stakeholders support. The entity whom responsible in managing the company’s operation including practicing CSR; the managers, who are irrational and involved in manipulating the earnings tend to realise that CSR can be used to maintain the company’s legitimacy, specifically with social and political stakeholders (Sun et al., 2010). Hence, CSR is seen as a way of notifying the
stakeholders on the company’s broader interests and accountability which becomes the company’s aspiration to behave in socially responsible manner.

In examining the relationship between earnings management and CSR, legitimacy theory is viewed to be not suitable for this study since this study is keen to test CSR as the entrenchment mechanism to preserve managers’ position and regain support from other stakeholders. However, this theory is fit to explain the moderating role of corporate reputation (CR) on the relationship between earnings management and CSR. In accordance with legitimacy theory, reputable companies shall strengthen their CSR disclosure in order to appear legitimate and sustain their good reputation from the destructive effects of the earnings management that they have executed.

3.3.2 Stakeholder-agency Theory

Stakeholder-agency theory is proposed by Hill and Jones (1992). As understood from the name of this theory, Hill and Jones tried to associate some aspects of the agency theory with the stakeholder theory. According to the researchers, they proposed this paradigm to assist in explaining certain facets of a company’s strategic behaviour, management and stakeholder contracts relationship, institutional structures monitoring and enforcement contract between management and other stakeholders. The researchers stressed the evolutionary procedure and institutional structures that form and align both parties’ contracts. This theory will first describe the context of agency theory and stakeholder theory individually and will follow with the discourse of stakeholder-agency theory.
Agency Theory

The foundation of agency theory has been comprehensively discussed in Section 3.2.2. This current section aims to discuss agency theory particularly to explain its character in the stakeholder-agency theory (Hill & Jones, 1992). Agency theory concept principally mentions that managers are the agent for shareholders. Nonetheless, in stakeholder–agency theory, this theory extends the respective contractual relationship between the agent and principal, whereby it implicates two natures which are the implicit and explicit contractual relationship. Hence, it can be noted that stakeholders are actually the explicit principals for the agent whereby companies do not only operate for its own stake but should be able to provide benefits for the stakeholders (Hill & Jones, 1992). The following discussion will further and comprehensively explain the connection of these two theories.

Stakeholder Theory

Stakeholder theory is basically the theory that explains ways for a company to operate at its finest (Freeman et al., 2010). In an earlier study, Freeman (1984) argues that managers have the moral obligation to consider and appropriately balance the interest of all stakeholders. Stakeholders are the individuals or groups who are either harmed by or benefits from the company’s decision or actions (Freeman, 1984; Jensen, 2001).

The theory emphasises on how a company could effectively create value and “effectively” viewed as “creating as much value as possible” (Freeman et al., 2010). Moreover, this theory highlights the needs of managers to be accountable to stakeholders. Stakeholder theory considers a broader group of constituents. In a more defined view, investors, suppliers, employees and customers, governments,
communities, and trade associations can be classified as the company’s stakeholders (Figar & Figar, 2011).

Company’s survival and success depend on the company’s ability to manage the valuable relationships with its stakeholder. Freeman (1984) further asserts that companies with high stakeholder management capacity tend to involve on greater level of critical issues and may seek voluntary agreement with the stakeholders. In accordance with the stakeholder perspective, a company is required to comply with various expectations from different level of stakeholders outside the business operation (i.e. consumer, society, community, suppliers and others).

Guthrie, Petty and Ricceri (2006) further explain that stakeholder theory highlights company’s accountability to be beyond simple economic or financial performance. This respective theory postulates that managements of a company are supposed to be involved in activities that positively affect and impact the stakeholders by the achievement of a company. Besides, a company is also expected to execute its accountability towards its stakeholders by undertaking activities that are deemed salient by the stakeholders.

On top of that, in relation to CSR, Raupp (2011) proposes that the concept of CSR is closely related to stakeholder theory as a company is expected to discharge its responsibility towards the society. By behaving in a responsible way, companies may obtain stakeholder’s continuous support that may safeguard their place in the market and elongate their business operation (Freeman, 1984).

However, from the optimistic view of CSR, CSR has been revolutionised and misused as an entrenchment mechanism. For instance, Pagano and Volpin (2005) explained how companies use concessions; that is part of CSR dimensions (specifically, large wage policy) given to the employees, as an entrenchment
mechanism to deter hostile takeovers in companies depending on different managerial stakes.

Drawing on the negative side of a company’s CSR, this study look into the accounting adjustments carried out by managers to improve profits or even for their best interest which are the so-called earnings management practices. Hill and Jones (1992) propose a useful foundation for the study to examine the connection between earnings management and CSR.

**Stakeholder-agency Theory**

The theory comprises of agency theory and stakeholder theory. Although these theories are fairly unrelated in history and focus; some scholars unified both theories as they find them to complement each other. Both theories examine the conflicts and associations amongst interest groups, being either principals versus agents (agency theory) or the company in its broader societal context (stakeholder theory). That is to say, managers need to discharge their role as trustworthy agents to the stakeholders (who in turn act as principals) rather than only to the shareholders (Hill & Jones, 1992).

In agency theory, company is seen as a nexus of contracts but contrasting to agency theory, stakeholder-agency theory entails implicit and explicit contractual relations between all stakeholders while recognising power differentials. Hence, managers possess a unique role as they can be seen as the agents of different level of stakeholders, namely, shareholders, creditors, employees, suppliers, customers, local communities and society (Hill & Jones, 1992). In the same line of argument, Prior et al. (2008) indicate that managers not only have strong relationships with the business owners or shareholders, but also with other stakeholders of the company.
Contrasting to other theories, this theory concentrates on the factors of conflict of interest between managers and stakeholders (Hill & Jones, 1992). Hence, to align these parties’ interest, Watson, Shrives and Marston (2002) recommend that voluntary disclosure, specifically CSR can be used by the managers to communicate with the stakeholders that will assist to eventually build trust between them and to acquire stakeholders’ support.

Based on the substance of stakeholder-agency theory, Hill and Jones (1992) accentuate that any decisions or actions made by the managers shall affect the non-shareholders stakeholders as their roles are not only the agent for the shareholders, but also serve as the stakeholders’ agents. Thus, managers are obligated to satisfy the stakeholders’ demand as well.

Incorporating CSR in the lenses of earnings management deserve several explanations upfront. Misalignment of interest between managers and shareholders that initiates the former to pursue their interest at the expense of the latter, famously known as agency conflict, has lead managers to attempt to neutralise the disciplinary mechanism of the capital market to maintain corporate control (Jensen & Ruback, 1983). In the context of managing conflicts of interest, irrational managers strategically choose overinvestment as the entrenchment mechanism (Pawlina & Renneboog, 2005). Hence, in this case, they may increase financial resources allocated to CSR which in turn could serve as the hedging strategy against any disciplinary action charged by the discontented and affected parties (Prior et al., 2008; Surroca & Tribo, 2008).

This strategic action was later comprehensively resumed by the theoretical work of Cespa and Cestone (2007) where they suggest that CSR can be used as the managerial entrenchment mechanism by way of satisfying the stakeholders’ demand
on socially responsible activities. The justification behind this assertion is that the incumbent managers (those involved in managing earnings) who may be under pressure to be replaced may make manager-specific investments by adopting CSR activities strategically as an entrenchment strategy that will later turn to stakeholder-friendly projects and buy off the stakeholders. In particular, Cespa and Cestone (2007) claimed that the entrenched managers shall collude with other stakeholders as a defensive measure to protect themselves from disciplinary mechanism, improve their job security in case of a dismissal attempt (Shleifer & Vishny, 1989) and to avoid negative reactions and subsequent surveillance from stakeholders.

Cespa and Cestone (2007) further explained that, the relationships formed between incumbent managers and stakeholders could shift to a powerful entrenchment strategy, especially to countries that have strong political lobbying, social activism and media campaigns. Furthermore, stakeholders are deemed to hold substantial effective control on companies especially by the threat of lobbying, costly boycotts and media campaigns. Interestingly, the researchers emphasised the power of media and politician since they could initiate boycotts that could pose a threat to the incumbent managers. On the other hand, the social and environmental activists may also initiate media campaign or threat to the shareholder or company that attempt to dismiss the incumbent managers. Therefore, managers strive to convince and please the mentioned stakeholders to strengthen their entrenchment strategy.

In connection with CSR, adopting more practices have been proven to reduce uncertainty and loss of confidence, as well as promote an atmosphere of acceptance and support from stakeholders especially the government and media. In the same line of argument, CSR activities deliver favourable media coverage to the managers and provide the impression of responsible global citizens (Jo & Harjoto, 2011). On that
account, managers regard sustainable practices as a mechanism to avoid stakeholders’ activism or even adverse political climate since the stakeholders’ demand associated to CSR have been satisfied (Cespa & Cestone, 2007). Irrational managers will then have special motives for engaging themselves more in socially responsible activities as this could lead to closer relationships with the stakeholders who eventually deliver them the stakeholders’ support and protection as well as positive media coverage to validate their action stand. Therefore, the researchers stated that building privileged relationship with the stakeholders could reduce the chances of the company’s operations being closely scrutinised by the stakeholders.

In similar argument with regards to satisfying the stakeholders, Surroca and Tribo (2008) presented similar result which supported Cespa and Cestone’s proclamation. The researchers argued that stakeholders generally attain certain powers to either promote or penalise the incumbent managers. Stakeholders such as political system, labour, the media, the judiciary and universities wield significant power whereby they can engage and organise costly boycotts, lobbies and media campaign which demonstrate the stakeholders’ substantial power. With that in mind, incumbent managers may reinforce their entrenchment strategy using CSR engagement by canvassing support from stakeholders. Additionally, stakeholders may exercise their influence via board of directors when the representative includes labours, creditors, or even regulatory agencies. They could influence shareholders power by protecting the irrational managers from being removed by the discontented and affected shareholders. This is because the managers have retained the stakeholders’ confidence. Thus, discontented shareholders may face pressure from the non-shareholders stakeholder during the takeover threat. As a result, Surroca and Tribo (2008) concurred with the fundamental ground of stakeholder theory whereby
meeting and prioritising the satisfaction of stakeholders’ demands related to social and environmental concessions is positively related to their attributes of power, legitimacy and urgency which reduce stakeholders activism.

Prior et al. (2008) utilised the stakeholder-agency theory and documented result in favour of the theory based on these two reasoning. The researchers found that earnings management positively impacted CSR by satisfying stakeholders’ interest to avoid stakeholders’ activism from damaging the incumbent managers’ position in the company. Furthermore, the managers tend to collude with other unaffected stakeholders against disciplinary initiatives from shareholders that were affected detrimentally by these earnings management practices.

Building on the above justifications, it clearly shows that managerial entrenchment is harmful as it allows managers to escape from the control wielded by the shareholders (Morck, Shleifer, & Vishny, 1988; Shleifer & Vishny, 1989). Furthermore, the existence of incumbent managers that is involved in earnings management practices will worsen the managerial entrenchment practice and deteriorate the shareholders’ power and interest. Consequently, managerial entrenchment persists to be another agency cost arising from the earlier exercise of managerial discretion.

Hence, after considering the concept of these theories, this study has decided to employ stakeholder-agency theory as one of the theoretical background to explain CSR as the consequence of earnings management. This theory appears to be an appropriate theory to explain CSR as an entrenchment mechanism for earnings management.
3.3.3 Signalling Theory

Aside from reducing information asymmetry between two parties (Spence, 1973) signaling theory also explains a company strives to signal to outsiders that it is performing better than its peers (Miller, 2002). Thus, CSR and voluntary disclosure can provide a positive signal regarding the condition of a company (Connelly et al., 2011) which consistent with signalling theory.

Irrational managers aim to increase their CSR to reinforce the entrenchment mechanism by misuse CSR to obfuscate their earnings management practices. The idea is that, companies which stress on their CSR activities signal that they are good corporate citizens and eventually draw attention away from possible hint that they are engaged in earnings management (Amidu, Kwakye, Harvey, & Yorke, 2016). In addition, investors stated that having voluntary disclosure of narrative forward looking information is much more superior to dividend information in respect to reducing their uncertainty about future earnings (Hussainey & Aal-Eisa, 2009).

Likewise, Setyawan (2012) also explains that managers as agents have an incentive for CSR disclosure as a signal to attract current investors and/or potential investors to improve the image of a company, especially when they are trying to be involved in earnings management. CSR is a signal for investors and other stakeholders that a company is actively involved in CSR practices, indicating that the corporate value is in a good position in the market. From the managerial perspective, CSR can be used as a signal for distracting shareholders’ attention from any problems in which managers may be punished if they are found manipulating profits.

Therefore, this study also utilises signalling theory to support stakeholder-agency theory in explaining the misuse of CSR to strengthen the managerial entrenchment by irrational managers.
3.4 Theoretical Framework of the Study

Drawn from literature review, theoretical background and problem statement presented earlier, Figure 3.1 demonstrates the diagrammatic representation of the theoretical framework investigated in this study.

In this framework, earnings management is the dependent variable for the antecedent and consequence; which are the board diversity and CSR respectively. The framework is showcased as Figure 3.1. This study fundamentally utilises agency theory and is supported with human capital theory to present the evidence of board diversity roles towards earnings management. Additionally, to scrutinise the impact of earnings management on CSR, stakeholder-agency theory and signalling theory functioned as the underpinning theories and legitimacy theory to discuss on the corporate reputation as the moderating variable for the relationship between earnings management and CSR.

3.5 Hypotheses Development

This section develops hypotheses that are derived from the literature review and support by the theoretical frameworks discussed earlier. Particularly, this section constructs testable hypotheses which are the effect of diversity-of-boards on earnings management, the effect of diversity-in-boards on earnings management, the effect of earnings management on CSR and the moderating effect of corporate reputation on the relationship between earnings management and CSR.
Figure 3.1. Theoretical Framework of Earnings Management
3.5.1 The Effect of Diversity-of-boards on Earnings Management

This study aims to examine the effect of board structural attributes on earnings management: board leadership, multiple directorships, board size and non-executive commitment. The hypotheses for this study are developed as follows.

3.5.1(a) Board leadership

Board leadership can be recognised as the positions of chairman and chief executive officer (CEO) that need to be separated from being held by the same individual (Vintila & Duca, 2013). Contrary to CEO, chairman is essential in shaping the effectiveness of the board and authorising the board’s meeting and agenda. A chairman’s primary responsibility is to observe the CEO but should the position is being controlled by the same individual (in other words, duality), the CEO will have the power to control the inside information from other board members and consequently obstruct the monitoring functions. Moreover, the power vested in the hands of a CEO through duality increases individual power base that leads to opportunistic and inefficient behaviour that may reduce shareholder wealth (Jensen, 1993). In addition, chairman that is independent is also crucial for a company since he or she does not have any material monetary relationship with the company that could affect the judgment (Fama & Jensen, 1983). Hence, Chau and Leung (2006) underscore the importance of having an independent chairman to avoid the presence of a dominant executive. Furthermore, independent check on the CEO and lessen concentrated decision-making power can be achieved.

This discussion agrees with agency theory that emphasise on the separation of the positions based on the assumptions of granting many powers to an individual will affect the monitoring role of the board due to the excessive power vested to a single
person. Therefore, by having an independent chairman on board, superior control can be attained and applied (Dechow et al., 1996). This notion is that an independent chairman who is independent from any company's affairs could supervise the CEO’s work with less bias.

To date, empirical support for these arguments is equivocal and regularly used CEO duality as the measurement. Kamardin and Haron (2011) depicted that board leadership did not provide effective monitoring role and failed to improve company performance (Abdullah, 2004; Yasser & Mamun, 2016). In reference to earnings management, Dechow et al. (1996) reported that by having CEO duality practices, the management is more likely to engage in manipulating the earnings which disagreed with what the researchers postulated. However, when examining the relationship between earnings management and independence of the chairman, Al-Dhamari and Ku Ismail (2014) and Habbash et al. (2012) documented that the quality of earnings is higher when the chairman is independent, implying to agency theory. Therefore, it is suggested to have an independent chairman and separate leadership to mitigate earnings management since different individuals may have different ways of managing. Thus, judgment will not be impaired.

\[ H_1: \text{Board leadership is negatively associated with earnings management.} \]

3.5.1(b) Multiple directorships

Another characteristic of board of directors is that directors may occupy positions in more than one board (multiple directorships). In particular, multiple directorships allow directors to be affiliated with other companies (Reppenhagen, 2010).

Prior studies reported result based on two perspectives. Having multiple directorships increase the monitoring quality as more networks are expected to
generate benefits due to the diffusion of needed resources (Fama and Jenson, 1983). Building from this perspective, these directors could help to attenuate agency costs that are motivated by agency conflicts. However, Carpenter and Westphal (2001) argue that these skills and qualities can jeopardise the time and the attention of these individuals since they are shared with several outside boards’ seats.

According to agency theory, the busyness of corporate directors adversely affects firm performance (Méndez, Pathan, & García, 2015) and is unfavourably related to management oversight due to over commitment that led to loss of leadership controlling role (Kamardin & Haron, 2011). Concentrating to its impact on earnings management, a majority of previous literature is in agreement with busyness hypothesis with the basis of agency theory. Multiple directorships tend to reduce earnings quality and produce higher earnings management (Baatour et al., 2017; Chiu et al., 2013; Jamaludin et al., 2015; Mohamad et al., 2012). Hashim and Rahman (2011) produced non-linear result where the existence of cross-directorship improved earnings quality yet too many cross-directorships increased earnings management.

In Malaysia, Bursa Malaysia has restricted the number of directorships to only five (5) directorships per director which commenced in 2015. Accordingly, this study accounts for the negative effects of multiple directorships by testing the busyness hypothesis based on the agency theory.

$$H_2: \text{Multiple directorships are positively associated with earnings management.}$$

3.5.1(c) Board size

Academician continuously debates on the most appropriate board size. From the view of resource dependence theory, Kiel and Nicholson (2003) suggested that a
larger board size exhibits greater monitoring and controlling mechanism as the number of experienced and skilful directors can be deployed. Moreover, larger boards have a higher possibility of having both inside directors and outside directors that could facilitate experience and in-depth knowledge and also independence which could lead to more efficient monitoring (Dalton, Daily, Johnson, & Ellstrand, 1999; Xie et al., 2003).

In contrast, agency theory recommends that a smaller board size since a higher number of board members may render less effectiveness in controlling the top-level management. This notion premised on the contention that any additional benefits derived from the increment in board membership may be counterweight by the poor communication and decision-making process. In relation to earnings management, Al-Dhamari and Ku Ismail (2014) found that larger boards insignificantly influence earnings quality and cause investors to perceive board size as not a good indicator of quality earnings in Malaysia. Besides, several studies proposed that a smaller board enhances the reporting quality (Abdul Rahman & Mohamed Ali, 2006; Yermack, 1996) whilst Huang and Wang (2015) reported that smaller boards are associated with riskier investment and earnings management. Therefore, both small and large boards have their own short comings. Additionally, some studies recorded no relationship between board size and earnings management (Abdullah & Ku Ismail, 2016; Mohamad et al., 2012).

Building on those studies, this study adheres to the agency perspective since it is more alarmed with the board’s monitoring. Unfortunately, the effectiveness of board’s monitoring deteriorated since board that overflowed with board members suffered free-rider problem, poor coordination or communication between members which led to the occurrence of earnings management (Abdul Rahman & Mohamed
Ali, 2006; Ishak & Haron, 2011). From all the above mentioned empirical evidences together with the assumption of theories, the hypothesis is as follows:

\textit{H}_3: \textit{Board size is positively associated with earnings management.}

3.5.1(d) Non-executive directors (NEDs) commitment

NEDs commitment received insufficient assessment in the corporate governance realm. Agency theorist advocates on having NEDs in boardroom as these directors that known as the company’s optimum regulators, give independent monitoring which eventually improve company performance. In this study, NEDs fees serve as the proxy for their commitment, by which it is one of the proxies carried out by Habbash et al. (2012). The rationalisation for choosing fees as the proxy for effort and activities based on the notes by Hampel (1998, p.11) is that “NEDs remuneration can be a useful and legitimate way of aligning the directors’ interests with those of shareholders”.

Researchers believe that directors should be well-paid. Moreover, a considerable amount of remuneration may attract new professional NEDs, hence, create high diversity and wide-ranging board functions as they could exchange fresh ideas with the rest of the board members. Besides, professional and experienced NEDs are anticipated with the fees that commensurate with the company size and their qualifications. Otherwise, should their responsibility and efforts are not well-matched with the fees, this will demotivate them and cause them to not fully devote themselves in monitoring the companies. Habbash et al. (2012) reported that NEDs fees reduce the level of earnings management. Hence, referring to the empirical evidence, this study adheres to the result and the hypothesis is as follows:

\textit{H}_4: \textit{Non-executive directors commitment is negatively associated with earnings management.}
3.5.2 The Effect of Diversity-in-boards on Earnings Management

This study investigates the board of directors’ individual demographic attributes: director gender, director age, director ethnicity, director competency, and director nationality. The hypotheses are developed accordingly.

3.5.2(a) Gender Diversity

In real business world, male directors dominate the boardroom and the issues of professional ceiling for females also exist. From the human capital theory perspective, women directors must have higher human capital sources especially educations and qualifications (Hillman et al., 2002) than their male peers in order to be noticed. Since women directors are of higher human capital than the male in general, their involvement shall have positive effect on the board effectiveness. In addition, the women directors usually have different backgrounds and human capital characteristics, more likely to have backgrounds outside the business area and have higher educational degrees, better reflection and understanding of customer behaviour and needs (Galia & Zenou, 2013). Therefore, able to contribute unique resources to the board and company as a whole (Carter et al., 2010).

Gender diversity received a considerable amount of research where a majority of the research investigated the demographic board diversity’s efficacy in either improving company performance or mitigating earnings management perspective (Abdullah & Ku Ismail, 2016; Adams & Ferreira, 2009; Buniamin et al., 2012; Erhardt et al., 2003; Gul et al., 2013; Srinidhi et al., 2011). Most literature reported that with having female directors in the boardroom, board effectiveness can be improved as having different experiences, vision and perspective can enhance the decision-making process. Arun et al. (2015) compared the characteristics between
female and male directors and found that female directors are more ethical, less aggressive and more risk-averse.

After reviewing prior literature, it was noticed that most of the studies suggested that female directors hold better skill sets. In accordance with the objectives of this study, this study will not favour on any gender and intends to study the diversification of both male and female traits in diminishing earnings management. Furthermore, this study is also stimulated with Post and Byron's (2015, p. 1548) claim, that males and females have different “cognitive frames” which affect the decision-making. Hence, this current study suggests the following hypothesis.

\[ H_5: \text{Gender diversity is negatively associated with earnings management.} \]

3.5.2(b) Age Diversity

Age diversity can be considered as part of human capital. An earlier study conducted by Houle (1990) employed human capital theory and documented that different levels of age possess different types of skills and experiences. The researcher further explained that young, middle and older board members have their own characteristics and functions. Moreover, the directors’ age can be an indicator of their business’s experience and maturity (Hafsi & Turgut, 2013). Directors of different ages will to some extent have different skills, experiences, backgrounds, social networks and values. Younger generations are more likely to engage in risky and volatile strategies (Hambrick & Mason, 1984; Mishra & Jhunjhunwala, 2013), but they are better informed and technology savvy as they are accustomed with sophisticated and modern technology. The older ones are more conservative and possess valuable and necessary experience and connections that are important for the
company (Davidson et al. 2007, as cited in Hongxia & Wallace, 2009) but tend to involve in income increasing as they are more concerned with short-term performance. Hence, by expanding age diversity on the boardroom, the board’s aggregated human and social capital will increase.

However, prior empirical studies reported mixed results when studying the effect of age diversity on boards. Boardroom that has a higher age diversity provides comprehensive resources, balances risks and enhances the pipeline of expertise which lead to an improved decision making quality (Ararat et al., 2010; Kim & Lim, 2010). In contrast, Hafsi and Turgut (2013) reported that age diversity among directors lower the company’s social performance due to generation conflict.

Building upon the above indication, this study postulates that directors with diverse age will be sturdier than the homogenous one. Hence, the directors’ role in mitigating earnings management and agency problem can be strengthened.

\( H_6: \) Age diversity is negatively associated with earnings management.

3.5.2(c) Ethnicity Diversity

Terjesen et al. (2009) pointed out that individuals from different backgrounds or cultures (implying ethnicity) may hold different and unique human capital. In a similar vein, Abdul Rahman and Mohamed Ali (2006) stated that each ethnicity has its own religions, creeds and beliefs, customs and other attributes that could instil an individual character.

In any country, different cultures and religious are capable of influencing the corporate governance system. Malaysia is an exceptional country whereby the Malays dominate political environment, while the Chinese dominates the commerce and business industry. Haniffa and Cooke (2005) reveal that the Malays are less
individualistic compared to the Chinese since they obey the Islamic business ethics that encourage transparency in doing business. Chinese are more individualistic and secretive as their entrepreneurial skills have greater influence on the Malaysian economy. Despite Haniffa and Cooke’s justification together with the unique political and commerce domination, Abdul Rahman and Mohamed Ali (2006) found that ethnic diversity failed to mitigate earnings management that could possibly be caused by the individualistic behaviour among Bumiputera directors which contradicts the previous researchers’ justification.

Abdullah and Ku Ismail (2013) stated that the inclusion of various ethnic groups offers higher understanding on the culture and sensitivity brought by each ethnic. Marimuthu (2008) also suggest that an increase in ethnic diversity offers superior harmonisation, greater innovativeness and creativity, better quality of decision-making and oversee function which eventually lead to greater level of financial performance and reporting.

