

**THE IMPACT OF CORPORATE GOVERNANCE ON INTERNET  
FINANCIAL REPORTING: EVIDENCE FROM SRI LANKA**

**Madhushika H.P.K.**

**MC 73586**

**CPM 12410**

**2017**

**THE IMPACT OF CORPORATE GOVERNANCE ON INTERNET FINANCIAL  
REPORTING: EVIDENCE FROM SRI LANKA**

By

**Madhushika H.P.K.**

Registration No: MC 73586

Index No: CPM 12410

An Independent Research Report  
submitted to the University of Sri Jayewardenepura  
in partial fulfillment of the requirements for the degree of  
B.Sc. Accounting (Special)  
**(ACC 4626)**

**Department of Accounting**

Faculty of Management Studies and Commerce

*University of Sri Jayewardenepura*

Nugegoda.

2017

## **AUTHENCITY STATEMENT**

I certify that the attached material is my original work. No other person's work or ideas have been used without acknowledgement. Except where I have clearly stated that I have used some of this material elsewhere, I have not presented it for examination / assessment in any other course or unit at this or any other institution.

.....

Signature

H.P.K.Madhushika

MC 73586

.....

Date

### **SUPERVISOR CONFIRMATION STATEMENT**

“I certify that the above statement made by the candidate is true and that this project is suitable for submission to the Department of Accounting, University of Sri Jayewardenepura for the purpose of evaluation”

Signature of the supervisor: ..... Date.....

Prof. (Ms.) D.S.N.P. Senaratne  
Professor in Accounting  
Department of Accounting  
Faculty of Management Studies and Commerce  
University of Sri Jayewardenepura

## **ACKNOWLEDGEMENT**

This thesis becomes successful with the utmost guidance I received throughout from the beloved individuals. I would like to extend my sincere thanks to all of them for the immense support to enable me to perform the study at my best ability.

First and foremost I would like to thank my research supervisor, Prof. (Ms.) D.S.N.P. Senaratne for continuous support and valuable guidance through sharing her immense knowledge, enthusiasm and dedication to undertake this research study successfully. Furthermore I would like to extend the same gratitude to Dr.A.R.Ajward for sharing his utmost valuable wisdom with me in related to technical and statistical component of the study.

I appreciate the support by the subject coordinator Dr.Athula Manawaduge for providing us with this opportunity to perform a thesis and the commendable advices and encouragement to make this thesis a success.

I am grateful to Department of Accounting in University of Sri Jayewardenepura and Dr. Harendra Kariyawasam, Head of the Department for the continuous guidance and support throughout this endeavor to make it a reality.

I would like to express my most sincere gratitude to my family for the most encouragement and dedication to complete this study successfully. Finally my thanks go to all other academic and nonacademic staff and colleagues for helping in numerous ways to conclude this study effectively.

## **ABSTRACT**

### **Purpose**

This study examines the extent to which IFR practices are adopted by listed companies in Sri Lanka and the impact of corporate governance practices on the level of IFR adoption.

### **Design/Methodology/Approach**

The extent of IFR practices adopted by Sri Lankan companies was evaluated based on a comprehensive index constructed consisting of 35 items under the main dimensions of content and presentation. Thereafter, the scores of IFR Indices of companies were analyzed using both descriptive statistics and univariate analysis of one sample t test, where former considered the measure of central tendency, dispersion and distribution of the sample data and the latter focused on significant deviations of the mean value of IFR indices. Corporate governance practices of these companies were assessed in terms of eight individual influential characteristics identified through extant literature and a Corporate Governance Index (CGI) that was developed to capture the effect of all individual corporate governance characteristics identified. Thereafter, the relationship between corporate governance practices and IFR was examined based on both correlation and multi variant regression analyses.

### **Findings**

In examining first objective of the extent to which IFR practices are adopted by listed companies in Sri Lanka, the findings from descriptive statistics and one sample t test reveal that the average adoption of IFR practices among Sri Lankan companies is considerably low. Among the two dimensions of content and presentation, results indicate a comparatively higher adoption of presentation related IFR practices. These findings are not aligned with the empirical studies reviewed, where most of the countries adopt IFR practices as a form of information dissemination in parallel with improvements in technology. However, in local context these findings extend the local literature by a way of a comprehensive analysis of the extent of IFR practices.

In regards to the second objective of examining the impact of corporate governance on IFR practices, the correlation analysis performed depicted that the corporate governance as a whole is statistical significantly associated with the IFR adoption in Sri Lankan listed however, correlation analysis illustrates that in terms of the individual variables of corporate governance only the variable of “Board Size (BSIZE)” is positively and statistically associated with the level of IFR practices. The results of regression analysis do not indicate any significant relationship among IFR practices and corporate governance. The findings of interrelationship of corporate governance a whole and IFR practices confirms with extant literature in revealing a statistically significant positive relationship, however the results of individual variables of corporate governance and regression analysis do not comply with empirical evidences, where the reviewed studies indicate significant relationships with variables under consideration. Despite in regards to literature in local context, this study shed some light on the less effectiveness of corporate governance in encouraging IFR practices among companies.

In concluding the results of the study it reveals that Sri Lanka is still at an embryonic stage in terms of adopting IFR practice, while the concentration on presentation dimension of IFR practices depicts that more attention is deviated towards the format and outlook of the websites at the less importance forwarded towards the content and fullness of the information provided in the websites. This implies that IFR practices in Sri Lanka is not oriented towards the voluntary information dissemination for investors and other interested parties in making economic decisions on behalf of the company such that it does not enlighten the agency problems due to persistent information asymmetry. Further it confirms that corporate governance in general along with other determinants is not effective in encouraging the corporates to adopt internet technology for information dissemination. This could be due to low level of monitoring mechanisms in places to ensure the satisfactory and effective practice of corporate governance among companies.

### **Research limitations/implications**

The study is subject to sample based limitations with the use of non-random sampling technique where the scope of the study being limited to listed companies in Sri Lanka. Further, the study is

subject to variable based limitations due to the use of a self-constructed IFR index and limiting the corporate governance and control variables to literately derived variables.

A different relationship between corporate governance and IFR practices may have been reported if the research had adopted a larger sample base or used different set of variables to gauge the concepts.

### **Originality/value**

This study contributes to extant literature by adding new knowledge through examining the extent to which IFR practices are adopted in Sri Lanka and identifying the impact of corporate governance on IFR practices in public listed companies in a developing country - Sri Lanka.

### **Keywords**

**Internet Financial Reporting, Corporate Governance, Voluntary Information Dissemination, Listed Companies in Colombo Stock Exchange.**



## Table of Contents

Chapter 1 : INTRODUCTION.....	1
1.1 Background of the study .....	1
1.2 Research issue of the study .....	4
1.3 Objectives of the study.....	6
1.4 Significance of the study.....	7
1.4.1 Theoretical Contribution.....	7
1.4.2 Practical Contribution .....	8
1.5 Scope of the study .....	9
1.6 Research Methodology .....	9
1.7 Structure of Chapters .....	10
1.8 Chapter Summary .....	11
Chapter 2 : LITERATURE REVIEW.....	12
2.1 Introduction.....	12
2.2 Concept of IFR.....	12
2.3 Prior Research on Adoption of IFR Practices among Different Countries.....	13
2.4 Concept of Corporate Governance.....	17
2.5 Concept of Voluntary IFR Practices .....	18
2.6 Conceptual Association of IFR and Corporate Governance.....	20
2.7 Empirical Association between Corporate Governance and IFR .....	21
2.7.1 Board Composition .....	21
a. Board Independence.....	21
b. Role duality.....	22
c. Board Size.....	22
2.7.2 Audit Committee.....	23
a. Audit Committee Independence .....	23
b. Audit Committee Competency .....	23
c. Audit committee meeting frequency.....	24
2.7.3 Ownership Structure .....	24
a. Managerial Ownership.....	25

b.    Block holder ownership .....	25
2.8 Influencing Factors on IFR other than Corporate Governance.....	26
2.8.1 Company Size .....	27
2.8.2 Profitability .....	27
2.8.3 Leverage.....	28
2.8.4 Liquidity.....	28
2.8.5 External Audit – Big Four.....	29
2.9 Chapter Summary .....	29
Chapter 3 : METHODOLOGY .....	31
3.1 Introduction.....	31
3.2 Research Approach .....	31
3.3 Population and Study Sample .....	31
3.3.1 Sample Selection Criteria .....	32
3.3.2 Sample Profile.....	33
3.4 Conceptual Model of Study .....	35
3.5 Measurement of Variables .....	37
3.5.1 Corporate Governance Practices.....	37
3.5.2 IFR Practices .....	38
3.5.3 Control Variables .....	39
3.6 Hypothesis Development .....	40
3.7 Construction of IFR Index .....	43
3.8 Construction of CG Index.....	46
3.9 Data and Data collection.....	47
3.9.1 Dependent variable – IFR .....	47
3.9.2 Independent Variable- Corporate governance measures .....	48
3.9.3 Control Variable.....	48
3.10 Data Analysis Strategies .....	48
3.11 Summary .....	51
Chapter 4 : ANALYSIS AND FINDINGS.....	53
4.1 Introduction.....	53

4.2 Sample Overview .....	53
4.3 Extent of IFR practices adoption .....	55
4.3.1 Descriptive Statistics on IFR practices .....	55
a. Total IFR Index.....	56
b. Total Content Index .....	57
c. Company Information Index.....	58
d. Financial and Investor related Information Index.....	58
e. Corporate Governance Information Index .....	59
f. Corporate Social Responsibility Information Index .....	60
g. Total Presentation Index .....	62
4.3.2 Discussion on Extent of IFR practices in Sri Lanka .....	63
4.3.3 Analysis on the Mean Score of IFR Indices .....	65
4.4 Descriptive Statistics on Corporate Governance Practices .....	67
a. Board Independence.....	68
b. Board Size.....	68
c. Role Duality .....	69
d. Audit Committee Independence .....	69
e. Audit Committee Meetings.....	70
f. Audit Committee Financial Expertise.....	70
g. Equity ownership by management and directors .....	71
h. Block Holder Ownership .....	71
4.5 Descriptive Statistics on Control Variables .....	72
a. Liquidity.....	72
b. Leverage.....	73
c. Profitability .....	73
d. Firm Size.....	74
e. External Audit – Big Four.....	74
4.6 Association between corporate governance and IFR practice .....	75
4.6.1 Pairwise Correlation.....	75
a. Relationship between Corporate Governance and IFR Practices .....	77

b. Discussion on the Correlations performed among IFR Index and Corporate Governance .....	79
c. Correlation among Independent Variables and Control variables .....	80
4.6.2 Regression Analysis on Relationship between IFR and Corporate Governance .....	83
a. Regression Analysis performed for Corporate Governance Index .....	84
b. Regression Analysis performed for Individual Corporate Governance Practices ..	85
4.7 Chapter Summary .....	87
Chapter 5 : SUMMARY AND CONCLUSION.....	89
5.1 Introduction.....	89
5.2 Summary of Findings.....	89
5.2.1 Examine the Extent of IFR Practices in Sri Lanka .....	90
5.2.2 Examine the Impact of Corporate Governance on IFR Practices .....	93
5.3 Limitations .....	94
5.4 Implications of the Study .....	95
5.5 Future Research Directions.....	96
REFERENCES .....	98
APPENDICES .....	105
Appendix 1: Sector wise Descriptive Statistics on IFR Practices (N=95).....	105
Appendix 2 : Sector wise Descriptive Statistics on Corporate Governance Variables.....	108
Appendix 3: Sector wise Descriptive Statistics on Control Variables.....	111

## List of Tables

Table 3-1 : Sample Profile .....	34
Table 3-2 : Sector Wise Breakdown of the Final Sample.....	34
Table 3-3 : Measurement of Corporate Governance.....	37
Table 3-4 : Measurement of control variable.....	39
Table 3-5 : Total IFR Index (TIFRI).....	44
Table 3-6 : Corporate Governance Index (CGI) .....	46
Table 4-1 : Descriptive Statistics on TIFR Index .....	56
Table 4-2 : Descriptive Statistics on TCI and its sub-Indices.....	61
Table 4-3 : Descriptive Statistics on TPI.....	62
Table 4-4 : One Sample T Test on IFR Indices .....	65
Table 4-5 : Descriptive Statistics on Corporate Governance Variables .....	67
Table 4-6 : Descriptive Statistics on Control Variables.....	72
Table 4-7 : Pearson (lower bound) and Spearman correlation (upper bound) correlation matrix for variables (N = 95).....	76
Table 4-8 : Regression analysis for Model 1 and Model 2 (N =95) .....	83

## **List of Figures**

Figure 3-1 : Conceptual Framework.....	36
Figure 4-1 : Sample: Composition of Websites availability.....	54

## **Chapter 1 : INTRODUCTION**

### **1.1 Background of the study**

Corporate disclosures play a major role in ensuring that the agency cost among the principals and agents are minimized through a way of reduced information asymmetry facilitated through disclosure of information at the interest of stakeholders (Jensen & Meckling 1976). Traditionally the corporates adopted annual reports, press releases, management reports and conference calls to facilitate corporate disclosure. Nevertheless in the modern era with the rapid growth of internet technology, it has enables the companies to disclose financial and non-financial information to the stakeholders through the adoption of websites as a media of communication (Pinto and Picoto 2016). In this regard, literature has reviewed the disclosure of information to the stakeholders with the use of internet as IFR.

Many studies have been carried out the in context of IFR and however, the most commonly IFR is defined as the use of Internet as a form of media by the companies for voluntary dissemination of financial and investor related information through company websites. (Marston & Polei 2004, Oyelere et al. 2003, Debrecency et al. 2002, Pinto and Picoto 2016, Marston 2003). In response to the dynamic technology advances, IFR has facilitated the companies to disclose financial and non-financial information at a greater speed and an enhanced volume to fulfill the information needs of the stakeholders to satisfy the decision usefulness (Yassin 2017; Kuruppu et al. 2015).

IFR enables companies new opportunities to replace and enhance traditional ways of investor and stakeholder communication enabling disclosure of financial and investor related information to wider audience where the specific needs of the information users would be met and ensuring equitable access to information through the use of descriptive content and attractive presentation formats available in company websites (Kelton & Yang 2008), moreover, the opportunity to provide more information than those available in annual reports possibly in real time and on interactive basis (Oyelere et al. 2003). However, currently the disclosure of information through corporate websites in voluntary and unregulated hence there exists no uniformity in practice of IFR adopted by entity leading to differences in the

investor decision making process due to differences in the level of information disclosed creating an information gap. (Hodge et al. 2004 cited in Kelton & Yang 2008).

The disclosure of corporate information ensures the transparency among the principal and agent such that the information gap is minimized (Jensen & Meckling 1976). The disclosure of full information to stakeholders is at the discretion of the managers that it is performed on voluntary basis except for the mandatory disclosures to be met as per the regulations imposed by the regulators of a particular country. Furthermore the full disclosure of information depicts the transparency and accountability adopted in carrying out its stewardship for the utmost satisfaction of the principal (Puspitaningrum & Atmini 2012). Sengupta 2005 states that sound corporate governance is needed to ensure more transparent disclosure moreover disclosing of material information to interested parties to ensure decision usefulness is considered as an indicator of good corporate governance (Momany & Pillai 2013).

Corporate governance, the way through which companies are directed and controlled. UK Corporate governance code (April 2016) elaborating further in more finance sense, implies that corporate governance is the manner in which the suppliers of finance assure that themselves a reasonable assurance on their investment returns (Shleifer & Vishny 1997 cited in Mapitiya et al. 2015). Corporate governance is aimed at ensuring that companies are adhering to best practices as disclosed by OECD Code of best practice such that, the corporates are performing the operations in the best interest of the all stakeholder in increasing the confidence of the stakeholders in capital markets there by increasing the credibility and accountability of information provided by the Companies (Abessi et al. 2011). Empirical evidence disclose that investors consider corporate governance as an important criteria in making investments decisions further acknowledging the fact that good corporate governance would lower the cost of capital and encourage efficient use of resources ensuring growth (Krafft et al 2013 ; OECD Principles of governance 2004 cited in Krafft et al. 2013). Corporate governance practices adopted differ from country to country depending on institutional differences, legal aspects, behavioral and cultural aspects (Yeen n.d)

In the context of Sri Lanka, the ownership structure is characterized basically as family oriented and concentrated ownership accordingly making a significant impact on the manner in which these companies are governed (Mapitiya et al. 2015). Following the liberalization of Sri Lanka from the British colony, the essence of English law and share trading activities



were the main driving factors for establishment of corporate governance practices in Sri Lanka (Cabraal 2003 quoted in Manawaduge 2012). With the passage of economic changes, amendments are carried out the corporate governance mechanisms adapted in Sri Lanka and currently the Code of Best Practice issued jointly by SEC and CA Sri Lanka which is practiced on voluntary (Oyelere et al. 2015). Furthermore in regards to public listed companies, Colombo Stock Exchange (CSE) forwarded mandatory minimum set of corporate governance practices to adopt by the listed companies to ensure that the listing requirements are met (Manawaduge 2012).

The mandatory requirements of corporate governance ensure equal access of information by the stakeholders (Ho & Wong 2001). However, this need to be further enhanced by way of adopting voluntary disclosures such that more transparency and usability of information disclosed is further augmented. Furthermore it is reviewed in literature that mere adaption of accounting standards is not sufficient enough to ensure that companies maintain the practice of accountability to its users such that to improve the quality and understandability of disclosed information it is vital that voluntary disclosure practices are adapted to secure a sustainable relationships among principal and agent (Ho & Wong 2001; Sanad et al. 2016). Sarbanes Oxley act imposes particular governance requirements to be adhered in ensuring the quality and quantity of information provided to facilitate reduction in information asymmetry further it establishes that voluntary disclosures are motivated by the corporate governance adherence (Davis et al. cited in Kelton & Yang 2008).

As a modern trend of voluntary adopting website disclosures to disseminate information, the studies identified in literature analysis depicts that, IFR plays a major in encouraging voluntary disclosure practices of companies through the website disclosures in addition mandatory disclosures required by regulations. Voluntary disclosures are also made available to a wider range of stakeholders at the discretion of the managers to determine transparency and accountability of operations. (Puspitaningrum & Atmini 2012; Kelton & Yang 2008; Ettredge et al. 2001).

Many research studies have been carried out in the context of IFR in global context aimed at understanding the extent of IFR adoption of a particular country and furthermore certain studies are determining the factors that drive the adoption of IFR among the Companies. Most of the studies only assess the impact of firm related economic factors and technological

infrastructure on the extent of IFR (Ojah and Mokoteli 2012 ; Oyelere et al.2005 ; Hussainey & Aly 2010 ; Spanos 2014 ; Almiliaa 2009 ; Dolinsek 2004 ) ,whereas only a limited studies have been carried out to identify a relationship between the impact of corporate governance on IFR. (Kelton & Yang 2008; Al Matrooshi et al. 2016; Abessi et al. 2011 ; Solondrasna 2014 )

In the context of Sri Lanka very limited empirical evidence exists related to IFR (Kuruppu et al. 2015; Sheham 2016).The two empirical studies have evaluated the use of internet as medium of voluntary communication of information by listed companies in Sri Lanka. The findings reveal that Sri Lanka is still at a nascent stage that provides high opportunities and challenges for stakeholder parties. And further, these local studies are mainly concerned on the web disclosure adopted by companies on board categories of “company history”, goods and services”, “financial information”. Thus the researcher observes, this research study is a pioneering research that has been carried out in Sri Lanka, which examines the extent of IFR adoption practiced in Sri Lanka by way of comprehensive content analysis on the nature and type of disclosures made available through websites and the impact of corporate governance on IFR practices of listed companies in Sri Lanka.

## **1.2 Research issue of the study**

The separation of ownership and control with in companies lead to information asymmetry among principals and agents. Corporates adopts voluntary disclosure practices in order to minimize the information gap and the empirical studies performed on voluntary disclosures states that managers voluntary enhanced the visibility of corporate financial and non-financial information aimed at reducing agency cost and contract cost to further improve the transparency (Sanad 2016: Kelton & Yang 2008). Moreover Sengupta et al. 2005 states that promoting stronger governance could also promote more transparent disclosure thus more accountability of managers to the interest parties.

Practice of good corporate governance is at the discretion of the corporate managers (Kelton & Yang, 2008) which raises about the reliability of the information provided and the level of transparency adopted by the corporates (Bottie et al. 2004, cited in Ariff 2016) where another empirical study that determines the direct relationship between corporate governance and information asymmetry states that the implementation of good corporate governance will lead

to reduce information asymmetry (Shihombing & Pangaribuan 2017 ) and such that the voluntary disclosures behavior of corporates could be linked to the practice of corporate governance that are aimed at minimizing information gap among principal and agent (Ariff 2016).

In establishing a relationship between IFR and Corporate governance, Probal and Bose 2007; Xiao et al. 2004 and Oyelere et al.2012 states that IFR is form of voluntary disclosure, accordingly as voluntary disclosure is associated with corporate governance, ultimately it draws a connection between IFR and Corporate governance. Enhancing more on the relationship Ojah & Mokoteli 2012 depicts that IFR aids in decreasing agency problems and enhancing corporate governance. Furthermore, Solonandrasna 2014 states that although IFR seems to increase the level of firm transparency, it is also likely to be subject to greater managerial discretion on the voluntary disclosures made available through websites thus when deciding on what information should be disclosed on the web, managers may intentionally not disclose information that are at interest of the managers depriving the decision usefulness of information disclosed.

To move forward in parallel with the growing technological adoption for information dissemination Kelton and Yang 2008 states regulatory bodies has urged to utilize internet as a prime tool to voluntarily disseminate information to interested parties. Thus IFR is an emerging concept that listed companies adopt to accomplish effective communication of useful information to interested parties.

Listed companies which has and in need of the potential to attract future investors to ensure more capital flow for the company to secure a sustainable growth tends to adopt modern trend of practicing web presence for voluntary information dissemination. The existence of information asymmetry is an important driver of investor uncertainty (Debreany et al. 2002). Accordingly it's the best practice that corporates ensure that all necessary financial and non-financial investor related information is directed towards the website viewers ensuring the ability to service existing investors and reach potential investors fruitfully. However, in contrast such a consistent practice of IFR could not be witnessed in the websites of all listed corporates of Sri Lanka.

IFR is neither mandated nor regulated. It depicts through empirical studies that different countries are in different stages as in terms of practicing IFR where certain economies depicts high adoption of IFR practices in contrast certain economies depicts moderate or less adoption of IFR that could be witnessed in observing company websites, which illustrates that there exists differences in IFR adoption from economy to other (Kelton & Yang 2008 ; Debreceby et al. 2002 ; Marston & Polei 2007) .

This is supported in reference to reviewed literature that there exists determinants in terms of differences in corporate governance system being followed by the companies and other economical characteristics which results to a difference in the level of IFR adoption among the companies hence it is vital to analyze what impacts variations in the degree of IFR practices such that it affects the level of information disseminated to investors and other information users which could create negative consequences on the transparency of company operations (Kelton & Yang 2008 ; Al Matrooshi et al. 2016 ; Abessi et al. 2011 ; Solondrasna 2014 ) .

Thus it justifies the attempt for a research study to determine the IFR adoption by listed companies in Sri Lanka through a comprehensive analysis on the nature of information disclosed and the degree of penetration in IFR adoption and evaluating the association of corporate governance with IFR practices in drawing connections to the extant literature on determinants of IFR. Thus the central research question of this study is to examine the *“Extent of adoption of IFR practices by listed companies Sri Lanka and the impact of corporate governance on the degree of IFR adoption “*

### **1.3 Objectives of the study**

The study is mainly aimed at understanding the extent to which IFR is practiced by Sri Lankan quoted companies in Sri Lanka in the move towards ensuring transparency of corporate operations among all its stakeholders and to examine the impact of corporate governance on IFR practices.

Accordingly the two main objectives of the study would be;

1. To examine the extent to which IFR practices adopted by quoted companies in Sri Lanka.

Literature reviewed in local context depict that Sri Lanka, is currently at the initial stage of adapting IFR (Kuruppu et al. 2015 ; Sheham 2016 ) and as illustrated in previous sections variation exists among the countries in terms of level of IFR adoption such that it is vital to understand the level of IFR practices by Sri Lankan listed companies to acknowledge the evolution of trend of adapting IFR in Sri Lanka in terms of what attributes are being considered in practice of IFR and how the scope of IFR is evolved over time to be measured with the aid of an IFR index developed through prior literature.