\( H_7: \) Ethnic diversity is negatively associated with earnings management.

### 3.5.2(d) Competency Diversity

In the effort of discharging superior board governance function, Carpenter and Westphal (2001) argue that a combination of diverse competencies and capabilities may increase the effectiveness of the boards and reduce agency problems. In fact, the MCCG 2007 required that the appointed directors to possess necessary skills, knowledge base and experiences to generate and structure the fittest strategy for the company.

Becker (1993) stated that the level of education reflects an individual’s intelligence which is underlined by human capital theory. Competence can be in the
forms of knowledge and experience and the level of education indicate the directors’ knowledge, cognitive orientation and skill base (Hambrick & Mason, 1984). A director is expected to be a well-educated individual (Fidanoski et al., 2014) to be able to evaluate financial reports (Hermawan, 2011), counsel and ask tough questions (Barton et al., 2004) and provide rich source of innovative ideas that lead to a unique perspective on strategic issues (Westphal and Milton, 2000 as cited in Post & Byron, 2015). Moreover, the market tend to react positively to those companies that appointed directors’ with professional qualification (Yermack, 2006).

Prior studies presented inconclusive results. Ghazalat et al. (2017) reported a significant and negative association between directors’ competency and earnings management which is in accordance with agency theory perspective. Buniamin (2012) reported no relationship between competency and earnings management. Ahmed (2013) found a positive relationship with the justification that most of the studied companies employed financial literate directors in cadre while some of the companies did not have one director who holds a financial-related degree which affected the result of the study. Based on the results of previous studies, it is confirmed that board effectiveness improved when there is a more diverse level of competency amongst the directors. Thus, the following hypothesis is formulated:

\[ H_8: \text{Competency diversity is negatively associated with earnings management.} \]

3.5.2(e) Nationality Diversity

More foreign directors were brought in the local business environment when there is a growing trend of globalisation and business expansion. Oxelheim et al. (2013) said greater financial internationalization can be achieved when more foreign directors are involved in the decision-making process because they have a higher
understanding of international business environment and the ability to bring in a larger pool of capital. In addition, foreign directors tend to exhibit independent thinking and bring different viewpoints to the boardroom due to their different background and experiences (Cox & Blake, 1991; Gul et al., 2011).

Foreign directors may also bring different values, norms and understanding as well as provide fresh perspectives on complex issues that may involve informational bias (Ruigrok et al., 2007). Accordingly, a nationality diverse board is able to alleviate earnings management practices since the board monitoring roles have been strengthened with board members who have different nationalities.

According to human capital theory, individuals from different backgrounds (implying nationality) may hold different and unique human capital (Terjesen et al., 2009). Nonetheless, as cited in Protasovs (2015), Lehman and Dufrene opined that cross-cultural communication problem may occur when the board members are nationally diverse. Forbes and Milliken (1999) stressed the linguistic difference that hampers the board’s monitoring performance. The proclamation is further concurred by Hooghiemstra et al. (2016) as they found that foreign directors led to higher earnings management mainly due to their lack of specific knowledge of national accounting rules and governances. Thus, foreign directors lessen the board’s ability in disciplining managers which can result in decreased effectiveness in monitoring the business process.

\[ H_9: \text{Nationality diversity is positively associated with earnings management.} \]

3.5.3 The Effect of Earnings Management on CSR

Stakeholder-agency theory may explain CSR as consequence of earnings management. Principally, the incumbent managers could anticipate that their position
might be jeopardised and opt to reinforce their managerial entrenchment. This action is harmful to the shareholders as managerial entrenchment permits the incumbent managers to escape from the shareholders’ control and eventually shrink the power owned by them (Morck et al., 1988; Shleifer & Vishny, 1989). Managerial entrenchment can be initiated by satisfying the stakeholders’ interest or demand, particularly social and environmental activities, which in turn create trust and privileged relationship with the stakeholders.

In the context of conflict of interest, managers prefer to overinvest in the effort to reinforce their entrenchment (Pawlina & Renneboog, 2005) and they normally invest in more resources for CSR activities (Cespa & Cestone, 2007; Prior et al., 2008; Surroca & Tribo, 2008). Managers recognise CSR activities as the instrument to reinforce their managerial entrenchment since it meets and satisfies the stakeholders’ demand. Moreover, CSR activities can also be seen as the device to develop trust and build closer connections with stakeholders that have the power in controlling significant resources for a company (Freeman, 1984). Similarly, signalling theory classifies CSR as the medium for the managers to project that the company are doing well (Setyawan, 2012). This technique deflects stakeholder attention from the poor quality of the earnings of the company towards the CSR performance of the company, helping managers to legitimize the firm and themselves. Thus, managers may overinvest in CSR with the objective of masking their discretionary behaviour and as a self-defence strategy.

Concentrating on the effect of earnings management on CSR, several prior studies proved that managers involved in this discretionary behaviour tend to engage in more CSR activities. Other than CSR delivering favourable media coverage, managers promote the sustainable actions with the intention of convincing and
pleasing the stakeholders, especially media and politicians (Cespa & Cestone, 2007),
disguising their opportunistic behaviours (Choi et al., 2013), ensuring their continuity
in their leadership position and avoid changes in the control of the company,
avoiding costly boycotts and activism as well as colluding with stakeholders with the
aim of reinforcing their entrenchment strategy (Gargouri et al., 2010; Martinez-
Ferrero et al., 2016; Prior et al., 2008; Surroca & Tribo, 2008). Stakeholders that are
also part of the board of directors may exercise their influence on the discontented
shareholders by protecting the incumbent managers as they have retained the
stakeholders’ confidence via satisfying their demand on social and environmental
concessions (Surroca & Tribo, 2008). This situation indicates that managerial
entrenchment is reinforced, thus, shareholders’ power deteriorated.

Based on this discussion, it can be noted that stakeholders possess vital role in
managers’ entrenchment strategy alongside their aggressive involvement in CSR. To
make themselves entrenched in the company, managers shall associate themselves
with various CSR activities to build close relationships with the stakeholders.

Relying on these considerations, it can be inferred that CSR grants them with
a prevailing tool for meeting the stakeholders’ demand and used CSR as an
entrenchment mechanism. Therefore, CSR serves as the consequence of earnings
management.

\[ H_{10}: \text{Earnings management is positively associated with corporate social responsibility.} \]
3.5.4 The Moderating Effect of Corporate Reputation on the Relationship between Earnings Management and CSR

The results for relationship between earnings management and CSR are inconclusive. Previous studies documented that the relationship became positive when CSR was being misused as an entrenchment mechanism to conceal earnings management and for the managers to gain support and protection from multiple stakeholders (Choi et al., 2013; Martinez-Ferrero et al., 2016; Prior et al., 2008). Meanwhile, previous studies clarified that the relationship became negative as companies that highly practiced and disclosed CSR are less likely to be involved in earnings management (Chih et al., 2008; Gargouri et al., 2010; Salewski & Zulch, 2014). Due to the inconclusive results, this study incorporated corporate reputation (CR) as a moderating variable that could potentially affects the strength of the relationship between earnings management and CSR.

Sustaining and achieving to be a reputable company is highly substantial and extremely challenging. Every business entity aims to be known as a reputable company in the society as this is crucial for the long-term survival in this competitive business market. Companies that are pursuing to enrich their corporate reputation (CR) are required to not only concentrate on economic and legal responsibilities, but also need to fulfil ethical and social responsibilities (Schreiber, 2008). Additionally, CR is significantly crucial for companies’ competitive edge. Incorporating legitimacy theory, Guthrie and Parker (1989) suggests that companies are expected to act in a socially acceptable manner to gain approval of their goals and have a comfortable place in society and guarantee business survival. Therefore, it is necessary for these reputable companies to provide a positive impression to the public that they are operating in a socially responsible manner.
As for companies that are reputable, the need to sustain their image is much more crucial and difficult. Some of the underlying factors are that society is most likely to pay more attention and put much pressure on companies with higher reputation (Graafland, 2017) as they have been perceived as a socially responsible company or a good company as a whole, due to their good image. Multiple stakeholders are targeting them as they are more visible than the poor reputable companies. Therefore, they are under great pressure to project ethical behaviours and engage in more socially responsible activities. Previous studies also reported that reputable companies are prone to invest more in CSR activities as an effort to enhance and maintain their legitimacy and reputation (Kansal et al., 2014; Abu Bakar & Ameer, 2010). This indicates that reputable companies are endeavouring to sustain their good image.

Likewise, due to their visibility, these reputable companies are most likely to be noticed when they did something that is of controversial and unethical like the earnings management. Realising that CSR could appease the negative reaction, these companies shall solicit and resort to more CSR disclosure because they are very cautious and concern about their reputation. This situation is in line with legitimacy theory that state company are returning the favour to the stakeholders in order to appear and give the impression of being legitimate. Hence, CR shall strengthen the relationship between earnings management and CSR as they are trying to protect and sustain their reputation from the side effects of earnings management that could destroy or tarnish their reputation.

\[ H_{11}: \text{Corporate reputation moderates the relationship between earnings management and corporate social responsibility.} \]
3.6 Conclusion

This chapter explained the theoretical platform of the research documented in this study. This study chose agency theory and human capital theory as the underlying theories for the effect of board diversity on earnings management. Stakeholder-agency theory and signalling theory were selected as the underlying theories for the effect of earnings management on CSR while legitimacy theory supports corporate reputation as the moderating variable for the latter relationship. By employing agency theory and human capital theory, this study posited that all board diversity attributes (except multiple directorships) may have negative relationships with earnings management. In accordance with stakeholder-agency theory and signalling theory, this study suggested that CSR will increase as a result of earnings management practices. Lastly, corporate reputation may strengthen the relationship of earnings management and CSR that in favour of legitimacy theory. In conclusion, the selected theories are highly relevant and reliable for this study to hold to achieve the research objectives.
CHAPTER FOUR
RESEARCH METHODOLOGY

4.1 Introduction
This chapter begins with an explanation of research methodology which comprises of research philosophy and research approach. This chapter proceeds with an extensive discussion on sample design, source of data, and data collection. The measurement of variables and data analysis will be discussed in this chapter. The methodology for this study is quantitative and conducted based on the companies’ 2016 annual report.

4.2 Research Paradigm
To achieve the research objectives and address the hypotheses, an extensive research process was planned. A series of linked stages in a linear manner is better known as the research process (Saunders, Lewis, & Thornhill, 2009). After recognising the research questions (as shown in Chapter 1) and critically reviewing the literature (Chapters 2), the research hypotheses were developed and explained (Chapter 3). As such, the next step is to build an onerous and fitting research design to test the hypotheses. To facilitate the researcher’s position in knowledge developing for this research study, a comprehensive ‘research onion’ has been utilised (Saunders et al., 2009) (see Figure 4.1).

Utilising the ‘research onion’ as the main reference for developing the methodology, the principles of positivism and deductive approach were applied in this study. The research technique used is an archival research strategy where it uses the documents (annual reports) as the principal source of data. This study used a single data collection technique from the secondary data sources (called mono
method) garnered from the Malaysia public listed companies’ annual reports. A cross-sectional study is considered since the time frame captured is at a particular time (specifically the year 2016). The justification for these attributes is described as follows.

**Figure 4.1. The Research Onion**
Source: Saunders, Lewis & Thornhill (2009)

### 4.2.1 Research Philosophy

E lecting and justifying the chosen research philosophy adopted by the researchers is seen to be an important element in performing social science research as it enables the researchers to understand the investigated phenomenon and to determine the fittest research tool. The research philosophy comprises of substantial assumptions on how the researchers view the problem. The idea of a research philosophy is that it provides the assumptions to support the research strategy while methods are known as part of the strategy (Saunders, Lewis, & Thornhill, 2012). Flower (2009, p. 1) defined research philosophy as the “perceptions, beliefs, assumptions, the nature of reality and truth (knowledge of that reality)” that affect the way a research is undertaken, from the design all the way to the conclusions. Easterby-Smith, Thorpe
and Lowe (2002) proclaimed three arguments on the eminence of research philosophy. Firstly, it aids the researcher to refine and identify research methods that are related to the research phenomenon. Secondly, with the knowledge of research philosophy, the researchers are able to recognise the difference between research methodologies and methods that could make them determine the most suitable methods. Lastly, the researchers could gain new input or knowledge by employing a new methodology of which they have no previous experience on.

Research philosophy links to the researchers’ perspective as well as the potential influence on their studies. When attempting research of any nature, it is crucial to take into account various research paradigms because these paradigms describe assumptions, truth, and the nature of reality. The respective paradigms are epistemology, ontology, and axiology (Flower, 2009).

The epistemology and ontology paradigms are conversed in this section to provide an in-depth understanding of this study’s research philosophy. The discrepancy between positivistic and interpretivist paradigms is normally caused by the variations in their philosophical assumptions, particularly in epistemological and ontological assumptions shown in Table 4.1.

Blaikie (2007, p. 8) has defined epistemology as “…the possible ways of gaining knowledge of social reality, whatever it is understood to be”. Ponterotto (2005) defined epistemology as the association between the “would-be knower” (researcher) and the “knower” (research participant), to wit, researcher could study the participant and topic with no bias (objectivism) because the researcher will objectively judge the expected association between the hypothesised variables being researched using appropriate statistical examinations. Also, the data gathered from
objects that exist separately from the researcher are less open to bias, hence, more objectivity (Ponterotto, 2005; Saunders et al., 2012).

Table 4.1

<table>
<thead>
<tr>
<th>Positivistic and Interpretivist Research Paradigm</th>
<th>Positivistic Paradigm</th>
<th>Interpretivist Paradigm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Epistemological Orientation</strong></td>
<td>Positivism: Independent relationship between Knower (researcher) and Known (what is being researched)</td>
<td>Interpretivism: Knower (researcher) interacts with Known (what is being researched) resulted in a non-independent relationship</td>
</tr>
<tr>
<td><strong>Ontological Orientation</strong></td>
<td>Objectivism: Knowledge is objective and unique. Social facts generate objective reality</td>
<td>Constructionism: as depending on the individual’s interpretation from his social world</td>
</tr>
<tr>
<td><strong>Research Methods</strong></td>
<td>Deductive approach: Theory testing</td>
<td>Inductive approach: Theory generation</td>
</tr>
<tr>
<td><strong>Purpose</strong></td>
<td>The researcher will predict and explain changes from the forensic knowledge of participants</td>
<td>The researcher will interview the participants and recognise the value and depth of individual content</td>
</tr>
</tbody>
</table>

Source: Bryman (2012) and Collins and Hussey (2009)

Ontology involves the belief of reality. Ponterotto (2005, p. 130) mentioned that ontology addresses the question of: “What is the form and nature of reality and what can be known about that reality”. In a more current definition, ontology can be defined as “…as the specification of conceptualization, used to help programs and humans share knowledge” (Flahive et al., 2011, p. 618). In research, there will be a number of ontological assumptions which will influence the researcher’s view on what is real (Saunders et al., 2012).

In positivism, epistemologically, it is expected that studies are investigated with a complex sets of facts and relationships that are independent from the researcher (Hussey & Hussey, 1997; Smith, 1998). Ontologically, since the researcher did not have any idea on what to discover, he assumed that there are
unique realities out there waiting to be discovered. Thus, in positivism, relevant theories and or prior empirical evidence shall be the main source for the researcher to develop hypotheses (Blaikie, 2007; Bryman, 2012; Collins & Hussey, 2009).

On the other hand, interpretivism is defined as a paradigm that studies the essential disparity between natural (empirical) world and social world. Contrary to positivism, interpretivist research inclines to operate lesser samples and is a qualitative research method that indicates many truth and realities since the data collected are descriptive, explanatory, and contextual words from interview data.

Following this scenario, this study is positivism as it tests hypotheses empirically and uses secondary data collected from the PLCs annual reports that could reduce bias. The collected data comprises of real values (numbers) of independent variables. The conjuncture of these variables is developed based on the rationale theoretic perspective and empirical evidence in which the process of constructing the data was separated from the would-be-knower. Therefore, the researcher will objectively judge the expected association between hypothesised variables using appropriate statistical examinations.

4.2.2 Research Approach

In order to initiate research analysis, two complete approaches have been illustrated (Saunders et al., 2009). The deductive approach is a theory and hypothesis that are developed and designed to test hypotheses. Conclusions and hypotheses are drawn through logical reasoning and testable existing knowledge. The data and theory linked in this approach are associated with a quantitative research approach. On the other hand, inductive is the approach where researchers gather the data and build theories from the data analysis which is in the opposite direction from deduction.
where the theory is the outcome of research. Meanwhile, the data and theory linked in deductive approach are associated with qualitative research approach (Bryman & Bell, 2007).

After reviewing prior literature, a deductive approach was implemented in this study. The process of deduction is when the researcher deduces hypotheses based on what is known (in the context of this study, agency theory, human capital theory, stakeholder-agency theory, signalling theory and legitimacy theory) then translate them into operational terms. The translation process or hypotheses testing involved data collection and data analysis which resulted in research findings that reflect the selected theories. All of these procedures are similar to what Bryman (1988) explained for the quantitative research process.

Observing the occurrence of financial misreporting via disclosures in secondary data sources (i.e. annual reports and documents filed to stock exchanges and governmental agencies) seems to be the fittest, less biased, and most feasible as compared to collecting data from primary sources (questionnaire or interview) since earnings management involves ethical issues. The idea is that should the data be collected via interviews, the respondent may either transmit the information in a biased manner or withhold it entirely which will result in falsified answers. Moreover, different perspectives and omission of salient topics could also occur from the process of gathering data through interviews (Mikkelsen, 2005). Hence, grounded on prior studies, the use of secondary data source is preferred (Buniamin et al., 2012).

In the matter of data analysis, quantitative methods are deemed to be the most suitable for this study. Creswell (2009) posits that quantitative methods fit problems which call for identification factors that influence an outcome. Thus, it accords with
the purpose of this study that investigates on the cause-effect relationships (board diversity and CSR). The following section will discuss the process of designing a research sample.

4.3 Sample Design

Sampling refers to a process that uses selected samples for a certain population in a research project (Ross, 2005). To generate effective and efficient results for the research project, it is important to use sampling rather than the whole population elements. As demonstrated by Sekaran and Bougie (2010), the use of sampling may help to reduce the risks of error and other factors such as time limitation, insufficient budget, and human resource factors. Therefore, the sampling design process includes five steps that are shown sequentially in Figure 4.2. These steps are closely interrelated and applicable to all facets of research including this study.

![Sampling Design Process](Image)

Figure 4.2. Sampling Design Process
Source: Sekaran and Bougie (2010)
4.3.1 Population

In an earlier study, the target population is a whole set of elements that are selected by the researchers for the investigate purposes (Cox, Elliehausen, & Wolken, 1989). The definition is also supported and further developed by Sekaran and Bougie (2010). Sekaran and Bougie (2013) indicated that population is defined as an entire group of people the researchers want to investigate to compose conclusions and any set of persons or subjects having a common observable characteristic. Therefore, Malaysian public listed companies (PLCs) in the Main Market of Bursa Malaysia serve as the population of this study.

The decision of choosing Malaysian PLCs as the population of this study was based on several justifications. First, the Malaysian Code on Corporate Governance (MCCG) targets and applies to all listed companies. Hence, continuous improvements made to the MCCG provide the opportunity to examine the effect of the new recommendations on business operations and disclosure decisions. The effectiveness of MCCG is perhaps important in controlling earnings management since this immoral activity could be executed by directors and management itself. Focusing on the board directors as a supervisory mechanism towards earnings management, MCCG aims to enhance and improve the effectiveness of the boards of PLCs in Malaysia. Secondly, these listed companies are obliged to prepare and submit their annual reports to the Bursa Malaysia website. Thirdly, Bursa Malaysia mandated PLCs to report the CSR activities in the annual report. The Prime Minister announced his mandate in his 2007 budget speech whereby the listed companies may refer to the Bursa Malaysia’s CSR Framework that documented the four (4) main focal areas for CSR, namely, environment, workplace, community and marketplace (Bursa Malaysia, 2006).
4.3.2 Unit of Analysis

Sekaran (2003) recognised the unit of analysis as the level of accumulation of data collected during the subsequent data analysis stage and the research question will determine the unit of analysis for the research. The main and embedded unit of analysis for this study is the company.

4.3.3 Sampling Frame

Sampling frame reflects the physical representation of the selected population (Sekaran & Bougie, 2010, 2013). Particularly, it is a list of units or elements that define the target population. The sampling frame of this cross-sectional study is the year 2016 of PLCs Bursa Malaysia Main Market. The sampling frame for each sector of listed companies in the Main Market of Bursa Malaysia is documented in Table 4.2.

Table 4.2
Sampling Frame of Listed Companies in Main Market of Bursa Malaysia

<table>
<thead>
<tr>
<th>Sector</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Products</td>
<td>124</td>
</tr>
<tr>
<td>Industrial Products</td>
<td>223</td>
</tr>
<tr>
<td>Construction &amp; Infrastructure</td>
<td>50</td>
</tr>
<tr>
<td>Finance</td>
<td>32</td>
</tr>
<tr>
<td>Trading &amp; Services</td>
<td>187</td>
</tr>
<tr>
<td>Technology</td>
<td>30</td>
</tr>
<tr>
<td>Hotels</td>
<td>4</td>
</tr>
<tr>
<td>Properties</td>
<td>97</td>
</tr>
<tr>
<td>Plantation</td>
<td>40</td>
</tr>
<tr>
<td>Mining</td>
<td>1</td>
</tr>
<tr>
<td>Real Estate Investment Trust (REIT)</td>
<td>18</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>806</strong></td>
</tr>
</tbody>
</table>
4.3.4 Sampling Technique

For sampling technique, there are two main types of techniques for the researchers to perform their study which are probability sampling and non-probability sampling. Probability sampling is known as simple random sampling that comprises of systematic random sampling and stratified random sampling. Every element in the population has a known and equal chance of being selected as a subject. This technique reflects better technical superiority and minimises sampling bias and sampling error (Sekaran, 2003). Meanwhile, researchers normally opt for non-probability sampling when probability sampling is unsuitable and impossible to be used. The elements in the non-probability sampling population do not have any probabilities for the respondents to be randomly chosen as sample subjects. Therefore, the findings from the study of this sampling cannot be assertively generalised to the population (Sekaran, 2003).

Following the above discussion, under probability sampling, the stratified random sampling is found to be the most relevant sampling technique for this study to attain the sample population that best represents the entire studied population. Stratified random sampling involves a population being divided into subpopulation or subgroups, called strata with a sample randomly selected from each stratum (Lind, Marchal, & Wathen, 2008).

The rationalisation in choosing stratified random sampling is that it satisfies this study’s aim to conduct analysis from the context of accuracy, time, and convenience. Since each element or unit in the population has a chance to be selected randomly and independently, this quality helps the researchers to reduce bias from the selection sample due to the fact that the unequal sampling will affect the accuracy of the study (Kumar, 2005; Sekaran, 2003). Moreover, it is also known to diminish
the errors in the statistical estimates calculated from the sample because the variability within the sample is lower compared to the variations when dealing with entire population, hence, permits the creation of a sample that is representative of the various sub-groups of interest in the population (Hancock & Mueller, 2010; Sekaran, 2003).

4.3.5 Sample Size

The calculation of sample size for a study is critical as it may affect the result of the study. As mentioned by Ross (2005), with the purpose of getting an accurate result from the research project, a proper sampling design should adopt an effective sample size.

In the year 2016, there were a total of 806 companies listed on the Main Market. The process of determining the sample size was to firstly exclude the companies in the Financial Sector, PN17\(^{10}\) companies (18 companies), and GN3\(^{11}\) companies (3 companies). The rationalisation in excluding these companies is to extract the CSR disclosure and information from the public listed companies’ annual reports that have financial stability. A sample of companies will then be selected based on the calculations made for other sectors.

By using the stratified random sampling technique, 270 companies were selected for the year 2016 and this amount of sample can be considered as appropriate given that the size of population required by Krejcie and Morgan (1970) is a sample size of 260.

\(^{10}\)PN17 or Practice Note 17/2005 is circulated by the Bursa Malaysia that indicates companies that are under financial difficulty. PN17 companies are for the Main Market.

\(^{11}\)Whilst GN3 companies (filed under Guidance Note 3), are the financial distress companies for ACE Market.
All listed companies on Bursa Malaysia are classified into 9 types of sectors (after excluding finance and REITS due to their unique features in terms of business activities, different requirements, rules and regulations with respect to financial reporting) based on the nature of their business such as Consumer Products, Industrial Products and Construction and Infrastructure (refer Table 4.3 for full list). Moreover, selected companies will be categorised into two categories which are “sensitive industry” and “non-sensitive industry” (Ahmed Haji, 2013; Hackston & Milne, 1996; Shamil, Shaikh, & Ho, 2012) in order to get equal portion for each type of industry. Furthermore, industries that have less than eight companies were also excluded from the analysis which is also consistent with previous studies\(^{12}\) (Davidson, Goodwin-Stewart, & Kent, 2005). Hence, the hotel and mining industries are eliminated.