2. To examine the impact of corporate governance on IFR practices

In regards to the variations in the level of IFR adoption, empirical studies identifies that determinants exists that have caused variations in the degree of IFR practices. The deviations are in terms of corporate governance variables and other economical variable as discussed in the following chapter (Chapter 2). The reviewed studies highlights impact of corporate governance on the IFR practices which has produced mixed results on the extent of IFR influenced through the adoption of prominent corporate governance practices where such findings cannot be generalized due to differences in the degree of economic developments in the studies conducted. Each of the independent variable of corporate governance will be operationalized using proxies in order to be measurable and each proxy would either act favorable or unfavorable against the IFR index developed to identify the level of Internet disclosure. Accordingly the second objective of the study will be to empirically examine the impact of corporate governance on the IFR practices adopted by listed companies in Sri Lanka.

## **1.4 Significance of the study**

### **1.4.1 Theoretical Contribution**

This research is to be centred mainly to investigate extent to which IFR trend is adopted by corporates in Sri Lanka, and the impact of corporate governance on IFR in the listed companies in Sri Lanka. The trend of adopting IFR practices is still at an embryonic stage in listed companies in Sri Lanka ( Kuruppu et al. 2015 ; Sheham 2016). Accordingly it is highly contemporary to evaluate the extent of IFR adoption by companies as a voluntary disclosure

of information to interested parties. In that case this research is very unique as in the context of Sri Lanka only above mentioned two studies are performed related to IFR to the best knowledge of the researcher such that this study contributes to extant literature by way of new knowledge in investigating the nature and degree of IFR practices in Sri Lanka

In the global context several studies have been carried out in terms of IFR and determinants of IFR, and extant literature indicates that contradictory results are depicted in regards to the determining factors of IFR moreover only a limited number of research studies had been carried out in determining the influence of corporate governance on IFR, as commonly economic factors are evaluated as determinants of IFR. In given the local context, as mentioned earlier a very limited number of studies related to IFR have been conducted and to the researcher's knowledge no published study is done to examine the impact of corporate governance of IFR Therefore this study contributes to the extant knowledge by bridging the above mentioned gap by means of analysing the impact corporate governance mechanism on IFR practices adopted by Companies.

#### **1.4.2 Practical Contribution**

The awareness on the IFR and its link with corporate governance is an essential factor to be concerned by the corporate managers as they are accountable to the owners of the company, and as IFR plays major role in attracting potential investors to the Company, thus this study will enable them to understand the importance of their role in ensuring the transparency among the owners and minimizing the information gap there by improving their quality of service.

Further the knowledge on IFR is vital for any potential investors of the company, as higher the level of IFR practise by Company it can be predicted that higher level of transparency is held by the company, hence they have access to material information that would guide them to take effective investment decisions, hence the knowledge on IFR would facilitate investors to be mindful about the corporate dissemination that enables them to have unlimited access to material information.

In overall understanding on the significance of IFR and extent to which it is determined by corporate governance is important for regulators and policy makers such as Security

exchange commission (SEC), Professional accounting bodies such as Institute of Chartered Accountants of Sri Lanka (ICASL), to regulate the quality of voluntary disclosure.

### **1.5 Scope of the study**

Scope of the study is centered on IFR practices and the impact of corporate governance on IFR. IFR, a voluntary disclosure practices adopted by companies reflects the level of transparency in operation with the use of improvements of technology in terms of Internet where both content and presentation of information provided in the website are evaluated based on an checklist prepared on prominent studies performed in the related area and further upgrading the list as to suit the current exposed level of IFR in Sri Lanka in examining the websites.

Further, even though corporate governance is a broad area, the study is limited to acknowledging the impact of corporate governance under three main proxies of board composition, audit committee and ownership structure on IFR, derived based through the review of pervious literature and high availability and ease of access of said information in company annual reports.

### **1.6 Research Methodology**

In the study, the researcher intends to discover new knowledge by identifying the extent to which the modern trend of IFR is adopted by the companies in Sri Lanka and the impact of corporate governance on IFR in listed companies in Sri Lanka. To achieve the said objective the study uses primarily quantitative research methodology where the researcher will follow deductive approach when conducting the research supported by extensive literature survey ranging from 1976- 2017 to establish on the two concepts on IFR and corporate governance .

In order to measure “IFR”, the dependent variable of this study, the researcher has developed a comprehensive internet financial disclosure index, which indicates the financial and investor related information disclosed by the company’s websites. This index is the main instrument used in this dissertation and it is developed based on report issued in 2000 by FASB ( Financial Accounting Standards Board ) on Electronic distribution of business reporting information and study performed by Kelton & Yang 2008 on the impact of corporate governance on IFR in the context of companies listed in New york stock exchange .

The independent variable of “corporate governance practices” would be operationalized under respective indicators for corporate governance characteristics as a whole and each prominent corporate governance variable identified as per the reviewed literature and additionally the control variables will also be measured as in line with the empirical studies.

The study limits its sample to 95 companies listed in CSE that possess active websites as at 31<sup>st</sup> of August 2017. In relevance to data collection, the independent variable of IFR would be measured by way of observing company websites through the use of developed index and data related to the independent variables of corporate governance practices will be collected through latest published annual reports. The data collected would be analyzed using descriptive statistics, univariate analysis, correlation analysis, multivariate analysis with the use of Statistical Package for Social Sciences (SPSS) 23.

## **1.7 Structure of Chapters**

The main body of the research study comprises of five chapters.

Chapter one focuses on the background study, research problem and research question, the objective of the study and the significance of the study which depicts the practical and theoretical contribution made by the study, Furthermore, abstract of methodology used in the study briefs how the study would be performed in relevance to data collection

Chapter two elaborates the extant literature on IFR, corporate governance and voluntary disclosures. Prior studies conducted in level of IFR adoption by different countries and association between corporate governance and IFR practices were analyzed in this chapter along with conceptual association between the variables. Further, the dearth in research studies in local context related to IFR practices is highlighted leading to identifying the research gap exists in the context of IFR in Sri Lanka. In addition, the behavior of control variables and measures used in prior studies are discussed while evaluating the methodology adopted in studies involved with similar variables.

Chapter three presents the nature of the positivism paradigm on which study is based on. Firstly the nature of the population and criteria in deriving at the sample of the research study is depicted. Then the data collection and measurement procedure related to the variables of the study would be elaborated. Further, this chapter explains in detail how the researcher



developed the IFR index, which is the main instrument used to measure the dependent variable of this study and the derivation of CG index and measurement basis for each corporate governance variables to measure the impact of corporate governance. Finally the data analysis methods relating to the objectives of the study would be discussed along with developed hypothesis. In overall this chapter depicts conceptualization and operationalization of the concepts along with the research design, sampling, and data collection and analysis techniques which are intended to be used in the study.

Chapter four indicates the discussion, analysis and findings, which explains how the collected data are analyzed using descriptive statistics and univariate analysis in realizing Objective 1 and regression and correlation analysis for attainment of Objective 2 .Thereafter the findings would be discussed systematically in line with the objectives.

Chapter Five presents the summary and conclusions where the outcome of the study is evaluated, along with limitations and implications of the research study and directions for future research.

## **1.8 Chapter Summary**

This chapter creates the foundation to the study where the researcher has discussed the background to the study which has paved the way to the research issue and research objectives under consideration.

The broad objective of this study is to identify the extent to which IFR is practiced in Sri Lanka and to derive a relationship between corporate governance measures and the extent to IFR adoption hence this chapter implies the practical and theoretical significance of realizing such objectives. Furthermore, this chapter elaborates the scope and methodology adopted in this study concluding the chapter with a summary on the structure of the rest of chapters.

## **CHAPTER 2 : LITERATURE REVIEW**

### **2.1 Introduction**

This section discusses extant literature in relation to IFR, corporate governance and control variables related to the study. Furthermore, the section analyses the theoretical background and previous studies conducted on the adoption of IFR practices and relationship between corporate governance and internet financial reporting.

### **2.2 Concept of IFR**

IFR is defined as “Means corporations use Internet technologies such as the World Wide Web to disseminate financial information” (FASB 2000) where the corporates are disclosing both financial and non-financial information using the web (Lazward et al.2003 ; Al- Htyabat 2010) which is more beneficial over printed set of annual reports as a wider range of interested parties can be reached with a broader set of information and not merely financial information (Kelton & Yang 2008 ; Khan & Ismail 2012 ). Supporting the definition Lymer et al. 1999 states that IFR is organization’s public reporting of financial and operational information using interrelated internet communication mediums or word wide web which is an emerging concept in the modern world that is adopted by many corporates in voluntary basis (Kelton & Yang 2008 ; Ettredge et al. 2001).

The previous studies performed on IFR could be identified mainly under two categories of firstly descriptive studies which aims to identify the extent to which IFR is adopted in terms of mainly what is disclosed under the adoption of IFR and secondary as to depict the determinant factors which drives the adoption of voluntary disclosure practice where it is address why the IFR practice is adopted (Marston & Polei 2004 ; Bozcuk 2012).

To elaborate more on the adoption of IFR practices through websites, literature identifies IFR practices mainly in two dimensions of Content and Presentation, where the former focuses on nature of different information types presented through company websites and the latter identifies the way through which the said information is presented in a user friendly and an attractive manner (Agboola & Salawu 2012; Al matrooshi et al. 2016) and further to identify the level of IFR adoption an Index is utilized in measuring the level of IFR which depicts the level of internet reporting practices available in corporate websites.

FASB 2000 has developed a comprehensive checklist to measure business and financial electronic reporting practices of corporates which mainly categorizes attributes related to general website appearance and attribute related to investor relations information disclosure and business financial reporting which add insights to the identified two dimensions mentioned above. Further based on the FASB 2000, most of the previous researches (Kelton & Yang 2008 ; Ismail & Khan 2011 ; Al Matrooshi et al. 2016 ;Oyelere et al. 2003 ; Marston 2003 ; Pendley 2008 ; Ettredge et al. 2001 ; Dolinsek 2014) have adopted an Index to measure IFR that was mainly derived on the basis of the two dimensions identified.

Throughout the last two decades, several studies have been carried out in various countries in assessing the level of IFR adopted in countries and to mainly identify the determinants of IFR practices and characteristics of firms that engage in corporate financial reporting on Internet, and also certain studies are being focused to identify the impact of certain corporate governance measures on the extent of practicing IFR in the global context. Empirical evidences reveal that extent of adoption of IFR varies among countries, indicating a difference in the penetration of IFR practices and there exists determinants driving the variations. Various degrees of IFR adoption among countries would be elaborated further below in this section.

### **2.3 Prior Research on Adoption of IFR Practices among Different Countries.**

In reviewing the descriptive studies performed related to the concept of IFR in terms of the extent of IFR practices adopted by companies, studies performed in different countries depicts the variations in the level of countries adopting the improvements in the technology for the voluntary dissemination of financial information .

A prominent study conducted by Kelton & Yang 2008, in terms of 284 forms listed in New York Stock exchange indicates that all the firms had websites and among that only 7 websites did not possess specifically a dedicated information for investor relations, Yet it represents a majority level complies with investor relations information. As a common practice this study also have adopted content and presentation dimensions in building up the IFR index which accounts to 36 items in the Index among which 24 are content attributes and rest belongs to presentations. The findings of the study indicates that on average 16 items of the content list

are being by most of the companies and out of the presentation attributes majority are compiled by the companies on an average of more than 75%.

Yassin 2017 studies the Jordanian public shareholding companies listed on the ASE at the end of 2011 to evaluate the IFR practices in practice and reveals that out of the sample of 228 listed companies only 144 companies' claims to possess websites where website is the main utility for financial disclosure through Internet and among that only 65% of the companies disclose financial other and other related information on the Internet. Further this study has measured IFR in terms of Content and Presentation dimensions that indicate overall compliance with content is 69% and 97% for presentation attributes which depicts that in terms of the quality of information provided an enhancement is required.

The study conducted in Athens Stock Exchange on a sample of 141 indicates that 121 companies that is 96 % among the listed companies possess basic requirement of websites to undertake IFR practices. In measuring IFR an index is developed with 50 items as similar to the previous studies which consisted of content and presentation dimension and additional categories of technological aspect and user support. In terms of the total disclosure of 50 items a mean of 45.7 points indicates the average adoption of IFR with in the sample however, content and presentation dimensions depict majorly a disclosure level of 44 % among the sample which highlighted that currently companies adopt a very traditional form of IFR in comparison to developed economies and certainly more room exists to improve the practice of IFR to utilize the full potential of technology development (Spanos 2006).

The study by Solonandrasna et al 2013 conducted on 32 French CA CAO firms reveals that all the 32 companies possess websites and where the average adoption of IFR measured using Data Envelopment Analysis (DEA) shows that 52.8% of the sample adopt IFR elaborating that there exists a variety of IFR adoption among the companies and further it concludes that the companies rely on IFR not only for commercial activities moreover to facilitate the access of investors to company financial information .

Dolinsek et al. 2014 conducted a study in the context of users' perceptions on the IFR, which identifies the degree of IFR practice in Slovenian companies. The research involves the companies listed in Slovenian stock exchange where out of the 209 listed companies only 183

companies possess websites and further among those companies only a 60% disclose financial information to be used by the particular investors and other users.

In accordance with previous studies, this study also identifies the IFR disclosure in the usual dimensions of content and presentation where the index constitutes of 32 content attributes and 12 presentations attributes. The results indicate that adoption of IFR is recorded at 52 % of index items with in the sample. Further one of the objective of this study was to identify the users perception on the IFR, where the results reveals that the use of interactive annual reports and multimedia components and process able financial information play a major role in attracting users and hence these are essential attributes to be consider under the presentation dimension in analysis the format of IFR disclosure (Dolinsek et al. 2014).

The study conducted by Bozcuk 2012 in regards to Istanbul stock exchange identifies only the presentation dimension of the IFR practices using a disclosure index of 12 attributes, where the results depicts that 5.57 is attained on average with regards to Index and the this is depicts that to a certain extent IFR practice is visible in the sample companies, yet this study does not provide a full overview of IFR as only the presentation dimension is considered where it is evident most empirical studies that major component of IFR is driven by content dimension.

Hussainey et al 2009 performed a study on the context of Egypt stock market listed companies where a sample of 62 companies was studied. The results indicate that among 62 firms only 35 companies disclose significant portion of information on the website for the use of these studies also prospective and expected users and as a commonly in other studies this study also rely on an IFR index developed with 82 items where a majority accounts to content dimension.

In further elaborating on the extent of IFR practice by the one of the developed economies of New Zealand, the study of Oyelere et al. 2003 indicates that among the sample of 229 companies listed in New Zealand stock exchange, only 123 companies possess websites which accounts to 53.2% and further among these 123 companies only 90 websites disclose financial information related to investors. Furthermore the study performed by Marston 2003 among 99 Japanese companies indicates that only 78 companies accomplish the basic requirement of IFR practice in terms of websites and further among those only 68 companies

disclose financial information which accounts under IFR. Both the studies' results indicates that as technology is a an ever changing and improving aspect, in parallel the companies are required to keep up with the improvements as to attain high level of IFR disclosure.

Further in regards to the Asian Economy, Abessi et al. 2011 reveals that among 306 companies in Bursa Malaysia stock exchange, only 254 companies possess websites among which the most account to trade sector companies where plantations and mining sector accounts to the lowest sector possessing websites. As in previous studies, A IFR disclosure index of 270 items were developed using mainly the FASB 2000 report on Business reporting on the internet and of the total check list 52.5% indicates the highest disclosure level where only 1.11% depicts the lowest IFR level.

In terms of the Sri Lankan context a study performed by Kuruppu et al. 2015 Internet reporting and disclosure practices adopted by listed companies in Sri Lanka considers a narrow disclosure level of IFR in terms of company information, product and services and financial information rather than building up on a comprehensive IFR checklist in order to identify the extent of Internet reporting companies are adopting.

The data gathered from companies relating 20 sectors listed on Colombo Stock Exchange depicts that only 59.4% possess websites which is fairly less in comparison to developed company economies and also in comparison to other Asian countries this represents a relatively low IFR practice (Chatterjee & Hawkes 2008; Khan & Ismail 2012) .

Further in performing a deep analysis of three defined attributes of IFR disclosure the study further reveals that in comparison to company information and product services , the proportion of disclose of Financial information through websites in relatively less hence the practical meaning of adoption of IFR is not addressed properly, However it can't be concluded so as the IFR is measured with a narrow set of three items, moreover a use of a comprehensive IFR index would have derived different results on the practice of IFR .

The adoption of IFR practices is discussed in this section with regards to different economies that possess different degrees of IFR adoption thus indicating that there exists economical and firm characteristic which are the driven factors behind the different degrees of IFR adoption in identified economies.

However it is to be brought into notice that IFR is a concept associated with technology and in the real world timely improvements in the technology could be witnessed and based on the past studies reviewed it could be identified that depending on the nature of the time in which the study is performed different results had been derived and moreover the disclosure index of IFR will be enhanced with wider adoption of technological upgrades (Abessi et al. 2011).

## **2.4 Concept of Corporate Governance**

Corporate governance is an integral component leading towards the long term sustainable performance of the company. According to Cadbury report 1992, corporate governance defined as the “System by which companies are directed and controlled corporate governance facilitates the practice of transparency and accountability with in the corporates hence essential in ensuring that the different needs of the stakeholders are catered well (Ganescu & Gangone 2014 ).

In previously performed studies it identifies, corporate governance involves putting the structures, procedures and mechanisms in place such that it ensures the firm is directed towards ensuring that the out siders protect themselves against the expropriation of insiders (Velnapy, 2013). Further elaborating on the mentioned fact, agency theory which arises due the separation of ownership and control among principals and managers ( Michael and Meckling 1976 quoted in Puspitaningum & Atmini 2012) reflects that managers will act in their self-interest due to the fact they have more access to information than the principals hence leading to information asymmetry among the principals and managers raising major concerns in the corporate world with regards to agency cost due to lack of transparent behavior. In practicing effective corporate governance, disclosures and transparency are essential components in ensuring that the agency conflicts are managed appropriately to align the managers’ interest towards the interest of the shareholders. (Haldar & Rao 2013; Puspitaningum, & Atmini, 2012) .

Further Jensen and Mackling 1976 mentions a framework linking corporate governance and disclosures stating that the practice of corporate governance would ensure that it act both complementary and substitutive in realizing disclosure policy of the company where it is complementary when a practice of more governance will strengthen the internal control mechanisms and thereby provide an intensive monitoring package to reduce opportunistic

behavior and information asymmetry resulting to comprehensive disclosure level by managers and on the other hand an existence of a substitutive relationship would ensure that companies would not disclose more information for more corporate governance mechanism since one mechanism would substitute the other . In overall to facilitate the transparency by bridging the information gap by way of provision of timely and open information to the market and good internal governance would ensure that voluntary disclosures are promoted hence material information are reached out to the all interested parties (Haldar & Rao 2013). Further adding insights to empirical evidence Juhmani 2013 states that disclosures play a major role in ensuring good corporate governance by way of reporting transparent and reliable information to shareholders specifically for the efficient functioning of t capital market.

With the fast growing capital market nature, mere provision of mandatory disclosure does not ensure that capital investment decision makers around the world has all vital data to make effective decisions, to improve with regards to this issue and improve investor confidence, in overall regulatory frameworks, in particular corporate governance, transparency and disclosure should be enhanced (S M Ho & Wong 2001).

Corporates ensure that to attract more investors to ensure long term viability of the company voluntary dissemination of information is essential moreover with the adoption of technological improvements corporates engage in IFR in order to ensure that voluntary information are disseminated to the interested parties through the websites that is widely available in real time and the below discussed literature reveals the impact of corporate governance on the level of IFR adopted by the companies.

## **2.5 Concept of Voluntary IFR Practices**

Currently IFR is practiced on voluntary basis and is unregulated as such no strict rules and regulations to be adhered in the practices of IFR, which leads to high level of discretionary in IFR disclosures adapted by companies (Ettredge et al. 2001). Thus this leads to witness different levels of IFR disclosure to be available in corporate website as such there is no uniformity in the practice. IFR is mainly associated with financial information and investor related information made available through company websites such that IFR information deals with the efficiency of the capital market system.



For the efficient functioning of the capital markets it's essential that required information is available such that it ensures right decisions are taken. With the emerge of more knowledgeable investors mere supply of mandatory information ensure equal access to basic information (Lev & Thiagarajan 1992), but this information has to be augmented and further improved by firms' voluntary disclosures and information production by intermediaries ( Ho & Wong 2001).

Literature reveals that, although traditional annual reports provide only the mandatory information as per the statutory requirements, management make initiatives to ensure that voluntary disclosures are provided to the interested parties as they believe that a well-managed disclosure policy would derive benefits to the Company (Izan et al. 2006).

In accordance with the previously performed studies, information is sought for identifying the extent to which voluntary disclosures are provided by the companies and what factors are driving the differences in the level of voluntary disclosures adopted by the companies. Literature indicates that corporate governance, ownership structure and company characteristics are the main drivers among the companies that defines to what extent variable level of voluntary disclosures is adopted by the Companies (Izan et al.2006 ).In specific terms, the study of Ho & Wong 2001; Sihombing & Pangaribuan 2017 reveals that adoption of corporate governance mechanisms ensures that higher level of voluntary disclosures is practiced.

The extant literature depicts that adopting web based disclosures is a voluntary act by the discretion of the managers as voluntary disclosures are not mandated or regulated in the current world (Ayuba & Oba 2016). Accordingly voluntary disclosure of useful information on websites is a factor to be studied with its association with corporate governance as the discretion of manager is an influential through internal control mechanisms associated with corporate governance (Solonandrasna 2014 ; Ariff 2016. In deriving a linkage between voluntary disclosures and the expected study of IFR, it could be derived that based on literature, corporate governance impacts the level of voluntary disclosure, thus IFR as a form of voluntary disclosure is associated with corporate governance which will be discussed below with the use of literature.

## **2.6 Conceptual Association of IFR and Corporate Governance**

Agency theory provides the theoretical basis in examining the association between IFR practices by firms and corporate governance mechanisms. This theory, mainly focus on the relationship between the agents who are managers in the business and principals who are the capital providers in the business, it suggests that managers should always ensure that the operations are carried out for the best interest of the all stakeholders and not merely the self-interest of managers, this calls for the need of transparency in conducting business operation (Abessi et al.2011). However, the difference in ownership and control in a corporate would create implications on transparency level among managers and principals.

When the managers' aims to satisfy their own interest at the cost of the principal, agency problem would be resulted in creating agency cost due to lack of transparency. As the managers have more access to information than the principals it would result them to take decisions that are at the best interest of the managers hence accountability of managers is at a questionable state (Abessi et al.2011; Ariff 2016) thus creating an information asymmetry among principals and managers.

In an approach towards minimizing information asymmetry, it is vital that the owners and the other stakeholders are provided with all information that supports effective decision making. The extent to which non-mandatory disclosures are exposed for the view of stakeholders are at the discretion of the managers, where the discretion of the managers is influential through the internal control mechanism of Corporate governance in practices as responsible corporate governance ensures that the Companies are managed at the best interest of all stakeholders. (Puspitaningrum & Atmini 2012).

Corporate governance determines the nature of disclosure policy of the firm in terms of extent of voluntary disclosures and quality of voluntary disclosure driving leading towards disclosure transparency. In line with the modern trend of adapting to web based voluntary disclosures accomplished through a way of IFR is examined in this study as a form of voluntary disclosure practices adopted by companies and its association to practice of corporate governance measures.

## **2.7 Empirical Association between Corporate Governance and IFR**

Several studies have been conducted globally to comprehend the role and influence of corporate governance on the extent of IFR. However, the prior literature has delivered findings based on different corporate governance measures which indicate mixed conclusions. In this section, previous literature will be examined in terms of attributes of corporate governance and its sub components and association between IFR index and corporate governance attributes.