Then, the final sample size is determined by stratifying the final sample size of 270 companies (135 companies as sensitive industry and another 135 companies as non-sensitive industry). The relative frequency for each industry is calculated at this stage to compute the breakdown of sample size for each sector from each industry, i.e. the relative frequency for each sector in sensitive industry is equal to the Number of Size divided by the Sub-Total, (for instance, the relative frequency for Industrial Products sector is equal to 223/450 = 49.6). In determining the final sample using proportionate stratified sampling, it can be computed by multiplying the percentage of proportionate stratified sampling and Sub-total, (for instance, the final sample size for Industrial Products sector is equal to 49.6% × 135 = 67). The computation is applied to both types of industries. The breakdown of sample companies according to their sector is presented in Table 4.3.

\(^{12}\) Upon ensuring the efficiency in accruals model estimation, any industries with less than 10 observations (Jones, 1991).
Table 4.3
Analysis of Sample by Sector

<table>
<thead>
<tr>
<th>SECTOR</th>
<th>POPULATION</th>
<th>PROPORTIONATE STRATIFIED SAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitive Industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Industrial Products</td>
<td>223</td>
<td>49.6</td>
</tr>
<tr>
<td>2. Trading &amp; Services</td>
<td>187</td>
<td>41.6</td>
</tr>
<tr>
<td>3. Plantation</td>
<td>40</td>
<td>8.9</td>
</tr>
<tr>
<td>Sub-Total</td>
<td>450</td>
<td>100.0</td>
</tr>
<tr>
<td>Non-Sensitive Industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Consumer Products</td>
<td>124</td>
<td>41.2</td>
</tr>
<tr>
<td>5. Construction &amp; Infrastructure</td>
<td>50</td>
<td>16.6</td>
</tr>
<tr>
<td>6. Technology</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>7. Properties</td>
<td>97</td>
<td>32.2</td>
</tr>
<tr>
<td>Sub-Total</td>
<td>301</td>
<td>100.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>751</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.3.6 Sample Procedure

The attention of this study is to investigate the antecedent and consequence of earnings management. Board of directors’ diversity attributes act as the antecedents whereas CSR serves as the consequence of earnings management. In the effort of selecting the sample, some of the criteria are:

1) The sample companies should be regarded as the public listed companies from the main market of Bursa Malaysia for the entire period of this cross-sectional study, from 2015 to 2016. This is to ensure consistency and the availability of the companies’ annual report to examine other developed hypotheses. The rationality of also including 2015 financial information is to estimate the measurement of earnings management (discretionary accruals) which requires lagged data.
2) The selection of sample is based on the proportionate stratified sampling which could provide the warrant of fair representation whereby companies in each sector are taken into account proportionately.

3) In determining which companies to be included in the sample of 270, a random sampling technique will be executed. The samples are listed in the Microsoft Excel worksheet and to generate the random sampling, the =RAND() function will be used.

### 4.4 Source of Data

This section carefully addresses the data type and several issues in relation to the data selection. Secondary data were selected as this study believes the data are able to provide data robustness and assist this study in providing strong and reliable empirical findings.

Secondary data is the data that were collected and made readily available from other sources such as literature, industry surveys, compilations from computerised databases and information systems and computerised or mathematical models of environmental processes. Meanwhile, primary data require more human and non-human resources to gather it. Secondary sources copy, interpret, or judge materials are found in primary sources. The major advantages of secondary data are that it is inexpensive and time-efficient than primary data since it provides larger and higher-quality databases that would be unfeasible for any researcher to collect on their own (Ober, 2008). However, the information in secondary data can be exaggerated or biased which can lead to unreliability issues. Despite this setback, the financial section of the annual report has been reviewed by an independent, authorised account to ensure that the document reported honest information.
(Dagsson, Larsson, & Sällberg, 2011). Hence, secondary data will be extensively used in this study as the main source to conduct this empirical study (mainly computing the discretionary accruals for earnings management measurement) as Adams and Harte (1998) stress that annual report is the main medium of communication with the public and it is also widely available and accessible.

The respective secondary data for this study will be attained from reliable public information from few sources: (1) sample of public listed companies’ annual report and sustainability report which will be retrieved and downloaded from Bursa Malaysia’s website; (2) Thomson Reuters DataStream database.

4.5 Data Collection

4.5.1 Content Analysis Method

This study is a quantitative research whereby the data will be collected by analysing the samples’ annual reports. Methodologically, content analysis method is considered as the most suitable method for this study.

Gathered from previous research, Guthrie and Abeysekera (2006) defined content analysis as “a technique for gathering data contained in an annual report and involved codifying qualitative and quantitative information pre-defined categories in order to derive patterns in the presentation and reporting of information”. Krippendorff (1980) opined content analysis codifies both quantitative and qualitative information into pre-defined categories in order to track patterns in the presentation and reporting of information. According to Gray et al. (1995), content analysis is a method that can be employed to measure the content of communication objectively, systematically, and qualitatively. Moreover, Weber (1988) outlines content analysis as the procedure of codifying pieces of writing into various groups
or categories based on the selection criteria. Researchers also employed content analysis to observe the occurrence of words, phrases, visual images, illustrations, tables, photographs, and others from a variety of materials (Kondracki, Wellman, & Amundson, 2002; Powell, 1997).

Prior studies have consistently employed content analysis method commodiously to explore the number of companies that reported their CSR activities (Abdifatah, 2013; Abdulla, Mohamad, & Mokhtar, 2011; Amran & Devi, 2008; Deegan, 2002; Esa & Mohd Ghazali, 2012; Gray et al., 1995; Guthrie & Parker, 1989; Hackston & Milne, 1996; Haji & Ghazali, 2013; Haniffa & Cooke, 2005; Kansal et al., 2014; Milne & Adler, 1999; Sadou, Alom, & Laluddin, 2017; Said, Zainuddin, & Haron, 2009; Saleh et al., 2010).

However, previous studies also identified that the reliability of content analysis appears to be inadequate (Milne & Adler, 1999). Therefore, the reliability and validity of content analysis need to be considered, especially on the measurement techniques. Hackston and Milne (1996) assert that companies’ annual reports vary widely in terms of quality and format. This criticism explains that the proportion of pages in the annual report is problematic since there is a difference in font size, margin width, number and size of photos and graphics. Pages that included with photos and graphics might not have information on the CSR activities. On the same page, Milne & Adler (1999) state the validity of utilising the number of words to measure CSR disclosure is doubtful because without examining sentences, words counts would not express the meaning of the context. These methods are commonly used to measure the quantity of CSR since it looks into the amount, volume, or extent of the reporting (Hooks & van Staden, 2011).
Haniffa and Cooke (2005) stated that measuring the extent of CSR only addresses the presence or absence of the CSR information. Following to the notion, Saleh et al. (2010) concurred and advocated that disclosure analysis requires going beyond only counting the numbers of disclosures made and therefore, concentrates on assessing what and how the information is disclosed. Hasseldine, Salama and Toms (2005) examined the impact of CSR disclosures on the UK companies’ reputation and reported that the quality of CSR disclosure is far more important (37.5%) than the mere quantity of disclosures (32.4%) as the latter seems to be insufficient.

Due to the limitations above, this current study measures the CSR disclosure using the quality of disclosure via disclosure checklist as it locates the CSR reporting assortment (Haniffa & Cooke, 2005). Moreover, checklist facilitates in differentiating between low-quality and excellent reporting of CSR items (Hooks & van Staden, 2011).

4.5.2 Time Horizon
This study aims to provide timely empirical evidence, therefore, the data of this study will be taken from the annual report for the year ended 2015 until 2016. This is a cross-sectional study and requires a two-year window period because it is necessary to have the information from prior year (2015) to properly measure earnings management.

4.6 Operationalisation and Measurement of Variables
This section presents the measures of board diversity, earnings management and CSR as well as corporate reputation. In conformity with the hypotheses developed in
Chapter 3, board diversity indices will be constructed on the guidance of Hafsi and Turgut (2013), earnings management using the modified Jones model and constructed checklist for both CSR and corporate reputation.

4.6.1 Measurement of Boards Diversity

Board diversity indices are constructed based on the reference by Hafsi and Turgut (2013) where the researchers examined the effect of diversity-of-boards and diversity-in-boards.

4.6.1(a) Measurement for Diversity-of-boards

This study includes four structural attributes of the board of directors to construct diversity-of-boards indices. The measurements are discussed as follows.

4.6.1(a)(i) Board Leadership

Firstly, most prior studies used CEO duality as the proxy for board leadership. In contrast, this study uses a broader measure which is the independence of the chairman according to studies conducted by Habbash et al. (2012) and Al-Dhamari and Ku Ismail (2014). It would not be appropriate to use CEO duality as the proxy since most companies in this sample (96%) have separated the two positions (chairman and CEO) and chairman is a non-executive director, in compliance with the recommendation made by the Malaysia regulators. Chairman that is independent indicates that he does not have any monetary relationship with the company except for remuneration. In addition, the details as to whether the chairman is independent or not clearly shows in the Director’s Profile in annual report. Hence, measurement for board leadership is a binary variable with a value of 1 should the chairman is an
independent director and 0 for otherwise (Al-Dhamari & Ku Ismail, 2014; Habbash et al., 2012).

4.6.1(a)(ii)  Multiple Directorships
A director with at least one additional directorship in other listed companies is identified to have multiple directorships and the details regarding the directorships of the directors clearly recorded in the annual report. This detail is clearly stated in the directors’ profile in the annual report. As proposed by previous studies (Baatour et al., 2017; Franklin, 2013; Hashim & Rahman, 2011; Jamaludin et al., 2015; Kamardin & Haron, 2011; Machuga & Teitel, 2009; Mohamad et al., 2012), multiple directorships are measured by the proportion of directors on the board with directorships in other companies to the total number of directors on the board of the company.

4.6.1(a)(iii)  Board Size
As most previous studies (Abdullah & Ku Ismail, 2016; Al-Dhamari & Ku Ismail, 2014; Mohamad et al., 2012), this study accounts board size as the total number of directors on the board of the company.

4.6.1(a)(iv)  Non-executive Directors’ Commitment
The last variable for diversity-of-boards is NEDs commitment. According to prior studies done by Habbash et al. (2012), the variable is measured using two measurements which are the NEDs private meeting frequency and their fees. This study will not use the former measurement as Malaysian PLCs do not typically hold different meetings for the NEDs. Hence, this study opted for the former measurement
and computed the fees by the natural logarithm of total fees paid to NEDs divided by the total number of NEDs. Rationalisation behind this operationalization is that higher fees paid to the NEDs could increase their commitment to monitoring the management, hence, alleviate earnings management.

4.6.1(b) Measurement for Diversity-in-boards

In relation to diversity-in-boards, stimulated by the studies conducted by Harjoto, Laksmana and Lee (2014) and Fidanoski et al. (2014), the board diversity will be measured using Blau’s index. The rationalisation of choosing Blau’s index (Blau, 1977) as the measurement for board diversity is that it has been suggested as the finest measure of diversity to capture variations within a group of people (Miller & Triana, 2009). Thus, this is coherent with the objective of this study which is to measure how diverse the demographic attributes are within a board (gender, age, ethnicity, competency, and nationality).

Blau’s index is calculated using the following formula:

\[ 1 - \sum P_i^2, \]

Where \( i \) denotes the number of categories used to attribute diversity, and \( P \) is the proportion of board members in each category. The heterogeneity (diversity) index takes on values between zero and one, while an index that has a value of zero when there is only one category within a diversity attribute, shows that the group is homogenous. A more heterogeneous group can be determined when an index value is closer to the value of one. Diversity indexes maximum values are smaller than one and differ depending on a number of categories in each attribute and the degree of representation in each category (Harjoto et al., 2014).
The computation using Blau’s index of heterogeneity can be further explained as follows. Using gender diversity as the example, a board consist of 4 male directors and 2 female directors which in total of 6 directors in a boardroom.

Gender diversity = 1-[(4/6)^2 + (2/6)^2]

= 0.44

Since the diversity indexes comprise of different ranges, each index was standardised to have the same value ranging between zero and (K - 1)/K, the maximum amount. K is the number of categories (Harjoto et al., 2014; Harrison & Klein, 2007; Miller & Triana, 2009). A detailed discussion for each attribute is provided in the next sub-sections. Lastly, this study classifies low or high diversity by looking at half of the maximum range for each attributes.

Maximum range for gender diversity = (2 – 1)/2

= 0.5

4.6.1(b)(i) Gender Diversity

One of the most common demographic diversity is gender diversity and this is measured by the proportion of individuals in each category of male or female. The range of Blau’s index for gender diversity is from 0 if only one gender (male or female) is on the board of directors to 0.50 if an equal number of male and female is on the board of a company.

4.6.1(b)(ii) Age Diversity

Directors’ age is categorised into five level of ages in accordance with a study conducted by Harjoto et al. (2014). The value of the Blau’s index for age diversity
can range from 0 when only one type of age is represented and to a maximum of 0.80 when age is in equal numbers to all five ages represented on the board.

4.6.1(b)(iii) Ethnicity Diversity
Due to ethnic diversity, Malaysia has been known as multicultural nation. According to the Department of Statistics of Malaysia, Malaysian ethnicity encompasses of three main races which are the Malays (69.1 per cent), Chinese (23.0 per cent), and Indian (6.9 per cent), and others (1.0 per cent). Hence, the value of the Blau’s index for ethnic diversity can range from 0 when only one ethnic group is represented and to a maximum of 0.75 when the ethnicity of directors is in equal numbers in accordance with all four ethnic groups in the board.

4.6.1(b)(iv) Competency Diversity
The highest expertise of directors is measured for the directors’ competency (Harjoto et al., 2014). Five groups of expertise which are financial, engineering, legal, management, and other expertise (i.e. research, technology, medical, consulting and others) are accounted. The value of the Blau’s index for competency diversity range from 0 when only one expertise in the board to maximum of 0.80 should all expertise is equally represented in the board.

4.6.1(b)(v) Nationality Diversity
This study interprets nationality diversity as local and non-local directors (Kaczmarek, Kimino, & Pye, 2012). Therefore, Blau’s index can range from 0 should only one nationality is on the board and the maximum of 0.50 should there is
an equal number of local and non-local directors represented on the board. Table 4.4 summarises the measurements for board diversity attributes used in the present study.

Table 4.4
Description of the Board Diversity Attributes Indices

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diversity-of-boards</strong></td>
<td></td>
</tr>
<tr>
<td>Board leadership</td>
<td>1 if the chairman is an independent director and 0 for otherwise</td>
</tr>
<tr>
<td>Multiple Directorships</td>
<td>The proportion of directors on the board with directorships in other companies to the total number of directors on the board of the company</td>
</tr>
<tr>
<td>Board Size</td>
<td>Total number of directors on the board of the company</td>
</tr>
<tr>
<td>Non-executive Directors (NEDs)</td>
<td>Natural logarithm of total fees paid to NEDs divided by the total number of NEDs</td>
</tr>
<tr>
<td><strong>Diversity-in-boards</strong></td>
<td></td>
</tr>
<tr>
<td>Director gender</td>
<td>Using Blau’s index with a categorisation of male and female.</td>
</tr>
<tr>
<td>Director age</td>
<td>Using Blau’s index with a categorisation of five sub-groupings: under 40 years old, 40 to 49, 50 to 59, 60 to 69 and over 70 years old.</td>
</tr>
<tr>
<td>Director ethnicity</td>
<td>Using Blau’s index with a categorisation of three race categories: Malay, Chinese, Indian and others.</td>
</tr>
<tr>
<td>Director competency</td>
<td>Using Blau’s index with a categorisation of directors’ type of services and employment categories into five subgroupings: financial, engineering, legal, management and other expertise (i.e. research, technology, medical, consulting and others).</td>
</tr>
<tr>
<td>Director nationality</td>
<td>Using Blau’s index with a categorisation of foreign and domestic directors.</td>
</tr>
</tbody>
</table>

4.6.2 Measurement of Earnings Management

To gauge the level of earnings management, it will be computed using the modified Jones (1991) model. Dechow et al. (1995) introduced the Modified Jones Model, which has become one of the most widely-used models in earnings management research to compute discretionary accruals which is the proxy for earnings
management in this study. The central critique of Jones’ model is that its failure to locate the managers’ discretion of the company’s revenues.

The Modified Jones Model explains that a weakness of the Jones (1991) model lies in its inability to capture the impact of sales-based manipulations. This model modified the initial one by adjusting the sales based on the movement of the receivables amount. Moreover, different from the Jones Model, Modified Jones Model assumes earnings management resulted from the movement in credit sales in the event period while the initial model assumed that all revenues are non-discretionary and discretion is not exercised over revenue in either the estimation period or the event period (Dechow et al., 1995). The Jones Model is only focused on bad debt expenses manipulation and failed to consider if earnings management was carried out when sales are manipulated. Hence, Dechow et al. (1995) modify the Jones model by removing errors that rose when discretion is applied over revenue via credit sales.

Methodologically, following Jones (1991) and Dechow et al. (1995) total accrual (TA) is defined as:

$$ TA_{i,t} = EBXI_{i,t} - CFO_{i,t} $$

where TA is total accruals for a specific company and industry which is equal to the earnings before extraordinary items (EBXI) minus cash flow from operations (CFO), $i$ is industry and $t$ is the year. Ordinary least square (OLS) analysis was run to entire industries for the estimation of the fitted values (coefficients of $\alpha_1$, $\alpha_2$ and $\alpha_3$). Appendix F reports the regression coefficient estimation for each industry in this study’s sample. DACC is then calculated accordingly.
Originally, the standard Jones model used the following procedure to detach the discretionary accruals ($DACC$) from the non-discretionary ($NDA$):

$$NDA_{i,t}/A_{i,t-1} = \alpha_1(1/TA_{i,t-1}) + \alpha_2(\Delta SALES_{i,t}/TA_{i,t-1}) + \alpha_3(PPE_{i,t}/TA_{i,t-1}) + \varepsilon_{i,t}$$ (2)

where $TA_{i,t-1}$ represents the total assets of firm $i$ in period $t-1$ or also known as the lagged assets that act as a scaling factor, and this is used as a deflator to correct potential problems of heteroscedasticity; $PPE_{i,t}$ represents the PPE of firm $i$ in period $t$; $\Delta Sales$ is the change in sales for firm $i$ in period $t$.

Following the failure of Jones’s model, Dechow et al. (1995) improved the accruals model introduced by Jones (1991) by relaxing the assumption that revenues are not subject to managerial discretion. The TA uses the changes in sales minus accounts receivable (which are used to measure the growth of the company, because its working capital is closely linked to sales), and minus the item PPE, which is used to measure the depreciation costs of the discretionary adjustments. It is assumed that not all sales are necessarily $NDA$ and that this will depend on the item to be received. Hence, the following model derived:

$$NDA_{i,t}/A_{i,t-1} = \alpha_1(1/TA_{i,t-1}) + \alpha_2(\Delta SALES_{i,t} - \Delta REC_{i,t}/TA_{i,t-1}) + \alpha_3(PPE_{i,t}/TA_{i,t-1}) + \varepsilon_{i,t}$$ (3)

where $\Delta REC$ represents accounts receivable, and the other variables are as defined in Equation 2.

The total DA is obtained from the difference of total accruals and $NDA_i$ as shown in the following equation:

$$DACC_{i,t} = TA_{i,t} - NDA_{i,t}$$ (4)

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169

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13 Jones (1991) selects the lagged total assets as a deflator because the researcher finds that they are highly correlated with the error term in the unscaled expectation model.
where NDA is non-discretionary accrual and DA is discretionary accrual. It also should be noted that the modification is only made to calculate the NDA while the coefficients in this model are calculated with the original Jones model (1991). Hence, Dechow et al. confirmed that the modified model is more influential than the initial one. Moreover, this model is also the most commonly used approach in empirical studies of earnings and absolute value (unsigned) of DA will be used as a proxy for the mixed effects, since earnings management can be in either the effect of income-increasing or income-decreasing accruals (Chiraz & Anis, 2013; Choi et al., 2013; Kasipillai & Mahenthiran, 2013; Labelle et al., 2010; Martinez-Ferrero et al., 2016; Muttakin, Khan, & Azim, 2015; Prior et al., 2008; Teoh, Welch, & Wong, 1998).

4.6.3 Measurement of Corporate Social Responsibility

CSR reporting or particularly the quality of CSR disclosure serves as the measurement for CSR. The rationalization of choosing CSR disclosure quality as the measurement is that it goes beyond the extent of CSR disclosure as it extensively stated, explained and illustrated the CSR related information, emphasise on “how: the disclosure are stated rather than simply “what is stated” (Guthrie & Parker, 1990) and it is still preferred by stakeholders as it is argues to be more credible and reliable than a volume of information (Darus, Othman & Arshad, 2014). Besides, an annual report that consists of quality content is useful for the readers to know, understand and familiarise with the CSR activities that a company has conducted during the year and it is of considerable interest to investors, regulators and other stakeholders. Lastly, this study decided to use this type of CSR disclosure because the reported information and message could appeal to and entice the stakeholders to have positive
impressions over the company and engender greater public trust which in line with the aim of the managers to gain support from the stakeholders.

This study uses a research instrument of CSR disclosure checklist to acquire the required information in the annual report. This procedure offers a reliable set of measurement as the checklist is developed based on the quality of CSR disclosure literature as performed by prior literatures (Anas et al., 2015; Esa & Mohd Ghazali, 2012; Hackston & Milne, 1996; Haji & Ghazali, 2013; Sadou et al., 2017; Saleh et al., 2010).

4.6.3(a) CSR Disclosure Checklist

Prior to finalising the constructed checklist, this study has done its due diligence by reviewing multiple sources of literature and studies including established prior studies in the CSR realm especially that conducted on Malaysia PLCs as well as some of the recent studies. The idea is that this study wants to maximise the reliability of the disclosure checklist and maintain timeliness with the quality of CSR disclosure disclosed by today’s companies. Moreover, this study has thoroughly reviewed prior research to develop items included in the finalised checklist. For instance, each dimension comprises of exhaustive items to capture the information disclosed in the annual reports.

In conclusion, the items in the CSR disclosure checklist are a combination of items from a myriad of sources that studied CSR disclosure especially conducted in Malaysia since this country has its regulations that need to be abided by the PLCs.
4.6.3(b) Development of CSR Disclosure Checklist

Three steps were undertaken in the process of developing the CSR disclosure checklist.

Step 1: The process of developing the CSR items starts with a comprehensive review of previous research that were conducted in Malaysia (Amran & Devi, 2008; Anas et al., 2015; Esa & Mohd Ghazali, 2012; Haji, 2013; Haji & Ghazali, 2013; Haniffa & Cooke, 2005, 2002; Sadou et al., 2017; Saleh et al., 2010; Zainal, Zulkifli, & Saleh, 2013).

Step 2: The annual reports and sustainability reports are examined by reading all sections (including CSR section, the chairperson’s report section, operation review section, corporate governance section, and the other sections of the annual reports). This effort will increase the validity and scope of CSR disclosure items reported by the PLCs.

Step 3: Lastly, the CSR disclosure checklist in this study is finalised after reviewing all four well-published CSR disclosure checklists taken from prior studies conducted in Malaysia despite some of them seem to be fairly outmoded (Anas et al., 2015; Ahmed Haji & Ghazali, 2013; Sadou et al., 2017; Saleh et al., 2010). This is primarily due to the aim of this study which is to provide a CSR disclosure checklist that encompasses a wide range of items from five dimensions (environment, workplace, community, marketplace, and product) which reflects an extensive and comprehensive checklist. Please refer Appendix A for the comprehensive checklist construction.

The next stage is calculating the CSR index. This study examines the quality of CSR disclosure since it is essential to measure and capture “how it is stated” rather than
only focus on “what is stated” because quality of disclosure would go beyond the later (Guthrie & Parker, 1990). Since “what is stated” or extent of disclosure received more attention from previous literature as compared to the quality of disclosure, this study decided to focus on measuring the quality solely. Consistent with previous studies (Ahmed Haji, 2013; Anas et al., 2015; Saleh et al., 2010), a detailed scoring scheme will be used to measure the quality of CSR disclosures. The disclosing value of each item in the checklist is assigned into three quality of classifications which are: maximum score of 3 may be awarded should the disclosure contains quantitative or monetary information, a score of 2 may be awarded should specific information on CSR is disclosed without quantitative or monetary facts, a score of 1 may be awarded for general information on CSR, and lastly, a score of 0 for no disclosure. The maximum possible disclosure score for the quality of CSR disclosures is 120 points (i.e. $3 \times 40 = 120$). Accordingly, the CSR score is derived by converting into percentage by dividing the disclosure score of each company to the maximum possible score. Hence, the final score of the CSR index (CSRI) formula is computed as follows:

$$CSRI_j = \frac{\sum_{i=1}^{n} X_{ij}}{n_j}$$

Where:

- $CSRI_j$ = CSR index of $j^{th}$ firm
- $n_j$ = Total number of CSR items for $j^{th}$ firm, $n = 120$ (max scores)
- $X_{ij}$ = 1 if $i^{th}$ item is disclosed in annual report
  0 if $i^{th}$ item is not disclosed in annual report

The above technique can be interpreted to conclude that a company that disclosed more quality CSR items shows exhaustive CSR reporting. Hence, it deserves and was awarded with more scores. Table 4.5 shows the quality of CSR disclosure checklist items.
Table 4.5

*Quality of CSR Disclosure Checklist*

<table>
<thead>
<tr>
<th>ITEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENVIRONMENT</strong></td>
</tr>
<tr>
<td>1. Awards received in relation to social, environmental and best practices</td>
</tr>
<tr>
<td>2. Environmental protection programs</td>
</tr>
<tr>
<td>3. Efficient use of energy (e.g. issue of biofuels, biogas or any renewable energy)</td>
</tr>
<tr>
<td>4. Pollution and emission control (effort of reducing pollution and emission)</td>
</tr>
<tr>
<td>5. Prevention or reparation program</td>
</tr>
<tr>
<td>6. Conservation and recycled materials</td>
</tr>
<tr>
<td>7. The essential needs to protect flora and fauna</td>
</tr>
<tr>
<td><strong>WORKPLACE</strong></td>
</tr>
<tr>
<td>1. Number of employees</td>
</tr>
<tr>
<td>2. Breakdown of employees by origin</td>
</tr>
<tr>
<td>3. Breakdown of employees by gender</td>
</tr>
<tr>
<td>4. Employee appreciation and recognition for excellent performances</td>
</tr>
<tr>
<td>5. Employee training</td>
</tr>
<tr>
<td>6. Information on employee redundancy (e.g. due to circumstances such as the closure of the business or reduction in the number of staff)</td>
</tr>
<tr>
<td>7. Amount spent on employees training</td>
</tr>
<tr>
<td>8. Number of employees trained</td>
</tr>
<tr>
<td>9. Discussion of employees’ welfare or benefits</td>
</tr>
<tr>
<td>10. Employees profile</td>
</tr>
<tr>
<td>11. Occupational health and safety (Information on safety employees)</td>
</tr>
<tr>
<td>12. Information on incidents (i.e. accidents, fatalities)</td>
</tr>
<tr>
<td>13. Diversity or equal opportunity policy statement (e.g. gender issues and equality, workforce diversity)</td>
</tr>
<tr>
<td>14. Reporting on the company’s relationship with trade union/ or workers</td>
</tr>
<tr>
<td>15. Reporting on any strikes, industrial actions/activities and the resultant losses in terms of time and productivity</td>
</tr>
<tr>
<td>16. Share option offered to employees</td>
</tr>
<tr>
<td>17. Health and Safety Award</td>
</tr>
<tr>
<td>18. Quality of work environment</td>
</tr>
<tr>
<td><strong>COMMUNITY</strong></td>
</tr>
<tr>
<td>1. Employee involvement of country or community programmes</td>
</tr>
<tr>
<td>2. Donations to community groups or charity bodies</td>
</tr>
<tr>
<td>3. Community development (health and education)</td>
</tr>
<tr>
<td>4. Education (i.e. internship, scholarship)</td>
</tr>
<tr>
<td>5. Sports activities</td>
</tr>
<tr>
<td>6. Supporting national pride</td>
</tr>
<tr>
<td>7. Public project (e.g. providing infrastructure)</td>
</tr>
</tbody>
</table>
Table 4.5 Continued.

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>MARKETPLACE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Supporting green products</td>
</tr>
<tr>
<td></td>
<td>2. Ethical procurement practices</td>
</tr>
<tr>
<td></td>
<td>3. Helping to develop suppliers and other vendors</td>
</tr>
<tr>
<td></td>
<td>4. Corporate governance standards</td>
</tr>
<tr>
<td></td>
<td>PRODUCT</td>
</tr>
<tr>
<td></td>
<td>1. Discussion of major types of products, services and projects</td>
</tr>
<tr>
<td></td>
<td>2. Product quality (meet applicable quality standards)</td>
</tr>
<tr>
<td></td>
<td>3. Customer service</td>
</tr>
<tr>
<td></td>
<td>4. Product safety (meet applicable safety standards)</td>
</tr>
</tbody>
</table>

To draw valid inferences from the data collected using the content analysis approach, the reliability of the collected data needs to be demonstrated (Milne & Adler, 1999). According to Drost (2011, p. 106), reliability is “the extent to which measurements are repeatable when different persons perform the measurements, on different occasions, under different conditions, with supposedly alternative instruments which measure the same thing”. As posits by Krippendorff (2004), there are three types of reliability in content analysis which are stability, reproducibility, and accuracy. Stability is known as the weakest form as the test only involve the same coder which is the researcher itself to code the data which may result in the same results repeatedly. Reproducibility test involves the assessment of coding errors between the various coders which are often described as inter-rater or inter-coder reliability and this type refers to the ability of multiple coders to produce the same results (Weber, 1990). The third type is accuracy reliability which is determined by measuring the coder’s coding performance alongside the professionals’ pre-set standard Krippendorff (2004).

This current study chose to adopt reproducibility test. A pilot test is then performed on the final CSR disclosure checklist on twenty 2016 annual reports.
sample. This process aims to ensure that there is some variability in reporting between different companies and to capture the items that were not included in the existing checklist. An independent coder or novice coder was assigned to pre-test the instrument along with the primary researcher. Similar with selecting the sample for this study, =RAND() function in Microsoft Excel applied to execute random sampling. This sample size of 20 annual reports is consistent with Haniffa and Cooke (2005) who also used twenty companies as the sample for their pilot study. Moreover, this current study is affirmed with the proposition made by Milne and Adler (1999) whereby this reliability analysis suggests that the learning cycle involving about twenty reports needs to be carried out before more detailed sub-category analysis could be reliably performed by less experienced coders (since this current study includes one novice coder). Both the independent coder and researcher followed the research instrument and keywords (for instance, example or short details given for the item) which were established initially. Any discrepancies or inconsistencies conveyed were re-analysed and fixed.

In assessing the inter-rater reliability, several measures have been used and some of the most commonly used are per cent agreement, Holstí’s method, Scott’s pi, Chen’s Kappa, and Krippendorff’s Alpha (Hayes & Krippendorff, 2007). However, this study used Krippendorff’s Alpha to test inter-rater reliability as it is the most reliable measure among others since it has the ability to report the multiple coders agreement (Krippendorff, 2013). An online calculator of inter-rater reliability named ReCal was used to calculate the Krippendorff’s alpha (Freelon, 2010).

A CSR coding worksheet is uploaded into http://dfreelon.org/utils/recalfront to determine the inter-rater reliability using ReCal online calculator. Guthrie and Mathews (1985) suggest that 0.80 and above is an acceptable level of agreement.
content analysis (as cited in Hackston & Milne, 1996). Detailed result presented in Appendix E and results from the test reported an acceptable agreement and confirmed the reliability of the instrument for the quantity of CSR reporting as presented in Table 4.6. All sectors documented an acceptable agreement percentage with the exception of mining. This current study agreed to accept mining sector to be tested in reliability test even though the percentage is lower than 0.80 because there is only one mining company in the sample (and in PLCs).

Table 4.6
Inter-rater Reliability Test using Krippendorff’s Alpha

<table>
<thead>
<tr>
<th>Sector</th>
<th>Percentage of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Comp 1</td>
</tr>
<tr>
<td>Consumer</td>
<td>0.90</td>
</tr>
<tr>
<td>Industrial</td>
<td>0.90</td>
</tr>
<tr>
<td>Construction &amp; Infrastructure</td>
<td>0.83</td>
</tr>
<tr>
<td>Trading &amp; Service</td>
<td>0.88</td>
</tr>
<tr>
<td>Technology</td>
<td>0.97</td>
</tr>
<tr>
<td>Hotels</td>
<td>0.98</td>
</tr>
<tr>
<td>Properties</td>
<td>0.90</td>
</tr>
<tr>
<td>Plantation</td>
<td>0.85</td>
</tr>
<tr>
<td>Mining</td>
<td>0.79</td>
</tr>
</tbody>
</table>

4.6.4 Measurement of Moderating Variable: Corporate Reputation

In this study, corporate reputation will be known as the moderator that may affects the direction and (or) strength of the relation between an independent or predictor variable and a dependent or criterion variable (Baron & Kenny, 1986). Hence, the relationship between earnings management and CSR can be moderated by reputation. Content analysis is a research technique that could transform and produce valid interpretations from the collected data and recognize which necessary content that should be analysed (Krippendorff, 1980). Hence, content analysis is employed to construct the reputation disclosure checklist as this method indicates an alternative to
capture the quality of reputation disclosure reported by the companies in the annual report. This study decided to measure CR using the CR quality as it is argued that this information reflects better and reliable indicators (Othman et al., 2011).

4.6.4(a) Reputation Disclosure Checklist

After reviewing prior literature, this study finalised the reputation disclosure checklist by exclusively referencing the reputation disclosure checklist employed by previous research (Darus et al., 2014; Othman et al., 2011). The literature serves as the main references in this study based on the following reasoning:

1) The reputation disclosure checklist constructed by prior research (Darus et al., 2014; Othman, 2012; Othman et al., 2011) was initially measured using a corporate reputation index that was previously developed from interviews with the CSR managers and based on an index adapted from one of the most frequently used models in measuring corporate reputation, RepTrak™ model of Reputation Institute (Vidaver-Cohen, 2007).

2) All items to be used in the reputation disclosure checklist are considered relevant in this study based on these four substantial similarities with previous research:
   (a) Population - Malaysia context,
   (b) Sample - public listed company,
   (c) Method - content analysis of annual reports, and
   (d) Research area – corporate social responsibility

Building upon these justifications, this study is definite in referencing previous research (Darus et al., 2014; Othman et al., 2011) to measure CR using the disclosure quality and thus, utilise the disclosure items in developing the reputation disclosure
The stated previous research measured corporate reputation based on seven dimensions (Product and Service Quality, Financial Performance, Corporate Governance, Citizenship, Workplace, Leadership Quality, and Innovation).

Nonetheless, this current study will only measure corporate reputation based on five dimensions (Product and Service Quality, Financial Performance, Corporate Governance, Leadership Quality and Innovation). This approach was done to avoid from having cross loading of factors in CSR disclosure checklist and reputation disclosure checklist. Hence, the dimensions of Citizenship and Workplace were excluded in the current study since the items in CSR disclosure checklist involve activities with environment and community which are similar with Citizenship dimension and involve employee development that is closely related with Workplace dimension. Additionally, this study would also like to highlight on items of Product and Service Quality (items in CR disclosure checklist) and items of Product (items in CSR disclosure checklist). This study decided not to eliminate the former as it is very much different from the latter even though the title of the items sounded the same. Other than recognitions and certifications, the latter also takes into account on any controversial products which is not in the former disclosure checklist. Kindly refer to Appendix B and Appendix C for further details on the CR disclosure checklist.

Stimulated by approaches from Darus et al. (2014) and Othman et al. (2011) that aim to avoid subjectivity in judging the weight of importance of the reputation disclosure items, this study employs unweighted disclosure index approach. This approach considers all items to be equally weighted with a dichotomous procedure. Hence, a company is awarded a score of ‘1’ if an item in the reputation disclosure checklist is disclosed in its annual report and "0" if otherwise. Lastly, the reputation
index for each company is measured by computing the actual scores awarded to a company divided by the maximum scores of 16.

The reputation index for a company is calculated as follows to derive the final reputation index (REPI):

$$ REPI_j = \frac{\sum_{i=1}^{n} X_{ij}}{n_j} $$

Where:

\begin{align*}
REPI_j &= \text{Reputation index of } j^{th} \text{ firm} \\
n_j &= \text{Total number of reputation items for } j^{th} \text{ firm, } n = 16 \text{ (max scores)} \\
X_{ij} &= \begin{cases} 
1 & \text{if } i^{th} \text{ item is disclosed in annual report} \\
0 & \text{if } i^{th} \text{ item is not disclosed in annual report}
\end{cases}
\end{align*}

Since reputation concentrates on the dimensions related to CSR elements, the above technique can be interpreted by saying that a company that disclosed more reputation items indicates more exhaustive CSR reporting. Hence, higher scores should be awarded. The total scores that one sampled company could obtain are 16 points. Table 4.7 shows the quality of reputation score and the overall disclosure checklist items.

Table 4.7

<table>
<thead>
<tr>
<th>Quality of Reputation Disclosure Checklist</th>
<th>SCORE</th>
<th>SUB-TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCT &amp; SERVICE QUALITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Has external verification or certifications</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2. Free from controversial products</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3. Listed in the Top 30 Malaysian Brand</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
This section has provided a detailed description of the measurement for both independent and dependent variables. To facilitate the readings, kindly refer to the summarised operationalisation and measurement of variables as in Appendix D.

### 4.6.5 Measurement of the Control Variables

In addition to the variables discussed previously, several control variables are incorporated in this study to control company-specific characteristics and other corporate governance mechanisms that can influence the extent of earnings management and CSR. Aside from testing the effect of the board of directors’ mechanisms on earnings management and the impact of earnings management on
CSR, the inclusion of company-specific characteristics and auditing factors is also necessary to be included and controlled to ensure that the tests focus more precisely on the differences that created them. Additionally, the control variables involved vary for the antecedent and consequence.

4.6.5(a) Control Variables for Antecedent of Earnings Management

Company size (FSIZE) has been used in a majority of the literature and is involved with earnings quality. Company size is considered as the control variable that could influence earnings management since it is less likely to change in the short run. Following potential political risk, larger companies tend to have higher motivations to manage earnings in order to appease such risk and may have more rooms for opportunistic behaviour given their complexity of operations in understanding it (Watts & Zimmerman, 1990). Differently, larger companies are likely to be more mature, operate steadily, and have less operating profit volatility compared to smaller companies which discourages them to manage earnings. Additionally, prior studies conducted in Malaysia stated that political pressure and investor scrutiny received by the larger companies assure them to increase the quality of their earnings (Abdul Rahman & Mohamed Ali, 2006; Shamsul Nahar Abdullah & Ku Ismail, 2014; Al-Dhamari & Ku Ismail, 2014). This study expects larger companies and earnings management to be negatively associated due to the local setting of this study. FSIZE is measured using the natural logarithm of total assets.

Leverage (LEV) reflects the debt structure and is used to control the liquidity of a company. Measured as the ratio of total liabilities to total assets, this variable is commonly used as the proxy for debt covenant (Al-Dhamari & Ku Ismail, 2014; Prior et al., 2008; Sulong et al., 2014). Companies with higher leverage are
anticipated to show higher earnings management as companies shall resort to understating liabilities or overstating assets that may refrain them from violating the debt covenants (Watts & Zimmerman, 1990). These companies are more likely to have greater conflict between shareholder and bondholder (Jensen, 1986). Thus, a positive relationship between leverage and earnings management is predicted.

Profitability (ROA) is used to control the company’s performance. ROA was used in many studies on both earnings management and corporate governance and it is highly significant in explaining a company’s performance (Carter et al., 2003). A negative relationship could also occur on low-performing companies in which these companies will inflate reported earnings (Abdul Rahman & Mohamed Ali, 2006; Shamsul Nahar Abdullah & Ku Ismail, 2014; Choi et al., 2013). Hence, a negative relationship is expected and ROA is calculated as net income divided by the total assets at the beginning of the year.

Cash flow from operations (CFO) refers to the net cash flow from operating activities that is able to capture the differences in performance across companies within different industries and economic activities. It can be measured as net cash flow operations divided by total assets. As stated by Roychowdhury (2006), in the effort to meet certain earnings target, cash flow from operations could also be utilised by the managers to manipulate earnings. In addition, a larger cash flow is closely associated with more uncertainties in the operating environment. Therefore, there is a positive relationship between companies’ cash flow operations and earnings management (Razak & Palahuddin, 2014; Paiva & Lourenco, 2016).

Internal Audit Function Sourcing Arrangements (IAFSOUR) can be carried out in-house by the internal audit department or outsourced to other independent professional accounting firms. Some companies opt to outsource their internal audit
function (IAF) as in-house internal auditors seem to be less independent and objective (James, 2003). However, advocates to IAF stated outsource may positively influence earnings management due to their unfamiliarity with the companies’ operations. Therefore, they affirm that IAF that greater level of monitoring and controlling could be achieved due to an in-depth understanding of business activities (Al-Rassas & Kamardin, 2015; Mansor, Che-Ahmad, Ahmad-Zaluki, & Osman, 2013). Consistent with Mansor et al. (2013), this study predicts a positive association between outsourced and earnings management; and this variable takes a value of “1” if the company have outsource IAF and “0” for otherwise.

Auditor (BIG4) is chosen to control for the effect of external auditor quality. Compared to smaller audit firms, the BIG4 are expected to lessen earnings management practices due to their expertise, ample resources, and brand name (Davidson et al., 2005). Taking the value 1 if the firm was audited by a Big4 auditor, 0 if not audited by the Big4 which is consistent with prior studies (Abdul Rahman & Mohamed Ali, 2006; Al-Rassas & Kamardin, 2015; Davidson et al., 2005).

4.6.5(b) Control Variables for Consequence of Earnings Management

As for CSR being the consequence of earnings management, this study follows some common control variables that have been utilised by prior studies. Company size (FSIZE) and Profitability (ROA) are projected to positively influence CSR. Given their superior resources, engaging and practising more CSR could differentiate them from smaller companies. Moreover, these companies are more visible and exposed to greater scrutiny by certain social groups and are in great pressure to practise CSR. Hence, larger and profitable companies are prone to be involved in CSR activities to give and signal the impression of legitimacy to the stakeholders (Choi et al., 2013;
Prior et al., 2008). Lastly Leverage (LEV), as for companies with a high degree of dependence on debt, the management needs to find ways to legitimise its actions to creditor and shareholders (Haniffa & Cooke, 2005; Prior et al., 2008). Therefore, CSR can be used as the mean to indicate legitimacy and meet their creditors’ expectation on environmental issues. An additional variable which is industry is added for the sensitive test analysis. Dummy variable of 1 for sensitive industry and 0 for otherwise (Abu Bakar & Ameer, 2010).

4.7 Empirical Procedures of Data Analysis

Data analysis process is fundamental in every research. This process comprises of preliminary analysis and multivariate analysis. Each phase is drawn as follows.

4.7.1 Preliminary Analysis

Preliminary analysis of the data involves descriptive statistics, univariate analysis, and correlation matrix. Sekaran (2003) defines descriptive statistics as statistics that describe a phenomenon. Known as the initial analysis in describing the data, this analysis is commonly performed to understand the descriptive nature of information obtained from the data that provide a better understanding and interpretation of the data (Zikmund, 2003). Both antecedent and consequence variables used in this study will be computed with the analysis of mean, minimum, maximum and standard deviation which is known as the central tendency test. Correlation analysis will be conducted using Pearson correlation to facilitate the understanding of direction of the correlation between the dependent and independent variables.
4.7.2 Data Preparation for Multivariate Analysis

Upon performing the data analysis, several diagnostic tests of regression were conducted to verify that the essential assumptions for the Ordinary Least Squares (OLS) method were met. First, normality tests (such as normal-probability plot and histogram of standardised residuals) were conducted to determine as to whether the sample data of the study are drawn from normally distributed populations. Then, the models should be in linear parameters and tested using the residual scatter plot. Diagnostic test for heteroscedasticity was conducted using the Breusch-Pagan Test. Finally, the analyses of correlation and coefficients matrix test and variance inflation factors (VIF) were conducted to examine the multicollinearity assumption.

4.8 Empirical Research Model

Answering the recommendation by Dechow et al. (2010), both antecedent and consequence of earnings management will be determined in this study. Three empirical models were included which are the effect of board diversity on earnings management, the effect of earnings management on CSR, and the moderating effect of CR on the relationship between earnings management and CSR.

The extension of a simple linear regression analysis known as multiple regressions analysis permits coinciding examination on the effect of the two or more independent variables on a single interval-scaled dependent variable (Zikmund, 2003). However, this study decided to opt for weighted least square (WLS) regression analysis since the assumptions of OLS were met, particularly on the assumptions of homoscedasticity. To test the developed hypotheses, this study develops three models as follows.
Empirical model one: The effect of board diversity (diversity-on-boards) and (diversity-in-boards) on earnings management, as per H_1 until H_9, followed by the second and third equation for H_{10} and H_{11} respectively.

\[
\text{DACC} = \beta_0 + \beta_1 \text{LEAD} + \beta_2 \text{MUL} + \beta_3 \text{BSIZE} + \beta_4 \text{NED} + \beta_5 \text{GEN} + \beta_6 \text{AGE} + \beta_7 \text{ETH} + \beta_8 \text{COM} + \beta_9 \text{NAT} + \beta_{10} \text{FSIZE} + \beta_{11} \text{LEV} + \beta_{12} \text{ROA} + \beta_{13} \text{CFO} + \beta_{14} \text{IAFSOUR} + \beta_{15} \text{BIG4} + \varepsilon_{it}
\]  

(1)

Where:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAD</td>
<td>“1” if the chairman is an independent director and “0” for otherwise</td>
</tr>
<tr>
<td>MUL</td>
<td>The proportion of directors on the board with directorships in other companies to the total number of directors on the board of the company</td>
</tr>
<tr>
<td>BSIZE</td>
<td>Total number of directors on the board of the company</td>
</tr>
<tr>
<td>NED</td>
<td>NED percentage of total fees paid to NEDs divided by the total number of NEDs</td>
</tr>
<tr>
<td>GEN</td>
<td>Index of heterogeneity for board gender with two categorisations; male and female</td>
</tr>
<tr>
<td>AGE</td>
<td>Index of heterogeneity for board age with a categorisation of five subgroupings: under 40 years old, 40 to 49, 50 to 59, 60 to 69 and over 70 years old</td>
</tr>
<tr>
<td>ETH</td>
<td>Index of heterogeneity for board ethnicity with a categorisation of three race categories: Malay, Chinese and others</td>
</tr>
<tr>
<td>COM</td>
<td>Index of heterogeneity for board competency with a categorisation of directors’ type of services and employment categories into five subgroupings: financial, consulting, legal, management and other expertise (i.e. research, technology, medical and others)</td>
</tr>
<tr>
<td>NAT</td>
<td>Index of heterogeneity for board nationality with a categorisation of foreign and domestic directors</td>
</tr>
<tr>
<td>FSIZE</td>
<td>Natural logarithm of total assets</td>
</tr>
<tr>
<td>LEV</td>
<td>Total liabilities to total assets</td>
</tr>
<tr>
<td>ROA</td>
<td>Net income divided by the total assets at the beginning of the year</td>
</tr>
<tr>
<td>CFO</td>
<td>Net cash flow operations divided by total assets</td>
</tr>
<tr>
<td>IAFSOUR</td>
<td>“1” if the company have outsourced IAF and “0” for otherwise</td>
</tr>
<tr>
<td>BIG4</td>
<td>“1” if the firm was audited by a Big4 auditor and “0” for otherwise</td>
</tr>
</tbody>
</table>

Empirical model two: The effect of earnings management on CSR:

\[
\text{CSR} = \beta_0 + \beta_1 \text{DACC} + \beta_2 \text{FSIZE} + \beta_3 \text{LEV} + \beta_4 \text{ROA} + \varepsilon_{it}
\]  

(2)

Where:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR</td>
<td>Corporate social responsibility disclosure</td>
</tr>
<tr>
<td>DACC</td>
<td>Earnings management (discretionary accruals)</td>
</tr>
<tr>
<td>FSIZE</td>
<td>Natural logarithm of total assets</td>
</tr>
<tr>
<td>LEV</td>
<td>Total liabilities to total assets</td>
</tr>
<tr>
<td>ROA</td>
<td>Net income divided by the total assets at the beginning of the year</td>
</tr>
</tbody>
</table>
Empirical model three: The moderating effect of corporate reputation on the relationship between earnings management and CSR:

CSR = β₀ + β₁DACC + β₂CR + β₃DACC*CR + β₄FSIZE + β₅LEV + β₆ROA + εᵢt \ (3)

Where:
CSR  Corporate social responsibility disclosure  
DACC  Earnings management (discretionary accruals)  
CR    Corporate reputation  
FSIZE  Natural logarithm of total assets  
LEV   Total liabilities to total assets  
ROA   Net income divided by the total assets at the beginning of the year

4.9 Conclusion

This chapter covers the essential elements of the research methodology (research philosophy and research approach, sample design, source of data, data collection, measurement of variables, and data analysis). Malaysia public listed companies were chosen as the sample population as these companies are closely involved and associated with corporate governance initiatives. Prior to finalising the methodology, this current study has comprehensively looked into prior studies as a guidance to effectively examine the developed hypotheses. Additionally, several examinations were conducted to test the multiple regression analysis assumptions and this study resorts to WLS to perform the regression analysis. Aside from collecting the data from the database, this study shall be extracting information from the annual report in accordance with the content analysis technique since the exercise of content analysis is inherent with reliability and validity. The chosen measurements for measuring the variables provide appropriate results as they have been referred in numerous previous literatures.
CHAPTER FIVE
RESULTS

5.1 Introduction
The previous chapter illustrated the methodology and data of this study. To report the findings of this study’s objectives, this chapter is organised as follows. Firstly, Section 5.2 explains several tests that were performed to prepare the data prior to regression analysis. Next, Section 5.3 reports the descriptive statistics of the dependent variables and independent variables. Section 5.4 records the results of Pearson correlation analysis and Section 5.5 reports the results of the multiple regression analysis of the models tested using WLS regression analysis. The chapter ends with Section 5.6 with a discussion of the summary and conclusion of this chapter.