In reviewing previously performed literature it depicts that corporate governance characteristics under the proxies of board composition, audit committee and shareholding ownership are identified as critical factors that ensures the effectiveness of internal control mechanisms thus lead to better quality corporate governance. The identified corporate governance characteristics will be reviewed here with the extant literature.

### **2.7.1 Board Composition**

In an approach towards good governance practices, board composition is a vital component as it deals with agency problem in companies where agency cost arises due to the divergence of interest from the divergence of interests between managers and shareholders induced by the separation of ownership from control (Jensen and Meckling 1976 cited in Solonandrasna 2014) In mitigating these issues managers must ensure that they undertake voluntary activities in terms of disclosures and proper monitoring hence the owners interest is safeguarded. (Solonandrasna 2014). The modern trend of adapting IFR, which is voluntary disclosures is highly dependent on the quality of corporate governance which is mainly driven by the sub components of board independence, role duality and board size that results in variability in the level of IFR disclosures from company to company (Abessi et al. 2011)

#### **a. Board Independence**

Board independence is an important element in ensuring the monitoring of financial reporting process and reliability of the financial reports disclosures ( Anderson et al. 2004 cited in Kelton & yang 2008 ) Empirical evidences indicates that there exists a positive relationship between the existence of independent directors of a company and extent to which voluntary disclosures are practiced . Literature states in the study of Abessi et al. 2011 that in

the context of Malaysian listed companies level of IFR disclosures is significantly associated with the independent directors and Chen and Jaggi 2000 cited in Kelton and yang 2008 confirms the positive association in the context of Hong Kong, and further in the literature in China the existence of IFR practices is favorably associated with the proportion of independent directors (Xiao et al. 2004).

### **b. Role Duality**

The separation of the role of chairman and CEO is an important element to be concerned in the context of ensuring that the interest of the shareholders is realized. Literature states that both chairman and CEO roles are occupied by one personnel it would result to dominant personality driving towards decisions that are in best interest of the managers (Abessi et al.2011).

Studies Cheung, Jiang and Tan (2010) indicates that companies with a separate CEO and board chair tend to have higher voluntary disclosure hence information gap between the agent and principal would be minimized further confirming the association Forker 1992 cited in Abessi et al. 2011 states that existence of CEO duality resulted in poor disclosures.

### **c. Board Size**

In reviewing the extant literature it illustrates that number of occupants in a board of management is a determining factor on the quality of good corporate governance where studies states that the smaller the board size it facilitates better communication of information such hence higher effectiveness in monitoring. This is justified by the fact that the existence of higher number of managers indicates possible conflicts creating detrimental impacts on the quality of disclosures that are made available to the owners (Solonandrasana 2014). In indicating the association Bushman et al 2004 states that small boards are more likely to provide better quality information to outside investors where they abide by their accountability to ensure high quality corporate disclosures are enabled through effective internal control mechanism. In supporting the negative association Vafeas (2000) cited in Solonandrasana 2014 also states that larger boards size higher the probability of low quality disclosure practices mainly driven by the possible conflicts of directors in variety of views.

### **2.7.2 Audit Committee**

Audit committee identified as a tool of corporate governance which ensures that questioning of board management is undertaken such that quality of financial reporting is ensured and hence better quality information is delivered to the stakeholders (Al Matrooshi et al. 2016). In reviewing the previously performed literature it depicts that sub components of Auditor independence, financial expertise of committee members, committee size and auditor committee meeting frequency are determining factors that ensures the committee to execute its duties effectively and leading towards better corporate governance. (Kelton & Yang 2008 ; MCCG Revised 2007 cited in Abessi et al. 2011 )

#### **a. Audit Committee Independence**

In reviewing study by Baxter and cotter 2009, it reveals that independence of the auditors is an important factor influencing committee competence and effectiveness in managing financial statements moreover quality disclosure of information to interested parties. The existence of an independent auditor will ensure the transparency of the company operations hence ensuring more accountability to the stakeholders as the auditors do not possess any material or psychological attachments to the management.

The extant literature provides evidence that audit committee independence is a vital factor in determining the voluntary disclosures of the company operations where Hamdan et al. 2013 states that corporates with more independence and effective audit committee disclose more information and further more Sihombing & Pangaribuan 2017 states that in Indonesian context voluntary disclosure is highly significant with corporate governance mechanism measured in terms of audit committee characteristics yet in contradiction Al Matrooshi et al.2016 mentions that Audit committee characteristics of independence does not indicate any relationship with the level of IFR disclosure.

#### **b. Audit Committee Competency**

As stated ,audit committees are entrusted mainly with the task of managing financial reporting process effectiveness there by a more experienced and knowledge group of personnel with financial will be an essential factor (Pushpitanigum & Atmini 2012 ) resulting in committee with higher financial background leading to higher performance.

The extant literature in Kelton & Yang 2008 dictates that the level of IFR disclosure is highly significant with higher the expertise in the audit committees and further confirming the literature Abessi et al. 2011 mentions that audit committee with financial background is leading towards higher internet visibility of the companies .In rounding up the literature it suggests that financial expertise is favorably related to disclosure transparency measured through IFR.

### **c. Audit committee meeting frequency**

The activeness of the audit committee is measured by means of the frequency of meetings carried out which depicts that higher the frequency of meetings more practice of due diligence by the auditors through more reliability and effectiveness of operations hence more oversight over better disclosure of information (DeZoort et al. 2002 cited in AlMatrooshi et al.2016)

In reviewing literature, Pushpitanigum & Atmini 2012 states that among the audit committee characteristics, the results indicate that audit committee meeting frequencies influence voluntary disclosure of IFR. Furthermore empirical evidence of Kelton & Yang 2008 and S.M Ho & Wong 2001 indicate that audit committee meeting frequency and IFR is positively associated yet in deviation to the said association Abessi et al. 2011 did not provide any evidence on the any association between IFR and audit committee meeting frequency in the context of Malaysian listed companies.

### **2.7.3 Ownership Structure**

Under the ownership structure managerial ownership and block ownership are two major governance mechanisms that help control agency problems (Jensen & Meckling 1976 Kaplan and Minton 1994). With regards to the mentioned two types of ownership structure, the extent of ownership is determined by the level of shares held by the managers of the company and block holders of the company. The reviewed literature depicts associations between the voluntary disclosure levels and said ownership types which will be discussed below.

### **a. Managerial Ownership**

Previous researches indicate that voluntary disclosure is negatively associated with managerial ownership as when the shares owned by managers is less there will exist a higher agency problem hence owner would demand more information by the managers to ensure that managers would not consume perks of being in the management, hence in overall the voluntary disclosure of information is a substitute for monitoring function required by the owners to ensure that the agency conflicts are reduced ( Eng & Mak 2003 ) .

Further elaborating on the mentioned facts the study of Eng & Mak 2003 carried out in the light of listed financial and non-financial companies in Singapore stock exchange depicts that lower managerial ownership are associated with increased voluntary disclosure and also supporting the fact research performed by Wong & Fan 2002 in terms of the corporate ownership and informativeness of accounting estimates in East Asia also depicts that a higher managerial ownership would lead to low voluntary disclosure hence a negative relationship exists.

However in contrast to the above results Elmans 2012 states that in a content analysis performed on the five most influential countries in Europe a significant relationship is not derived in between the managerial ownership and voluntary disclosure. Yet in contrast to the derived relationship in above studies Juhmani 2013 depicts that study on 41 listed companies in Bahraini stock exchange depicts no such relationship between the managerial ownership and Voluntary disclosure.

As previously discussed in chapter 1 and 2 IFR is a voluntary disclosure mechanism along with the development in technology hence it can be expected that IFR practices of a company to significantly inversely related to level of managerial ownership however in contrasting to mentioned fact Kelton & Yang 2008, depicts that there is no significant association between the practice of IFR and managerial ownership with regards to a study performed in New York stock exchange.

### **b. Block holder ownership**

In reviewing the previously performed literature it indicates that the existence of large block holder ownership illustrates that it leads to a concentrated ownership structure among a small

group of shareholders which would result them to have access to information through internal sources therefore less likely to disclose information (Marston & Polei 2004). In supporting the mentioned fact stakeholder theory could be brought forward that in practice voluntary disclosures are provided when there is a diffused set of owners yet in a situation where the ownership is distributed among a small set of shareholder such voluntary disclosures are not motivated ( Juhmani 2013) .

Research conducted by Almsafir et al. 2013 in regards of 71 listed companies in Amman stock exchange conclude that the block holder ownership and voluntary disclosure are high inversely related and further study conducted in south pacific stock exchange among 14 companies depicts that there exists less voluntary disclosure incorporates that possess highly concentrated ownership. (Ismail & Khan 2013) Additionally the study conducted by Juhmani 2013 also states that a significant negative association exists between the block holder ownership and voluntary disclosure. As stated under managerial ownership discussion above , IFR being considered as a form of voluntary disclosure , the study conducted by Kelton & Yang 2008 which states that the higher practices of IFR is reported by firms involving a lesser portion of block holder ownership.

In contrast to the above derived results, the studies of Eng & Mak 2003 in regards to financial and non-financial listed companies in Singaporean stock exchange and Abessi et al. 2011 in Malaysian listed firms indicates that no relationship exists between the block holder ownership and voluntary disclosure.

## **2.8 Influencing Factors on IFR other than Corporate Governance**

In reviewing the previous studies performed in relation to IFR and its determinants the researcher has identified five factors that have significant influence over the adoption of IFR and the extent of disclosure level penetrated through IFR. Furthermore it's vital to understand the factors that could have a significant control on the level of IFR disclosure in order to determine a relationship among corporate governance and IFR.

The previously performed research studies indicate that the determinant factors of IFR are mainly the firm related economic characteristics that drive the extent of IFR adoption by the



specific companies which depict differences in the degree of penetration in IFR. The five main control variables would be discussed below.

### **2.8.1 Company Size**

Many past studies performed reveals that the size of the company is significantly positively associated with the extent of IFR adoption by the companies ( Yassin 2017 ; Al Matrooshi et al. 2016 ; Almilia 2009 ; Oyelere et al. 2003 ; Marston 2003 ; Dolinsek et al. 2014 ; Debrecency et al. 2002 ; Marston & Polei 2004 ; Aqel 2014 ; Al Hytaybat 2011 ; Damso & Lourence 2011 ; Al Makawi 2014 ) .

With regards to measurement of company size, studies reveal many methods of natural logarithm of market capitalization , natural logarithm of total assets ,Net turnover for a particular year , number of total employees however the most commonly used measurements is the use of natural algorithm of market capitalization ( Dolinsek 2014 ; Yassin 2017 ; Debrecency et al.2002 ; Oyelere et al. 2003 ; Marston & Polei 2004 ) . According to Jensen and Meckling 1976, the agency cost increases due to information gap among the managers and shareholders and thereby large firms tend to maintain high level, timely and accurate disclosure to minimize the information asymmetry and hence maintain good competitive advantage. However in contrast to the studies mentioned above that depicts significant positive relationship, the studies of Hussainey 2009 ; Al sarwati et al. 2016 ; Hossain 2012 reveals there exists no relationship between company size and IFR disclosure .

### **2.8.2 Profitability**

Another variable that impacts the extent of disclosure made by management is the level of profitability as it predicts that high level of profitability motivates high extent information disclosure as high profitability indicates the success of the managements hence they voluntarily disclose more information to the stakeholders ( Almilia 2009 ) In justifying the said statement studies of Yassin 2017 ,Almilia 2009, Hussainey et al. 2009 ; Marston and Pole 2004 ; Aqel 2014 reveals that the level of profitability is highly associated with the level of IFR disclosure adopted by the company. Most of the studies rely on Return on equity, Return on assets and return on investment to measure the level of company profitability, furthermore most of the studies commonly use the measurement of Return on equity.

Although the said research studies reveals a significantly positive relationship between the profitability and level of IFR disclosure , in presenting contradicting results the studies of ; Marston 2003 ; Hossain 2012 ; Damso & Lourenco 2011 illustrate that the level of IFR disclosure is not influenced by the firm profitability.

### **2.8.3 Leverage**

Leverage is an important factor that illustrates the manner in which the company is financed which indicates the debt to equity proportion of the company. Higher leveraged companies depicts that the company possess high level of competitors who are interested be informed about the information of the company that facilitate decision usefulness. (Laswad et al. 2005 , Yassin 2017 ) Further as the concept suggest the all reviewed past research studies measure leverage in terms of debt to equity ratio of the company concerned.

Most of reviewed literature depicts that higher the level of leverage a company possess higher the level of IFR disclosure that company is adopting ( Yassin 2017 ; Aqel 2014; Al Malkawi 2014 ; Oyelere and Kuruppu 2016 . However in creating contrasting results the study of Damso & Lourenco 2011 reveals that there exists a negative relationship among the level of IFR disclosure and leverage, more over in Oyelere et al. 2003 it depicts that no significant relationship exists among IFR and Leverage.

### **2.8.4 Liquidity**

The liquidity of a company is major concern that illustrates the going concern status of the company, thus companies with healthy level of liquidity are motivated to disclose information over the less liquid companies in the internet (Wallace & Naser,1995 and Owusu-Ansah, 1998 cited in Oyelere et al.2003) .

The past studies of Oyelere et al.2003, Almaitiri G 2012 cited in Yassin 2017 and Aqel 2003 reveled that there exists a significant positive relationship between the level of IFR disclosure and the liquidity level of the company. However as similar to the other control variables irrespective of the relationship identified above, certain studies depicts that no relationship exists among liquidity and IFR disclosure (Oyelere et al. 2015 ; Marston 2003 ; Yassin 2017 ) . In the study of Hussainey et al. 2009 depicts that the positive relationship among liquidity and IFR is justified by the signaling theory and furthermore to measure the level of liquidity

the studies rely on either current assets ratios or cash assets by total assets ratio however the most commonly used is current assets ratio.

### **2.8.5 External Audit – Big Four**

With regards to the external audits performed in the company, according to Firth 1979 larger and well known auditing firms are able to create an influence on their client companies thus such influence could be in regards to the level of disclosure adopted by the companies. This fact is further justified by both agency and signaling theories raising the concern that in order to reflect a better picture to the principals of the company the management admits reputed big four audit companies to conduct external audits which will enhance the level of IFR disclosure.

In reviewing the past studies it depicts that there exists a significant positive relationship among the level of IFR disclosures and the hiring of a big four audit firm for external audit conduct of the company ( Bozcuk 2012 ; Hossain 2012 ; Bonson & Escobar 2006 ; Al sarwati et al. 2016) However in contrast the study of Damso and Lourenco 2011 illustrates that there exists no relationship between the level of IFR disclosure and engaging in big four auditors.

## **2.9 Chapter Summary**

This chapter reviewed and analyzed the former research studies in detail, based on the variables identified in the study. Firstly, IFR was introduced as the dependent variable by providing citations based on the extant literature and also provided a base on which IFR is measured is also discussed. Further past research studies are evaluated to analyze the extent of IFR adoption by different countries which is associated with the first objective of the study. Secondly the independent variable of the study, corporate governance is discussed and its association to adoption of voluntary information dissemination which is related to IFR is also discussed.

Next, the Agency theory related to the study is evaluated drafting the conceptual association between the two variables of the study. Then, the researcher engaged in a comprehensive analysis of the most relevant empirical studies performed in relation to the impact of corporate governance on IFR in relevance to the second objective of the study. Additionally,

control variables were also considered which are the other firm and economic characteristics that affect the adoption of IFR.

Based on the extant literature the results are inconclusive in regards to the variations among the countries in the degree of IFR practices adopted and empirical studies highlights the association between corporate governance and IFR practices as each variable under corporate governance acts in different manner in determining the level of IFR adoption. Thus the extant literature justifies the research attempt to identify the practices of IFR by listed companies in Sri Lanka and the impact of corporate governance on level of IFR adoption. Further, to the best knowledge of the researcher there has been less number of studies conducted in the context of Sri Lanka to determine degree of IFR practices and no former studies on impact of corporate governance on IFR such that this study contributes to the literature by performing a comprehensive analysis on the extent of IFR adoption and exploring the impact of corporate governance of IFR practices.

## **CHAPTER 3 : METHODOLOGY**

### **3.1 Introduction**

This chapter presents the methodology of the research study. The chapter firstly defines the research approach to attain the two objectives of the research study and then the sample of the study including the sample selection criteria. Then the conceptual diagram which depicts the relationship between the variables used in the study along with the control variables is presented. Thereafter the section of measurement of variables, where each variable illustrated in the conceptual diagram would be briefly elaborated along with the facts justifying the measures for variables identified while defining the hypothesis developed in regards to the second objective of the study. Following would be the sources used for data collection. In the section of ‘IFR Measurement’, the construction of the comprehensive IFR Index will be explained in detailed along with its sub-indices. Finally, the chapter would be concluded with a brief on the data analysis methods used.

### **3.2 Research Approach**

Positivist paradigm asserts that real events can be observed empirically and explained with logical analysis hence provides an objective reality against which researchers can compare their claims and ascertain truth. In this research study the researcher adopts a positivist paradigm approach which involves empirically observing the identified main two variables of IFR and Corporate Governance and performing a logical analysis to derive a new knowledge with regards to primarily focusing on the impact of corporate governance on IFR, as extant literature discussed in Chapter 2 illustrated the dearth of research studies conducted in relevant area in Sri Lankan context. Furthermore the study will provide a comprehensive analysis on the objective 1: extent to which Sri Lankan companies are adopting IFR practices. In this regards the researcher will use a deductive approach to examine the extent to which IFR practices are adopted in listed companies in Sri Lanka and to examine the impact of corporate governance on IFR.

### **3.3 Population and Study Sample**

The primary focus of this study is centered on examining IFR practices and its association with corporate governance. The researcher has selected listed companies in Colombo Stock

Exchange as the population. As at 31<sup>st</sup> August 2017, 291 companies are listed in CSE. Among the population, the study considers companies that possess websites along with published annual reports for the year ending 31<sup>st</sup> of March 2017.

### **3.3.1 Sample Selection Criteria**

As per sample selection criteria 95 companies listed in CSE as at 31<sup>st</sup> August 2017 were selected for the research study, among which observations are performed for data collection. The sample was derived based on following criteria.

- a) Companies that possess websites as a form of media for information dissemination.

The sample considers the companies that has web presence, in other words companies that only has websites would be qualified to the sample on the grounds that since this study includes IFR practices where data collected through viewing websites. Accordingly companies that do not possess websites are excluded in deriving at the sample due to the inability of accessing IFR information.

- b) Companies that fall under non-financial listed companies.

Study is focused on disclosure behaviour of companies, as Finance and related corporates are entrusted to undertake different disclosure requirements, it would result to non-comparability of information compared to other sector disclosures. Accordingly, the sample would include companies from all the sectors of the CSE excluding Banks, Finance and the Insurance and investment sectors. In addition closed ended funds under mutual funds are also excluded from the sample.

- c) Firms that possess active websites in operation.

As mentioned in the first criteria, as website information is a critical component in this study, the websites that are actively operating are considered in forming the sample whereas websites still under construction or out of service at the date of selecting the sample would be excluded in order to ensure accuracy and timeliness of data findings.

- d) Companies listed in CSE that do not fall under the category of subsidiary companies.

Subsidiary companies are companies that are controlled by the parent company which owns more than 50% of the share ownership of subsidiary company such that Parent Company would be directing the activities of the subsidiary companies. The research study considers only non-subsidiary companies in the sample, as disclosure attempts by subsidiary companies are under the direction of parent company such that in a given situation both parent and subsidiary companies are considered it will lead to duplication of corporate governance practices would result to distort the independent nature of web appearance of the subsidiary accordingly subsidiary companies listed in CSE are excluded from the sample.

- e) Companies that possess websites for information dissemination than sole purpose of commercial trading.

The study is aimed at identifying the IFR practices adopted by listed companies; hence to support the assessing of IFR practices the companies should possess websites that facilitates information disclosure to interested parties rather than not merely conducting commercial or trading activities through the websites. To ensure that accurate sample is derived to analyse the relationship, companies that possess websites for not only for commercial purpose are included in the sample.

- f) Companies that are actively listed on the CSE throughout the research period.

Sample considers companies that are being actively listed in CSE throughout the research period in order to ensure the accuracy and reliability of data collected. Moreover the sample only considers companies listed in the Main board and Diri Savi board as such boards reflect the companies actively participating in CSE. However, the companies that are in categories of Default board, Dealing suspended, Trading suspended and Trading halt and companies delisted during the research period are not taken into consideration.

### **3.3.2 Sample Profile**

As at 31<sup>st</sup> August 2017, 291 companies are listed in CSE under 20 sectors as per the CSE website. However, 196 companies had to be excluded from the population that does not

match the sample criteria and accordingly the final sample of the study is derived. Table 3.1, below depicts highlights of the sample of the study.

Table 3-1 : Sample Profile

<b>Sample Formation</b>	
<b>Description</b>	
<b>Companies listed in CSE as at 31.08.2017</b>	<b>291</b>
<b>Companies that does not fall under the criteria :</b>	
Financial companies and mutual trusts listed in CSE	73
Companies that do not possess websites	43
Companies that has website under construction	3
Subsidiary companies listed in CSE	50
Companies that conducts websites for commercial purposes only	15
Companies in categories of Default board, Dealing suspended, Trading suspended and Trading halt	12
<b>Final Sample used in the research study</b>	<b>95</b>

Table 3-2 : Sector Wise Breakdown of the Final Sample

Sector No.	Sector	No. of Companies
1	Beverage, Food and Tobacco	9
2	Chemicals And Pharmaceuticals	4
3	Construction and Engineering	3
4	Diversified Holdings	17
5	Footwear And Textiles	2
6	Healthcare	4
7	Hotels and Travel	3



8	Information Technology	1
9	Land and Property	7
10	Manufacturing	18
11	Motors	5
12	Plantations	4
13	Power and Energy	5
14	Services	4
15	Store Supplies	1
16	Telecommunication	2
17	Trading	6
	<b>Total</b>	<b>95</b>

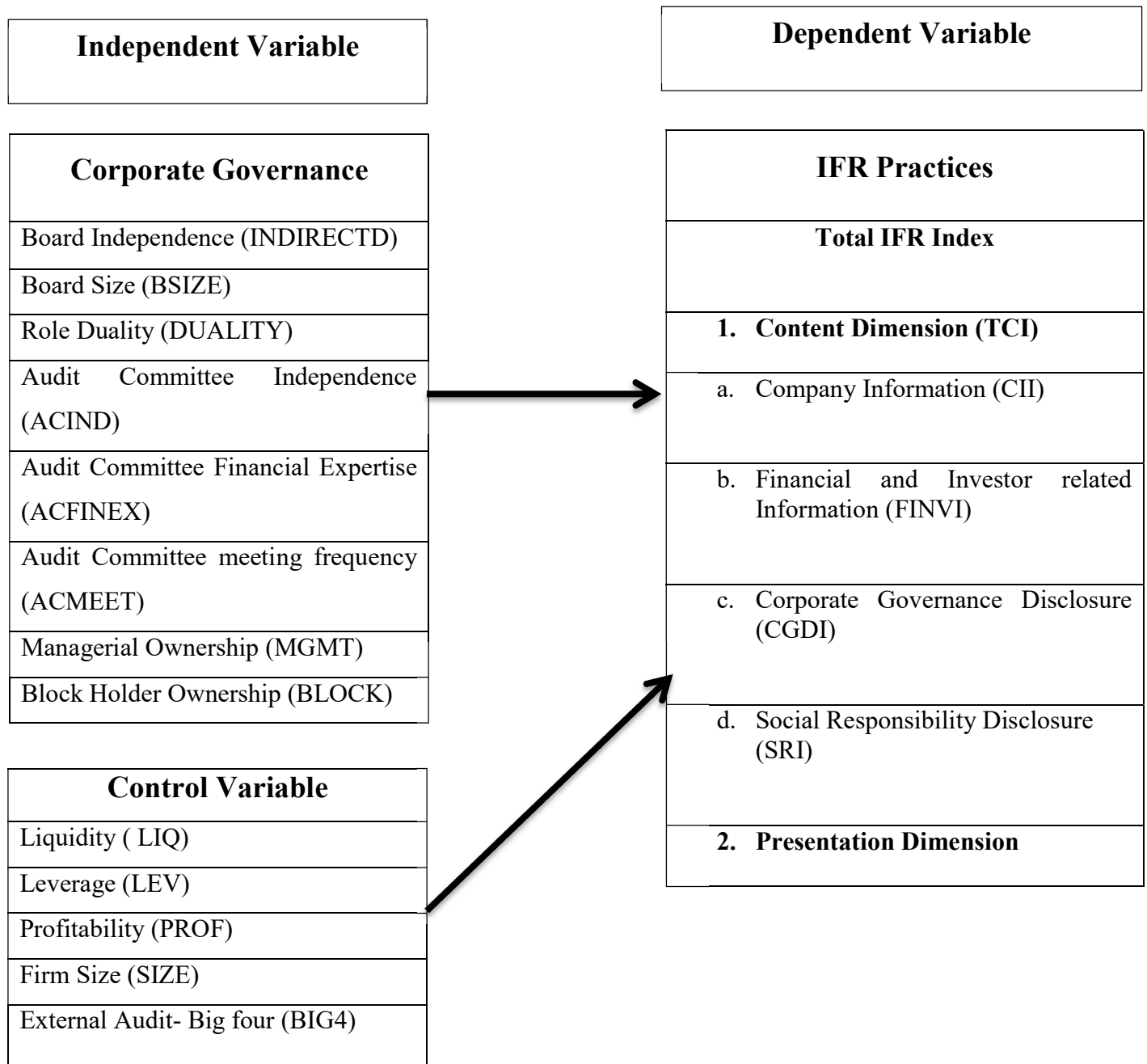
### 3.4 Conceptual Model of Study

The research study consists of two main variables of IFR and corporate governance. Extensive literature with regards to the two variables was discussed in chapter two forming the basis for determining the practice of IFR and its association with corporate governance. The study performed by Kelton & Yang 2008 on a similar topic in the context of Malaysia provides the prime basis for the derivation of the conceptual model of the study.