5.2 Diagnostic Tests
Multivariate analysis refers to using a regression model with more than one explanatory (independent) variable. According to Saunders et al. (2012), multiple regression analysis is a multivariate analysis since it uses two or more independent variables to explain the change in one dependent variable. Differ from preliminary analysis, multiple regression analysis provides a means of discerning the relationship between a single dependent variable and several independent variables. Besides, this analysis is a versatile analysis technique since it is the most widely used in business decision making by far (Hair, Black, Babin, & Anderson, 2013). Fundamentally, multiple regression model attempt to explain the movement in the dependent variable by reference to movement in two or more explanatory variables.
Ordinary Least Square (OLS) regression is the most common method of regression analysis. However, prior to settling into this regression model, Gujarati (2003) outlined four crucial assumptions that need to be adhered. The assumptions are as follow:

1. Data needs to be *normally distributed* whereby samples must be drawn from normally distributed populations. A normal distribution can be inspected through visual inspection of the standardised residual plots histogram or the normal probability plot (P-P plots) (Hair et al., 2013). In particular, a histogram of standardised residuals should indicate a roughly normal curve whilst the P-P plots show a 45-degree line or straight diagonal line which conforms of normally distributed data. From the inspection, the plots for current data appear to be normally distributed as in Appendix G and Appendix H.

2. The relationship between dependent and independent variables should be *linear* (Hair et al., 2013) or otherwise it is a substantial violation of linearity which means the results may be unusable, though minor departures from linearity will not significantly affect the interpretation of regression output. Hair et al. (2013) assert that to identify any nonlinear patterns in the data, residual scatter plot can be used. Further, the researchers suggest for data transformation to correct nonlinearity, or inclusion of nonlinear relationships in the regression model. As suggested by Hair et al. (2013), residual scatter plot is the most common way to examine any nonlinear pattern in the data. Referring to Appendix I, the plots do not demonstrate any nonlinearity. Therefore, this study’s model met the linearity assumption. Additionally, from the scatter plot, few outliers were detected and the Cook’s Distance test was further conducted to confirm the outliers. To avoid from having substantial difference between the actual value of dependent variable and
independent variable (Hair et al., 2013), five outliers were eliminated and as a result, the final regression in this study was conducted using the remaining 265 companies.

3. The dependent variable’s variance or standard deviation within the group is required to be equal (*homoscedasticity*). Lack of homoscedasticity occurs when the dispersion of the value of dependent variable is not stable over the values of explanatory variables, resulting in the underestimation of the estimated regression coefficients and the insignificant variables could become statistically significant (Hair et al., 2013). Known as heteroscedasticity, it is one of the common violations in multivariate regression and it is generally expected that small, medium, and large size companies are sampled together in a cross-sectional analysis (Gujarati, 2003). In the present study, the Breusch-Pagan Test was conducted to check the heteroscedasticity problem using STATA statistical software. Appendix J indicates that the p-value is lesser than 0.05 for both models. Hence, the models reject the null hypothesis of homoscedasticity and the models are suffering from the problem of heteroscedasticity.

4. The explanatory variables should not correlate with each other and if the situation occurs, it is called *multicollinearity* (Hair et al., 2013). The presence of multicollinearity affects the estimation and interpretation of each independent variable in the regression variant which then cause it to be untrustworthy and unreliable. Hair et al. (2013) suggested some diagnostic tests to be performed such as analyses of correlation coefficient matrix test and variance inflation (VIF). Furthermore, in the analysis of correlation coefficient in particular, the value of 0.9 is recommended by Hair et al. (2013) as the threshold at which the issue of multicollinearity could jeopardise regression analysis. A VIF value that exceeds
10 signifies the potential presence of multicollinearity. However, this study return values of VIF for all independent variables in each regression analysis of less than 10.

Given the above discussion and examination of each assumption, all assumptions are not violated except for the violation of homoscedasticity assumptions based on the Breusch-Pagan test. Heteroscedasticity usually appears when the dispersion of the value of dependent variable is not stable over the values of explanatory variables and there is a variable data that is in huge range. Hence, Ordinary Least Squares (OLS) is not applicable to be used as the results will generate inconsistent and biased results since one of the assumptions is violated (Gujarati, 2003). Thus, Wooldridge (2006) proposes WLS regression method on the correction of heteroscedastic data whereby it has been carried out by several previous studies that also experienced similar concerns (Alzoubi, 2016; Ghyasi, 2017). Weight is applied to the regression analysis and it is the variable that caused the data to be heteroscedastic. Firstly, this study identified the control variable of Leverage (LEV), Return on Assets (ROA), and Cash Flow from Operations (CFO) that are said to be in wide range of data. To ensure which variable that caused heteroscedasticity, this study regress the squared LEV, ROA and CFO with squared DACC and a significant t-statistics conform that LEV has caused the data to be heteroscedastic. Finally, using the LEV identifier as the weight, this section discusses the two empirical research models.

5.3 Descriptive Statistics
This section discusses the descriptive statistics of the study. Table 5.1 and Table 5.3 present the descriptive statistics of the continuous and dichotomous variables used in
the regression test for year 2016 respectively. Table 5.1 covers all variables for antecedent and consequence of earnings management as well as the moderating role of corporate reputation for the relationship between earnings management and CSR. Descriptive statistics for variables involved in the antecedent model are firstly discussed. For all continuous variables, the minimum, maximum, median, mean, and standard deviation are documented while the difference in proportion is identified for dummy variables. In addition, Table 5.2 showcases detailed distribution of each attributes in diversity-in-boards. Information in Table 5.2 is important to support discussion for diversity-in-boards’ findings.

5.3.1 Descriptive Statistics for the Antecedent of Earnings Management

With respect to the dependent variable of this study, the mean value of discretionary accruals, DACC, for this study is relatively small, amounting to 0.057 that falls within the range of 0.001 to 0.335. The result implies that the average value of discretionary accruals in Malaysia is 5.7 per cent which is consistent with previous research among Malaysian companies (Bamahros & Wan Hussin, 2015; Chu & Song, 2012; Selahudin, Zakaria, Sanusi, & Budsaratragoon, 2014). Selahudin et al. (2014) further reported that Thailand companies have an average absolute value of DACC of 7 per cent while 11.9 per cent for Bangladesh companies (Muttakin et al., 2015). Based on the mentioned results, this denotes that the magnitude of earnings management in Malaysian PLCs is smaller than other companies in developing countries and thus, indicates that PLCs did not involve in severe or extreme earnings management.
### Table 5.1
**Descriptive Statistics**

<table>
<thead>
<tr>
<th><strong>Dependent variable for antecedent of earnings management</strong></th>
<th><strong>Min</strong></th>
<th><strong>Max</strong></th>
<th><strong>Median</strong></th>
<th><strong>Mean</strong></th>
<th><strong>Std. Deviation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute value discretionary accruals (DACC)</td>
<td>0.001</td>
<td>0.335</td>
<td>0.037</td>
<td>0.057</td>
<td>0.060</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Dependent variable for consequence of earnings management</strong></th>
<th><strong>Min</strong></th>
<th><strong>Max</strong></th>
<th><strong>Median</strong></th>
<th><strong>Mean</strong></th>
<th><strong>Std. Deviation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate social responsibility (CSR)</td>
<td>0.067</td>
<td>0.792</td>
<td>0.292</td>
<td>0.322</td>
<td>0.126</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Independent variables</strong></th>
<th><strong>Min</strong></th>
<th><strong>Max</strong></th>
<th><strong>Median</strong></th>
<th><strong>Mean</strong></th>
<th><strong>Std. Deviation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple directorships (MUL)</td>
<td>0.000</td>
<td>1.000</td>
<td>0.250</td>
<td>0.318</td>
<td>0.260</td>
</tr>
<tr>
<td>Board size (BSIZE)</td>
<td>4</td>
<td>15</td>
<td>7</td>
<td>7.580</td>
<td>2.038</td>
</tr>
<tr>
<td>Non-executive directors fees (NED)</td>
<td>0.594</td>
<td>2.914</td>
<td>1.720</td>
<td>1.748</td>
<td>0.339</td>
</tr>
<tr>
<td>Gender diversity (GEN)</td>
<td>0.000</td>
<td>0.50</td>
<td>0.000</td>
<td>0.302</td>
<td>0.335</td>
</tr>
<tr>
<td>Age diversity (AGE)</td>
<td>0.000</td>
<td>0.79</td>
<td>0.781</td>
<td>0.759</td>
<td>0.156</td>
</tr>
<tr>
<td>Ethnic diversity (ETH)</td>
<td>0.000</td>
<td>0.69</td>
<td>0.542</td>
<td>0.478</td>
<td>0.251</td>
</tr>
<tr>
<td>Competency diversity (COM)</td>
<td>0.000</td>
<td>0.79</td>
<td>0.673</td>
<td>0.665</td>
<td>0.111</td>
</tr>
<tr>
<td>Nationality diversity (NAT)</td>
<td>0.000</td>
<td>0.50</td>
<td>0.000</td>
<td>0.152</td>
<td>0.312</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Control variables</strong></th>
<th><strong>Min</strong></th>
<th><strong>Max</strong></th>
<th><strong>Median</strong></th>
<th><strong>Mean</strong></th>
<th><strong>Std. Deviation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Company size (FSIZE)</td>
<td>3.916</td>
<td>8.290</td>
<td>5.663</td>
<td>5.752</td>
<td>0.677</td>
</tr>
<tr>
<td>Leverage (LEV)</td>
<td>0.000</td>
<td>6.657</td>
<td>0.153</td>
<td>0.705</td>
<td>1.299</td>
</tr>
<tr>
<td>Return on assets (ROA)</td>
<td>-11.182</td>
<td>3.883</td>
<td>0.020</td>
<td>0.021</td>
<td>0.776</td>
</tr>
<tr>
<td>Cash flow from operating (CFO)</td>
<td>-10.043</td>
<td>5.277</td>
<td>0.029</td>
<td>0.041</td>
<td>0.815</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Moderating variable for consequence of earnings management</strong></th>
<th><strong>Min</strong></th>
<th><strong>Max</strong></th>
<th><strong>Median</strong></th>
<th><strong>Mean</strong></th>
<th><strong>Std. Deviation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate reputation (CR)</td>
<td>0.25</td>
<td>0.938</td>
<td>0.563</td>
<td>0.569</td>
<td>0.143</td>
</tr>
</tbody>
</table>
Referring to Table 5.1, concerning to multiple directorships (MUL) in structural board diversity attribute, previous literature performed in the context of Malaysian companies reported that more than half of the board members were found to hold additional directorships in other public listed companies, particularly 54 per cent and 56 per cent accordingly (Hashim & Rahman, 2011; Kamardin & Haron, 2011). Interestingly, this study found that only 32 per cent of the board members held multiple directorships.

Table 5.1 indicates the average size for a board of directors is 8 people (mean=7.58), with a minimum of 4 and maximum of 15 people. Despite no recommendation for preferable size for board of directors made by the MCCG, companies in Malaysia tend to have a consistent average number of directors in the boardroom. This average is within the range and similar with findings from previous studies conducted in Malaysia (Abdul Rahman & Mohamed Ali, 2006; Al-Dhamari & Ku Ismail, 2014; Kamardin & Haron, 2011) and the average number is similar to the number advocated by Jensen (1993) that indicates board effectiveness.

With respect to non-executive directors’ fees (NED), the average fee (without log) paid to directors in Malaysian companies is RM438,428 with a minimum pay of RM19,900 and maximum pay of RM6,556,000. Additionally, referring to the maximum pay, it belongs to one of the largest companies in this study’s sample which explains the large amount.

Table 5.1 presents a statistical summary of the directors’ diversity that entails both diversity-in-boards and diversity-on-boards. Concerning demographic board diversity, specifically the diversity-in-boards, starting off with gender diversity (GEN), the average directors’ gender diversity in Malaysian companies is 0.302 and the gender diversity index ranges from zero to 0.50 for maximum. The result
explains that the minimum of zero shows no diversity and some boardrooms are still reluctant to appoint female directors despite the encouragement by the Malaysian governance. Further analysis in Table 5.2 noticed that the percentage of female directors in Malaysian PLCs is only at 11.3 per cent (male directors at 88.7 per cent).

Table 5.2
Distribution of Diversity-in-boards

<table>
<thead>
<tr>
<th></th>
<th>Number of directors</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1767</td>
<td>88.7</td>
</tr>
<tr>
<td>Female</td>
<td>225</td>
<td>11.3</td>
</tr>
<tr>
<td>Total directors</td>
<td>1992</td>
<td>100</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;40 years</td>
<td>130</td>
<td>6.5</td>
</tr>
<tr>
<td>40 to 49</td>
<td>338</td>
<td>17.0</td>
</tr>
<tr>
<td>50 to 59</td>
<td>660</td>
<td>33.1</td>
</tr>
<tr>
<td>60 to 69</td>
<td>598</td>
<td>30.0</td>
</tr>
<tr>
<td>&gt;70 years</td>
<td>266</td>
<td>13.4</td>
</tr>
<tr>
<td>Total directors</td>
<td>1992</td>
<td>100</td>
</tr>
<tr>
<td>Ethnic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malay</td>
<td>648</td>
<td>32.5</td>
</tr>
<tr>
<td>Chinese</td>
<td>1168</td>
<td>58.6</td>
</tr>
<tr>
<td>Indian</td>
<td>31</td>
<td>1.6</td>
</tr>
<tr>
<td>Others</td>
<td>145</td>
<td>7.3</td>
</tr>
<tr>
<td>Total directors</td>
<td>1992</td>
<td>100</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial</td>
<td>544</td>
<td>27.3</td>
</tr>
<tr>
<td>Engineering</td>
<td>272</td>
<td>13.7</td>
</tr>
<tr>
<td>Legal</td>
<td>158</td>
<td>7.9</td>
</tr>
<tr>
<td>Management</td>
<td>520</td>
<td>26.1</td>
</tr>
<tr>
<td>Other Expertise</td>
<td>498</td>
<td>25</td>
</tr>
<tr>
<td>Total directors</td>
<td>1992</td>
<td>100</td>
</tr>
<tr>
<td>Nationality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>1850</td>
<td>92.9</td>
</tr>
<tr>
<td>Foreign</td>
<td>142</td>
<td>7.1</td>
</tr>
<tr>
<td>Total directors</td>
<td>1992</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 5.1 reported the average age diversity \((\text{AGE})\) is 0.759. High average age diversity indicates that Malaysian companies are aware of the significant value brought by each generation. From Table 5.2, the middle age between 50 and 59 were appointed the most and is closely followed by the age range of 60-69 with the percentage of 33.1 and 30. This finding is consistent with the evidence found by Abdullah and Ku Ismail (2013) and mirrors the typical age of the United Kingdom directors (Higgs Report, 2003).

The third demographic board diversity is ethnic diversity \((\text{ETH})\) and the maximum index is 0.69 with minimum of zero, whilst the average of ethnic diversity is 0.478 as presented by Table 5.1. According to the relatively high maximum index figure and added with the average percentage, this shows that most Malaysian companies practise diverse in ethnicity. Further inspection on the data reported in Table 5.2 reveals that Chinese directors dominated the boardrooms and is followed with Malays, other races, and Indian with the percentage of 58.6, 32.5, 7.3, and 1.6 respectively.

In relation to diversity in terms of competency \((\text{COM})\), Table 5.1 declares the high average index of 0.665 with minimum of zero diversity and maximum of 0.79. This indicates that at least one company has all directors that came from the same education background. As reported in Table 5.2, directors who are knowledgeable and experienced in the financial field are being appointed the most with the percentage of 27.3 that is consistent with previous studies (Ghazalat et al., 2017). The management field and other expertise closely followed the list that may indicate that the former is also fundamental in business operation whilst the latter is high in percentage due to the accumulation of numerous other education fields.
The last diversity-in-boards is nationality diversity (NAT) and recorded minimum index diversity of zero to maximum of 0.50. The average index for NAT is rather small with only 0.152 as recorded in Table 5.1. This shows that at least one company has all directors that are Malaysian. Additionally, referring to Table 5.2, local directors were identified to dominate the boardroom with a huge gap of 92.9 per cent (only 7.1 per cent of foreigners). Hence, local directors are still dominating the boardroom and Malaysian listed companies continue to elect the locals instead of the international directors. This can be contributed to familiarity with this country’s rules and regulations as well as the local accounting understanding compared to foreign directors.

As for control variables, it can be further observed in Table 5.1 that the average company size (FSIZE) in Malaysian listed companies can be measured by total assets where the total is RM5.66 million with a minimum size of RM3.92 million to the maximum of RM8.3 million. The table also reveals data about the company leverage as measured by total debt divided by total assets. With the average leverage of 0.71, the minimum leverage is 0.00 which indicates that there is at least one company that has very little debt while the maximum leverage is 6.66, indicating that one company is extremely high in leverage. As for company performance (ROA) measured by net income divided by total assets, the average performance is low at 0.02 with minimum and maximum of -11.18 and 3.88 respectively. The result implies a significant difference in terms of profitability in Malaysian companies. Concerning the cash flow from operating (CFO), the average CFO is only RM0.04 million with the minimum of -RM10.04 million and maximum of RM5.27 million.
Table 5.3 presents the descriptive statistics for the dummy variables. For board leadership (LEAD), more than half of the sample (60 per cent) appointed independent chairman to assist the boardroom and the remaining decided to appoint non-independent chairman. This study reports that companies audited by the Big4 audit firms (BIG4) are slightly higher (at 56.98 per cent) than those audited by non-Big4 audit firms (at 43.02 per cent). Although the difference of percentage for both LEAD and BIG4 is relatively small than expected, this study believes that the percentage is small due to the small sample size. Regarding outsourcing the internal auditor (IAFSOUR), companies who opted to not outsource their internal auditor dominate the percentage with 64.15 per cent.

### Descriptive Statistics for the Consequence of Earnings Management and Corporate Reputation as Moderating Variable

Turning to variables that are involved in consequence of earnings management, Table 5.1 records that corporate social responsibility (CSR) scores ranged from 6.7 per cent to 79.2 per cent with a mean score of 32.20 per cent. The result reported a disappointing figure since the quality of CSR disclosures is low whereby the average scoring of quality CSR disclosure barely reached to half of the maximum score.
although it shows an increment as compared to previous studies (Ahmed Haji, 2013). Despite the encouragement brought by the local government, the awareness and involvement of companies in practicing and reporting CSR is still poor especially in terms of the quality of CSR disclosure. This echoes the findings of prior studies in Malaysia (Ahmed Haji, 2013; Saleh et al., 2010).

Regarding the only moderating variable for this study, corporate reputation (CR) is reported to have the minimum score and maximum score of 25 per cent and 93.8 per cent with a mean score of 56.91 per cent as shown in Table 5.1. This finding shows an immense improvement in terms of the reputation scoring as compared to a previous study by Darus et al. (2014). Therefore, it reflects that Malaysia PLCs were very apprehensive about their reputation across the years since reputation calls out the image and character of a company that give the impression of legitimacy to the stakeholders and to stay pertinent in the market.

Table 5.4
*Descriptive Statistics on Disclosure Practices based on Frameworks*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Full Score</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>21</td>
<td>0</td>
<td>19</td>
<td>6.28253</td>
</tr>
<tr>
<td>Workplace</td>
<td>54</td>
<td>5</td>
<td>41</td>
<td>16.7993</td>
</tr>
<tr>
<td>Community</td>
<td>21</td>
<td>0</td>
<td>20</td>
<td>7.34944</td>
</tr>
<tr>
<td>Marketplace</td>
<td>12</td>
<td>2</td>
<td>11</td>
<td>4.57993</td>
</tr>
<tr>
<td>Product &amp; Safety</td>
<td>12</td>
<td>1</td>
<td>12</td>
<td>4.20446</td>
</tr>
</tbody>
</table>

Examining the quality of CSR disclosure in a more detailed view, Table 5.4 shows the minimum and maximum scores of each category of CSR frameworks. It is interesting to note that there exists a company which did not disclose any information related to Environment and Community despite the PLCs could grab the opportunity to have tax reduction for any charity work that involves with community. Nonetheless, there is a company that managed to provide detailed disclosure in
Community framework as it nearly achieved full scores. Likewise, it is also the same to other frameworks which shows that there at least a company that managed to nearly get full scores in providing quality disclosure. Additionally, the table shows that workplace-related information scored a higher mean of 16.80 relative to community (7.35), environment (6.28), marketplace (4.58) and product and safety (4.20).

5.4 Correlation Analysis

To reassure that multicollinearity does not exist in this study, the test of tolerance and VIF are also carried out. The accepted degree of multicollinearity is a VIF less than 10 (Hair et al., 2013). As seen in Table 5.5 and Table 5.6, there are no VIF values that show significant multicollinearity for all of the variables of this study.

Table 5.5
Multicollinearity Test for Antecedent of Earnings Management

<table>
<thead>
<tr>
<th>Antecedent</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman Independence (LEAD)</td>
<td>0.874</td>
<td>1.144</td>
</tr>
<tr>
<td>Multiple Directorships (MUL)</td>
<td>0.863</td>
<td>1.159</td>
</tr>
<tr>
<td>Board Size (BSIZE)</td>
<td>0.703</td>
<td>1.423</td>
</tr>
<tr>
<td>Log Ned Fees (NED)</td>
<td>0.733</td>
<td>1.365</td>
</tr>
<tr>
<td>Gender Standardized (GEN)</td>
<td>0.946</td>
<td>1.057</td>
</tr>
<tr>
<td>Age Standardized (AGE)</td>
<td>0.858</td>
<td>1.165</td>
</tr>
<tr>
<td>Ethnic Standardized (ETH)</td>
<td>0.744</td>
<td>1.345</td>
</tr>
<tr>
<td>Competency Standardized (COM)</td>
<td>0.883</td>
<td>1.132</td>
</tr>
<tr>
<td>Nationality Standardized (NAT)</td>
<td>0.818</td>
<td>1.223</td>
</tr>
<tr>
<td>Company Size (FSIZE)</td>
<td>0.514</td>
<td>1.946</td>
</tr>
<tr>
<td>Return on Assets (ROA)</td>
<td>0.267</td>
<td>3.751</td>
</tr>
<tr>
<td>Cash Flow from Operations (CFO)</td>
<td>0.264</td>
<td>3.791</td>
</tr>
<tr>
<td>Internal Audit Outsource (IAFSOUR)</td>
<td>0.947</td>
<td>1.056</td>
</tr>
<tr>
<td>Leverage (LEV)</td>
<td>0.755</td>
<td>1.324</td>
</tr>
</tbody>
</table>
Table 5.6

Multicollinearity Test for Consequence of Earnings Management

<table>
<thead>
<tr>
<th></th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute value discretionary accruals (DACC)</td>
<td>0.962</td>
<td>1.039</td>
</tr>
<tr>
<td>Corporate Reputation (CR)</td>
<td>0.867</td>
<td>1.154</td>
</tr>
<tr>
<td>Company Size (FSIZE)</td>
<td>0.696</td>
<td>1.437</td>
</tr>
<tr>
<td>Return on Assets (ROA)</td>
<td>0.952</td>
<td>1.051</td>
</tr>
<tr>
<td>Leverage (LEV)</td>
<td>0.762</td>
<td>1.312</td>
</tr>
</tbody>
</table>

In addition, as referred in Table 5.7 and Table 5.8 below, there is no multicollinearity since none of the variables correlates over 0.9 in the whole model. Therefore, the correlation matrix test indicates that multicollinearity does not constitute an issue in any of the models.

5.4.1 Correlation Analysis for the Antecedent of Earnings Management

However, it is observed that the highest correlation is at 0.851 between cash from operations (CFO) and return on assets (ROA). This correlation has been projected and also reported in some prior studies, such as Abdul Rahman and Mohamed Ali (2006) who reported a relatively high collinearity of 0.67.

A variable, board size (BSIZE), seems to positively correlate with several other independent variables which are the Non-executive directors’ fees (NED), age diversity (AGE), and competency diversity (COM). These results suggest that companies with many directors pay higher amount of fees to the NEDs as the number of NEDs is substantial in the large board. Furthermore, larger boards also possess more diversity in terms of age and competency which suggest that the board entails different age generation and directors with greater skills and expertise. Large boards are usually found in large companies as reported in many similar prior studies.
Table 5.7
Correlation Matrix for the Antecedent of Earnings Management

<table>
<thead>
<tr>
<th></th>
<th>DACC</th>
<th>LEAD</th>
<th>MUL</th>
<th>BSIZE</th>
<th>NED</th>
<th>GEN</th>
<th>AGE</th>
<th>ETH</th>
<th>COM</th>
<th>NAT</th>
<th>FSIZE</th>
<th>LEV</th>
<th>ROA</th>
<th>CFO</th>
<th>IAFSOUR</th>
<th>BIG4</th>
</tr>
</thead>
<tbody>
<tr>
<td>DACC</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEAD</td>
<td>0.061</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUL</td>
<td>-0.073</td>
<td>-0.019</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSIZE</td>
<td>-0.088</td>
<td>-.156*</td>
<td>.041</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NED</td>
<td>-0.032</td>
<td>0.112</td>
<td>.180**</td>
<td>.221**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEN</td>
<td>-0.074</td>
<td>-0.055</td>
<td>-0.01</td>
<td>0.115</td>
<td>.139*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGE</td>
<td>-0.014</td>
<td>-0.067</td>
<td>-0.00</td>
<td>.286**</td>
<td>-0.04</td>
<td>0.1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETH</td>
<td>0.109</td>
<td>.209**</td>
<td>0.016</td>
<td>0.105</td>
<td>.130*</td>
<td>0.036</td>
<td>.126*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COM</td>
<td>-0.081</td>
<td>-0.121</td>
<td>0.05</td>
<td>.317**</td>
<td>0.07</td>
<td>0.032</td>
<td>.157*</td>
<td>0.035</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAT</td>
<td>0.078</td>
<td>0.085</td>
<td>-0.06</td>
<td>0.015</td>
<td>0.112</td>
<td>0.051</td>
<td>-0.01</td>
<td>.385**</td>
<td>0.004</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSIZE</td>
<td>-0.160**</td>
<td>-0.096</td>
<td>.329**</td>
<td>.394**</td>
<td>.437**</td>
<td>0.077</td>
<td>.130*</td>
<td>0.075</td>
<td>.170**</td>
<td>0.018</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>-0.12</td>
<td>0.025</td>
<td>.169**</td>
<td>.126*</td>
<td>.136*</td>
<td>-0.03</td>
<td>0.074</td>
<td>-0.05</td>
<td>0.03</td>
<td>-0.02</td>
<td>.442**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>-0.07</td>
<td>0.05</td>
<td>-0.05</td>
<td>0.086</td>
<td>0.027</td>
<td>0.08</td>
<td>-0.07</td>
<td>.183**</td>
<td>0.03</td>
<td>0.048</td>
<td>0.005</td>
<td>-.170**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CFO</td>
<td>-0.056</td>
<td>0.083</td>
<td>-0.03</td>
<td>0.06</td>
<td>0.001</td>
<td>0.098</td>
<td>-0.07</td>
<td>.199**</td>
<td>-0.00</td>
<td>-0.01</td>
<td>0.026</td>
<td>-.136*</td>
<td>.851**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IAFSOUR</td>
<td>0.081</td>
<td>0.048</td>
<td>0.031</td>
<td>-0.037</td>
<td>-0.06</td>
<td>-0.02</td>
<td>-0.02</td>
<td>0.093</td>
<td>0.007</td>
<td>0.094</td>
<td>-.157*</td>
<td>-.034</td>
<td>-0.01</td>
<td>-0.01</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>BIG4</td>
<td>-0.101</td>
<td>-0.068</td>
<td>0.114</td>
<td>.218**</td>
<td>.161*</td>
<td>.162**</td>
<td>.179**</td>
<td>0.065</td>
<td>0.043</td>
<td>0.112</td>
<td>.412**</td>
<td>.202**</td>
<td>-0.04</td>
<td>-0.01</td>
<td>-0.077</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
Additionally, Table 5.7 reports that company size (FSIZE) positively correlate with NED, BSIZE, and auditor (BIG4) which is not surprising. The findings imply that larger companies have larger board, paid higher fees and remunerations to attract qualified NEDs, and usually hire highly skilled and qualified auditors among the BIG4 to monitor and inspect their business operations.

It appears that nationality diversity (NAT) and ethnic diversity (ETH) are also positively correlated. The result demonstrates having a mixture of local and foreign directors increases the diversity of ethnicity because foreign directors are designated as other races when this study was performed (ethnic diversity comprises of Malay, Chinese, Indian and other races).

5.4.2 Correlation Analysis for the Consequence of Earnings Management and Corporate Reputation as Moderating Variable

The previous section discussed the correlation analysis for the antecedent of earnings management. The discussion proceeds by looking into the variables that are involved in the consequence of earnings management together with the corporate reputation as the moderating variable.

Table 5.8
Correlation Matrix for the Consequence of Earnings Management and Corporate Reputation as Moderator

<table>
<thead>
<tr>
<th></th>
<th>CSR</th>
<th>DACC</th>
<th>CR</th>
<th>ROA</th>
<th>FSIZE</th>
<th>LEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DACC</td>
<td>-0.078</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td>0.530***</td>
<td>-0.097</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.046</td>
<td>-0.07</td>
<td>0.091</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSIZE</td>
<td>0.608***</td>
<td>-0.160***</td>
<td>0.338***</td>
<td>0.005</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>0.305***</td>
<td>-0.12</td>
<td>0.05</td>
<td>-0.170***</td>
<td>0.442***</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
Referring to the correlation matrix presented in Table 5.8, it is observed that corporate social responsibility (CSR) significantly correlates with several variables such as the corporate reputation (CR) and company size (FSIZE). These findings suggest that companies with higher reputation tend to practice and report a greater level of CSR to communicate, disseminate, and give the impression of legitimacy to their stakeholders. Larger companies that received more public scrutiny and attention compared to smaller ones are expected to project socially responsible behaviour which lead to superior reporting on CSR. Lastly, FSIZE is also significantly correlated with CR which indicated that large companies tend to have higher reputation.

5.5 Multivariate Analysis

This study analyses the influence of multi variables on earnings management for first model and the effect of earnings management on CSR for second model which are deemed to be suitable for multiple regression analysis. Besides, this analysis is a versatile analysis technique since it is widely used in business decision-making by far (Hair et al., 2013). However, the use of ordinary least squares (OLS) regression is subject to the assumptions as discussed earlier (specifically in Section 5.1).

5.5.1 Regression Results for the Antecedent of Earnings Management

This section provides the findings and results of the multiple regression which was performed using weighted least square (WLS) regression method. Table 5.9 documents the regression analysis results for antecedent of earnings management. The results for antecedent of earnings management are segregated into two whereby the results for the relationship between diversity-of-boards and earnings management
will be firstly presented and are followed with the results for the relationship between
diversity-in-boards and earnings management.

Table 5. 9
Regression Results for the Antecedent of Earnings Management

<table>
<thead>
<tr>
<th>Variables</th>
<th>Predicted Sign</th>
<th>Coefficient</th>
<th>t-statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td>0.098</td>
<td>3.727</td>
</tr>
<tr>
<td>Diversity-on-boards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEAD</td>
<td>-</td>
<td>-0.016</td>
<td>-2.799***</td>
</tr>
<tr>
<td>MUL</td>
<td>+</td>
<td>-0.019</td>
<td>-1.704**</td>
</tr>
<tr>
<td>BSIZE</td>
<td>+</td>
<td>0.001</td>
<td>0.807</td>
</tr>
<tr>
<td>NED</td>
<td>-</td>
<td>0.011</td>
<td>2.028***</td>
</tr>
<tr>
<td>Diversity-in-boards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEN</td>
<td>-</td>
<td>-0.019</td>
<td>-2.358***</td>
</tr>
<tr>
<td>AGE</td>
<td>-</td>
<td>-0.037</td>
<td>-1.754**</td>
</tr>
<tr>
<td>ETH</td>
<td>-</td>
<td>-0.004</td>
<td>-0.388</td>
</tr>
<tr>
<td>COM</td>
<td>-</td>
<td>-0.003</td>
<td>-0.124</td>
</tr>
<tr>
<td>NAT</td>
<td>+</td>
<td>0.037</td>
<td>3.934***</td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>-</td>
<td>-0.037</td>
<td>-4.745***</td>
</tr>
<tr>
<td>IAFSOUR</td>
<td>+</td>
<td>0.015</td>
<td>2.811***</td>
</tr>
<tr>
<td>FSIZE</td>
<td>-</td>
<td>-0.006</td>
<td>-1.732**</td>
</tr>
<tr>
<td>CFO</td>
<td>+</td>
<td>0.037</td>
<td>4.228***</td>
</tr>
<tr>
<td>BIG4</td>
<td>-</td>
<td>-0.012</td>
<td>-2.004***</td>
</tr>
</tbody>
</table>

Adjusted R² 0.302
F-value 7.741***
N 265

Notes: *, **, *** are significant levels as at 10%, 5%, 1% respectively. Leverage was used as the weight for the weighted least square regression.

5.5.1(a) Diversity-of-boards and Earnings Management

Diversity-of-boards provides board’s critical function of monitoring management on behalf of the shareholders (Fama & Jensen, 1983). From the analyses conducted, it was found that three out of the four diversity-of-boards attributes examined in the study are significantly related with earnings management. As presented in Table 5.9, board leadership (LEAD), multiple directorships (MUL), and Non-executive directors’ fees (NED) are significantly associated with earnings management with
the exception of board size (BSIZE) that appears to be insignificantly affecting earnings management.

As predicted by agency theory, this study finds a significant negative relationship between board leadership (LEAD) and earnings management ($\beta=-0.016$, $p$-value = 0.003), suggesting that chairman who is independent is able to mitigate earnings management. Hence, $H_1$ is accepted. Concerning the relationship between multiple directorships (MUL) and earnings management, it is significantly negative ($\beta= -0.019$, $p$-value = 0.045) which contradicts the agency theory perspective that stresses on the incapability of MUL that weakens board effectiveness. Taking the result of board size (BSIZE) into consideration, this study finds a positive relationship between BSIZE and earnings management. However, the coefficient is not statistically significant. Referring to the last diversity-of-boards attributes, Non-executive directors’ (NED) commitment which were measured by the natural logarithm of the NEDs’ fees, the result shows that NED is significantly ($\beta= 0.011$, $p$-value = 0.022) and positively related with earnings management which contradict Hypothesis $H_4$.

5.5.1(b) Diversity-in-boards and Earnings Management

Diversity-in-boards generates intellectual ideologies due to their distinctive skills, background, and character (Dalziel et al., 2011). Regarding the findings, Table 5.9 illustrates that three out of five board demographic attributes are significantly associated with earnings management. Those that are significantly related are gender diversity (GEN), age diversity (AGE), and nationality diversity (NAT) while ethnic diversity (ETH) and competency diversity (COM) were found to have no influence on earnings management.
Consistent with Hypothesis H₅ that states there is a negative relationship between gender diversity and earnings management, the result indicates that there is a negative and significant relationship ($\beta = -0.019$, $p$-value = 0.008) for the respective relationship. Meanwhile, Hypothesis H₆ predicts that age diversity (AGE) is negatively associated with earnings management. The negatively signed coefficient ($\beta = -0.037$, $p$-value = 0.041) on AGE supports this study’s argument and hypothesis. In contrast to expectations, Hypotheses H₇ and H₈ assumed a negative relationship between ethnic diversity and competency diversity. These findings in this study detect that both demographic diversity attributes have an insignificant association with earnings management despite having negative coefficients as shown in Table 5.9. As Hypothesis H₉ expected, the relationship between nationality diversity and earnings management is significant and positive ($\beta = 0.037$, $p$-value = 0.000).

5.5.1(c) Control Variables and Earnings Management

This section explains the results for the control variables in first model; the antecedent of earnings management. Table 5.9 presents the control variable results conducted using WLS regression analysis. The results are mostly coherent with the findings from previous literature. All five control variables (except for leverage since it is being used as the weight for WLS regression analysis) which are FSIZE, ROA, CFO, IAFSOUR, and BIG4 are statistically significant with earnings management. Larger companies (FSIZE) received more attention by the stakeholders, thus, managers have less motivation to engage in earnings management practices (Watts & Zimmerman, 1990). Consistent with the result from previous studies, a significant negative relationship ($\beta = -0.006$, $p$-value = 0.042) was reported between larger companies and earnings management due to the political pressure and inspection by...
the external market than smaller companies and their ability to attract directors with superior expertise and experience (Abdul Rahman & Mohamed Ali, 2006; Abdullah & Ku Ismail, 2012). As predicted, profitability (ROA) is significantly and negatively \((\beta = -0.037, p\text{-value} = 0.000)\) associated with earnings management. This finding implies that low-performing companies have a higher incentive to practise earnings management as it involves higher bankruptcy risk that may lead to litigation risks (Abdul Rahman & Mohamed Ali, 2006) and higher earnings quality (Razak & Palahuddin, 2014; Al-Rassas & Kamardin, 2015). Moving to cash flow from operations (CFO), the relationship between CFO and earnings management is significant and positively associated \((\beta = 0.037, p\text{-value} = 0.000)\) which suggests that companies with stronger CFO performance tend to be utilised by the management to reach certain target and CFO is closely linked with more uncertainty in the operation environment (Paiva & Lourenco, 2016; Roychowdhury, 2006). With regards to internal audit function sourcing arrangements (IAFSOUR), the respective variable and earnings management is significantly positive \((\beta = 0.015, p\text{-value} = 0.002)\).

Consistent with a prior study conducted in Malaysia (Mansor et al., 2013), companies that opt for outsourcing their internal audit function (IAFSOUR) may have increased the likelihood of having higher earnings management practices since outside directors have less knowledge, experience, and familiarity within the companies’ operation compared to the internal auditors. Hence, this will reduce the strength of monitoring. Lastly, the relationship between auditor (BIG4) and earnings management was reported significantly negative \((\beta = -0.012, p\text{-value} = 0.023)\) that implies higher external audit quality (carried out by audit firms amongst the Big4) provides a superior monitoring mechanism as they are more likely to detect questionable accounting practices due to their expertise and ample of resources.
The next section discusses the WLS regression result for the consequence of earnings management and the moderating effect of corporate reputation for the previously mentioned relationship.

5.5.2 Regression Results for Consequence of Earnings Management and Corporate Reputation as Moderating Variable

Similar to the regression analysis conducted for the first empirical model (antecedent of earnings management), WLS regression analysis is also conducted to test this model, particularly the effect of earnings management on corporate social responsibility (CSR) and the moderating role of corporate reputation (CR) on the relationship between earnings management and CSR. Leverage (LEV) is applied as the weight for WLS regression analysis to avoid heteroscedasticity.

Table 5.10 provides the results of the tests for Hypothesis $H_{10}$ and Hypothesis $H_{11}$ using one model whereby CSR is the dependent variable while the independent variable is earnings management absolute discretionary accrual (DACC) and the moderating variable of corporate reputation (CR).

Contradicting Hypothesis 10, the relationship between earnings management and CSR is reported insignificant with a negative relationship. Thus, Hypothesis $H_{10}$ is rejected. In addition to examining the relationship between earnings management and CSR, Table 5.10 also reports the inclusion of interaction variable between earnings management and CR. CR is included to reveal the moderating effect on the relationship between earnings management and CSR. The coefficient of the
interaction between earnings management and CR is positive yet the relationship is still insignificant.

Table 5.10
Regression Results for Consequence of Earnings Management and the Moderating Effect of Corporate Reputation

<table>
<thead>
<tr>
<th>Variables</th>
<th>Without Interaction</th>
<th>With Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-45.913</td>
<td>-52.277</td>
</tr>
<tr>
<td><strong>Independent Variable</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DACC</td>
<td>-110.489</td>
<td>-95.506</td>
</tr>
<tr>
<td><strong>Moderating Variable</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td>29.254</td>
<td>4.088***</td>
</tr>
<tr>
<td>DACC X CR</td>
<td>8.668</td>
<td>1.090</td>
</tr>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.622</td>
<td>0.594</td>
</tr>
<tr>
<td>FSIZE</td>
<td>14.832</td>
<td>13.278</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.72</td>
<td>0.741</td>
</tr>
<tr>
<td>F-value</td>
<td>170.46***</td>
<td>147.951***</td>
</tr>
<tr>
<td>N</td>
<td>265</td>
<td>265</td>
</tr>
</tbody>
</table>

Notes: *, **, *** are significant levels as at 10%, 5%, 1% respectively. Leverage was used as the weight for the weighted least square regression.

The results for control variables presented in Table 5.10 specify that there are significant positive relationships for both hypotheses. As for hypothesis H₁₀, the relationships between ROA and CSR (β = 0.622, p-value = 0.025) and FSIZE and CSR (β = 14.832, p-value = 0.000) are positively significant. Similarly, hypothesis H₁₁ reported the relationships between ROA and CSR (β = 0.594, p-value = 0.027) and FSIZE and CSR (β = 13.278, p-value = 0.000) as positively significant. This finding supports the hypothesis that CSR is higher for companies that are profitable and larger in size due to their mass resources and visibility from the stakeholders (Choi et al., 2013; Prior et al., 2008). These results are consistent with previous studies (Kim et al., 2012; Prior et al., 2008).
5.5.3 Additional Sensitivity Test

Additional sensitivity test has been carried out to determine whether industry where companies belong to, may play a role in affecting the earnings management and CSR relationship and including the moderator interaction of corporate reputation. The rationalization of testing the industry effects is that companies within different industries may face and experience different level of stakeholder pressure or activism. Particularly, sensitive industry are expected to engage and disclose more CSR compared to the non-sensitive industry as the former tend to receive more public attention and greater scrutiny due to their products that are harmful to the human being, society and environment (Abu Bakar & Ameer, 2010; Kansal et al., 2014). As referred in Appendix K and Appendix L, the results reported contradict findings as to what has expected. As for sensitive industry, Appendix K reported insignificant relationships for direct relationship between earnings and CSR and the moderator interaction. Interestingly, the relationships appear to be positively significant for non-sensitive industries as shown in Appendix L. Commonly and previous studies stated that non-sensitive industry do not have high incentives to engage and disclose more CSR due to lesser pressure and attention received unlike sensitive industry (Cai et al., 2012; Graafland, 2017). However, this study postulates that, should this industry involved in opportunistic behavior, such as earnings management, this could trigger and spark the urgency of changing the sustainability engagement and disclosures. The increment of CSR is needed to reinforce the entrenchment mechanism in this non-sensitive industry. Additionally, the corporate reputation also moderates the relationship between earnings management and CSR in non-sensitive industry. Hence, industry types do affect the relationship between earnings management and CSR and the moderator interaction.
5.6 Summary of the Main Results

This section presents eleven hypotheses and summarises the key findings of this study based on the research objectives in Table 5.11. The overall findings propose some of the corporate governance attributes, board diversity in particular, are able to restrain the likelihood of earnings management practice in Malaysia since companies in Malaysia are practising CSR for legitimacy and to satisfy the stakeholders’ demand and interest.

Table 5.11  
Summary of Hypotheses and Findings

<table>
<thead>
<tr>
<th>N</th>
<th>Hypothesis</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Board leadership is negatively associated with earnings management.</td>
<td>Supported and significant at p &lt; 0.01</td>
</tr>
<tr>
<td>H2</td>
<td>Multiple directorships are positively associated with earnings management.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H3</td>
<td>Board size is positively associated with earnings management.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H4</td>
<td>Non-executive directors’ commitment is negatively associated with earnings management.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H5</td>
<td>Gender diversity is negatively associated with earnings management.</td>
<td>Supported and significant at p &lt; 0.05</td>
</tr>
<tr>
<td>H6</td>
<td>Age diversity is negatively associated with earnings management.</td>
<td>Supported and significant at p &lt; 0.05</td>
</tr>
<tr>
<td>H7</td>
<td>Ethnic diversity is negatively associated with earnings management.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H8</td>
<td>Competency diversity is negatively associated with earnings management.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H9</td>
<td>Nationality diversity is positively associated with earnings management.</td>
<td>Supported and significant at p &lt; 0.01</td>
</tr>
<tr>
<td>H10</td>
<td>Earnings management is positively associated with corporate social responsibility.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H11</td>
<td>Corporate reputation moderates the relationship between earnings management and corporate social responsibility.</td>
<td>Not supported</td>
</tr>
</tbody>
</table>
5.7 Conclusion

This chapter reports the result of empirical findings for both antecedent of earnings management (that examine the effect of board diversity and earnings management) and consequence of earnings management (CSR as the consequence) with corporate reputation as the moderating variable in the Malaysian public listed companies in 2016. Several common tests have been conducted and as for multivariate analysis in particular, this study adopts the weighted least square (WLS) regression analysis to remediate the heteroscedasticity issue caused by one of the control variables, namely, leverage (LEV). Using LEV as the weight, these findings suggest that the governance in Malaysia has yet to reach its superiority in terms of its regulations. Referring to regression analysis findings, some of the variables were reported to have a significant relationship with earnings management. As expected, board leadership, gender diversity and age diversity significantly and negatively influence earnings management, while nationality diversity significantly and positively influence earnings management. Furthermore, this study also captured an interesting findings particularly the multiple directorships variable although the hypothesis is not supported. This variable has been postulated as positively influence the earnings management as reported by previous studies and in accordance with agency theory. Contradict to what postulated, this study found it to be significantly and negatively affect the earnings management. Other hypotheses (such as non-executive directors’ commitment, ethnic diversity and competency diversity) are found to be insignificant and could not be accepted, thus, they do not support agency theory and human capital theory. The next chapter will further discuss the analysis in a more detailed fashion as well as provide a summary of this respective study.
6.1 Introduction

The purpose of this chapter is to discuss the overall findings of the study that were outlined in the previous chapter. Firstly, this chapter recapitulates the whole study and follows with a comprehensive discussion of the results obtained from the regression analysis as presented in the previous chapter. Subsequently, this chapter explains the implications that were derived from the findings of this study such as implication for theory, literature and practitioners. The limitations and direction for future research are also covered in this chapter.

6.2 Recapitulation of the Study

Of late, corporate governance became a determinant to many subjects in identifying companies’ strength as well as their earnings reporting. Hence, the most imperative internal control device which is the board of directors received substantial attention in determining its effectiveness in managing and controlling the company such as overseeing and consulting the management from being involved in the accrual management.

The severity of earnings management has led to different consequences. Studies in developed countries reported that companies with a higher degree of managing earnings also engage themselves in numerous corporate social responsibilities (CSR) activities. This indicates that CSR has been revolutionised and became an entrenchment mechanism for irrational managers to safeguard themselves.
This thesis uses the above affairs to examine these following relationships: (1) the effect of diversity-of-boards on earnings management; (2) the effect of diversity-in-boards on earnings management; (3) the relationship between earnings management and CSR; and (4) the moderating role of corporate reputation on the association between earnings management and CSR. With regards to board diversity, it entails two aspects which are structural aspect of board (diversity-of-boards) and demographic aspect of board (diversity-in-boards). To measure board diversity, structural aspect used several proxies referring to prior studies while Blau’s index of diversity is utilised to ascertain the diversity in demographic aspect. Since the board diversity comprises of two aspects, they are tested under two theoretical premises which are agency theory for the effect of diversity-of-boards and human capital theory for the effect of diversity-in-boards. Meanwhile, the relationship between earnings management and CSR is determined using stakeholder-agency theory and signalling theory, as well as legitimacy theory for examining the moderating variable, corporate reputation.

To gauge the magnitude of earnings management, this study selected to use Modified Jones Model (Dechow et al., 1995) to measure absolute value discretionary accrual (DACC) as the proxy. The 2016 financial data were derived from the Thomson Reuters Datastream database and hand-collected if the online database failed to provide them. A sample of 265 non-financial Malaysian PLCs from seven industries was examined to investigate the antecedent and consequence of earnings management.

Focusing on CSR as the consequence of earnings management, a content analysis from annual reports is applied to measure CSR particularly the quality of CSR disclosure. A CSR disclosure checklist was constructed based on previous
literature performed in Malaysia. In addition, the disclosure qualities were determined by rewarding those companies with comprehensive disclosure with a maximum score of 3 and a minimum score of 0 should no disclosure is made. A pilot study which is the inter-rater reliability test was conducted prior to data collection process to ensure that there is some variability in reporting between different companies as well as to capture any items that were included in the existing checklist. This study also incorporated corporate reputation (CR) as the only moderating variable. In reviewing prior literature, the effect of CR is definitely prevailing on the relationship between earnings management and CSR. The idea is that reputable companies are very concern and cautious about their reputation. Hence, these companies shall increase their engagement, practices and reporting in CSR to sustain or protect their reputation from being tarnished by the earnings management. CR would play a significant role as the moderator by strengthen the relationship between earnings management and CSR.

With regards to data analysis, the basic assumptions that underlie the multiple regression are normality, linearity, homoscedasticity, and multicollinearity. These assumptions were also examined to check if any violations existed. This study data did not meet the homoscedasticity assumption, thus, weighted least square (WLS) regression analysis was used to analyse the data.

This study has captured the uniqueness of the Malaysian environment, particularly related to the board diversity, earnings management, and CSR. Each issue has been tested in a number of prior researches, but in examining the antecedent and consequence of earnings management, very little research has investigated them in the context of a developing country including Malaysia as well as incorporating reputation as moderating variable. As revealed by the literature
review, board diversity is essential in bringing diverse perspective as it covers the structural characteristics of the board and the inherent characteristics of a director. These substantial advantages appear to be impactful to the earnings management practices as reported by this study’s result. Furthermore, though earnings management and CSR have been tested with the basis of legitimacy and stakeholder theory, the misuse of CSR seem to be overlooked by the researchers. Hence, this study decided to place this issue in this study to provide empirical evidence for the Malaysia market.

6.3 Discussion of Findings

The first discussion focuses on the results of the antecedent of earnings management that is further segregated into two parts which discuss on the effect of diversity-of-boards and the effect of diversity-in-boards. Then, the discussion will focus on the consequence of earnings management, particularly the effect of earnings management on CSR and is followed with the moderating role of corporate reputation on the respective relationship.

Discussion on the Antecedent of Earnings Management

The result identified this model as significant and the adjusted $R^2$ is $30.9$ per cent. Previous studies involving earnings management that were conducted in Malaysia mostly reported low adjusted $R^2$ such as studies by Mohamad et al. (2012) and Al-Rassas and Kamardin (2015) which were only at $15.5$ per cent and $11.24$ per cent. Although the recorded adjusted $R^2$ for this current study is higher than that reported in the previous Malaysian study, some studies also reported closer value to this respective study such as at the percentage of $27$ per cent and $25$ per cent (Bamahros
& Wan Hussin, 2015; Buniamin et al., 2012) by examining the association between board diversity and corporate governance with discretionary accruals. The $R^2$ of this current study is slightly higher perhaps due to having fit variables altogether and suitable number of sample size. Overall, the low $R^2$ is commonly reported for earnings management practices as it involves with human behaviour that difficult to predict.

6.3.1 The effect of diversity-of-boards on Earnings Management

This section rigorously discusses on the results reported as per regression analysis presented in Table 5.6. As for diversity-of-boards or the structural attributes of the boards, only $H_1$ is supported.