In this study, corporate governance is the independent variable, which is measured using eight sub variables as identified in literature review. The dependent variable of the study is IFR, which is measured using a comprehensive IFR index developed considering the attributes and format of information to be disseminated to the interested parties through company websites.

Furthermore in chapter 2 it was discussed that IFR practices is not only associated with corporate governance practices by companies. They are also being impacted economic factors such as Profitability, Liquidity, Firm Size, Leverage and External Audit- Big four which would enhance or inhibit the adoption of IFR thus identified as control variables of the study. Accordingly, the conceptual diagram of this study is illustrated in below Figure 3-1 indicating the conceptualization of the research issue of the study.

**Figure 3-1 : Conceptual Framework**



### 3.5 Measurement of Variables

#### 3.5.1 Corporate Governance Practices

In reference to the conceptual framework, corporate governance is the independent variable of the study. In reference to the reviewed empirical studies on the association between corporate governance and IFR, the studies of Kelton & Yang 2008 ; Yassin 2017; Abessi et al.2012 ; Al Matrooshi et al.2016 and Ariff 2016 identifies common corporate governance characteristics related to broad categories of board composition, audit committee and ownership structure to be influential on the adoption of IFR practices.

In line with the literature, the researcher has identified two approaches to determine the corporate governance adherence by companies. Accordingly as the first approach the researcher intends to develop a “Corporate Governance Index” which captures the effect of all governance characteristic identified through literature, the construction of the index would be discussed in Section 3.8. As the second approach of quantifying the individual governance characteristics the researcher has adopted the following basis of measurement presented in Table 3-3.

**Table 3-3 : Measurement of Corporate Governance**

No	CG variable	Basis of measurement	Reference
1	Board Independence (INDIRECTD )	Ratio of independent directors to total directors on board.	Yassin 2017) ; Xiao et al. 2004; ( Kelton & Yang 2008
2	Role Duality ( DUALITY )	Measure as a dichotomous variable where “1” if the roles of the CEO and chairman are combined and “0” otherwise.	Cheung et al. (2010) ; Kiew Heong et al. 2011 ; Kelton and Yang 2008
3	Board Size ( BSIZE )	Total number of directors on board.	Solonandrasana2014;Kelton &Yang 2008 ; Yassin 2017)

4	Audit Committee Independence ( ACIND )	Ratio of independent audit committee members to total audit committee members.	Baxter & cotter 2009; Solonnadrasna 2014 ; Abessi et al. 2011
5	Audit Committee Financial Expertise ( ACFINEX )	Ratio of audit committee members with counting and finance experience.	Solonnadrasna 2014 ; Kelton & Yang 2008 , Abessi et al. 2011
6	Audit Committee Meeting frequency ( ACMEET )	Number of audit committee meetings for the year 2016/17.	Abessi et al. 2011, Kelton & Yang 2008 , Pushpitanigum& Atmini 2012
7	Block holder ownership (BLOCK)	Percentage of company equity held by outsider block holders where block is defined at 5%.	Abessi et al. 2011 ; Kelton & Yang 2008 ; Juhmani 2013
8	Managerial Ownership (MGMT)	Percentage of equity ownership by management and directors.	Kelton & Yang 2008 ; Eng & Mak 2003 ; Elmons 2012

### 3.5.2 IFR Practices

IFR practice adopted by companies is the dependent variable as depicted in the conceptual diagram of the research study. The empirical studies of Kelton & Yang 2008, Oyelere et al. 2003 , Bozcuk 2012 , Marston 2003 , Ettredge et al. 1999 and Dolinsek et al.2014 relied on self-constructed comprehensive IFR Index in order to analyze the level of web presence adopted by companies. Furthermore, it is identified that commonly IFR is identified under two dimensions of content and presentation, hence the attributes selected for the index are derived based on said dimensions.

Accordingly the researcher has developed a comprehensive Total IFR Index consisting of 35 attributes under the two dimensions of content and presentation, which would be the main instrument to realize on the two objectives of the study. The construction of the Total IFR Index would be discussed under section 3.7 Construction of IFR Index.

### 3.5.3 Control Variables

The conceptual model of the study identifies factor that affect IFR other than corporate governance. Thus it's vital to identify those factors that could control the adoption of IFR in order to derive at research objective of identifying association between corporate governance and IFR practice. The identified control variables of the study would be measured as depicted in the Table 3-4 below.

**Table 3-4 : Measurement of control variable**

No	Control Variable	Basis of measurement	Reference
1	Leverage (LEV)	Debt to equity ratio	( Yassin 2017 ; Aqel 2014 ; Damaso n.d ; Al Malkawi 2014 ; Oyelere and Kuruppu 2016
2	Liquidity (LIQUID)	Current assets ratio	Oyelere et al.2015; Marston 2003 ; Yassin 2017
3	Profitability (PROF)	Return on Equity	Aqel 2014 ; Yassin 2017 ,Almilia 2009, Hussainey et al 2009
4	Firm Size (SIZE)	Natural logarithm of market capitalization of the company	Dolinsek 2014 ; Yassin 2017 ; Debrecency 2002 ; Oyelere et al.2003;Marston & Polei 2004

5	External Audit- Big four (BIG4)	Coded 1 if the firm is audited by one of Big four auditors or 0 otherwise.	Bozcuk 2012 ; Hossain 2012 ; Bonson & Escobar 2006 ; Al Matrooshi et al. 2016
---	------------------------------------	--	---

### 3.6 Hypothesis Development

Hypotheses of study have been developed under the below mentioned research objective.

Objective 2: Examine impact of corporate governance on IFR practices

In reference to the Objective 1 of the study, Section 3.9 illustrates approach relevant to attainment of said objective.

In accordance with the extant literature on the relationship between Corporate Governance and IFR, following hypotheses are developed to evaluate objective 2 of the research study.

**H<sub>1</sub>: The IFR practice of a firm is positively associated with the overall corporate governance characteristics of the firm.**

As discussed in Section 3.5.1 and Section 3.8, the Corporate Governance Index is aimed at understanding the impact of overall corporate governance characteristics on the level of IFR adoption. While the below mentioned hypotheses are developed to identify the impact of each individual corporate governance practices on the level of IFR, the H<sub>1</sub> would identify the overall influence corporate governance places on IFR adoption by listed companies in Sri Lanka.

**H<sub>2</sub>: The level of IFR practices of a firm is positively associated with existence of Independent directors.**

Independent directors are the directors that are not involved in the executive management of the company hence they are accountable to ensure that the governance process of the company is effective leading to minimization of managerial opportunism (Yassin 2017). The effectiveness of the board monitoring is ensured by the existence of independent directors

hence more disclosure is expected to be made available above the mandatory disclosures for the interested parties hence less withholding of information (Kelton & Yang 2008) .The empirical results of the studies indicating the favorable relationship between IFR practices and Board Independence is discussed in, 2.7.1.1 under chapter 2 which lead to the hypothesis mentioned above.

**H<sub>3</sub>: The level of IFR practices is negatively associated with the board size.**

Board size means the total number of members in the board of management that creates an impact on the strategic decisions of the company hence a major role to control and oversee the actions of the managers. (Yassin 2017) As discussed in chapter 2, under 2.7.1.3 it indicates that the existence of smaller board size ensure higher level of efficiency of the managers due to less communication difficulties, allowing the managers to better coordinate their efforts limiting the managerial opportunities ensuring high level of disclosures. The extant literature discussed in chapter 2 illustrates that previous studies indicates that smaller number of board members ensure higher the level of disclosure accordingly the hypothesis is developed as above.

**H<sub>4</sub>: The level of IFR practices is positively associated with the role duality**

As stated in Kelton and Yang 2008, in line with agency theory it states that when both roles of CEO and Chairman are vested in one person it destroys the independence of the board of managers hence it results to destructing the board's ability to implement its governance role. As discussed in the empirical studies under chapter three the studies reveals that when the role duality exists this leads to elimination of dominant personality hence higher level of voluntary disclosure. Hence the hypothesis is developed depicting the favorable impact of separation of role of CEO and Chairman on IFR.

**H<sub>5</sub>: The level of IFR practices is positively associated with the audit committee independence.**

Patelli & Prencipe 2007 state the existence of independent audit committee members and voluntary disclosures reduce agency cost, due to that information withholding would be minimized. Klein 1988 cited in Solonnadrasna 2014 states that audit committees are entitled to oversight the financial reporting process in a manner enables high-quality information for

investors because the independence of the audit committee members is known as the cornerstone of the effectiveness of governance of the company. Supporting the fact past studies mentioned in Chapter 2 under 2.7.2.1 depicts that high level of voluntary disclosure is motivated by the existence of independent audit committee members thus the hypothesis is developed in line with the favorable impact.

**H<sub>6</sub>: The level of IFR practices is positively associated with the existence of financial expertise in audit committee.**

Audit committee financial expertise is the members on the board with academic and professional background in the field of finance and accounting as such that more personnel with finance background would improve the quality of financial reporting further the level of disclosure (Solonandrasna 2014 ) The empirical studies highlights higher internet visibility in companies that possess financial expertise in audit committee such that a positive hypothesis is tested among the two variables.

**H<sub>7</sub>: The level of IFR practices is positively associated with the frequency of audit committee meetings.**

As discussed by Kelton & Yang 2008, for the audit committee independence and financial expertise to impose an impact on the overall effectiveness of audit committee, the activeness of audit committee in terms of audit committee meetings is an essential factor to be met. Further the empirical studies mention that higher the meeting frequency of audit committee members lesser they rely on fraudulent financial reporting hence high level of voluntary disclosures ( Persons 2009 cited in Abessi et al. 2011) As discussed in chapter 2 under section 2.7.2.3 the extant studies performed in related field also emphasized the fact that higher the activeness of audit committee higher the voluntary disclosures presented to the interested parties which is tested through the hypothesis above.

**H<sub>8</sub>: The level of IFR practices is negatively associated with the level of managerial share ownership.**

Managerial ownership is the holding of company shares by the management of the company. As discussed in the past reviewed studies, the managerial ownership is intended to ensure that agency cost is minimized as when the motives of management is aligned to that of



shareholders, the requirement for monitoring would be minimized . However as discussed under chapter 2 , 2.7.3.1 majority of extant literature states that higher the managerial ownership there is a lesser tendency by the management to disclose voluntary information indicating a substituting effect between managerial ownership and IFR practices which is illustrated through the hypothesis above.

**H<sub>9</sub>: The level of IFR practices is negatively associated with the level of block holder ownership.**

Block holder ownership, defined as when an individual or an entity holds at least 5 % of ownership of shares of the company such that the ownership of corporate shares is less diffused among the shareholders. As stated under chapter 2, Section 2.7.3.2 the existence of higher block holder ownership does not motivate high level of voluntary disclosure as ownership is less concentrated the few will have internal access hence less dissemination of information to all interested parties as illustrated by extant literature discussed in chapter 2 hence hypothesis is developed depicting the identified negative relationship in extant literature.

### **3.7 Construction of IFR Index**

Based on the empirical studies reviewed, the researcher has developed a comprehensive Total IFR Index as a checklist against the content analysis of attributes of IFR practices companies adopt. As stated in Section 3.5.2 the index will mainly comprise of two dimensions of content and presentation and under the content dimension, four sub dimensions are identified illustrating different aspects of content wise information provided through the web presence of companies.

Accordingly the researcher has developed indices of Total Internet Financial Reporting (TIFRI) consisting of 35 items and Sub-indices of Total Content Index (TCI) consisting on 25 items, Total Presentation Index (TPI) consisting 10 items. Further, in breaking down the TCI, Company Information Index (CII) consisting 5 items , Financial and Investor related financial Information Index (FINVI) consisting 14 items, Corporate governance disclosures Index ( CGDI) consisting 4 items , Social responsibility disclosures (SRI) consisting 2 items were developed to perform a comprehensive analysis on the practice of IFR.

The developed indices are illustrated below in Table 3-5

**Table 3-5 : Total IFR Index (TIFRI)**

<b>Total IFR Index</b>	
<b>Total Content Index (TCI)</b>	
<b>A. Company Information Index (CII)</b>	
1	Vision, Mission of the Company and or policy statements of the Company ( Quality, Environment and HR)
2	An overview of Human resource of the Company in terms of Training and development , talent of the staff , Working environment and Culture and welfare programs available to staff
3	Awards and accreditation received by the Company
4	Fact Sheet ( Corporate information)
5	Articles of association of the company
<b>B. Financial and Investor related Financial Information Index (FINVI)</b>	
1	Past year annual report
2	Current year annual report
3	Recent financial and investor related news release and announcements
4	Publishing on quarterly reports
5	Financial Calendar of events of interest to investors
6	Publishing of research reports on Share trading activities and related financial reports of investors and shareholders' interest. ( Special notices by the External auditors )
7	Projections related to key financials of the Company
8	Same day stock price
9	Historical stock prices
10	Share price performance in relation to stock market index
11	Information regarding a dividend investment plan
12	History of dividend payment
13	Financial highlights for the year ( Financial Ratios, Graphical illustration )
14	Analysts ratings on the company

<b>C. Corporate Governance Disclosures Index ( CGDI)</b>	
1	Names of members of BOD of the Company
2	Profile on BOD
3	Corporate governance principles and guidelines
4	Code of conduct and ethics for directors, officers and employees
<b>D. Social Responsibility Disclosures (SRI)</b>	
1	Specific page or tab for Sustainability and CSR
2	Disclosure of CSR and Sustainability non-commercial activities performed by the Company
<b>Total Presentation Index (TPI)</b>	
1	Dynamic graphic images
2	Table of contents or Site map
3	Drop down navigation menu
4	Annual report in PDF or HTML format
5	Internal search engine
6	Audio files
7	Video File
8	Direct email to investor relations
9	Email alerts ( To subscribe for investor related information)
10	Hyperlink to data on third party websites

The constructed Total IFR Index is based on a prominent study by Kelton & Yang 2008 and in order to realize the objectives of the study an IFR index is required for each company in the sample hence constructed Total IFR would be viewed against the websites of the sample companies to identify the presence of IFR in Company websites, where if a particular company contains an item in the Index; it's measured in a simple yes encoded as 1 and 0 otherwise. Based on the final aggregate of the encodes, a total score is developed as a Total IFR index for a particular company.

### 3.8 Construction of CG Index

As discussed in Section 3.5, in order to measure the overall impact of corporate governance measures the researcher has developed a CGI which captures all eight corporate governance variables identified through literature.

The CGI index is a dichotomous variable which in line with prior studies of Ariff 2016 ; Manawaduge 2012 ,where the values assigned for each variable will form the total sum of CGI in respect of the company.

Table 3-6 Depicts the construction of CGI for each company listed in Sri Lanka based on the value coded for each variable identified.

**Table 3-6 : Corporate Governance Index (CGI)**

<b>CORPORATE GOVERNANCE INDEX (CGI)</b>	
Board Independence (INDIRCTD)	Coded “1” if the average number of independent directors on board is equal or greater than the sample mean and “0” otherwise.
Board Size (BSIZE)	Coded “1” if the average number of board members on board is equal or greater than the sample mean and “0” otherwise.
Role duality (DUALITY)	Coded “1” if role duality exists and “0” otherwise.
Audit Committee independence (ACIND)	Coded “1” if average number of independent directors on audit committee is equal or greater than the sample mean and “0” otherwise.e
Audit Committee meetings (ACMEET)	Coded “1” if average number of audit committee meetings is equal or greater than the sample mean and “0” otherwise.
Financial expert/s in the audit committee (Audit committee diligence) (ACFINEX)	Coded “1” if average number of financial expertise in audit committee is equal or greater than the sample mean and “0” otherwise.

Equity ownership by management and directors (MGMT)	Coded “1” if average equity ownership management and directors is equal or greater than the sample mean and “0” otherwise.
Block holder ownership (BLOCK)	Coded “1” if average block holder ownership is equal or greater than the sample mean and “0” otherwise.

### 3.9 Data and Data collection

As explained in section 3.4 and 3.5 this research study relies mainly on variables of IFR and corporate Governance for which the respective method of variable measurement is explained. In line with the reviewed extant literature and to facilitate broader collection of data this research study relies on quantitate method of data collection. The main source of data collection for the two variables would be discussed in this section.

#### 3.9.1 Dependent variable – IFR

Data relevant to IFR will be collected as a form of primary source of data collection in the procedure elaborated below.

Firstly, the CSE website is viewed in order to identify the websites of all the listed companies. Website link could be obtained from corporate “Company profile tab” Accordingly the companies that possesses websites and do not possess websites are identified. For Companies that does not have website addressed mentioned in CSE website, Google search was used to identify if websites exists. For companies that did not disclose a website, they were contacted through contact numbers to be aware if websites exists. A similar approach was adopted by Fisher et al. (2003) for identifying corporate website availability. This is the preliminary selection conducted which is supportive in regards to the objective 1: Identifying the extent to which IFR is practices in Sri Lanka.

Then the companies identified to have websites will be included in the final sample on which the IFR would be tested, thereby obtaining data for the dependent variable. In order to determine the IFR level adopted by the companies, content analysis would be used in the

form of an IFR Index as discussed under Section 3.5.2 where data would be extracted in relevance to the main dimensions of content and presentation of IFR from the websites in order to develop an IFR index value in respect of each company.

### **3.9.2 Independent Variable- Corporate governance measures**

In regard to corporate governance measures, a secondary data collection method is adopted. Published annual reports of sample companies were obtained from website of CSE which are analysed for identification of selected corporate governance measures as discussed in section 3.5.1 Attention is given specifically to “Corporate governance commentary” in the report in order to derive the expected data, where this similar sequence was adopted by Abessi et al. (2011) to determine the CG measures of the Company.

### **3.9.3 Control Variable**

In relevance to the control variables of the research study a similar approach to data collection of corporate governance measures in terms of secondary data would be adopted where the data on liquidity, leverage, profitability of the sample would be extracted from the latest available annual reports of the companies and the data on firm size and the type of external auditors are derived from the data available in the CSE website under each company profile.

### **3.10 Data Analysis Strategies**

The research study is based on realizing two main objectives hence, the data gathered through viewing company websites and published annual reports would be analyzed with the aid of Statistical Package for Social Sciences ( SPSS 23) through techniques such as Descriptive statistics, correlation analysis and multivariate regression . The techniques of the study described below is similar to the approaches adopted in extant literature conducted in related field ( Yassin 2017 ; Abessi et al. 2001 ; Kelton & Yang 2008 ; Al Matrooshi 2016 ; Ariff 2016 ).

The approach adopted in analysing data relevant to each objective of the study is described below.

### ***Objective 1: Extent to which IFR is practiced in Sri Lanka***

As discussed in Chapter 1 the first objective is oriented at identifying the degree to which IFR is practiced in Sri Lanka. In order to derive at a comprehensive discussion of the extent of IFR practice, the IFR Index values identified for each company in the sample would be checked against the descriptive statistical techniques of mean, median, standard deviation, maximum, minimum, skewness and Kurtosis. A descriptive statistical analysis would be carried out for each sub-indices of Total IFR Index to facilitate on the realization of Objective 1.

Further to facilitate a thorough analysis of the findings of the descriptive statistics on IFR practices an univariate analysis: One sample T test would be performed for each sub-indices of IFR where The one sample T test is a statistical measure often used in identifying the variances among the sample mean value of the variables where a hypothesized mean score for each variable would be compared against the actual mean value which emphasizes the significant or non-significant difference identified in the mean value of the variable. Thus in order to perform one sample T test successfully, the researcher suggested the median value of each index number of items to be assumed as the pre-defined or the hypothesized mean score for the particular index.

Accordingly, The TIFRI consists of 35 items where the researcher assumed a hypothetical mean that emphasize the moderate level adoption of IFR practices in Sri Lanka, hence the median value of 17.5 is assumed for one sample T test.

The main two dimensions of TIFRI consists TCI that possess 25 items while TPI that possess 10 items. In line with the similar approach of determining the hypothesized mean value for indices, the researcher assumes an expected mean value of 12.5 for TCI and 5 for TPI.

In similar to the deriving of hypothesized mean values of the previous indices, the researcher has identified mean value of 2.5 for CII, mean value of 7 for Financial and Investor related information Index , for the corporate governance disclosure index a mean value of 2 and for the Corporate Social Responsibility Index a mean value of 1 indicating the hypothesized mean values for moderate adoption of sub IFR practices.

In line with hypothetically assumed mean values, following null hypothesis are developed against each IFR indices based on which variations among the sample mean values could be statically analyzed.

**H<sub>01</sub>: Total Internet Financial Reporting Index  $\mu = 17.5$**

**H<sub>02</sub>: Total Content Index  $\mu = 12.5$**

**H<sub>03</sub>: Total Presentation Index  $\mu = 5$**

**H<sub>04</sub>: Company information Index  $\mu = 2.5$**

**H<sub>05</sub>: Financial and Investor related information Index  $\mu = 7$**

**H<sub>06</sub>: Corporate governance disclosure Index  $\mu = 2$**

**H<sub>07</sub>: Corporate social responsibility Index  $\mu = 1$**

Furthermore in order to obtain a thorough overview on the sample, above mentioned descriptive statistical techniques would be performed against corporate governance measures and control variables in relevance to each sample company.

### ***Objective 2: The impact of corporate governance on IFR***

As discussed in Chapter 1, Objective 2 identifies the level of influence created by corporate governance practices on the extent to which IFR is practiced in companies; hence this measures the relationship between selected corporate governance measures and Total IFR Index.

In Section 3.6, it depicts the hypotheses that are developed to check the impact of each corporate governance variable on the level of IFR adoption. In order to check the relationship between two mentioned variables in terms of the direction and significance of such relationships correlation analysis technique would be conducted which provides a static measure of the degree to which a change in one variable predicts the change the in the other variable hence deriving the interrelationships between each corporate governance variable on Total IFR Index facilitating the realization of Objective 2.



In further to conduct a deeper data analysis with relation to the Objective 2, the researcher expects to use regression model analysis which allows considering the impact of corporate governance as whole and individual corporate governance on the dependent variable rather than merely testing the impact of one variable as in correlation analysis.

Accordingly the researcher developed two multi variant regression analysis models where model one includes IFR Index value as the dependent variables and CG Index as the independent variable along with inclusion of control variables and model two includes corporate governance individuals as the independent variables along with inclusion of control variables to analyse further the Objective 2 of the research study.

The developed multi variant regression analysis models are depicted below:

#### Model 1

$$\text{TIFRI}_{it} = \beta_0 + \beta_1 \text{CGI}_{it} + \beta_8 \text{MGMT}_{it} + \beta_9 \text{LEV}_{it} + \beta_{10} \text{LIQUID}_{it} + \beta_{11} \text{PROF}_{it} + \beta_{12} \text{SIZE}_{it} + \beta_{13} \text{BIG4}_{it}$$

#### Model 2

$$\text{TIFRI}_{it} = \beta_0 + \beta_1 \text{INDIRECTD}_{it} + \beta_2 \text{DUALITY}_{it} + \beta_3 \text{BSIZE}_{it} + \beta_4 \text{ACIND}_{it} + \beta_5 \text{ACFINEX}_{it} + \beta_6 \text{ACMEET}_{it} + \beta_7 \text{BLOCK}_{it} + \beta_8 \text{MGMT}_{it} + \beta_9 \text{LEV}_{it} + \beta_{10} \text{LIQUID}_{it} + \beta_{11} \text{PROF}_{it} + \beta_{12} \text{SIZE}_{it} + \beta_{13} \text{BIG4}_{it}$$

### **3.11 Summary**

This chapter provided an overview of the research methodology used in the study. Initially the chapter gave an introduction of research method used the population and sample of the research study. Then the conceptual diagram of the study indicating the relationship of the variables under the consideration of the study.

Under the measurement of variable the chapter defines the method of quantifying the each component of the dependent, independent and control variables of the study. In reference to

the measurement of dependent variable as stated an index was developed which is comprehensively explained under the instrumentation.

Then the chapter moves to the data collection and data analysis procedures adopted in the research study to attain the objectives and finally concluding providing a small brief of the entire chapter.

## **Chapter 4 : ANALYSIS AND FINDINGS**

### **4.1 Introduction**

This chapter presents the analysis of the findings of the research study. Firstly it provides an overview on the sample of the study. Secondly it discusses descriptive statistics on all IFR Indices, Corporate governance practices and control variables, there after presented is the one sample T test performed in order to identify the effectiveness of the extent to which IFR practices is adopted in Sri Lanka. Next presents the correlation analysis performed to identify interrelationships between the identified variables in the study. Further depicts the regression analysis performed to identify the impact of corporate governance practices on the extent to which IFR is practiced in Sri Lanka. Finally the chapter concludes with a simple brief on the results of the analysis performed.

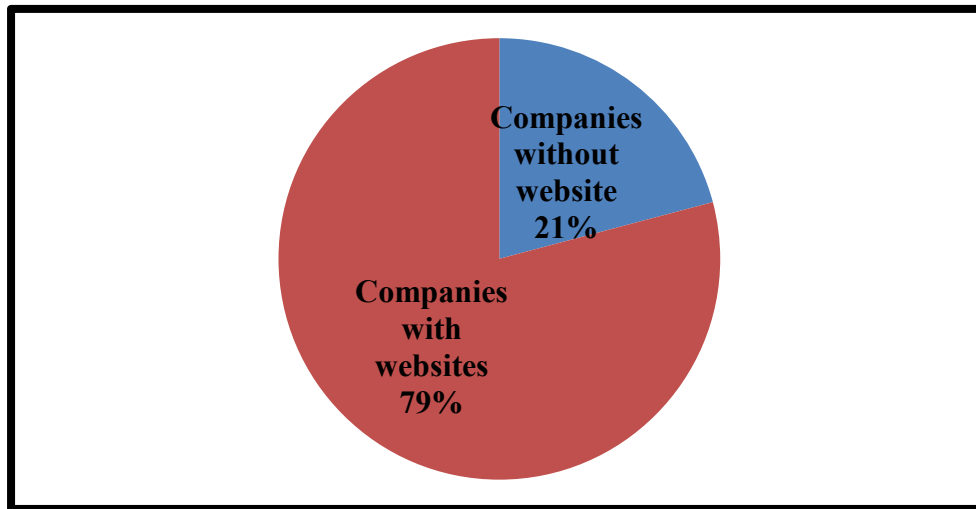
### **4.2 Sample Overview**

Methodology discussed in Chapter three under Section 3.3 identified listed companies in Colombo Stock Exchange as the population of the study. In accordance with the sample criteria the researcher has derived a final sample of 95 companies based on which data is collected and analyzed.

Section 3.3 it indicates that the population of the study consists of 291 companies among which 85 companies are excluded from the initial population that falls under financial companies and mutual trusts and companies listed in boards other than Main board and Diri savi board in CSE to derive at a net population of 206 companies to identify companies that maintain websites.

Among the sample of 206 companies, 43 companies do not possess websites depicting that 21 % of the sample do not operate websites hence not meeting the initial requirement of practicing IFR however majority of 79% meets the infrastructure requirement for IFR practices. Figure 4-1 illustrates the composition of sample of 206 companies as companies that possess websites and do not.

**Figure 4-1 : Sample: Composition of Websites availability**



In relevance to the empirical studies Abessi et al. 2011 identifies that 17 % of its population do not maintain websites in relevance to 306 Malaysian companies and a study conducted by Al Matrooshi et al. 2016 indicates that 19% of their sample in Bahraini listed companies do not possess websites where as a study performed by Yassin 2017 indicates that in the context of Jordanian listed companies 35% of the population do not possess websites , while study performed in the context of New Zealand indicates 29% of its sample do not possess websites. (Oyelere et al.2005) however study performed in relevance to companies listed in NYSE by Kelton & Yang 2008 indicates that the entire sample maintain websites.

Analyzing the extent to which initial requirement for IFR practices is adopted by companies, it can be discussed that in line with the results depicted in extant literature, currently Sri Lankan companies meet significantly the fulfillment of initial infrastructure in order to engage in IFR practices to approach the stakeholders through the dissemination of information in their corporate websites.

However in evaluating the companies with websites it was a highlighted factor that, 93 % of listed companies belonging to Hotels and Travel sector were noticed to maintain website merely for commercial purpose which includes processes relevant to accepting reservations and related tasks, thus indicating that websites are not maintained as a form of medium of information rather to accommodate for sole commercial purpose of encouraging hotel reservations. However rest of the listed companies in other sectors was identified to maintain

websites for as a form of medium of information dissemination towards its investors and interested parties.

### **4.3 Extent of IFR practices adoption**

The first objective of the study examines the extent to which IFR practices are adopted by Sri Lankan companies. This was examined using indices constructed on IFR Practices. This IFR index focused on mainly the content and presentation dimension of the web disclosure of the companies such that it provides an overview on the nature of disclosures made available and presentation and format features of the website maintained by companies. In accordance with Section 3.10, descriptive statistical analysis is performed on IFR indices to examine the extent of IFR practices.

#### **4.3.1 Descriptive Statistics on IFR practices**

The researcher has evaluated the descriptive statistics of mean, minimum and maximum, standard deviation, skewness and kurtosis on the IFR indices developed. Thus the statistics provide an overview on each index wise average adoption of IFR practices and the range among which the IFR adoption with in the sample lies. Further the statistics depicts the nature of distribution of the IFR practices among the sample while highlighting any deviations recorded among the adoption of IFR practice. Accordingly the statistics provide an overview of the extent of IFR practices among listed companies in Sri Lanka.

Further the researcher has identified the frequencies among the each item in IFR indices to identify the nature of the disclosures made available commonly through the websites of the sample companies. In addition a sector wise analysis of IFR practices is performed against each index to examine further the existence of commonalities and differences among sectors in in the degree of IFR adoption.

The analysis of descriptive statistics relating to the indices reveals the following as to the extent of use of IFR practices by Sri Lankan companies.

### **a. Total IFR Index**

The TIFRI consists of 35 items identified mainly under the dimensions of content and presentation. In analyzing the data, it resembles that on average the listed companies in Sri Lanka disseminate and present only 11 items which accounts only to 30% of the Total IFR index. The data gathered indicates that by the appearance of the TIFRI descriptive statistics Sri Lankan companies adopt insignificant practice of IFR.

In addition the data displays that the practice of IFR range from 1 item to 27 items of the index indicating that none of the companies meets the practice of 35 items however commonly 16 items in total were displayed through the websites of 9% of the sample. The high standard deviation recorded illustrates that vast variations appear among the companies in practice of IFR while skewness indicates an asymmetric distribution of data. Table 4-1 illustrates the descriptive statistics for TIFR Index.

**Table 4-1 : Descriptive Statistics on TIFR Index**

<b>Variable</b>		<b>TIFRI</b>
<b>N</b>	<b>Valid</b>	95
	<b>Missing</b>	0
<b>Mean</b>		11.52
<b>Minimum</b>		1
<b>Maximum</b>		27
<b>Std. Deviation</b>		5.971
<b>Skewness</b>		.475
<b>Kurtosis</b>		-.381

In relevance to sector wise analysis of TIFRI, it is evident that the highest IFR score is recorded by a corporate in the Motors sector which consists of 27 items while the lower of 1 item is recorded in the service sector. The standard deviations among all sectors indicate a high value hence depicting that high variation exists among the web presence of the companies belonging to a particular sector in the context of listed companies in Sri Lanka. Furthermore a normal distribution of data is recorded in the sector of healthcare while rest of

the sector represents non normal data. Appendix 1 illustrates the sector wise description on TIFR practices.

#### **b. Total Content Index**

In line with the Section 3.5.2, the TCI consists of items of the TIFRI which ensures the quality and the fullness of the data presented through the company websites in disseminating information to the interested parties of the company. The content of data is further classified to four other sub-indices as identified in Section 3.7.

The data analyzed in relation TCI consisting of 25 items depicts that on average Sri Lankan listed companies meets 6 items which accounts to 24% of the content index indicating that in terms of the fullness and usefulness of the data presented through the company websites is at a low level in Sri Lanka as the data depicts very insignificant disclose of information through the less average recorded.

The mode was recorded at disclosure of 7 items which is only accomplished by the 11 % of the sample, however the degree of content disclosure is lower questioning the quality of information disseminated to the interested parties. High standard deviation recorded also depicts that in relevance to the content wise IFR practices high deviations exists among the companies indicating the index ranges from non-disclose of content (0 items) to 18 items resembling a asymmetric data distribution (Table 4-2).

In relevance to the sectorial adoption of content wise IFR practices, it is evident that the highest disclosure of Content items was recorded in two firms in sectors of diversified holdings and Motors while no content disclosure is recorded by three firms in the sectors of chemicals, hotels and travel and manufacturing. The majority of the sectors record average disclose of content index lower than the market average confirming the significantly less adoption of content wise IFR practices in Sri Lanka which resembles that Sri Lanka is still in an embryonic stage in its IFR adoption. Furthermore high deviation in data recorded in each sector indicating that among a particular sector itself vast variations appear in terms of disclose of content wise information on the website further confirming the non-normal distribution of content index across the companies. Appendix 1 illustrates the sector wise description on TCI practices.

### **c. Company Information Index**

As illustrated in the Section 3.7, CII consists of five items relating to web disclosure of general information of a particular corporate. This index forms a part of the Total Content Index which assess the quality of information provide through websites.

The analysis of data identifies the mean of the index as 1 which depicts that on average the sample disclose only 1 item relating to the index in their websites which range from 0 to 5 items indicating that 17% of the sample do not disclose any general information related to the company while majority of the sample disclose 1-2 items of the index. A lesser standard deviation is recorded in the index hence a vast variation in data is not witnessed as majority does not make relevant disclosures. (Table 4-2) However the data depicts that in general a lesser adoption of company related information is practiced in websites of Sri Lankan listed companies where improvements in disclosure level would increase the quality of information provided and decisions made.

In relevance to a sector wise web disclosure of company information, it is highlighted that a corporate in the sector manufacturing records the maximum adoption of company information disclosure in websites while majority of the sectors represents corporate that do not satisfy the company information disclosure. Less deviation is recorded in the data across the sample while normal distribution of data is highlighted in the sectors of construction, motors and services.

Companies in the diversified holdings sector disclose the highest adoption of IFR practices in relation to all items of company information while companies in the manufacturing and beverage, food and tobacco sectors disclose mostly on web the items identified under index except for “Articles of Association of the Company.” However among the sample “Articles of association of the company is identified to be least recorded while Vision, Mission or Policy statements of the company is commonly disclosed. Appendix 1 illustrates the sector wise description on CII.

### **d. Financial and Investor related Information Index**

This index identifies the web disclosure of financial and investor related information by the companies which form an essential part of the content of the information disseminated to the



interested parties to enable effective decision making. The developed index consists of 14 items related to financial aspects of the company.

The analysis of data represents on average the sample disclose 2 items under the category of investor related information which accounts to only 14% of the index. The data ranges from 0 to 9 items indicating that none of the firms records the maximum items under the index furthermore it is evident that 14% of the sample do not disclose any financial and investor related information on their websites hence not aligning with the definition of IFR as financial and investor related information is a must in attracting investors to the corporate through provision of the information. Through the analysis of this index it is evident that the level of financial transparency practiced by corporate listed in CSE is notably less hence confirming the lesser content wise information disclose through web presence (Table 4-2).

Sector wise analysis indicate that highest FINVI disclosure is recorded by a corporate in the Motors sector while majority of the sectors possess corporates that disclose no financial and investor related information furthermore majority of sectors records an average more than the market average which is identified as insignificant web disclosure level.

The items of “ Current Year Annual Report” and “ Past Year Annual Reports” are identified to be the highest recorded among all sectors while “ Projections Related To Key Financials “of the company and “ Information Regarding Dividend Reinvestment Plan “ items are identified to be disclosed by none of the sectors . In line with the Company information index discussed above, the sectors of diversified holdings, beverage, food and tobacco and manufacturing records highest disclosure of items commonly disclosed in the websites within the sample, however cross tabulated data relevant to each item indicate a significant low level of disclosure of financial and investor related information by the listed companies in Sri Lanka. Appendix 1 illustrates the sector wise description on FINVI practices.

#### **e. Corporate Governance Disclosure Index**

In line with the Section 3.7, this index identifies the web disclosure of information relating to the governance practices of the company in terms of the board of directors and directing and controlling activities related to the Company. This index consists of 4 items which contribute to the TCI.

Descriptive statistics performed on the index reflects that on average 1 item is disclosed in websites in relation to corporate governance while 38% of the sample indicates disclosure of 2 items as the mode. Furthermore index disclosure in the web ranges from 0 to 4 items disclosure where 33% of the sample possess zero level of disclosure while 8% of the sample disclose all four items under the constructed index .In general the data reveals that a very less proportion of the listed companies in Sri Lanka disclose full level of corporate governance information relating to the company hence further confirming the less disclosure level of Total Content Index. (Table 4-2)

In relevance to sector wise disclosure of the index, the data reveals that sectors of diversified, manufacturing, construction, motors and telecommunication consist of companies that present highest web disclosure while majority of the sectors contains companies that practice no disclosure on corporate governance information.

In relation to the items in the index “ Names of members of BOD of the Company “ records the highest disclosure among the sample while the “ Code of conduct for directors, officers and employees “ is highlighted as the least recorded by the sample. As a common feature in comparison to the above two sub-indices discussed, diversified holdings is identified as the sector which disclose maximum of corporate governance information index items in the corporate websites while rest of the sectors records a very less proportion of the index item in comparison to diversified holdings sector. Appendix 1 illustrates the sector wise description on CGDI.

#### **f. Social Responsibility Disclosure Index**

As discussed under Section 4.3.2, the content disclosure plays a significant role in ensuring the quality and decision usefulness of the information disseminated to the interest parties of the corporates. The SRI consist of 2 item disclosures which are identified through extant literature as supporting the economic decisions made through viewing the websites of the companies hence aligned to the TCI.

The analysis performed on the index indicates that among the sample 55% of the companies do not disclose corporate social responsibility information on their websites while only 33% companies in the sample practices full disclosure of corporate social responsibility disclosure

(Table 4-2). This analysis indicates that in the context of Sri Lanka only an insignificant proportion of companies disclose CSR information, however from the view of the investors and other interested parties it is identified that disclosure of social responsibility information regarding a corporate ensures that useful information regarding the social outlook of the company is disclosed to the company which ensures sustainable operation for the company hence this low level of CSR disclosure further confirms the less qualitative and reliability of the information provided through corporate websites.

In regards to sector wise analysis the data indicates that except for the sectors of stores, trading, healthcare and land and property, certain companies of other sectors disclose fullest level of CSR disclosure in their websites furthermore the companies in the sectors of construction and plantation ensures at least 50% of the disclosures are met while other sectors consist of companies that disclose no items identified in the index.

In analyzing the items in the index, it was highlighted that disclosure of CSR, Sustainability and noncommercial activities of the companies is highly disclosed while a less companies have allocated a specific page or tab for CSR and sustainability.

In contrast to the results of the above discussed sub-indices, in relevance to the index of corporate social responsibility, companies in the sector of Beverage, Food and Tobacco meets the highest score in web disclosure while the sector of diversified holdings depicts the second highest score. However the sector of manufacturing records less adoption of CSR disclosure unlike the other disclosures discussed above. Appendix 1 illustrates the sector wise description on SRI.

**Table 4-2 : Descriptive Statistics on TCI and its sub-Indices**

Variable		TCI	CCI	FINVI	CGDI	SRI
No	Valid	95	95	95	95	95
	Missing	0	0	0	0	0
Mean		6.87	1.80	2.82	1.47	.78
Minimum		0	0	0	0	0
Maximum		18	5	9	4	2
Std. Deviation		4.508	1.268	2.226	1.262	.913
Skewness		.543	.322	.738	.336	.457
Kurtosis		-.404	-.684	-.172	-.778	-1.661

#### **g. Total Presentation Index**

The Total Presentation Index identifies the appearance of the websites of the company in approaching the interest parties of the company which ensures the user friendliness and ease of use of the website. The presentation index consists of 10 items as illustrated in Section 3.7

The data analyzed in relation to this Index, depicts that that on average 4 items are presented in the websites of the company which accounts to 40 % of the Total Presentation Index. The index varies with a range of 0 to 10 further elaborating on that only corporate do not present any items while another presents all items illustrated in the index( Table 4-3).

**Table 4-3 : Descriptive Statistics on TPI**

<b>Variable</b>		<b>TPI</b>
<b>N</b>	<b>Valid</b>	95
	<b>Missing</b>	0
<b>Mean</b>		4.64
<b>Minimum</b>		0
<b>Maximum</b>		10
<b>Std. Deviation</b>		1.873
<b>Skewness</b>		.378
<b>Kurtosis</b>		.201

The data set identifies 5 items of the index as the mode which resembles that 24 % of the sample presents 5 items of the index in their websites. In further analyzing the data it identifies that among the items in presentation index most commonly adopted presentation format is “ Table of Contents or Site Map while “ Dynamic graphic images” is second in

common. “ Direct email to investor relation is the least observed across the sample which is presented only by 5% of the sample.

In specific to sector wise adoption of Total Presentation Index it is identified that the fullest presentation adoption is available through a company belonging to the diversified sector while the no existence of presentation index was displayed through the website of the corporate in the service sector. Unlike in content index, presentation index records a less deviation depicting fewer variations in presentation of websites across websites of the same sector.

In relevance to a cross tabulation of data performed it was witnessed that the companies of sectors of diversified holdings and manufacturing maintains the highest presentation in their website in relevance all items 10 items in the presentation index while rest of the sectors maintained less presentation format in comparison.

In general in comparison to the content dimension the reviewed results indicate that frequent of presentation format adoption is higher in terms of all sectors further illustrating that in Sri Lanka in terms of IFR ,more concern is deviated towards the appearance of the website in eyes of the stakeholders at the poor attention to the content and the quality of the information provided which is disadvantageous to the interested parties in reaching the decision usefulness through the view of corporate websites. Appendix 1 illustrates the sector wise description on total presentation practices.

#### **4.3.2 Discussion on Extent of IFR practices in Sri Lanka**

In analyzing the descriptive statistic it was noticed that in the current context Sri Lankan listed companies is adopts IFR at a very insignificant level illustrated by the Total IFR Index and the sub-indices discussed above.

The total IFR Index depicts that only 30 % of the index is practice by the listed companies in Sri Lanka, furthermore a major contribution to the TIFRI is supported by the presentation index which ensures the adoption of 40 % of its index in the web presence while the content index disclosed only 24% of the index items hence highlighting the fact that over the quality and fullness of the information disclosed through the company websites , in Sri Lankan listed companies context more attention is deviated towards the presentation format of the website

which is less value adding in comparison to the content disclosed via websites as investors and other interested parties require a high level of information disclosure to be adopted by the corporates in ensuring that most effective economic decisions are facilitated through such level of information disclosure while minimizing the costs created through agency relationship leading towards high level of transparency among the principal and agents .

In relevance to the extant literature relating the practice of IFR, the study performed by Kelton & Yang 2008, in regards to NYSE listed companies indicate an IFR adoption of 55 % of its index while a study performed by Dolinsek et al. 2014 in the country of Slovenia reports an IFR adoption of 51 % of index. Further a study conducted by Oyelere et al. 2003 in the context of listed companies in New Zealand indicates 83% adoption of the IFR Index, where a study conducted in Jordanian listed companies depicts an IFR adoption of 56% of the index items. (Yassin 2017). In overall the reviewed studies highlights the comparative less adoption of IFR practices in Sri Lanka in the context of listed companies in CSE.

Further in relevance to the sector wise adoption of IFR practices it was evident that the companies belonging to the sector of diversified holdings disclose high level of content and presentation information due web disclosure in comparison to the rest of sectors. Furthermore it was identified that the sector of manufacturing and beverage, food and tobacco also disclose relatively high level of content wise information through the websites in comparison. Sector of services is recurring identified as a sector that adopts less degree of web disclosure within the context of Sri Lanka.

In analyzing the all data discussed in Section 4.1, in relevance to the witnessing of the Objective 1 of the study ; *To identify the extent to which IFR is adopted in Sri Lanka* the findings suggest that Sri Lanka is still at an early stage of adoption of IFR practices which signals the respective regulatory and policy decision making committees to ensure that proper regulations are placed to ensure that maximum level of web disclosure is adopted by the corporates to facilitate required and expected information is made available to the investors and related parties while utilizing the technological developments for the information dissemination across the world.

### 4.3.3 Analysis on the Mean Score of IFR Indices

Methodology chapter identifies that, the univariate analysis; one sample t test compares the mean score identified in an observed sample with a hypothetical value assumed, which identifies the variation of the mean of population of the study against the expected or the known mean of the population.

In relevance to the Objective 1 of the study; to examine extent of IFR practices adopted by listed companies in Sri Lanka, the researcher has adopt one sample t test at a confidence level of 95% to evaluate the mean score of each IFR indices against a hypothesized mean for each index in order to identify if variances exists between mean values. Accordingly it would facilitate to draw connections to objective 1 in terms of the extent to which the indices of the sample varies significantly or insignificantly from the mean values such that it showcases the variation of the actual IFR practices from the expected level of extent to IFR adoption, providing an evaluation on the extent of IFR practices among listed companies in Sri Lanka.

The results of one sample T test are indicated below in Table 4-4

**Table 4-4 : One Sample T Test on IFR Indices**

Variable N=5		TIFRI	TCI	CCI	FINVI	CGDI	SRI	TPI
Test value		17.5	2.5	7	2	1	5	12.5
t		-9.768	-12.164	-5.380	-18.294	-4.065	-2.360	-1.862
df		94	94	94	94	94	94	94
Sig ( 2 tailed)		.000	.000	.000	.000	.000	.020	.066
Mean Difference		-5.984	-5.626	-.700	-4.179	-.526	-.221	-.358
Confidence Interval of the difference	Lower	-7.20	-6.54	-.96	-4.63	-.78	-.41	-.74
	Upper	-4.77	-4.71	-.44	-3.73	-.27	-.04	.02

The study consists of seven indices related to IFR practices and in in performing the one sample T test analysis, it has adopted a hypothetically assumed mean score for each variable considered as discussed in Section 3.8.

In regards to TIFRI, the results of the test imply that in the context of Sri Lanka, the null hypothesis  $H_{01}$  is rejected as p value is recorded at less than 5 %. The null hypothesis that the sample mean equals to 17.5 is not supported indicating the TIFRI of the sample companies do not systematically meet the hypothesized value hence confirming that in the context of Sri Lanka TIFRI is not widely acknowledged as a form of information dissemination through websites as the expected adoption of IFR practices is significantly different from that of actual IFR adoption.