6.3.1(a) Board Leadership and Earnings Management

With regards to board leadership, this study has taken into account the MCCG 2012 recommendations which are the chairman should be a non-executive director and does not serves as the CEO. By also considering the independence of the chairman, the finding shows that there is a significant negative relationship between earnings management and board that is led by an independent chairman which indicate that hypothesis $H_1$ is accepted. Independent chairman that does not have any material monetary relationship (except remuneration) could reinforce the overseeing and function as a watchdog to the executives without the conflict with the management and affect their independence of judgment. This result generally supports the argument of Fama and Jensen (1983) that a chairman who is independent from being neither the company’s founder nor the CEO is anticipated to enhance board effectiveness as he could provide an independent monitoring on the CEO’s actions.
The effectiveness on controlling deteriorated when duality appears since the excessive powers of CEO and chairman are vested in the hands of an individual (Jensen & Meckling, 1976; Vintila & Duca, 2013) and caused higher earnings management practices (Dechow et al., 1996). Moreover, this finding is in line with the argument outlined by Chau and Leung (2006) that agency cost can be reduced as decision-making power is not be vested solely on one dominant individual.

Using the independence of a chairman as the proxy for board leadership, the results are consistent with prior studies who reported that earnings quality is more superior when the chairman is independent in Malaysia (Al-Dhamari & Ku Ismail, 2014) as well as in the United Kingdom (Habbash et al., 2012). This study also documented that PLCs in Malaysia are aware of the benefits of hiring independent chairman since more than half of the samples appointed independent chairman to lead the board members (as presented Table 5.3). Nonetheless, the result is dissimilar from several previous studies. A majority of the studies reported no significant relationship between this variable and earnings management due to the different measurement used. These studies used an indicator variable of value 1 for the occurrence of duality (Abdul Rahman & Mohamed Ali, 2006; Dechow et al., 1996) which differ from this study whereby the value of 1 is awarded for the chairman who is independent similarly to the research by Al-Dhamari and Ku Ismail (2014) and Habbash et al. (2012).

6.3.1(b) Multiple Directorships and Earnings Management

Interestingly, the result rejected H2 that hypothesised multiple directorships are positively related with earnings management. The hypothesis that was developed by literature review and agency theory contradicts the result that shows a negative
relationship. This finding indicates multiple directorships able to diminish earnings management that perhaps is in line with resource dependence theory. Although previous studies agree that busyness hypothesis (basis from agency theory) could aggravate earnings management (Hashim & Rahman, 2011; Jamaludin et al., 2015; Mohamad et al., 2012), this study reports opposite result which propose that the more directors hold outside directorships, cross-fertilisation of ideas and exposure from varying markets and organisations could improve earnings quality which is consistent with the resource dependence theory. Thus, hypothesis H₂ is rejected.

Based on the findings, this study would like to highlight the modification in Chapter 15 Corporate Governance “Main Market Listing Requirements” that may have influenced the contrary result of this relationship compared to prior studies. Set in the year 2015, the requirement reduced the number of directorship to only five directorships for a director. Prior studies that reported a positive relationship have considered the previous requirement whereby it allowed up to 25 directorships per director. Additionally, Table 5.1 also reported a slight decrease in multiple directorships compared to prior studies conducted by Hashim and Rahman (2011) and Kamardin and Haron (2011). Therefore, this study conjectures that the high number of directorships that previously allowed has positively influenced the impact of multiple directorships towards earnings management. As the number of directorships has shrunk, it may have negatively affected the relationship between multiple directorships and earnings management as reported in this study’s findings.

6.3.1(c) Board Size and Earnings Management
Contrary with hypothesis H₃, the relationship between number of board size and earnings management is found to be insignificant. The notion of smaller board size
brings greater coordination and effective communication has counterweight the benefits offered by larger board in mitigating earnings management as it is not supported in this study.

The reported result is consistent with several prior studies conducted in Malaysia (Abdullah & Ku Ismail, 2016; Mohamad et al., 2012). This insignificant result is similar with the stated Malaysian studies although the previous studies used a larger sample size and longer timeline. The study conducted by Mohamad et al. (2012) was performed specifically on government-linked companies. Collectively, this indicates that the size of the board does not influence the managers to manage earnings regardless of types of company and size of the sample.

However, this result differs from other studies that reported a significant negative relationship. This different result might be due to the unique markets and business environment as well as corporate governance regimes offered by Malaysia. In example, Huang and Wang (2015) stated that companies in China need to adhere to the requirement concerning to board size whereby China Securities Regulatory Commission (CSRC) Code explicitly states that the board of directors should be composed minimum of 5 and maximum of 19 members. Another plausible reason is that this study extends its analysis by looking into the variation of the board size. By observing the number of board members in each company in this study’s sample, it is noticed that most of the numbers are close to the average size of the boards whereby it is within a range of 6 and 10. Hence, the board size is lacking variation which may contribute to the insignificant result.
6.3.1(d) Non-executive Directors’ Commitment and Earnings Management

Using non-executive directors’ (NEDs) fees as the measurement for NEDs commitment, the finding reveals a positive and significant relationship with earnings management which contradicts with what was hypothesized. Thus, the hypothesis $H_4$ is rejected. The result is in contrast with a study conducted in the United Kingdom by Habbash et al. (2012) by which the study suggested that higher fees paid to independent outside directors increased their level of commitment and motivated them to provide higher supervisory in monitoring the opportunistic behaviour. The researchers also stated that companies that paid their outside directors generously are discouraged to involve in such a discretionary act. Following to this present study’s result, it indicates that those independent outside directors in PLCs are not affected and feel indifferent with the high pay provided by their companies which led to ineffective controlling towards the management that supervised with higher accrual management.

Looking from a different context, directors’ fees are particularly closely related to agency theory which having the concept of paying efficient compensation packages will have the effect of ensuring the agent (director) acts in the best interest of the principal (shareholder) (Jensen & Meckling, 1976) which eventually improves the company performance. Unfortunately, previous studies in Malaysia reported insignificant, ambiguous, and negative results between fees and performance (Abdullah, 2006; Dogan & Smyth, 2002; Tee & Hooy, 2009) which can explain that fees will not affect their level of responsibilities and accountabilities. Hence, adopting the context into earnings management field, fees could not improve and stimulate the NEDs commitment in mitigating earnings management. This opposite
result could possibly attribute to the fees failing to encourage the NEDs in Malaysia to reinforce the monitoring mechanism.

Moreover, in light of NEDs’ duties and responsibilities, the effectiveness of monitoring from them diminished since they are not in contact with the daily operation of the company, insufficient time spent for the company, and were merely appointed based on the relationship with the CEO of the company (Hashim & Devi, 2008). Likewise, these NEDs may be lacking in terms of expertise, skills, and especially knowledge on the operation of the respective company they appointed of (Abdul Rahman & Mohamed Ali, 2006). This problem could diminish the quality of monitoring.

Another possible reasoning for the positive relationship between NEDs commitment and earnings management is that the directors are more likely apparent in providing long-term planning and strategic involvement such as taking and shaping strategic decisions, advising management on accomplishing objectives and missions as well as moulding the context, conduct and content of strategy rather than participating in business or operational (Annuar, 2014). Similarly, NEDs are added to the board for their advisory duties or merely to comply with regulations (Peasnell, Pope, & Young, 2005). These situations indicate that supervising the management is no longer their main focus (Annuar, 2014) which may facilitate the management to be involved in manipulating earnings.

Additionally, the increase in payment can be seen by comparing with prior studies. Throughout the years, remuneration paid for NEDs in Malaysia is currently on the rise (particularly with the average fee of RM438,428, minimum pay of RM19,900 and maximum pay of RM6,556,000). This study found that the current average remuneration paid has doubled the remuneration paid from the year 2007
and 2009 (Jaafar, Nawawi & Salin, 2014) as shown in Table 5.1. The substantial difference indicates that qualified NEDs are in demand and companies are willing to offer high pay to the respective directors. The increase in pay over the years in Malaysia is also consistent with a study conducted in the United Kingdom (Habbash et al, 2012).

6.3.2 The effect of diversity-in-boards on Earnings Management

This section thoroughly explains the results as presented in the regression analysis as in Table 5.6. As for diversity-in-boards or the demographic attributes in the boards, H5, H6 and H9 are accepted.

6.3.2(a) Gender Diversity and Earnings Management

The finding is in accordance with the hypothesis predicted by hypothesis H5 that the relationship is negative whereby it supports the hypothesis that diversity in terms of gender in a boardroom enhanced the board performance and resulted in lower earnings management practices. This study advocates the strength of both male and female directors in undertaking their decision-making for the company’s wellbeing. As indicated by Post and Byron (2015), both genders develop different cognitive frames that affect their decision-making process mainly due to the exclusive traits brought by each gender. Males seem to be more aggressive and are willing to invest more time and money in the company whereas the females have the ability to provide better communication, ethical, and understand the market place dynamics more as compared to the former (Arun et al., 2015). Taking into account both genders’ strengths, higher gender diversity in the boardroom appears to be more
observant, deliver more rigorous governance, and enhance the extent of moral or ethical development of a company.

In line with the human capital theory, both genders that have different background and inherent characteristics may respond differently to similar incentives which lead to exceptional monitoring mechanism. This result contributes new evidence to the literature as it believes that both genders could give better controlling and alleviate accrual management which is being measured using the Blau’s index of diversity rather than using the proportion of either gender. Additionally, Table 5.2 shows an increment in female director participation in the boardroom compared to prior studies conducted by Amran et al. (2014). However, the percentage (only 11.3 per cent as in Table 5.2) is still weak and it signifies the failure to comply with government’s regulatory policy involving female directors’ appointment whereby 30 per cent of female director appointment is mandated.

6.3.2(b) Age Diversity and Earnings Management

Furthermore, age diversity is reported to be negatively significant with earnings management as hypothesized in $H_6$. The hypothesis is accepted and suggests that higher age diversity in the board of directors plays an important role in constraining the earnings management practices. Considering as part of human capital, age substantially contributes to the character of different generations. While the younger directors are more likely to be involved in riskier and more volatile strategies, the stale or older directors are far more conservative despite having pooled experience and knowledge (Hambrick & Mason, 1984; Hongxia & Wallace, 2009; Mishra & Jhunjhunwala, 2013). Thus, the greater conservatism contributes higher earnings quality.
Building on the discussion, the merge of both generations creates comprehensive resources and expertise plus with balancing the risks that are able to improve organisational performance (Ararat et. al, 2010; Kim & Lim, 2010). In contrast with the result reported by Hafsi and Turgut (2013) that reported age diversity led to generation conflict, it seems that directors in Malaysian PLCs do not experience the issue of generation conflict or polarisation despite the directors’ age is dominated by the older directors whereby those directors above 50 years old accounted 76.5 per cent as documented in Table 5.2. After further checking, this current study and Hafsi and Turgut’s used a similar sampling frame which is only a year of observation. Hence, the finding is in disagreement and this is possibly due to the different measurement whereby the researchers used the coefficient of variation while this study operationalised Blau’s index of diversity to measure age diversity.

6.3.2(c) Ethnicity Diversity and Earnings Management

Nonetheless, the result demonstrates that diversity in terms of ethnicity is negatively associated with earnings management and the coefficient is insignificant. Hence, hypothesis H7 is not supported. Using Blau’s Index of diversity, earnings management cannot be repressed when the board entails high diversity in terms of ethnicity. Furthermore, the finding has no potential to support the human capital theory.

Based on this result, the insignificant relationship may be explained by these possibilities. Referring to Table 5.2, the main ethnics in Malaysia which are Malay, Chinese and Indian are apparently not being acknowledged by the PLCs since the appointment of Indian directors is very little (only 1.6 per cent). Although Malaysia is known to have and value its three main ethnics which are the Malay, Chinese and
Indian, it is regrettable to document that Indian director is the least director to be appointed yet Malaysian companies favour to appoint other ethnics which encompasses of other minority ethnics as well as the directors from other nations that caused the board to be ineffective due to insufficient knowledge of local business environment. Additionally, Table 5.2 also disclosed that most of the boards are from two ethnic groups which are Chinese and Malay directors (percentage of 58.6 and 32.5, respectively) which indicate the former has predominantly lead the board while the latter has mostly played the secondary role. This findings is consistent with prior research (Ahmad-Zaluki, 2012; Rachagan et al., 2015) which suggest that this situation has been persistent since many years ago. Commerce has often been organised within ethnic and kinship groups of Chinese and Malay-owned companies. This high level of family concentration is common in Malaysian business environment. Likewise, the appointment of Malay directors was also probably driven by the privilege of the political connection. Therefore, the insignificant relationship might be due to the issue of the dominance of two common ethnics that makes ethnic diversity incapable of influencing earnings management.

6.3.2(d) Competency Diversity and Earnings Management

In addition, an insignificant relationship is also reported between competency diversity and earnings management which is consistent with a prior study performed by Johari, Saleh, Jaffar and Hassan (2009). As illustrated in Table 5.2, there was an imbalanced diversity in terms of the highest education hold by a director. Directors from the legal background were the least being appointed which stands at only 7.9 per cent. This study believes that by having directors from all background or at least having a balanced percentage of education background may increase the board
performance (Dobbin & Jung, 2011). This notion is in line with a research in psychology performed by Dobbin and Jung (2011) that suggests diverse field of education in problem-solving groups improves performance. In addition, the measurement used in this study is dissimilar with other studies whereby these studies measured the competency of a director by determining the proportion of members holding PhD or possess financial expertise (Ahmed, 2013; Buniamin et al., 2012). Another additional possible explanation is that some of the companies in PLCs appointed directors who were not qualified and failed to appoint the fittest director with regards to their qualification that matches to the company’s business and operations. For instance, this study further examines and found that two companies in the construction sector failed to appoint at least one director that is qualified in the engineering or construction field. Similarly, several companies in every sector did not appoint any director that is qualified or experienced in the financial field despite qualification is crucial as directors need to understand financial reporting (Fidanoski et al., 2014). Hence, this weakens the monitoring and consulting function over the management.

6.3.2(e) Nationality Diversity and Earnings Management

As expected by hypothesis H9, the relationship between nationality diversity and earnings management is significantly positive. The finding reveals that nationality diversity weakens the monitoring and elevates earnings management practices. With the basis of human capital theory, the board with diverse nationality fails to deliver greater monitoring and controlling on the management which eventually gives room for the management to practise weak earnings quality (Hooghiemstra et al., 2016). This positive relationship happens as a result of the process described as group fault
lines whereby individuals perceive the demographically dissimilar group members as having different values and adopt incongruent views. This process causes individuals to become reluctant to give and share information with the minority or foreign individuals (Adams, Hermalin, & Weisbach, 2010; Lau & Murnighan, 1998).

Knowing the severity of a good understanding of the local’s rules and regulations together with the local accounting system, having foreign directors in the boardroom weakens the board effectiveness since they are not familiar with local business environment and culture. Furthermore, the issue of cross-cultural communication is stronger when diverse nationality involves in the board, especially during the decision-making process (Protasovs, 2015). This result is consistent with a study conducted in Nordic countries (comprises of Denmark, Finland, Norway and Sweden) despite using different measurement for nationality diversity (Hooghiemstra et al., 2016). This study found that the dynamics of the board is poor which resulted in higher earnings management due to the lack of knowledge and language issues. Likewise, Estélyi and Nisar (2016) stated that radically different interpretations of a situation offered from each member may ensue from the communication breakdown amongst different members of a group. Additionally, the appointment of local directors is important despite the appointment of foreign directors is relatively small in percentage as reported in Table 5.2, it is still substantial to weaken the effectiveness of the board.

6.3.3 Discussion on the Consequence of Earnings Management

This section discusses the findings on the effect of earnings management on CSR as well as the corporate reputation as the moderator for the respective relationship.
Similar to the antecedent of earnings management model, the result reported this model to be significant.

6.3.3(a) Earnings Management and Corporate Social Responsibility

Using stakeholder-agency theory and signalling theory, the findings of hypothesis $H_{10}$ are insignificant and do not support the idea of corporate social responsibility (CSR) as the entrenchment mechanism for the irrational managers whom conducted earnings management. Therefore, the hypothesis of positive relationship between earnings management and CSR is rejected. This study hypothesised the relationship to be positive with the basis of using CSR as the entrenchment mechanism for the irrational managers to shield their unethical behaviours using media coverage and gain support from other stakeholders to reinforce their entrenchment from being removed by the discontented shareholders (Cespa & Cestone, 2007; Gargouri et al., 2010; Martinez-Ferrero et al., 2016; Prior et al., 2008; Surroca & Tribo, 2008).

The result reported that the insignificant result could possibly due to these probable reasons. Firstly, this study uses the histogram chart to determine the severity of earnings management practices in Malaysia. Histogram is right skewed which indicates that most of the samples are clustered on the right side of the histogram. Given this, this study can indicate that most of the companies in this study’s sample were not involved in high earnings management practices. Therefore, those selected companies did not have the motivation to utilise CSR as the entrenchment mechanism to conceal their opportunistic behaviour since they were not involved in extreme or severe earnings management practices. This factor may lead to an insignificant relationship with CSR. These findings also serve as timely evidence on the current state of how earnings management practices in Malaysia.
Additionally, the results could also indicate that PLCs were engaged in legal opportunistic behaviour that is not beyond the GAAP regulations.

Moreover, in comparing this study’s sampling frame and other studies that have been reviewed in relation to the relationship between earnings management and CSR, this study only utilised a one-year observation while other studies examined a longer time frame for at least three years. Therefore, this could potentially affect the insignificant result.

Additionally, the scoring for CSR quality disclosure is also different from the studies that suggest entrenchment mechanism whereby this study employed a detailed scoring for the companies’ quality of CSR disclosure (as explained in Section 4.5.3). Meanwhile, a study that proposed CSR as entrenchment mechanism only assigned binary value (either 1 or 0) (Grougiou et al., 2014) and few studies used social and environmental rating agencies such as the KEJI Index, Sustainable Investment Research International Company (SiRi) and Kinder, Lydenberg and Domini (KLD) (Choi et al., 2013; Prior et al., 2008; Salewski & Zulch, 2014). Hence, this discrepancy in terms of CSR quality disclosure scoring might cause the result to be different from other studies.

Moreover, the study believes that Malaysia PLCs adhere to the stakeholder theory and legitimacy theory which explain that these companies are altruistically practising and engaging socially responsible activities to satisfy and meet the stakeholders’ demand and expectations that are associated with CSR (Choi & Pae, 2011; Kim et al., 2012). Furthermore, the factor of giving the impression of legitimate is also hypothetically the reason for PLCs to increase their participation and commitment in CSR activities. This possible reasoning is supported by Freeman (1984) that stated continuous support in the long-term can be attained and shall
elongate their business operation in the market (Gray et al., 1995) when companies comply and meet the stakeholders’ needs. On the other hand, Malaysian PLCs could also exercise CSR as a way of green washing, which is part of the green marketing strategy (Hasan & Ali, 2015). Green marketing can be defined as actions carried out by organisations that are apprehensive about the ecology or green problems by providing the environmentally friendly goods or services to bring satisfaction among customers and the community (Soonthonsmai, 2007). Hasan and Ali (2015) denote that this strategy facilitates companies to achieve greater profitability, competitive advantage and encourages consumers to a greener pattern of consumption. As discussed earlier, the Malaysian government has introduced important regulations to protect the community by minimising the effect of businesses on the environment. Since the government itself is viewed as a stakeholder within the community, the companies are expected to perform CSR accordingly. Therefore, it could be the driver of CSR engagement and it does reflect in these findings that suggest PLCs are in adherence with the government’s reinforcements.

6.3.3(b) Moderating Effect of Corporate Reputation on the Relationship between Earnings Management and Corporate Social Responsibility

Concerning corporate reputation (CR) as the moderator, the findings documented that it is still insignificant. Therefore, hypothesis H11 is rejected. In addition, this study also found that the result is insignificantly positive when corporate reputation (CR) interacts with the aforementioned relationship. The result shows that with having CR as the moderator, it lessens the impact for the direct relationship between earnings management and CSR, (from the coefficient of -110.489 to -95.506). The possible reason behind the change in direction is that, without considering the
company’s reputation, irrational managers were not concerned on strengthening their engagement in CSR. However, with the presence and recognition of the company’s high reputation, managers are obligated to produce and participate in more CSR activities which indicate reputation is crucial for these companies in the sense that they are in the spotlight of the public attention, pressure and scrutiny. This notion is in line with Graafland (2017) that stresses on the reputational liability effect. The researcher stated that companies with higher reputation are far more visible and therefore, more likely to be targeted by the stakeholders including those social and environmental activist. For that reason, companies with high reputation are very conscious on any issue even at the slightest impact in order to protect and sustain their reputation. Likewise, previous studies found that these type of company engage and report higher level of CSR to improve and sustain their brand image (Kansal et al., 2014, Abu Bakar & Ameer, 2010). Besides, the significance at 1% relation and correlation between CR and CSR perhaps lessen impact of the relationship between earnings management and CSR, which indicates that CR could be a variable that strongly influence CSR.

6.4 Implications of the Research Findings

The work undertaken in this thesis and key findings contributed several implications for the theory and literature, methodology and policymakers. The implications are believed to provide several benefits to enhance the knowledge on earnings management, corporate governance in Malaysia, and the corporate social responsibility reporting.
6.4.1 Implications of Theory and Literature

This study aims to establish several contributions to the theory development with regards to corporate governance, earnings management, and CSR. Corresponding to Suddaby (2014) and Whetten (1989), this study offers legitimate value-added contributions to theory development.

Firstly, this study extends the existing knowledge of earnings management since the research on both antecedent and consequence of earnings management should provide a comprehensive understanding on the monitoring mechanism on earnings management and earnings management impacts on CSR. The research that looks into both dimensions is limited in the literature (Dechow et al., 2010).

Secondly, theories employed in this study are agency theory for antecedent of earnings management and stakeholder-agency theory for the consequence of earnings management. Human capital theory, entrenchment mechanism and signalling theory served as the underpinning theory for agency theory and stakeholder-agency theory accordingly. By operating these theories, an elemental research model has emerged that entails four building blocks or elements of the theory which are constructs, propositions, logic, and boundary conditions. Constructs illustrate the “what” of theories (which are the effects of board diversity on earnings management and the association between earnings management and CSR), propositions capture the “how” (which board diversity has the ability to effectively monitor and consult the management from managing the earnings and CSR could be the tool for irrational managers involved in earnings management to reinforce their entrenchment), logic embodies the “why” (by which board diversity has been empirically evidenced that it could influence the management from managing the earnings and CSR could be used by the irrational managers to get closer relationship and support from the
stakeholders to reinforce their entrenchment), and boundary conditions studies the “who, when and where” (which is the socioeconomic factor, for instance conducted in developing countries and different business environment and culture). This study postulates that these elements are capable of improving the phenomena explanation (Whetten, 1989). Lastly, the study deduces that the righteousness of parsimony and comprehensiveness of the proposed model (for example the direct relationship and moderating variable) have been logical and empirical evidenced by extensive literature and the sample’s business environment.

This study also adds to the corporate governance literature with regards to its account on the board’s two important functions which are monitoring the management on behalf of the shareholders (agency theory) and bringing distinctive and diverse inherent characteristics (human capital theory) (Becker, 1964; Jensen & Meckling, 1976). Concerning agency theory, this study employed the said theory to explain the effectiveness of board structural attributes (diversity-of-boards) in mitigating earnings management. Based on the findings, agency theory supported most of the hypothesis for diversity-of-boards. However, the results relating to diversity-of-boards in this study are not only dependent on agency theory. For example, the resource dependence theory may have supported the hypothesis for multiple directorships. Hence, although agency theory seems to serve as the umbrella theory in corporate governance studies, delineating other alternative and potential theories will be an important step towards gaining further understanding of the relationship between its effectiveness in controlling the accrual management.

The use of human capital theory to support the notion of demographic board diversity (diversity-in-boards) in enhancing morality and inherent characteristics of a director seems to be practical as presented in this study’s findings. Most of the
hypotheses in these attributes are accepted while some of them are insignificant yet have the same direction as hypothesised. Hypotheses that significant are the effect of gender diversity, age diversity, and nationality diversity on earnings management while ethnic diversity and competency diversity appeared to be insignificant with earnings management. Therefore, the results of this study enhance the knowledge and implications to the theory used for both board diversity dimensions and allow for a better understanding of their different impacts on earnings management.

By examining the consequence of earnings management, stakeholder-agency theory and signalling theory are not supported by the findings. However, the research on CSR being the entrenchment mechanism and revolutionised to be misused by the irrational managers received little attention in developing countries and Malaysia is one of the avenues that has never been studied before. The findings also add the knowledge on corporate reputation (CR) as the moderating effect for the said relationship. Hence, CR can be classified as a variable that is substantial and needs to be experimented further. Thus, this thesis adds to the literature using Malaysia’s unique environment.

6.4.2 Implications on Methodology

In reviewing the literature involving corporate governance, board diversity in particular, most of the studies were only focused on the board diversity attributes in an individual term in one research. The combination of both structural attributes and demographic attributes are seldom combined. This study employs the two attributes of board diversity as formulated by Hafsi and Turgut (2013).

Additionally, this study also believes that its findings with regards to demographic diversity attributes contribute additional knowledge and literature in the
corporate governance field. This study utilises Blau’s index of diversity to measure the optimal level of diversity in each demographic attribute and did not use the common measurement (i.e. percentage or proportion). This method functionality appears substantial in other disciplines of studies such as in CSR (Hafsi & Turgut, 2013; Harjoto et al., 2014) and company performance (Fidanoski et al., 2014; Miller & Triana, 2009). The rationalisation of choosing Blau’s index of diversity as the operationalisation for demographic diversity is that this study does not stand on any gender, age, ethnicity, competency and nationality. This study suggests that by bringing diverse gender, age, ethnicity, competency and nationality, it will result into a superior level of monitoring and consulting as each director has his characteristics and background to offer.