The one sample T test performed indicate that, under TCI index the null hypothesis of  $H_{02}$  would be rejected as the results shows a p value less than 5 % hence as similar to TIFRI , the findings depict that the sample companies in the context of Sri Lankan listed companies do not meet the hypothetically assumed mean value for TCI where the expected mean value of the index is significantly different from the actual findings from the sample thus in line with descriptive statistics, this results shows the less adoption of content wise IFR practices in Sri Lanka.

In relevance to null hypothesis  $H_{04}$ , the findings through the one sample T test indicate that the null hypothesis is supported as per the p value recorded at higher than 5% . This further depicts that the hypothetically assumed mean score for the TPI is not significantly different from the actual mean value derived through the sample thus it provides evidence that in comparison to content wise IFR adoption, Sri Lankan listed companies ensure that more IFR is biased towards the presentation or the format of the websites of the companies over the content fullness of the information disseminated, further this results is confirmed through the descriptive statistics discussed in Section 4.3

However in line with the descriptive statistics, the findings of One sample T test shows that the null hypothesis of  $H_{04}$ ,  $H_{05}$ ,  $H_{06}$ ,  $H_{07}$  would be rejected as per the P values recorded thus it depicts that the mean values of the four sub-indices of context index depicts a variation from the hypothesized mean values for the indices which is statistically significant deviation. The result further commend the lesser content wise IFR adoption identified in terms of listed companies in Sri Lanka in contrast to the presentation wise IFR practices.

The univariate analysis of one sample T test presents similar results in line with the findings of descriptive statistics where both results indicate that in regards to the Objective 1 of the



study; *identifying the extent to which IFR practices is adopted in Sri Lankan listed companies* Sri Lankan listed companies do not present significant level of IFR adoption indicating that the level of web disclosures practices is very low such that effective decisions are not facilitated through low level of internet disclosure . Sri Lankan companies rely least in use of technological developments for dissemination of useful corporate and related information to investor and other interested parties in comparison to the web based information dispersion adopted by other companies as discussed in extant literature.

#### 4.4 Descriptive Statistics on Corporate Governance Practices

The second objective of study is to examine the impact of corporate governance on the extent of adoption IFR practices. Accordingly corporate governance is identified as the independent te governance characteristics as per extensive literature reviewed.

The researcher has evaluated the identified corporate governance variables in terms of descriptive statistics in order to provide an overview of the sample in regards to governance characteristic and also the findings of the descriptive statistics would denote the degree to which companies are embracing governance characteristics such that it would highlight the association between the identified level of corporate governance characteristics with IFR practices.

Table 4-5 : Descriptive Statistics on Corporate Governance Variables

Variable		INDIRE CTD	BSIZE	DUALITY	ACIND	ACMEET	ACFINEX	MGMT	BLOCK
No	Valid	95	95	95	94	88	92	94	94
	Missing	0	0	0	1	7	3	1	1
Mean		.407918	8.1579	.84	.852483	4.58	.539674	.142431	.610826
Minimum		.135	2.033	.367	.170	2.242	.2187	.235	.282
Maximum		1.248	-.064	-1.907	-.579	2.353	.493	1.552	-.819
Std. Deviation		2.005	-.516	1.670	-.870	8.526	-.076	.956	-.416
Skewness		.2000	3.00	0	.3333	0	0.0000	0.0000	0.0000
Kurtosis		.9000	12.00	1	1.0000	15	1.0000	.8194	.9752

### **a. Board Independence**

Board independence is the number of independent directors in the board of directors. Table 4-5 depicts the descriptive statistics of variable. In all cases the minimum value of this variable is 20% and maximum value is 90%. The variable indicates a mean value of 0.4 indicating that on average every company possesses 40% of its director board as independent director.

The derived values of skewness indicate that data distribution is not a normal distribution however the lower standard deviation value suggests that there exists a lesser variation among the data set in relevance to the variable.

In specific to the sector wise analysis of the variable its identified that highest proportion of 90% independent directors are maintained by the hotel and travel sector where as the construction , manufacturing and trade sector possess on average 22% of board as independent directors which is the lowest recorded. Further the lowest deviation is recorded in Foot wear sector and hotel sector records the highest deviation in the variable where none of the sectors indicates a normal distribution of data further confirming the non-normal data distribution in the variable as a whole (Appendix 2).

### **b. Board Size**

As discussed in Chapter 3, Board Size is the total number of directors on board. The statistics in Table 4-5 indicate that on average the company has a director board of 8 members where the minimum is recorded as 3 and the highest is recorded as 12.

However the high standard deviation indicates that the data relevant to the variable is scattered around the mean value of the variable while the skewness indicates the asymmetric distribution of data which is negatively skewed.

Furthermore analysis on the variable in regard to the sector wise indicates that the highest board size is recorded in diversified holdings sector while the lowest is recorded in land and property sector however the highest average is recorded in the motors sector. Additionally the lowest deviation in data is recorded in footwear and plantation sector while all other sectors indicate a vast deviation in data (Appendix 2).

### **c. Role Duality**

In line with Chapter 3, role duality identifies the personal distinction as a chairman and CEO. The descriptive statistics performed in Table 4-5 indicates that among the sample 84% of companies possess different personnel as CEO and Chairman. This indicates that a significant majority of companies adhere to the role duality practice in Sri Lanka hence complying with good corporate governance requirement. However the non-normal distribution of data is indicated in the sample through negative skewness while the low standard deviation depicts the less variation among the sample data confirming that majority complies with the requirement.

In relevance to the Sector wise role duality practice in Sri Lanka it is identified that sectors of construction and engineering, land and property, plantation, motors and telecommunication records 100 % confirmation with role duality while 94% of the companies in manufacturing sector records a role duality while data depicting a very less deviation in distribution. And furthermore specifically footwear and healthcare maintains least role duality within the sector (Appendix 2).

### **d. Audit Committee Independence**

The variable of audit committee independence analyses the extent to which listed companies audit committees posit independent directors in its audit committee which ensures the accuracy and reliability of the tasks performed by audit committee.

In analyzing the data relevant to the variable presented in Table 4-5 it is identified that on average 84% of the audit committee members are independent while indicating that 54% of sample maintains 100% audit committee independence depicting a positive response to the good corporate governance requirement. Furthermore the less standard deviation recorded indicates that a very less variation in data distribution among the companies however as similar to other variables a non-symmetric distribution of data is indicated through the skewness.

In further analysis in relation to the sector wise audit committee independence, companies in twelve sectors among the seventeen sectors indicate 100 % confirmation with audit committee independence while the lowest of 2 % is recorded in one firm belonging to the

diversified sector However the mean of 80% in the diversified sector indicate that in except for the lowest recorded companies other companies ensures that audit committee independence criteria is met. In elaborating further telecommunication sector recorded the lowest deviation in data however in overall all the sectors appear to meet the requirement hence further confirming the overall complying with audit committee independence (Appendix 2).

#### **e. Audit Committee Meetings**

In line with the Chapter 3, this variable identifies the count of meeting held by the audit committee of the companies. The data analyzed indicates that on average the Sri Lankan listed companies tend to conduct 4 meetings per annum where the maximum is recorded as 15 , however the 4 meetings per annum was recorded as the mode indicating that highest number of occurrence achieved by 42% companies of the sample (Table 4-5).

In a more elaborated analyses relevance to the sectors, its identified that maximum number of audit committee meetings ins conducted by the diversified holdings sector however on average majority of the sectors meets the average count of audit committee meetings while the lowest is recorded by a company under plantation sector which has not conducted audit committee meetings during the year concerned. In general majority of the companies in particular sectors records deviations in data while as similar to other variables a non-normal distribution is data is reported (Appendix 2).

#### **f. Audit Committee Financial Expertise**

Audit committee financial expertise identifies the proportion financial competent directors in the audit committee in accordance with Chapter three. In analyzing the data relevant to the variable it depicts that on average 50% of the audit committees possess financial expertise which is complied by 23% of the sample hence meeting the criteria for good corporate governance, while 9% of the sample ensures 100% of audit committee financial expertise only 1 company records the minimum of no financial expertise in audit committee. Furthermore the low standard deviation indicates the less deviation in data and non-normal distribution of data is confirmed by the skewness recorded (Table 4-5).

In a deep analysis in relevance to sectorial audit committee financial expertise it is identified that the sectors of diversified holdings, manufacturing, power, services and trading ensures 100 % audit committee financial expertise while the minimum is recorded by land and property sector. However in overall majority of the sectors exceed the average proportion of audit committee financial expertise indicating that in general financial expertise in audit committee is maintained in Sri Lankan listed companies (Appendix 2).

#### **g. Equity ownership by management and directors**

This variable identifies that proportion of company shares held by the management and directors which is connected to corporate governance as discussed in Chapter 2. In analyzing the data presented in Table 4-5 it identifies that in average only 14% of the total shareholding of the company is owned by the management and directors while 33% of the sample maintains a largely insignificant shareholding of 0.1 %. The highest shareholding was recorded at 82 % while 14.9% of the sample does not contain managerial ownership of shares.

In relevance to sector wise analysis of the variable the , manufacturing sector possess the highest recorded equity ownership by management , however each sector also possess majorly very low equity ownership by management among its company which leads to a very low deviation among the data collected (Appendix 2).

#### **h. Block Holder Ownership**

In relevance to this variable the proportion of outside shareholder who bear more than 5 % of the company shares are analyzed. It is identified through the analysis performed in Table 4-5 that on average 61% of shareholdings in Sri Lankan listed companies falls under block holder ownership where the maximum is recorded at 98% of the total shareholding. Less deviation is recorded among the data however commonly a non-normal distribution of data is recorded.

In regards to sector wise block holder ownership it was evident that in every sector contains corporates that possess 75 % of its shareholding as block holder while highest block holder ownership is recorded by Motors sector while no block holder ownership is practiced by some companies in beverage, construction and engineering , manufacturing , power and energy sectors. (Appendix 2)

#### 4.5 Descriptive Statistics on Control Variables

The study has identified Leverage, Liquidity, Profitability, Firm Size and External Audit big four as the control variables of the study. In regards to the objective 2 of the research study, to determine the association between corporate governance and IFR practices, it's crucial that the descriptive statistics relevant to the control variable are analyzed to attain an overview of the sample.

**Table 4-6 : Descriptive Statistics on Control Variables**

Variable		LIQUID	LEV	PROF	SIZE	BIG4
N	Valid	95	95	95	93	95
	Missing	0	0	0	2	0
Mean		1.536	0.769	0.100	22.01	.79
Minimum		0.03	0	-0.199	18	0
Maximum		4.4	3.76	0.3992	26	1
Std. Deviation		1.025	0.884	0.110	1.755	0.410
Skewness		1.3856	1.8543	.1154	.074	-1
Kurtosis		1.2208	3.5596	.4674	-.310	0

Notes: Due to the presence of significant outlier winsorized versions of Liquidity, Leverage and Profitability have been considered for descriptive analysis and also others analyses depicted in section 4.6.1 Correlation Analysis and 4.6.2 Regression Analysis.

##### **a. Liquidity**

Liquidity measured as the ratio between current assets and current liabilities of the company .In analyzing the data it is identified that among the Sri Lankan listed companies liquidity rest at an average of 1.5 times indicating that current assets worth 150% of the current liabilities of the company hence ensuring a favorable financial solvency in general. The liquidity ranges from 4.4 to 0.03 times while less variations are recorded among the data set. (Table 4-6)

In specific to the liquidity in sector wise, it depicts that highest liquidity is recorded in power and energy sector while service sector records the lowest liquidity value. It is evident that 35% of the sample meets the average liquidity value in the market however in overall more than 65% of the sample meets value of 1 times of liquidity which is identified as financially solvent(Appendix 3).

#### **b. Leverage**

The variable leverage identifies the composition of the financing of total assets of the company, as illustrated in Section 3.3 this is measured as the proportion of total debt component total equity of the company. In analyzing the data it was highlighted that on average liquidity value lies at 77% indicating that in Sri Lankan context most of the companies have financed its assets majorly through equity financing. The highest leverage is recorded at 376% indicating the highest leverage while 7% of the sample is identified to maintain 0 leverage further indicating such companies have fully aligned its capital structure to equity financing. In overall in the context of Sri Lanka the data depicts that leverage is at a lower rate due to mostly family owned companies are listed in CSE , this is further confirmed through the study conducted by Samarakoon 1999 in the context of Sri Lankan listed companies (Table 4-6).

In regards to the sector wise leverage, it is identified that the highest 376% leverage is recorded by companies in four sectors of diversified holdings, plantations, power and energy and manufacturing. However the value of 376 % leverage is a winsorized value as the mentioned companies possess significantly large leverage which falls under outliers. In addition no leverage is recorded in seven companies belonging to the sectors of beverage, manufacturing, services and land and property, however majority of the sector comply with average leverage value identified further confirming the less deviation in data analyzed (Appendix 3).

#### **c. Profitability**

The variable of profitability identified the proportion of profitability of the company measured through the return as percentage of total equity. In reviewing the data analyzed, results indicate that on average Sri Lankan listed companies maintains return on equity of 9

% which ranges between -19% to 40% , while 87% of the sample reports positive return on equity. Skewness indicates a considerable normal distribution through a figure close to 0 while the low standard deviation depicts less variation in the leverage recorded (Table 4-6).

In reviewing the profitability across the sample, it is highlighted that highest profitability is recorded in the diversified holdings sector while the lowest negative profitability is recorded in the manufacturing sector which could be further confirmed through the highest leverage recorded. Majority of sectors record profitability equal to the average market profitability figure however it's an outstanding feature that majority of the sectors contains at least one company that possesses negative profitability (Appendix 3).

#### **d. Firm Size**

The control variable firm size is measured as the natural logarithm of market capitalization of the company. The data analyzed indicate that on average listed companies in Sri Lanka meets a firm size of 22 ranging from 18 to 26. The standard deviation value records a deviation in the data recorded however the skewness value recorded approximately close to 0 indicates a fairly normal distribution of the data (Table 4-6).

In relevance to analysis on sector wise firm size, its highlights the sectors of beverage and diversified holdings bear the largest value for firm size while services and trading sectors record the lowest firm size value. However in general majority of sectors complies with the average firm size of the market (Appendix 3).

#### **e. External Audit – Big Four**

In relevance external audit, it analyzing the data it is identified that 79% of the listed companies in Sri Lanka are audited by the big four companies of KPMG, Ernst & Young, PWC and Dolerite indicating dominance by the big four audit companies in the market. Further listed companies prefer to ensure the external audit is performed by renowned audit companies to ensure more reliable outlook to the stakeholders accordingly in overall its common to observe big four companies to engage in external audits among listed companies (Table 4-6).



In specific to sector wise external audit , seven sectors adopts external audit through the big four firms while only the sectors of hotels, land and property and trading records a less percentage of external audit being conducted by the big four companies (Appendix 3).

#### **4.6 Association between corporate governance and IFR practice**

The second objective of the study is to examine the association between corporate governance and IFR practices. In accordance with Section 3.10 correlation analysis and multi variant regression analysis would be performed to identify the interrelationship between the independent variable of corporate governance and dependent variable of IFR practices

##### **4.6.1 Pairwise Correlation**

Correlation coefficient is a statistical measure of the degree and direction of an impact of a change in one variable on the other variable as identified in Section 3.10. Table 4-24 depicts the pair wise correlation matrix for the variables of the study were performed under both Pearson and Spearman in order to identify the significance and the direction of the relationship between variables under consideration.

The correlation matrix developed indicate different pairs of variable that produces statistically significant relation among them , however it's a highlighted factor none of the correlations exceed 80% degree ,hence indicating the nonexistence multicollinearity among variables confirmed through the non-presentation of highly correlated variables.

In relevance to the correlation matrix, under both Pearson and Spearman correlations the highest correlation is recorded between two independent variables of Block Holder Ownership (BLOCK) and Equity Ownership by Management and Directors (MGMT) which is recorded at -0.642 and -0.821 respectively indicating a strong negative relationship between the two variables while a strong and positive relationship is recorded among the Firm size (SIZE) and IFR Index as per the matrix.

**Table 4-7 : Pearson (lower bound) and Spearman correlation (upper bound) correlation matrix for variables (N = 95)**

	IFR INDE X	CG INDE X	INDI REC TD	BSIZ E	DUA LITY	ACIND	ACM EET	ACFI NEX	MGM T	BLOC K	LIQUI D	LEV	PROF	SIZE	BIG4
IFR INDE X		.327** .001	0.03 .745	.236* .021	0.06 .587	-0.039 .709	0.19 .072	0.16 .134	0.06 .574	-1E-03 .993	0.021 .836	-0.048 .644	0.1059 .307	.620** .000	.351** .000
CG INDE X	.332** .001		.450** .000	.551** .000	.062 .551	.336** .001	.524** .000	.332** .001	.163 .117	.020 .852	-.054 .606	-.056 .591	-.052 .617	.336** .001	.168 .104
INDIR ECTD	.017 .870	.423** .000		-.104 .318	-.183 .076	.294** .004	.146 .175	.022 .833	-.049 .637	.118 .258	-.072 .485	-.137 .186	-.005 .963	.162 .122	-.018 .866
BSIZE	.276** .007	.510** .000	-.126 .223		.030 .770	.020 .849	.361** .001	.113 .285	.099 .343	.046 .658	-.055 .595	.077 .459	-.048 .642	.271** .009	.213* .039
DUAL ITY	.023 .825	.073 .483	-.227* .027	.048 .644		-.380** .000	.013 .902	-.054 .612	-.033 .754	.167 .107	.093 .369	-.105 .310	-.013 .903	.034 .749	.130 .208
ACIN D	-.028 .790	.327** .001	.260* .011	-.005 .964	.378** .000		-.007 .952	.083 .433	.132 .209	-.188 .070	.049 .641	-.065 .534	.057 .585	.052 .626	.034 .742
ACM EET	.172 .110	.474** .000	.160 .137	.308** .003	-.045 .678	-.011 .923		-.137 .211	.039 .718	-.124 .251	.011 .919	.056 .607	-.089 .411	.115 .294	.153 .156
ACFI NEX	.150 .152	.262* .012	-.041 .700	.118 .263	-.039 .714	.090 .397	-.094 .392		.056 .599	-.117 .268	.019 .859	-.006 .952	.065 .535	.092 .390	.057 .588
MGM T	.130 .212	.149 .152	-.024 .817	-.016 .879	-.033 .752	.097 .353	.075 .492	.076 .473		-.642** .000	.013 .900	.149 .151	-.017 .872	-.058 .581	-.059 .572
BLOC K	-.095 .363	-.002 .982	.110 .292	.056 .594	.153 .140	-.170 .102	-.109 .314	-.167 .113	.821** .000		.003 .981	-.221* .033	.014 .893	.166 .111	.178 .086
LIQUI D	.640** .000	.350** .001	.160 .125	.294** .004	.083 .426	.039 .711	.144 .187	.059 .578	-.068 .521	.160 .126		-.471** .000	.236* .021	.016 .880	.023 .824
LEV	.345** .001	.166 .109	-.067 .521	.257* .012	.130 .208	.054 .604	.166 .122	.066 .533	-.102 .329	.182 .079	-.380** .000		-.320** .002	-.157 .133	-.083 .422
PROF	-.002 .981	-.040 .702	.066 .522	-.065 .530	.087 .400	.050 .634	.002 .983	-.013 .905	.041 .697	.005 .962	.233* .023	-.281** .006		.192 .065	-.016 .874
SIZE	-.101 .328	-.045 .667	-.119 .251	.004 .972	-.078 .453	.074 .481	.077 .475	.007 .951	.160 .123	-.229* .026	.045 .668	-.171 .101	.208* .045		.431** .000
BIG4	.095 .359	-.043 .682	-.004 .973	-.074 .476	-.023 .826	.071 .496	-.078 .468	.108 .303	-.064 .542	.053 .614	.095 .360	-.070 .499	-.028 .784	.423** .000	

Notes : \*Significant at 0.10 level and \*\*Significant at 0.05 level

### **a. Relationship between Corporate Governance and IFR Practices**

The developed hypothesis has been tested against the correlation coefficients thus it provides an evaluation on the association between corporate governance characteristics and IFR practices.

An analysis on the hypothesis tested is provided below

H<sub>1</sub>: The IFR practice of a firm is associated with the overall corporate governance characteristics of the firm.

This correlation coefficient identifies an association between IFR practices and Corporate Governance of sample companies. The results depict a statistically significant positive correlation among the two variables however the coefficient is identified to be weak. Results support the hypothesis that in the context of listed companies in Sri Lanka, corporate governance as an overall variable is positively associated with the extent to IFR practices adopted.

H<sub>2</sub>: The level of IFR practices of a firm is positively associated with existence of Independent directors.

The IFR practices of a firm is positively correlated with INDIRECTD however, the correlation is recorded as weak and statistically insignificant. Hence the hypothesis is not supported in the Sri Lankan listed company's context.

H<sub>3</sub>: The level of IFR practices of a firm is negatively associated with the board size.

IFR practices of a firm are identified as positively correlated with BSIZE supported by a weak statistically significant correlation under Pearson correlation and a very strong statistically significant correlation under the Spearman correlation. However here the hypothesis of negative association between the board size is rejected indicating through the correlation analysis performed that, a statically significant positive relationship exists among IFR practices and board size.

The correlation result is similar to findings in a study conducted by Yassin 2017 in the context of Bahrain listed companies and Abessi et al. 2011 in relevance to Malaysian listed

companies and Gandia 2008 and Yap et al. 2011 however, in contrast literature of Kelton & Yang 2008 performed in NYSE and Hanifa and Hudaib 2006 states that smaller board sizes are effective in ensuring higher level of adoption of IFR.

H<sub>4</sub>: The level of IFR practices of a firm is positively associated with the role duality.

Under both correlation analysis performed, it records a positive but weak correlation among IFR practices of a firm and DUALITY identified to be statistically insignificant, hence the rejecting the hypothesis developed.

H<sub>5</sub>: The level of IFR practices of a firm is positively associated with the audit committee independence.

IFR practices of a firm and ACIND is negatively correlated as per both correlation analysis performed which does not support the hypothesis furthermore it is recorded as a very weak and statistically insignificant correlation; hence the hypothesis developed would be rejected.

H<sub>6</sub>: The level of IFR practices of a firm is positively associated with the existence of financial expertise in audit committee

The correlation analysis under both methods discloses a positive yet very weak correlation among the two variables which is identified to be statically insignificant. Hence the hypothesis is not supported.

H<sub>7</sub>: The level of IFR practices of a firm is positively associated with the frequency of audit committee meetings

In relevance to the two variables of IFR practices of a firm and ACMEET, a positive correlation is identified however it is recorded as very weak and statistically insignificant.

H<sub>8</sub>: The level of IFR practices of a firm is negatively associated with the level of managerial share ownership

The relationship among the variables of IFR practices of a firm and MGMT is identified to be positively correlated in contrast to the hypothesis tested. Furthermore the association is

identified to be very weakly correlated and statistically insignificant, hence the hypothesis is rejected.

H<sub>9</sub>: The level of IFR practices of a firm is negatively associated with the level of block holder ownership.

A very weak correlation is recorded among IFR practices of a firm BLOCK which indicated a negative association between the two variables identified to be statically insignificant. Hence the hypothesis developed would not be supported.

In general with regards to the hypothesis tested for each governance variable against the IFR practice, it seems that corporate governance practices are less influential on IFR practices adopted by Sri Lankan listed companies although a significant association is identified among the two variables of IFR practices and corporate governance as a whole under H<sub>1</sub>

However, BSIZE variable under corporate governance is identified to be positively related to IFR index, indicating that in Sri Lankan listed company's context number of directors on board is positively associated with IFR practices hence ensuring that a higher board size would motivate more IFR adoption by the companies.

#### **b. Discussion on the Correlations performed among IFR Index and Corporate Governance**

As elaborated above, the correlation analysis performed in relevance to the Objective 2 of the study highlights that in considering corporate governance practices as a whole it is positively interrelated to IFR practices however the weak coefficient posit that the level of impact placed by corporate governance on IFR practices is relatively low thus corporate governance practices in Sri Lanka is less effective in ensuring the level of information dissemination adopted by corporate through their websites.

In regards to the correlation among individual variables it identifies that in except for the variables of BSZIE, none of the other variables of corporate governance are recorded to be statistically significantly associated with the adoption of IFR practices further confirming on the weak relationship recorded among CG Index and IFR Index thus the hypothesis are rejected.

However the strong significant association recorded among IFR practices and Board Size indicates that among the corporate governance variables under consideration in the research study only BSIZE is effective in ensuring a higher adoption of IFR practices encouraged through larger board size further confirmed by extant literature in a studies conducted by Yassin 2017 ; Abessi et al. 2011 Gandia 2008 ; Yap et al. 2011 however in contrast literature of Kelton & Yang 2008 performed in NYSE and Hanifa & Hudaib 2006 states that smaller board sizes are effective in ensuring higher level of adoption of IFR .

This further reveals valuable discussion in relevance to IFR practices adopted in Sri Lanka that, although above average number of listed companies in Sri Lanka are family owned companies, it's a surprisingly noticed factor that apart from concentrating ownership only on family membership, the board of management possess outside directors which ensures higher board size in listed companies of Sri Lanka. Hence the results reveal that higher degree of board size stimulates higher level of voluntary IFR adoption through their website as higher level of IFR disclosure is commending a positive relationship on the board of directors as it is a decision implemented by them.

### **c. Correlation among Independent Variables and Control variables**

In addition to the identification of relationship between corporate governance and IFR practices, correlation analysis presents correlations between the independent and control variables of the study.

It is identified that there exists a weak yet positive correlation among ACIND and INDIRECTD as per both spearman and Pearson correlation analysis which is identified to be statistically significant under the 99 % confidence level. Further this elaborates that higher the existence of independent board members, higher will be the proportion of independent directors in the audit committee.

The correlation identified under Pearson correlation analysis only indicate that there exists a negative weak association between DUALITY and INDIRECTD which is identified to be statistically significant at 95% confidence level. The correlation depicts that the existence of role duality leads to lesser proportion of independent board members on board, however this association is identified to be statistically insignificant under Spearman correlation analysis.

ACIND and DUALITY represent a negative correlation under both correlation analyses however it is identified to be a weak relationship which is statistically insignificant. Illustrating further that the existence of role duality hinder the high proportion of independent directors on audit committee as similar to the association between board independence and role duality.

Correlation analysis indicates a statistically independent yet a weak positive relationship among the variables of BSIZE and ACMEET, implying that existence of higher count of board members opt for increment in the number of audit committee meetings to be held during a year under concerned.

BSIZE is identified to have a weak positive relationship among the control variables of SIZE and BIG4. The associations are recorded as statistically significant at 95% and 99% confidence levels. Hence it illustrates that existence of a larger board size encourage the external audit to be performed by big four audit companies over rest and companies with higher count on board members leads to a bigger firm size facilitated through effective decision making by a larger board for the success of the company.

BLOCK shares indicate through both spearman and Pearson correlation analysis that there exists a negative and statistically significant correlation among MGMT and LEV. The negative statistical correlation among managerial share ownership and block holder ownership is identified to be a very strong relationship. This illustrates that higher existence of block holder ownership where block is defined at 5% ensures that the company financing is deviated more towards equity financing while relying on debt financing at least as there will be more capital contribution from the block holders. Further the association among block holder and managerial ownership of shares indicate that a higher count of block shares would ensures that less proportion is left for equity ownership for management of the company.

In terms of the control variables of the study several significant correlations are evident among IFR and Control variables.

At 99% confidence level it identifies a statistically significant positive correlation among the IFR index with SIZE and BIG4. Further the association between IFR and Firm size is

identified to be strong while association among IFR and Big four variables is identified to be weak.

This further illustrates that bigger firm with larger capitalization are encouraged to adopt more IFR practices in contrasts to smaller firms such that more information will be disseminated to the potential and existing investor including other interested parties through the company websites. And also the association among big four and IFR index indicates that corporate that undertakes external audits through big four audit companies practice more web disclosures in terms of IFR ensuring the quality and decision usefulness of information made available in websites as influenced by big four audit companies.

In regards to correlations between the control variable it identifies that statistically significant relationship exists between control variables of Leverage with Liquidity and Profitability, The correlation among Leverage and Liquidity indicates a negative association implying that firms with high leverage tends to with low liquidity further justified by the fact that higher levels of leverage leads the firm to service debt payments at the risk of losing favorable liquidity position of the company, hence causing a negative relationship among the variables.

The control variable of Profitability is negatively associated with the control variable of leverage which is identified to weak, however statistically significant in correlation under both Pearson and Spearman analysis. This could be further justified that when a corporate possess more level of leverage a higher debt servicing need to be maintained hence a higher finance cost would be borne by the company deteriorating the profitability of the company hence a negative relationship is evident.

In relevance to Pearson correlation analysis it identifies a positive significant relationship among the variables of profitability and firm size indicating that companies with larger market capitalization engaging in vast operations tend to possess high profitability in line with operational capacity hence leading to a positive relationship between profitability and firm size.

Further it is identified that a significant positive correlation exists among the control variables of firm size and big four. This could imply that larger firms have a preference to be audited



by big four audit firms, due to perceived higher audit quality in ensuring credibility in the eyes of the interested parties.

#### 4.6.2 Regression Analysis on Relationship between IFR and Corporate Governance

Multivariate regression analysis model was used to assess the hypothesis identified in Section 3.7 by incorporating all independent and control variables together in the regression model thus a comprehensive analysis would be performed to identify the relationship among IFR practices and corporate governance characteristics and control variables the researcher has found crucial in the context of research study.

Accordingly, regression analysis is performed under two models where the researcher has firstly performed analysis for considering corporate governance characteristics as a whole and secondly considering each individual corporate governance characteristics. The regression analysis performed under two models would be presented in Table 4-25 respectively.

**Table 4-8 : Regression analysis for Model 1 and Model 2 (N =95)**

Variable	Model 1			Model 2		
	$\beta_i$	t	Sig	$\beta_i$	t	Sig
Constant	-33.548	-4.935	0	-32.666	-4.066	0
CG Index	0.584	1.478	0.143			
LEV	-0.173	-0.281	0.779	-1.022	-1.387	0.17
LIQUIDTY	-0.217	-0.418	0.677	-0.246	-0.407	0.685
PROF	-1.322	-0.273	0.785	-5.042	-0.939	0.351
SIZE	1.939	5.761	0.00**	2.099	6.079	0.00**
BIG4	1.063	0.785	0.435	1.514	0.925	0.358
INDIRECTD				0.466	0.099	0.922
BSIZE				0.261	0.894	0.375
DUALITY				-1.324	-0.827	0.411
ACIND				-3.358	-0.921	0.36
ACMEET				0.077	0.303	0.762

ACFINEX		3.739	1.452	0.151
MGMT		0.318	0.081	0.936
BLOCK		-3.244	-0.911	0.366
R	0.657		0.727	
R <sup>2</sup>	0.432		0.528	
Adj.R <sup>2</sup>	0.392		0.437	
Sig	0		0	
N	95		95	

Note : \*\*Significant at 0.05 level

#### a. Regression Analysis performed for Corporate Governance Index

Firstly a multivariate regression analysis was performed to assess the association of overall corporate governance index and control variables namely; LEV, LIQUID, PROF, BLOCK, MGMT with the independent variable of IFR.

The developed Model 1 for the study is as follows.

$$TIFRI_{it} = \beta_0 + \beta_1 CGI_{it} + \beta_8 MGMT_{it} + \beta_9 LEV_{it} + \beta_{10} LIQUID_{it} + \beta_{11} PROF_{it} + \beta_{12} SIZE_{it} + \beta_{13} BIG4_{it}$$

The results indicates that the model possess a considerable explanatory power in explaining relationship between the variables thus the model explains 43.3% of the changes in the dependent variable of IFR practices.

The model meets overall validity t hence indicating it's a valid model in identifying the association between corporate governance practice and IFR, however the results indicate that majority of the variables tested in this model do not present statistically significant association with IFR practices. The control variable of firm SIZE only depicts a significant positive relationship with the dependent variable of IFR practices .aligning with the correlation results the regression model depicts a positive statistically significant relationship between the independent variable of IFR practices and Firm Size, that is significant at 95% confidence level.

The hypothesis; *The IFR practices of a firm is associated with corporate governance practices* is not supported through regression model developed thus it can be concluded that there is no significant association between IFR practices adopted by a company and corporate governance characteristics in the context of Sri Lankan listed companies. However this is in contrast the result generated in correlation analysis which represents a significant positive association between IFR practices and corporate governance as discussed under Section 4.6.1

#### **b. Regression Analysis performed for Individual Corporate Governance Practices**

A regression analysis is performed to identify the interrelationship between the individual corporate governance and control variables with the IFR practices adopted by a firm.

The Model 2 of regression test is presented below.

$$\text{TIFRI}_{it} = \beta_0 + \beta_1 \text{INDIRECTD}_{it} + \beta_2 \text{DUALITY}_{it} + \beta_3 \text{BSIZE}_{it} + \beta_4 \text{ACIND}_{it} + \beta_5 \text{ACFINEX}_{it} + \beta_6 \text{ACMEET}_{it} + \beta_7 \text{BLOCK}_{it} + \beta_8 \text{MGMT}_{it} + \beta_9 \text{LEV}_{it} + \beta_{10} \text{LIQUID}_{it} + \beta_{11} \text{PROF}_{it} + \beta_{12} \text{SIZE}_{it} + \beta_{13} \text{BIG4}_{it}$$

The results of the regression analysis illustrates that in general the model explains 52.8% change in the dependent variable of IFR practices further the overall validity of the model is assured by the regression test performed.

The previous regression analysis performed identifies the association between corporate governance index which captures the all individual corporate governance variables and the IFR practices. The result indicate a there is no statistical significant relationship between corporate governance and IFR, further confirming the above result under the regression model 1 , the model tested under individual corporate governance practices also highlights that none of the corporate governance practices are significantly associated with IFR practices adopted by listed companies in Sri Lanka.

In relevance to second regression model, results indicate in terms of the board characteristics of corporate governance, regression model represents a statistically insignificant positive association between the independent variables INDIRECTD and SIZE with the dependent variables of IFR practices, this is aligned to the results of correlation analysis performed.

However regression analysis records an insignificant negative association between the variables of DUALITY and IFR practices which is in contrast with the correlation analysis results that highlighted an insignificant positive relationship among the two variables.

Thus the hypothesis developed for the respective three variables accordingly  $H_2$ ,  $H_3$ ,  $H_4$  would be rejected as their not supported by the results from the regression analysis. This model represents that the board characteristics under corporate governance are not effective in ensuring the transparent and decision usefulness of the information disseminated through company websites in reaching corporates' interested parties.

The audit committee characteristics of corporate governance namely ACMEET and ACFINEX is regressed with IFR practices, which indicated a statistically insignificant positive interrelationship with IFR practices and further the ACIND is identified to be insignificant and negatively associated with IFR where all the results align with analysis under correlation analysis.

The audit committee characteristics under corporate governance indicate results that do not support the hypothesis  $H_5$ ,  $H_6$ ,  $H_7$  thus highlighting there exists no statistically significant associations among IFR practices and audit committee characteristics

The results of MGMT and BLOCK is in line with the correlation analysis findings which do not support the hypothesis  $H_8$ ,  $H_9$  thereupon further implying no significant relationships exists among the variable of ownership variables of corporate governance.

The insignificant association with each individual variable depicts that corporate governance practices are not sufficiently effective to direct the companies in ensuring higher transparency by adopting IFR practices through their web disclosures furthermore this could be elaborated that in the context of Sri Lanka corporate governance is practiced at a significantly lower level in terms of the respective governance variables considered in the research study. Hence it depicts that low level of corporate governance practice do not stimulate high level of IFR practices which highlights a low level of IFR adoption among the listed companies in Sri Lanka

As evident in the previous model analyzed, the regression performed on individual corporate governance variables also indicate that only the control variable of SIZE is statistically

significant and positively associated with the dependent variable of IFR practices where the other control variables of LEV, LIQUID, PROF and Big Four BIG4 are not significantly associated with IFR practices.

#### **4.7 Chapter Summary**

This chapter represents an evaluation on the results of the all analysis performed. Firstly an overview of the sample is provided analyzing the extent of internet penetration adopted by listed companies in Sri Lanka for information dissemination.

Next in relevance to the first objective of the study, descriptive statistics were performed on the dependent variable of IFR practices and it was revealed that Sri Lanka companies adopt a substantially less level of IFR practices mainly in terms of the content of information presented on corporate websites, further results revealed that higher proportion of the sample companies focus on the presentation dimension of website over the quality and content of information provided. Further to confirm on the results of descriptive statistics , an univariate analysis of One sample T test is performed on IFR index and its sub-indices which confirms with the same results of descriptive statistics on IFR indices. A sectorial analysis was performed to identify the sector wise IFR adoption which revealed that the sectors of diversified holdings and manufacturing adopt considerably high level of IFR in the industry.

Descriptive statistics on corporate governance variables and control variables also performed to obtain an overview of the sample and sector wise evaluation.

Then techniques of correlation analysis and regression analysis were performed in relevance to the Objective 2 : Identifying the impact of corporate governance on IFR practices , where the developed hypothesis were tested against the analysis results and the findings of correlation analysis reveal that corporate governance as a whole is positively associated with the level of IFR adoption and in terms of individual corporate governance variables only the Board Size is positively associated with IFR while rest of the hypothesis are rejected. However the results of regression analysis did not support any of the hypotheses developed. Further findings of correlation analysis depicts that firm size and big four control variables are significantly associated with IFR practices while regression analysis depicted a strong

relationship among variables of IFR and firm size only. Finally chapter concludes with a summary on the findings evaluated and concluding with avenues for future researches.

## **Chapter 5 : SUMMARY AND CONCLUSION**

### **5.1 Introduction**

This chapter provides a summary on the overall research study. Firstly it discusses the conclusion of this research report where it explains purpose of the research study in terms of objectives identified initially in the chapter one and how those objectives were achieved by performing various statistical tests. Then, it discusses the achievement of the expected outcome of the study. Secondly, this chapter explains the implication of research findings. Subsequently the limitations of the study are presented and the chapter concludes with future research direction for potential research efforts on this area.

### **5.2 Summary of Findings**

Focus on IFR practices has considerably increased with the improvements in internet technology that stimulate adoption of web based voluntary disclosures on financial and related information as a form of information dissemination to investors and other interested parties. Further, the increment in research investors that rely on internet to evaluate research opportunities and conduct stock trade have increased drastically, which put forward IFR as an important area of academic research (Spiro & Baigg 1999).

The need for IFR enhanced as a solution to the agency problem of information gap that is caused due to differences in ownership and control within the corporates. The voluntary dissemination of information through websites is an effective tool for improving disclosure transparency. In the global context many studies have been conducted evaluating the practice of IFR by different countries and determinants of such IFR practice adoption. However, the extensive literature depicts that in terms of developed economies vast number of researches had been carried out in the context of IFR, while a less is recorded from developing countries. To the best knowledge of researcher very limited number of researches has been conducted in Sri Lanka with regards to the practice of IFR by listed companies in Sri Lanka while no previous study is recorded to have analyzed the impact of corporate governance on IFR practices. Thus, the theoretical significance of this study was to contribute to extant literature by performing a comprehensive analysis on the nature and degree of IFR disclosures adopted by listed company in Sri Lanka and to fill the literature gap by examining the impact of corporate governance on IFR practice in Sri Lankan context.

### **5.2.1 Examine the Extent of IFR Practices in Sri Lanka**

The first objective of the study was to examine the extent of IFR practices adopted by listed companies in Sri Lanka. The study performed an extensive literature analysis relating to IFR practice among different countries and in accordance with literature, to identify and measure the IFR practices adopted by companies, the researcher developed a comprehensive index which will be a main instrument used in the study (Kelton & Yang 2008 ; Abessi et al. 2011 ; Marston 2003 ; Dolinsek et al.2014) However, to further analyze on the IFR practices thoroughly, the IFR index was categorized under two dimensions of content and presentation and the content dimension possess sun dimensions underneath. Accordingly the data collection for IFR indices was performed by undertaking a content analysis on the websites of the companies in terms of web disclosures and presentation.

In order to examine the extent of IFR practices the researcher has adopted descriptive statistical analysis, where the developed indices would be analyzed against descriptive statistics of Mean, Minimum, Maximum, Standard Deviation, Skewness and Kurtosis to provide a description on each index. To evaluate further on objective 1 of the study, the researcher has adopted one sample T test to identify variations among the mean values of each indices among the sample.

Firstly an overview of the sample is evaluated on the maintenance of basic infrastructure required for practice of IFR which is possession of websites to publish disclosures. The findings depict that among the sample 71% corporate maintain websites while the rest of 29 % do not percent. This provides evidence in comparison to the reviewed literature, that majority of Sri Lankan corporates possess the basic requirement for IFR practices. Studies done in developing countries of Malaysia by Abessi et al.2012 identifies that only 17% of its population do not maintain websites while 19 % of population of Bahraini listed companies do not maintain websites, however a study in Jordanian companies indicates relatively low level of website maintenance recorded at 65% (Yassin 2017) . Thus in analyzing against extant literature with relevance to possession of websites by developing countries it identifies that in general listed companies in Sri Lanka maintain websites to a considerably significant level.



The findings of descriptive statistics suggest that, although majority of listed companies in Sri Lanka maintain websites the level of IFR disclosure presented is relatively low which depicts that in average among the comprehensive TIFRI only 30% of index items are disclosed by the companies in average which is relatively a significantly low disclosure level in comparison to literature reviewed in terms of other countries. This could be mainly due to the lack of appreciation by the management of companies and regulatory authorities on the benefits of adopting of IFR practice.

Furthermore, the findings suggest that among the two dimensions of content and presentation majority of IFR practice is recorded by the presentation dimensions. It highlights that, majority of the Sri Lanka corporates that practice IFR deviate the attention towards the appearance and format of the website where less attention is placed on the content of information disclosed in website. This created unfavorable impacts of the level of disclosure transparency expected through IFR practice as lesser proportion of useful information are disclosed through corporate website thus not in line with the purpose of IFR practices which involves use of internet as medium of information dissemination. This finding was further confirmed by the one sample t test performed on all indices of IFR that, among all indices only the index of TPI did not record a significant deviation from the hypothesized mean value considered while rest of the indices indicated considerable variations.

With regards to the nature and types of information disclosed under the sub categories of content dimension, the findings highlights that companies majorly disclose the item of “Names of members of BOD of the company “ and the next highest recorded item is the “Current and past year annual reports” while the least disclosure are recorded from the sub dimension of “Financial and Investor related information” where 14% of the sample do not disclose any financial and investor related information in their websites while the average of disclosures accounts to 2 out of the 14 items in the index In overall the results highlights that considerable level of disclosures are made in corporate websites in relevance to general company information and corporate social responsibility while less information are recorded in relevance to financial and corporate governance disclosures. On those grounds it implies that Sri Lankan companies do not engage in IFR practices with the exclusive purpose of information disclosure to investors and other interested parties, thus agency problem is not entertained well due to non-curtailment of information gap.

The extensive literature analysis performed indicate in terms of developed countries that adoption of IFR practices by NYSE is 55% of IFR index (Kelton & Yang 2008) , in terms of listed companies in New Zealand IFR adoption is recorded at 85% ( Oyelere et al. 2003 ) while in Egypt is identified that 56 % of its sample adopt IFR practices. ( Hussainey et al. 2009 ) and in relevance to listed companies of developing countries IFR is recorded on average above 50% of IFR index (Yassin 2017 ; Dolinsek et al.2014 ).Accordingly the literature also suggest that IFR is not a primary motive for the establishment and utilization of corporate websites in Sri Lanka for information dissemination as much consideration related to IFR is put forwarded in respect of the outlook the website as a means of attracting website users while no required steps are put forwarded in improving the disclosure levels displayed.

Furthermore, the wide analysis performed on the sector wise adoption of IFR practice depicts a strong affiliation among the nature of the sector and level of IFR adoption. In accordance the results depicts majorly the sector of Diversified holdings, Manufacturing and Beverage, Food & Tobacco are more likely to take benefit e of the Internet for the purpose of voluntary dissemination of financial information and related information to the investor and other interested parties companies in other sector under consideration.

Thus, with regards to the objective 1 of the study findings identifies that, currently Sri Lankan corporates do not make the full benefit of adoption of internet as a medium of information dissemination to interested parties despite the fact that majority maintains corporate websites. Among the sample that maintains websites a percentage less than 20% is identified to practice at least a moderate level of web disclosure of useful information. This generalize that corporates does not perceive the benefits of adopting IFR practices in the context of globalization and investment market inter linkages that are in practice. However, the level of technological knowledge and infrastructure available in corporates with in Sri Lanka is far sufficient to practices reasonable level of IFR which suggests that in future to come with more precise regulation and effective monitoring mechanisms, Sri Lankan companies will witness an enhancement in the level of IFR adoption.

### **5.2.2 Examine the Impact of Corporate Governance on IFR Practices**

The second objective of the study is to identify the impact of corporate governance on IFR practices adopted by listed companies in Sri Lanka. The dependent variable of IFR would be measured with the use of comprehensive IFR index developed while the independent variable of the study was measured using two approaches where in the first approach, corporate governance index was developed by the researcher and the second approach was using proxies to measure individual corporate governance characteristics in accordance with past studies reviewed.

The objective was tested using nine hypotheses developed in relation to empirically identified association between corporate governance and IFR and the developed hypotheses were tested against the results of correlation analysis and multi variant regression analysis.

The correlation analysis highlighted that in considering corporate governance practices as a whole it is positively interrelated to IFR practices thus supporting the hypothesis that corporate governance of a firm is positively associated with IFR practices. However, the weak coefficient posit that the level of impact placed by corporate governance on IFR practices is relatively low thus corporate governance practices in Sri Lanka is less effective in encouraging the level of information dissemination adopted by corporate through their websites.

In regards to the correlation among individual variables of corporate governance and IFR it identifies that in except for the variables of BSZIE none of the other variables of corporate governance are recorded to be statistically significantly associated with the adoption of IFR practices further confirming on the weak relationship recorded among CG Index and IFR Index thus the hypothesis are rejected.

The strong significant association recorded among IFR practices and Board Size indicates that among the corporate governance variables under consideration in the research study only BSIZE is effective in ensuring a higher adoption of IFR practices encouraged through existence of a larger board size (Yassin 2017 ; Abessi et al. 2011 ). This further reveals valuable discussion in relevance to IFR practices adopted in Sri Lanka that, although above average number of listed companies in Sri Lanka are family owned companies, it's a

surprisingly noticed factor that apart from concentrating ownership only on family membership, the board of management possess outside directors which ensures higher board size in listed companies of Sri Lanka. Accordingly the results reveal that higher degree of board size stimulates higher level of voluntary IFR adoption through their website as higher level of IFR disclosure is commending a positive relationship on the board of directors as it is a decision implemented by them.

However, the results of regression analysis did not support of any the hypotheses developed , indicating that neither corporate governance as a whole or individual corporate governance variables are significantly associated with the extent of IFR practices adopted by listed companies in Sri Lanka , thus it rejects the hypothesis developed indicating that corporate governance regulations in Sri Lanka are not effective is encouraging effective adoption of IFR practices among the corporates to accommodate for information transparency.

The extensive literature identifies significant association between corporate governance and IFR practices indicating that corporate governance regulations in the countries are effective in encouraging adoption of IFR practices a medium of information dissemination (Kelton & Yang 2008, Ariff 2016 : Abeesi et al.2011 ; Al Matrooshi 2016).

Accordingly, findings related to correlation analysis and multi variant regression analysis depict that in general although a significant correlation is recorded when solely considering the two variables of IFR practice and corporate governance, in the practical context with the influence of other determinants that control the practice of IFR , no significant relationship is identified corporate governance and IFR implying to the policy makers and regulators to ensure that an effective framework is developed that would encourage practice of IFR among listed companies in Sri Lanka.

### **5.3 Limitations**

There are some limitations in the study that have possibly made an impact on the validity of the research study thus the users should be aware of when interpreting the results of the study.