6.4.3 Implications on Practitioners

Based on the results achieved from this study, it is suggested for the respective regulatory bodies in Malaysia to review the MCCG, specifically on the board diversity in the boardroom. This study reveals that by appointing chairman that is independent, it can facilitate the directors to perform greater monitoring and helps to mitigate earnings management. Therefore, it is suggested for the MCCG to make the recommendation of appointing independent chairman and separation of duties between CEO and chairman to be compulsory and further oversee is needed for potential new regulation.

Likewise, this study also propose the regulators to sustain the current requirement concerning to the number of directorships allowed for a directorship. Findings in this study specify multiple directorships could curtail earnings management practices which contradict with prior studies that reported positive
association with earnings management. Those prior studies utilised former requirement that allowed up to twenty five directorships, which indicated excessive directorships could affect their monitoring quality. Hence, the decision made Bursa Malaysia Listing Requirement by decreasing the directorships to only five seats is an effective move in shaping the superior governance among board of directors.

This study also suggests that PLCs in Malaysia revise or review their remunerations paid to the non-executive directors (NEDs). The statistics presented in this study show that the NEDs were paid handsomely yet their commitment to give greater monitoring cannot be exhilarated. Likewise, this study also would like to point out the duties and responsibilities of the directors. It is highly recommended that MCCG regulate all companies in PLCs to provide training and courses that are related to financial reporting instead of encouraging them to only emphasise on the strategy and operation of the companies.

The results of this study also revealed that having high diversity in terms of gender and age can diminish earnings management. Therefore, the government’s initiatives on encouraging the female directors to be appointed in the boardroom should remain and adhered by the Malaysian companies. With regards to age diversity, this study suggests future regulations to also encourage multiple age generations in a boardroom as regulated to the gender diversity since hiring different level of ages may improve the monitoring as reported in this study’s findings. Concerning ethnic diversity, the findings revealed that it cannot influence earnings management which is probably due to ethnic disparity in appointing the directors. Although Bursa Malaysia has required PLCs to disclose their diversity policies, this requirement is perceptibly not well functioned since some companies still refuse or fail to appoint diverse ethnics in the boardroom as reported in Table 5.1 (minimum of
0.00 in diversity exhibits no ethnic diversity at all). This study noticed that most of the companies in the sample disclosed their policies with regards to ethnicity yet some of them are still homogenously ethnic. Hence, practitioners could refer to the current UK Corporate Governance Code whereby each company listed in FTSE 100 and FTSE 250 should have at least one director of colour by 2021 and 2024 accordingly. Additionally, this study reports that by having diverse nationality in a board could elevate earnings management. Thus, it is suggested that the regulatory bodies limit the number of appointment for the foreign directors since it deteriorates the effectiveness in communication and knowledge pool within a board.

Overall, the company owners who may wish to determine the effectiveness of their directors and managers should reinforce the corporate policy related to the internal monitoring. Not only depending on the effectiveness of the boards’, the company should strengthen on other internal control such as the internal audit may increase the governance of the company.

Last but not least, the practices and reporting of CSR in the Malaysian companies can be classified as transparent and truthful which are in accordance with legitimacy and stakeholder theory since this study failed to provide the evidence of CSR being misused as the entrenchment mechanism. Despite showing morality to the stakeholders, the level of quality disclosure is relatively low (average of 32.2 per cent as reported in the findings). With that in mind, this study calls for the regulators to continue and improve their initiatives in encouraging the companies to focus more on providing quality disclosure instead of only emphasising the quality of disclosure. Likewise, the company itself should further improve their corporate policy on CSR reporting specifically on their way of disclosing their CSR related information as this
information is very useful for and of considerable interest to the readers especially investors and regulators.

6.5 Limitation of the Study

The findings of this study are subjected to several limitations despite it performed rigorously and on organized basis with the observation of qualified and specialized supervisors. Nonetheless, upon ensuring that this study has met the objectives of the study and answered the research question, a significant amount of effort was employed.

Firstly, this study only covered a period of one year which is 2016 that may have endogenous effect and the sample selection covered only non-financial public listed companies. Therefore, it may not be representative of the whole population of Malaysia listed companies. Generalising the results to other years should be viewed with some caution.

Secondly, this discussion refers to the board diversity attributes. Measuring non-executive directors' (NEDs) commitment with NEDs fees may not be accurately represent the NEDs commitment although theoretical justification was made and literature has been reviewed in Chapter Three. Focusing on the nationality diversity, this study only segregated the diversity in terms of local and foreigners. Hence, detailed origination should be taken into account.

Lastly, this study used the definition of earnings management by Schipper (1989) and Healy and Wahlen (1999) which entails any kind of opportunistic behaviour conducted by the management. Further studies are recommended to use different inferences obtained from other definitions and might distinguish opportunistic behaviour from fraudulent financial reporting. However, researchers
must be cautious on the criteria used to differentiate them due to the difficulties in operationalising the definitions on financial reporting system (Dechow & Skinner, 2000).

While these limitations are recognised, the strengths of this study and its findings would not be undermined. Avenues for future research are discussed in next section.

6.6 Further Research

This study’s findings provide evidence that is involved with the effects of corporate governance, namely, board diversity on earnings management and the impact of earnings management on CSR. Nevertheless, this study did not cover several areas that are believed to be relevant for future research.

This research is based on the positivist paradigm which relied heavily on the quantitative-based research approach. Hence, future research could augment the complexity of this research by using interpretive paradigm and use appropriate methodologies such as using qualitative methods such as interviews and quantitative methods such as questionnaires.

Addressing the one-year research period and relatively small sample size, a longer and broader time frame as well as bigger sample size should be considered by future research which perhaps would provide a greater support on the association between board diversity and earnings management. A comparative research could also be conducted to investigate the pre and post regulations periods related to corporate governance and earnings management.

Not only focusing on board of directors, more variables related to internal governance should also be investigated by future research. For instance, audit
committee is found to be an effective mechanism in implementing, controlling, and improving corporate governance practices which could ensue with superior monitoring.

This study used the Modified Jones model (1995) to measure earnings management discretionary accruals since it has been considered to be among the best models for identifying earnings management (Dechow et al., 2010). Future research could use different methods to measure earnings management such as real earnings management as employed by Roychowdhury (2006).

A detailed analysis of the nationality diversity can be improved in future research. Concerning to nationality diversity, this study did not examine whether the origins of the foreign directors have an impact on earnings management. Hence, future research could segregate the foreign directors into which origins that could provide further insights on its relationship with earnings management.

With regards to the measurement for CSR disclosure quality, future research could also explore other mediums other than annual report and sustainability report such as press releases and from the media. Additionally, pictures could also be taken into care when developing the index and provide an appropriate scoring to formulate extensive level of CSR reporting. Furthermore, future research may use the Bursa Malaysia Reporting Guide and Toolkits as the checklist for research using the sampling period of 2017 and onwards.

Lastly, future research is recommended to extend the knowledge on antecedent and consequence of earnings management. As suggested by Dechow et al. (2010), research that inspects both antecedent and consequence of earnings management is still lacking in the body of literature.
6.7 Conclusion

Earnings management has been persistent in business world and it is occurring in developing countries including Malaysia. Academicians, the authority and businesses are striving in searching for the best mechanism that could hamper or eliminate this activity. Preventing this opportunistic behaviour is not only the crucial issue, but the effect of earnings management is also harmful and critical. With regards to the discussion in this chapter, it is concluded that superior governance is highly necessary in preventing, monitoring, controlling and supervising business operation and management. The findings from this study contribute some empirical and solid evidence on the importance of having diverse board of directors in the boardroom. In particular, some of the diversity attributes could alleviate, elevate and even serves no effect in influencing the earnings management practices. Hence, this study’s findings can be utilised by all kinds of stakeholders (from the authority, businesses, investors and public). Further, this study is driven by the fear of CSR being misused by the management just like in the develop countries particularly in concealing the earnings management. Fortunately, findings reveal that it is in contrast with what postulated by which PLCs in Malaysia are practising and engaging in CSR activities with the aim of giving back to the society and environment, not for fulfilling the managers’ private interest. This may indicate that companies are unselfishly investing their money, time and effort to satisfy the needs from the public. Or, as an alternative, companies may have endeavoured in CSR as a means of green washing. Thus, overall, earnings management requires further and continuous research due to its breath whereby its prevention and consequence are impactful for the business environment across the world.
In conclusion, having antecedent and consequence study on earnings management is highly beneficial as the antecedent (board diversity) could help to avoid and restraint earnings management practices in Malaysia from becoming severe and extreme. Following to that, looking the role of CSR from the entrenchment perspective gives different view and awareness on the negative use of CSR, which is to conceal earnings management practices. Lastly, examining CR as moderating role gives many insights in terms of literature and theoretical despite the insignificant influence. Perhaps, future research could take into account on the suggestions for future research and provide a more polished findings and insights.
REFERENCES


Berle, A. A., & Means, G. C. (1932). Property in transaction, the appearance of the corporate system, the concentration of economic power. The Modern Corporation and Private Property.


Soonthonsmai, V. (2007). Environmental or green marketing as global competitive edge: Concept, synthesis, and implication. In EABR *(Business) and ETLC *(Teaching) Conference Proceeding. Venice, Italy.


### APPENDIX A: Development of CSR Disclosure Checklist

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<td>accidents, fatalities)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Diversity or equal opportunity</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>policy statement (e.g. gender issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and equality, workforce diversity)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Reporting on the company’s</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>relationship with trade union/ or</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>workers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Reporting on any strikes, industrial</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>actions/activities and the resultant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>losses in terms of time and productivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Share option offered for employees</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>CSR DISCLOSURE CHECKLIST OF CURRENT STUDY</td>
<td>CSR ITEMS FROM VARIOUS SOURCES</td>
<td></td>
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<td>------------------------------------------</td>
<td>--------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Health and Safety Award</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Quality of work environment</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>COMMUNITY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Employee involvement of country or community programs</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>2. Donations to community groups or charity bodies</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>3. Community development (health and education)</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Education (i.e. internship, scholarship)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>5. Sports activities</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>6. Supporting national pride</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>9. Public project (e.g. providing infrastructure)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td><strong>MARKETPLACE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Supporting green products</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>2. Ethical procurement practices</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>3. Helping to develop supplies and other vendors</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
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</tr>
<tr>
<td>4. Corporate governance standards</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
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<tr>
<td><strong>PRODUCT</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Discussion of major types of products, services and projects</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Product quality (meet applicable quality standards)</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Customer service</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>4. Product safety (meet applicable safety standards)</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
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</tr>
</tbody>
</table>

Source: CSR disclosure checklist developed based on the literature review (Ahmed Haji & Ghazali, 2013; Anas et al., 2015; Sadou et al., 2017; Saleh et al., 2010)
APPENDIX B: Development of Reputation Disclosure Checklist

<table>
<thead>
<tr>
<th>REPUTATION DISCLOSURE CHECKLIST OF CURRENT STUDY</th>
<th>REPUTATION ITEMS FROM MULTIPLE SOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MAIN REFERENCE</td>
</tr>
<tr>
<td></td>
<td>(Darus et al., 2014; Othman et al., 2011)</td>
</tr>
</tbody>
</table>

PRODUCT & SERVICE QUALITY

1. Has external verification or certifications √
2. Free from controversial products √
3. Listed in the Top 30 Malaysian Brand √
4. Received recognition for outstanding products/services √
5. Able to penetrate overseas market √
6. Good value for money √

FINANCIAL PERFORMANCE

1. Financially sound √
2. Stable even in a difficult environment i.e. global financial crisis √

GOVERNANCE

1. Clearly demonstrate an open, transparent and ethical practices √

LEADERSHIP

1. Possess strong and appealing leaders √
2. Has excellent managers √
3. Competent and well organized management √

INNOVATION

1. An innovative company √
2. Generally first in the market √
3. Has research and development (R&D) ongoing √
4. Launch new product √

Source: (Baselga-Pascual et al., 2015; Darus et al., 2014; Godos-Díez et al., 2011; Lai et al., 2014; Manner, 2010; Mukasa, Kim, & Lim, 2015; Suaini Othman et al., 2011; Pool et al., 2016)
APPENDIX C: Proposed Disclosure Checklist and Definition for Reputation Items

<table>
<thead>
<tr>
<th>REPUTATION ITEMS</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRODUCT &amp; SERVICE QUALITY</strong></td>
<td></td>
</tr>
<tr>
<td>1. Has external verification or certifications</td>
<td>External verification – Halal certification (e.g. MS 1500 / Quality policy (e.g. ISO 9001, HCCA certification, MSQH, MS ISO 15189, GMS)</td>
</tr>
<tr>
<td>2. Free from controversial products</td>
<td>Products are non-controversial (e.g. not of or related to alcohol or gambling)/Products listed in Kuala Lumpur Syariah Index (KLSI)</td>
</tr>
<tr>
<td>3. Listed in the Top 30 Malaysian Brand</td>
<td>Listed by The Edge</td>
</tr>
<tr>
<td>4. Received recognition for outstanding products/services</td>
<td>Awards from reputable organisation</td>
</tr>
<tr>
<td>5. Able to penetrate overseas market</td>
<td>Evidence</td>
</tr>
<tr>
<td>6. Good value for money</td>
<td>Awarded as “Excellent Fair Price Shop” by the government / Ministry of Trade/ministry/reputable associations. Since most of the companies in the sample size did not have this specific recognition, this study takes into account on how the company thoroughly explained on its pricing plan to sustain old customers and retain potential customers</td>
</tr>
<tr>
<td><strong>FINANCIAL PERFORMANCE</strong></td>
<td></td>
</tr>
<tr>
<td>1. Financially sound</td>
<td>ROE; Sales; Cash; Market Capitalization; EPS; DPS; Dividend Yield; Growth-Sales; Total Assets; Operating Income; EPS; Leverage; Market Share; Market Return Financial performance is measured by comparing previous year and current year items above. Should the company is resistant and stable, it indicates that the company is financially sound and stable.</td>
</tr>
<tr>
<td>2. Stable even in a difficult environment i.e. global financial crisis</td>
<td></td>
</tr>
<tr>
<td><strong>GOVERNANCE</strong></td>
<td></td>
</tr>
<tr>
<td>1. Clearly demonstrate an open, transparent and ethical practices</td>
<td>Corporate Governance standards – meet the criteria for transparency and best ethical practices</td>
</tr>
<tr>
<td><strong>LEDADERSHIP</strong></td>
<td></td>
</tr>
<tr>
<td>1. Has strong and appealing leaders</td>
<td>Leaders of top 100 companies listed in bursa Malaysia, CEO or Chairman was conferred honorary Doctor of philosophy, conferred Tun or Tan Sri or has publication</td>
</tr>
<tr>
<td>2. Has excellent managers</td>
<td>Competent and have good track record in the pasts (i.e. Appointed as advisor/consultant/chairman of GLC Transformation Committee, National Economic Council or established association such as MIA, MACPA and etc</td>
</tr>
<tr>
<td>REPUTATION ITEMS</td>
<td>EXPLANATION</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>--------------------------------------------------------------</td>
</tr>
<tr>
<td>3. Has competent and well organized management</td>
<td>Evidence (e.g. awards or certifications)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INNOVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. An innovative company</td>
</tr>
<tr>
<td>2. Generally first in the market</td>
</tr>
<tr>
<td>3. Has research and development (R&amp;D) ongoing</td>
</tr>
<tr>
<td>4. Launch new product</td>
</tr>
</tbody>
</table>
### APPENDIX D: Summary on Variables Operationalization and Measurement

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>VARIABLE OPERATIONALIZATION</th>
<th>MEASUREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversity-of-boards</td>
<td>Board leadership (LEAD) “1” if the chairman is an independent director and “0” for otherwise</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Multiple Directorships (MUL) The proportion of directors on the board with directorships in other companies to the total number of directors on the board of the company</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Board Size (BSIZE) Total number of directors on the board of the company</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-executive Directors (NEDs) Commitment (NED) Natural logarithm of total fees paid to NEDs divided by the total number of NEDs</td>
<td></td>
</tr>
<tr>
<td>Diversity-in-boards</td>
<td>Blau’s index of heterogeneity</td>
<td></td>
</tr>
<tr>
<td>Gender (GEN)</td>
<td>Index of heterogeneity for board gender with two categorisations of male and female</td>
<td></td>
</tr>
<tr>
<td>Age (AGE)</td>
<td>Index of heterogeneity for board age with categorisation of five subgroups: under 40 years old, 40 to 49, 50 to 59, 60 to 69 and over 70 years old</td>
<td></td>
</tr>
<tr>
<td>Ethnic (ETH)</td>
<td>Index of heterogeneity for board ethnicity with a categorisation of three race categories: Malay, Chinese and others</td>
<td></td>
</tr>
<tr>
<td>Competent (COM)</td>
<td>Index of heterogeneity for board competency with a categorisation of directors’ type of services and employment categories into five subgrouping: financial, consulting, legal, management and other expertise (i.e. research, technology, medical and others)</td>
<td></td>
</tr>
<tr>
<td>Nationality (NAT)</td>
<td>Index of heterogeneity for board nationality with a categorisation of foreign and domestic directors</td>
<td></td>
</tr>
<tr>
<td>VARIABLES</td>
<td>VARIABLE OPERATIONALIZATION</td>
<td>MEASUREMENT</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Earnings Management (DV)</td>
<td>Discretionary Accruals (DACC)</td>
<td>Modified Jones model (Dechow et al., 1995)</td>
</tr>
<tr>
<td>CSR Disclosure</td>
<td>Content Analysis (CSR)</td>
<td>CSR Index</td>
</tr>
<tr>
<td></td>
<td>(the quality of CSR disclosure within five dimensions)</td>
<td>Unweighted disclosure index approach</td>
</tr>
<tr>
<td></td>
<td>Source: CSR disclosure checklist developed based on the literature review (Ahmed Haji &amp; Ghazali, 2013; Anas et al., 2015; Sadou et al., 2017; Saleh et al., 2010)</td>
<td>“3” = monetary information “2” = specific information “1” = general information “0” = no disclosure</td>
</tr>
<tr>
<td>Corporate Reputation (Moderator)</td>
<td>“The main indicators of firm reputation associated with CSR information”</td>
<td>Reputation Index</td>
</tr>
<tr>
<td></td>
<td>Content Analysis (CR)</td>
<td>Unweighted disclosure index approach</td>
</tr>
<tr>
<td></td>
<td>(the quality of reputation disclosure within the seven dimensions)</td>
<td>“1” = if an item is disclosed “0” = if an item is not disclosed</td>
</tr>
<tr>
<td></td>
<td>Source: Reputation disclosure checklist developed based on the literature (Baselga-Pascual et al., 2015; Darus et al., 2014; Godos-Díez et al., 2011; Lai et al., 2014; Manner, 2010; Mukasa et al., 2015; Suaini Othman et al., 2011; Pool et al., 2016)</td>
<td></td>
</tr>
<tr>
<td>Control Variable</td>
<td>Company size</td>
<td>the natural logarithm of total assets ratio of total liabilities to total assets</td>
</tr>
<tr>
<td></td>
<td>Leverage</td>
<td>net income divided by the total assets</td>
</tr>
<tr>
<td></td>
<td>Profitability</td>
<td>net cash flow from operating activities</td>
</tr>
<tr>
<td></td>
<td>Cash flow from operations</td>
<td>“1” if the company have outsource IAF and “0” for otherwise</td>
</tr>
<tr>
<td></td>
<td>Internal Audit Function</td>
<td>“1” if the company audited by Big4 auditors and “0” for otherwise</td>
</tr>
<tr>
<td></td>
<td>Sourcing Arrangements</td>
<td>“1” for sensitive industry and “0” for otherwise</td>
</tr>
<tr>
<td></td>
<td>Auditor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Auditing</td>
<td></td>
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<td></td>
<td>Industry</td>
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**APPENDIX E: Outputs from Freelon (2010)**

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<td>6</td>
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<tr>
<td>n variables</td>
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<td>3</td>
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<tr>
<td>n coders per var</td>
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</table>

<table>
<thead>
<tr>
<th>Variable 1 (cols 1 &amp; 2)</th>
<th>Per cent Agreement</th>
<th>Scott’s Pi</th>
<th>Cohen’s Kappa</th>
<th>Krippendorff’s Alpha</th>
<th>N Agreements</th>
<th>N Disagreements</th>
<th>N Cases</th>
<th>N Decisions</th>
</tr>
</thead>
<tbody>
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<td>Variable 2 (cols 3 &amp; 4)</td>
<td>90.24390244</td>
<td>0.803827751</td>
<td>0.805687204</td>
<td>0.806220096</td>
<td>37</td>
<td>4</td>
<td>41</td>
<td>82</td>
</tr>
<tr>
<td>Variable 3 (cols 5 &amp; 6)</td>
<td>85.36585366</td>
<td>0.707142857</td>
<td>0.70783848</td>
<td>0.710714286</td>
<td>35</td>
<td>6</td>
<td>41</td>
<td>82</td>
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</table>

<table>
<thead>
<tr>
<th>Variable 1 (cols 1 &amp; 2)</th>
<th>Per cent Agreement</th>
<th>Scott’s Pi</th>
<th>Cohen’s Kappa</th>
<th>Krippendorff’s Alpha</th>
<th>N Agreements</th>
<th>N Disagreements</th>
<th>N Cases</th>
<th>N Decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable 2 (cols 3 &amp; 4)</td>
<td>92.68292683</td>
<td>0.850455927</td>
<td>0.85054678</td>
<td>0.852279635</td>
<td>38</td>
<td>3</td>
<td>41</td>
<td>82</td>
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<tr>
<td>Variable 3 (cols 5 &amp; 6)</td>
<td>82.92682927</td>
<td>0.657722123</td>
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<td>0.661896243</td>
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### Construction.csv

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<td>n coders per var</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Variable</th>
<th>Per cent Agreement</th>
<th>Scott’s Pi</th>
<th>Cohen’s Kappa</th>
<th>Krippendorff’s Alpha</th>
<th>N Agreements</th>
<th>N Disagreements</th>
<th>N Cases</th>
<th>N Decisions</th>
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<tbody>
<tr>
<td>1 (cols 1 &amp; 2)</td>
<td>82.92682927</td>
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<td>0.665110852</td>
<td>0.659459459</td>
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<tr>
<td>2 (cols 3 &amp; 4)</td>
<td>92.68292683</td>
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### Trading.csv

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<tr>
<td>n coders per var</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Variable</th>
<th>Per cent Agreement</th>
<th>Scott’s Pi</th>
<th>Cohen’s Kappa</th>
<th>Krippendorff’s Alpha</th>
<th>N Agreements</th>
<th>N Disagreements</th>
<th>N Cases</th>
<th>N Decisions</th>
</tr>
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<tbody>
<tr>
<td>1 (cols 1 &amp; 2)</td>
<td>87.80487805</td>
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<td>36</td>
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<td>41</td>
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</tr>
<tr>
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<td>87.80487805</td>
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<td>0.756820878</td>
<td>0.758497317</td>
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<td>82</td>
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<td>90.24390244</td>
<td>0.803827751</td>
<td>0.804295943</td>
<td>0.806220096</td>
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<tr>
<td>FILENAME</td>
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</tr>
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<td>n variables</td>
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<td></td>
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APPENDIX F: Regression Coefficient Estimation

Earnings Management is measured by absolute discretionary accruals of Modified Jones Model

\[ \text{NDA}_{i,t}/\text{A}_{i,t-1} = \alpha_1(1/\text{TA}_{i,t-1}) + \beta_1(\Delta \text{SALES}_{i,t} - \Delta \text{REC}_{i,t}/\text{TA}_{i,t-1}) + \beta_2(\text{PPE}_{i,t}/\text{TA}_{i,t-1}) + \epsilon_{i,t} \]

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To assess the ability of this study’s earnings management model to discriminate discretionary accrual (DACC) and non-discretionary accrual (NDA), this appendix shows a summary of the estimated regression coefficient derived using the Modified Jones model for every industry in this study’s sample for 2016. Referring to the coefficient for the change in revenue \( \beta_1 \), the sign of change is relatively mixed yet most of the values are positive as predicted. This is because a change in revenue can resulted from the income-increasing (i.e. increases in accounts receivable) and income-decreasing (i.e. increases in accounts payable). Furthermore, consistent with expectations, \( \beta_2 \) represents the change of the property, plant, and equipment (PPE) variable is negative since it is closely related to an income-decreasing accrual, particularly the depreciation expense. Therefore, this model can be concluded and specified. This model also produces credible estimates for separating total accruals between DACC and NDA.
APPENDIX G: Normality Test – Normal P-P Plot
APPENDIX H: Normality Test – Histogram

Histogram
Dependent Variable: DACC

Histogram
Dependent Variable: CSR

Histogram
Dependent Variable: CSR
APPENDIX I: Linearity - Scatter Plot

Scatterplot
Dependent Variable: DACC

Scatterplot
Dependent Variable: CSR

Scatterplot
Dependent Variable: CSR
APPENDIX J: Heteroscedasticity Test – Breusch Pagan Test

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

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### APPENDIX K: Sensitivity Test for Sensitive Industry

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## APPENDIX L: Sensitivity Test for Non-Sensitive Industry

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