The main limitation of this study is the sample based limitation where the sample is only limited 95 listed companies in Colombo Stock Exchange (CSE). Although as at 31<sup>st</sup> of

August 294 companies are listed in CSE population excludes companies in the sectors Bank, Insurance and Finance, Investment trusts and mutual funds and companies that are placed in boards other than Main and Diri Savi board. The study is mainly concerned on IFR practices and that requires a criteria to consider companies that possess active websites hence sample was only limited to 95 companies. Hence findings cannot be generalized as this is a non-random based sampling which has caused the sample to be biased.

Secondly a variable based limitation is identified in the study as the independent variable of IFR practices is evaluated based on an Index developed in line with the literature, however in terms of literature to the best knowledge of researcher no study has been conducted with an index based evaluation on IFR hence it was challenging due to less availability of local literature in developing the index. Further in relevance to the independent variable of the study, in line with the extant literature only eight variables are identified as influential on IFR while in relevance to control variables also only five variables considered. However there could be other determinants that may cause an impact on IFR that are not evaluated in studies such could impact on the fullness of the study conducted.

IFR practices are highly associated with the technological improvements such that IFR practices observed are subjected to changes in technology. Sri Lanka being a developing country the level of technological penetration is relatively less in comparison to developed countries. As depicted in extant literature the technology adoption of developed countries is relatively more comprehensive such that attributes considered in developing an IFR index is vast in a developed country specially in terms of the presentation content of the IFR practices, thus this research do not meet the requirements of a reader in view point of a developed country.

#### **5.4 Implications of the Study**

The research study possess following implications in terms of both theoretical and practical aspects.

The theoretical contribution of this study is that it contributes to the extant literature on the extent of IFR adoption in listed companies of Sri Lanka and the association among corporate governance and IFR practices. The study documents findings on the degree of IFR

penetration in Sri Lanka which includes a comprehensive sector wise analysis and also it presents the insignificant association between the corporate governance and IFR.

The findings of the descriptive statistics indicate higher compliance to corporate governance regulations however an insignificant association is identified among the corporate governance and IFR. This depicts that although companies comply with regulations, the monitoring mechanisms are not effective in encouraging IFR practices. This provide empirical support to regulators as it stresses the necessity to conduct constant monitoring and effective regulation that will strengthen the adoption of IFR practices in Sri Lanka.

Furthermore the study identified through extant literature that IFR practice is not regulated hence voluntary in nature. However in regards to financial and related information disclosed through websites no regulations are in practices to determine the integrity and completeness of the information through websites, thus this draws implications specifically to auditors to undertake approach to ensure the reliability of the financial statements disclosed we are corporate websites

### **5.5 Future Research Directions**

The results and findings of the research study could enable various avenues for future research efforts. The following provides directions on the areas that could prompt future research endeavors.

The study is mainly conducted with an objective of identifying the impact of corporate governance on IFR; however a significant association is not recorded among the two variables .This is mainly due to relying on a small sample constrained under different criteria. Future research studies should conduct a study on a wide researchers should perform a comprehensive research with a more precise and wide population and sample which would enable a more thorough discussion that would increase the generalizability of findings.

In reviewing the results of the study it was identified that large variations are identified among the companies listed in CSE however the identified independent variables in the study depicted a less explanatory power in predicting the association with IFR Thus this creates an avenue for future research to identify the what factors apart from factors discussed in the

research study are more influential towards the adoption of IFR practices in the context of Sri Lanka.

Further this research study is cross sectional study since cannot establish causal relationships but only unearth correlations and also timely evolvement of IFR practices is not witnessed here in the study. Future research studies could conduct a longitudinal approach which can shed some prospects on the evolving process of IFR practices in listed companies in Sri Lanka.

## REFERNCES

- Agboola, AA & Salawu, MK 2012, 'The determinants of internet financial reporting: empirical evidence from Nigeria', *Research Journal of Finance and Accounting*, vol. 3, no. 11)
- Al Maskati, MM& Hamdan, AMM 2017, 'Corporate governance and voluntary disclosures: evidence from Bahrain', *International Journal of Accounting and Economics*, vol. 8, no. 1, pp. 1-28.
- Al-Htaybat, K & Alberti-Alhtaybat, L & Hutaibat, K 2011, 'Users' perceptions on internet financial reporting practices in emerging markets: evidence from Jordan', *International Journal of Business and Management*, vol. 6, no. 9, pp. 170–182.
- Al-Htyabat, K 2011, 'Corporate online reporting 2010: a case study in Jordan', *Journal of Financial Reporting and Accounting*, vol 9, no. 1, pp. 5-26,
- Al-Malkawi, HA & Mahdy, EA Momany, 2014, 'Internet financial reporting in an emerging economy: evidence from Jordan', *Journal of accounting in emerging economies*, vol. 2, no. 4, pp. 158-174.
- Almilia, L 2015, 'Comparing internet financial reporting practices: Indonesia, Malaysia, Singapore, Japan and Australia', *International Journal of Business Information Systems*, vol. 20, no. 4, pp. 477–495.
- Almsafir, M & Palaniappan, R & Alhazaimah, Amer 2014, 'The impact of corporate governance and ownership structure on voluntary disclosure in annual reports among listed Jordanian companies', *Procedia - Social and Behavioral Sciences*, vol. 129, pp. 341-348.
- Aqel, S 2014, 'The determinants of financial reporting on the internet: the case of companies listed in the Istanbul stock exchange', *Research Journal of Finance and Accounting*, vol. 5, no. 8.



Ariff , HBGM 2016 , ‘The effect of board of directors and audit committee effectiveness on internet financial reporting Evidence from gulf co-operation council countries’ ,*Journal of Accounting in Emerging Economies*, vol. 6 , no. 4 pp. 429 – 448.

Baxter, P & Cotter, J 2009, ‘Audit committee and earnings quality’, *Accounting and Finance*, vol .49, pp. 267-290.

Bonson, E & Escobar, T 2006, ‘Digital reporting in eastern European: an empirical study’, *International Journal of Accounting Information System*, vol. 7, pp. 299-318.

Bozcuk, AE 2012, ‘Internet financial reporting: Turkish companies adapt to change’, *Managerial Finance*, vol. 38, no. 8, pp.786-800.

Bushman, RM & Piotroski, JD Smith , AJ 2004 , ‘What determines corporate transparency’, *Journal of Accounting Research* ,vol.42,no.2,pp.207-252.

Chatterjee, B & Hawkes, L 2008, ‘Does internet reporting improve the accessibility of financial information in a global world? A comparative study of New Zealand and Indian companies’, *Australasian Accounting, Business and Finance Journal*, vol. 2 no.4.

Cheung, YL & Jiang, P & Tan, W 2010, ‘A transparency disclosure index measuring disclosures: Chinese listed companies’, *Journal of Accounting and Public Policy*, vol.29, no.3, pp.259-280.

Damaso, G & Lourenco, I 2011, ‘Internet financial reporting: environmental impact companies and other determinants’, *8th International Conference on Enterprise Systems, Accounting and Logistics*, Greece.

Debreceeny, R. & Gray, GL & Rahman, A 2002, ‘The determinants of Internet financial reporting’, *Journal of Accounting and Public Policy*, vol.21, pp. 371–394.

Dolinšek, T & Polona, T & Andreja, LS 2014, ‘The determinants of internet financial reporting in Slovenia’, *Online Information Review*, vol. 38, no. 7, pp.842-860.

Dutta, P & Bose, S 2014, 'Corporate social and environmental reporting on corporate websites: a study on listed companies of Bangladesh', *The Cost and Management*, vol 35, no.4, pp.31-49.

Encarna Guillamón-Saorín, EG & Lopez, FJM 2013 'Corporate financial communication and the internet manipulating investor audiences? , *Online Information Review*, vol. 37 , no. 4, pp.518-537.

Elmans, SC 2012, viewed 2<sup>nd</sup> August 2017, 'Ownership structure and voluntary disclosures in Europe', Erasmus school of economics, Erasmus university Rotterdam.

Eng, LL & Mak, YT 2003, 'Corporate governance and voluntary disclosure', *Journal of Accounting and Public Policy*, vol.22, no.4, pp.325-343.

Ettredge, M & Richardson, VJ & Scholz, S 2002 , 'Dissemination of information for investors at corporate Websites' , *Journal of Accounting and Public Policy*, vol. 21, pp. 357–369.

Fan, JPH & Wong, TJ 2002, 'Corporate ownership structure and informativeness of accounting earnings in East Asia', *Journal Of Accounting And Economics* , vol.33 ,no.3 ,pp.401-425.

FASB (2000) *Business Reporting Research Project: Electronic Distribution of Business Information*, Steering Committee Report Series.

Firth, M 1979 , 'The relationship between stock market returns and rates of inflation', *The Journal of Finance*, vol.34,no.3, pp.743-749

Gandia, JL 2008 , 'Determinants of internet based corporate disclosure by Spanish listed companies' , *Online Information Review*, vol. 32, no.6, pp.791-817.

Ganescu, MC & Gangone, AD 2012, 'A methodology for measuring responsible corporate governance in countries of emerging Europe', *The USV Annals of Economics and Public Administration* , vol.12,no.2.

Haniffa , R & Hudaib , M 2005 , ‘ Corporate governance structure and performance of Malaysian listed companies’ , *Journal of Business Finance and Accounting* ,vol.33,no.7-8,pp.1034-1062.

Ho, SSS & Wong, KS 2001, ‘A study of the relationship between corporate governance structures and the extent of voluntary disclosure’, *Journal of International Accounting, Auditing and Taxation*, vol.10, pp. 139–156.

Hossain , M & Momin , MA& Leo , S 2012 , ‘ Internet financial reporting and disclosures by listed companies : further evidence from an emerging country’ , *Corporate Ownership and Control* ,vol.9 , no.4, pp. 350-366 .

Hussainey, K & Simon, J & Aly, D 2010, ‘Determinants of corporate internet reporting: evidence from Egypt’, *Managerial Auditing Journal*, vol. 25, no. 2, pp. 182-202.

Izan ,H & Hancock , Phil & Barako , DG 2006 , ‘Factors influencing voluntary corporate disclosures by Kenyan companies’ , *Corporate Governance : An International Review* , vol 14, no.2 , pp.107-125 .

Jenses, M & Meckling, W 1976, ‘Theory of the firm: managerial behavior, agency costs and ownership structure’, *Journal of Financial Economics*, vol. 3, No. 4, pp.305–360.

Juhmani, O 2013, ‘Ownership Structure and Corporate Voluntary Disclosure: Evidence from Bahrain’, *Internation Journal of Accounting and Financial Reporting*, vol.3, no.2.

Kelton, A & Yang, Y 2008, ‘The impact of corporate governance on internet financial reporting’, *Journal of Accounting and Public Policy*, vol. 27, no. 1, pp.62–87.

Khan, M & Ismail, N 2013, ‘An empirical investigation of selected aspects on internet financial reporting in Malaysia’, *Journal Teknologi*, vol. 64, No. 3, pp.39–47.

Krafft , J & Quatraro , F & Ravizx , JL 2013 , ‘ Corporate governance ,value and performance of firms : new empirical results on convergence from a large international database’ , *Industrial and Corporate Change* ,pp.1-37.

Kuruppu , N & Oyelere , P & Al Jabri , H 2015 , ‘ Internet financial reporting and disclosure practices of publicly traded corporation :evidencne form sri lanka’ , *Accounting and Taxation* , Vol 7 , no.1 , pp. 75-91.

Laswad, F& Fisher, R & Oyelere, P 2003 ‘Determinants of voluntary internet financial reporting by local authorities’, *Journal of Accounting and Public Policy*, vol. 24, no. 2, pp.101–121.

Lev, B & Thiagarajan, SR 1993, ‘Fundamental Information Analysis’,*Journal of Accounting Research*, vol.31,no.1,pp.190-215.

Lymer, A & Debreceeny, R & Gray, G & Rahman, A 1999, viewed 30<sup>th</sup> July 2017, ‘Business reporting on the internet’, <http://www.iasc.org.uk>

Manawaduge, ASPG 2012, viewed 30<sup>th</sup> July 2017, ‘Corporate governance practices and their impact on corporate performances in an emerging market: case of Sri Lanka’, School of Accounting and Finance, University of Wollong, <http://ro.uow.edu.au/theses/3676>

Mapitiya, GS & Ajward , AR & Seneratne, S 2015 , ‘Ownership concentration and degree of compliance with corporate governance best practices of public listed companies in Sri lanka , *NSBM Journal of Management* ,vol 1 , pp. 103-118.

Marston C 2003, ‘Financial reporting on the Internet by leading Japanese companies’, *Corporate Communications: An International Journal*, vol. 8, no. 1, and pp.23-34.

Marston, C & Polei, A 2004), ‘Corporate reporting on the Internet by German companies’, *International Journal of Accounting Information Systems*, vol. 2, pp.285-311.

Oba ,VC & Ayuba , B 2016, ‘Firm traits and web disclosures in top Nigerian firms’, *Acta Universitatis Danubius Economica* , vol.12 ,no.1,

Ojah, K & Mokoteli , TM 2012 , ‘Internet financial reporting, infrastructures and corporate governance: An international analysis’, *Review of Development Finance* , vol 2 , pp. 69-83.

Oyelere, P & Kuruppu , N 2012 , ‘Voluntary internet financial reporting practices of listed companies in the United Arab Emirates’, *Journal of applied accounting research* ,vol.13, no. 3 , pp.298-315.

Oyelere, P& Laswad, F& Fisher, R. 2003, ‘ Determinants of Internet financial reporting by New Zealand companies’, *Journal of International Financial Management and Accounting* , vol 14 ,no.1, pp. 26–63.

Pateli, L & Prencipe , A 2007 , ‘The relationship between voluntary disclosures and independent directors in the presence of a dominant shareholder’, *European Accounting Review* , vol.16,no.1, pp.5-23.

Pillai, R & Mommany , TM 2013 , ‘Internet Financial Reporting in UAE- Analysis and Implications’ , *Global Review of Accounting and Finance* ,vol 4 , pp. 142 – 160.

Pinto, I & Picoto, WN 2016, ‘Configurational Analysis of firms‘Performance: Understanding the role of Internet Financial Reporting’, *Journal of Business Research*, vol 69 , pp. 5360-5365.

Puspitaningrum, D & Atmini, S 2012, ‘Corporate governance mechanism and level of internet financial reporting: Evidence from Indonesian companies’, *Procedia Economics And Finance* , vol 2 , pp. 157-166

Samarakoon, LP 1999, 'The capital structure of Sri Lankan companies', *Sri Lanka Journal of Management*, vol. 4, no. 1 & 2, pp. 18–30.

Sanad,Z & Al- Sarwati , AlMatrooshi SAS 2016 , ‘Investigating the relationship between corporate governance and internet financial reporting : evidence from Bahrain course’ , *Jordan Journal of Business Administration* ,vol 12 , no. 1 , pp. 239-269.

Sengupta, P & Bohraj, S & Ajinkya, B 2005 , ‘The Association between Outside Directors, Institutional Investors and the Properties of Management Earnings Forecasts’, *Journal of Accounting Research*, vol 3.

Sheham, AM 2016, ‘A survey of internet financial reporting in Sri Lanka’, *EPRA International Journal of Economic and Business Review*, vol.4, no.2.

Shihombing, J& Pangaribuan , H 2017 , ‘ A study on corporate governance structure , disclosure and information asymmetry in Indonesia banking industry’ , *Jurnal Akuntansi*, vol.21, no.2 ,pp.156-169.

Solonandrasana, LBSBAMB 2014, ‘Corporate governance efficiency and internet financial reporting quality’, *Review of Accounting and Finance*, vol. 13, no. 1, pp. 43 – 64.

Spanos, L 2014, ‘Corporate reporting on the internet in a European emerging capital market : The Greek case’ , *European Journal Of Economics, Finance And Administrative Sciences*, vol 7.

Spiro, LN Baig, EC 1999, ‘Who needs a broker?’, *Business Week*, pp. 112-117.

Velnampy, T & 2013, ‘Corporate Governance and Firm Performance: A study of Sri Lankan manufacturing companies’, *Journal of Economics And Sustainable Development* . vol.4, no.3.

Xiao, Z & He, Y & Chow, C 2004 ‘The determinants and characteristics of voluntary Internet-based disclosures by listed Chinese companies’, *Journal of Accounting and Public Policy*, vol. 23, no. 3, pp.191–225.

Yap, K & Saleh, Z & Abessi, M 2011 ‘Internet financial reporting and corporate governance in Malaysia’, *Australian Journal of Basic and Applied Sciences*, vol. 5, no. 10, pp.1273–1289.

Yassin, MM 2017, ‘The determinants of internet financial reporting in Jordan: financial versus corporate governance’, *International Journal of Business Information Systems*.

Yeen n.d, Do corporate governance practice differ among countries? viewed 27 July 2017,[http://www.academia.edu/4424998/Do\\_Corporate\\_Governance\\_Practises\\_Differ\\_Among\\_Countries\\_Please\\_read\\_below\\_for\\_clarifications\\_on\\_authorship\\_](http://www.academia.edu/4424998/Do_Corporate_Governance_Practises_Differ_Among_Countries_Please_read_below_for_clarifications_on_authorship_).

## APPENDICES

### Appendix 1: Sector wise Descriptive Statistics on IFR Practices (N=95)

#### Variable - TIFRI

Sector	1	2	3	4	5	6	7	9	10	11	12	13	14	16	17
Mean	7.56	6.50	11.33	8.71	9.50	4.50	3.33	4.71	5.06	9.60	5.75	9.40	2.75	16.00	4.83
Minimum	3	0	9	1	6	2	0	1	0	7	4	7	1	15	1
Maximum	12	14	15	18	13	7	8	12	14	18	10	12	5	17	11
Std.deviation	3.046	6.608	3.215	4.845	4.950	2.380	4.163	3.729	3.918	4.722	2.872	2.510	2.062	1.414	4.665
Skewness	-.070	.229	1.545	.488		0.000	1.293	1.394	.996	2.174	1.846	.196	.200		.601
Kurtosis	-1.018	-3.869		-.674		-4.339		2.046	.079	4.777	3.412	-3.031	-4.858		-2.104

\*In deriving statistics, Sector 8 and 15 were omitted due to a constant TIFRI is recorded

#### Variable - TCI

Sector	1	2	3	4	5	6	7	9	10	11	12	13	14	16	17
Mean	12.44	11.00	17.67	13.71	14.50	9.50	7.67	8.86	9.67	15.20	9.50	13.60	5.75	22.50	8.50
Minimum	6	3	14	4	10	5	3	2	3	11	7	11	1	22	2
Maximum	21	20	23	25	19	14	14	17	22	27	15	16	10	23	16
Std.deviation	4.419	8.287	4.726	6.826	6.364	3.873	5.686	5.113	5.202	6.686	3.697	2.510	4.031	.707	6.253
Skewness	.601	.148	1.390	.313		0.000	1.206	.398	.851	2.094	1.900	-.196	-.248		.475
Kurtosis	.721	-4.608		-1.233		-1.200		-.505	.218	4.456	3.709	-3.031	-2.514		-2.160

\* In deriving statistics, Sector 8 and 15 were omitted due to a constant TCI is recorded

#### Variable - TPI

Sector	1	2	3	4	5	6	7	9	10	11	12	13	14	16	17
Mean	4.89	4.50	6.33	5.00	5.00	5.00	4.33	4.14	4.61	5.60	3.75	4.20	3.00	6.50	3.67
Minimum	3	3	5	2	4	3	3	1	2	4	3	4	0	6	1
Maximum	9	6	8	10	6	7	6	7	8	9	5	5	5	7	6
Std.deviation	1.764	1.732	1.528	2.449	1.414	1.633	1.528	1.864	1.852	2.074	.957	.447	2.160	.707	1.751
Skewness	1.620	0.000	.935	.289		0.000	.935	-.287	.647	1.447	.855	2.236	-1.190		-.248
Kurtosis	4.056	-6.000		-.804		1.500		1.049	-.644	1.931	-1.289	5.000	1.500		-.014

\* In deriving statistics, Sector 8 and 15 were omitted due to a constant TPI is recorded

### Variable - CCI

Sector	1	2	3	4	6	7	9	10	11	12	13	14	17
Mean	1.89	2.50	3.00	2.00	1.50	1.33	1.00	1.67	2.00	1.25	1.60	.50	1.33
Minimum	1	0	2	0	0	0	0	0	1	1	0	0	0
Maximum	4	4	4	4	2	3	3	5	3	2	3	1	3
Std.deviation	1.054	1.915	1.000	1.323	1.000	1.528	1.155	1.328	.707	.500	1.140	.577	1.033
Skewness	1.094	-.855	0.000	.184	-2.000	.935	.909	.696	0.000	2.000	-.405	0.000	.666
Kurtosis	.611	-1.289		-1.040	4.000		-.150	.820	2.000	4.000	-.178	-6.000	.586

\* In deriving statistics, Sector 8 and 15 were omitted due to a constant CCI is recorded

### Variable - FINVI

Sector	1	2	3	4	5	6	7	9	10	11	12	13	14	17
Mean	2.56	2.50	4.00	3.94	3.50	1.50	1.33	2.00	2.17	4.00	2.50	4.40	1.25	1.83
Minimum	1	0	3	0	1	1	0	0	0	2	1	2	0	0
Maximum	6	7	6	8	6	2	3	6	6	9	5	8	2	5
Std.deviation	1.667	3.317	1.732	2.277	3.536	.577	1.528	2.000	2.007	2.915	1.732	2.302	.957	1.941
Skewness	1.125	1.096	1.732	.190		0.000	.935	1.575	.333	1.816	1.540	1.033	-.855	.839
Kurtosis	1.085	-.050		-.794		-6.000		2.650	-1.225	3.384	2.889	1.129	-1.289	-.059

\* In deriving statistics, Sector 7,8 ,14,15,16 were omitted due to a constant FINVI is recorded

### Variable - CGDI

Sector	1	2	3	4	6	7	9	10	11	12	13	14	16	17
Mean	1.33	1.00	2.67	2.18	1.00	.67	1.43	.78	2.40	.50	1.80	1.00	3.00	1.33
Minimum	0	0	2	0	0	0	0	0	1	0	0	0	2	0
Maximum	2	3	4	4	2	2	2	4	4	2	3	2	4	4
Std.deviation	1.000	1.414	1.155	1.237	1.155	1.155	.787	1.166	1.140	1.000	1.304	1.155	1.414	1.633
Skewness	-.857	1.414	1.732	-.152	0.000	1.732	-1.115	1.737	.405	2.000	-.541	0.000		.857
Kurtosis	-1.714	1.500		-.415	-6.000		.273	2.651	-.178	4.000	-1.488	-6.000		-.300

\* In deriving statistics, Sector 5 was omitted due to a constant CGDI is recorded



### Variable – SRI

Sector	1	2	3	4	5	6	9	10	11	12	13	17
Mean	1.78	.50	1.67	.59	1.00	.50	.29	.44	1.20	1.50	1.60	.33
Minimum	0	0	1	0	0	0	0	0	0	1	0	0
Maximum	2	2	2	2	2	1	1	2	2	2	2	1
Std.deviation	.667	1.000	.577	.939	1.414	.577	.488	.784	1.095	.577	.894	.516
Skewness	-3.000	2.000	-1.732	.994		0.000	1.230	1.442	-.609	0.000	-2.236	.968
Kurtosis	9.000	4.000		-1.166		-6.000	-.840	.443	-3.333	-6.000	5.000	-1.875

\*In deriving statistics, Sector 7,8 ,14,15,16 were omitted due to a constant SRI is recorded.

## Appendix 2 : Sector wise Descriptive Statistics on Corporate Governance Variables

### Variable: INDIRECTD

Sector		1	2	3	4	5	6	7	9	10	11	12	13	14	16	17
N	Valid	9	4	3	17	2	4	3	7	18	5	4	5	4	2	6
	Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean		0.38	0.49	0.36	0.41	0.63	0.57	0.58	0.45	0.37	0.36	0.32	0.36	0.33	0.61	0.35
Minimum		0.25	0.25	0.22	0.25	0.60	0.45	0.40	0.33	0.22	0.20	0.25	0.29	0.27	0.44	0.22
Maximum		0.57	0.75	0.57	0.60	0.67	0.82	0.90	0.67	0.60	0.56	0.38	0.50	0.40	0.78	0.50
St. Deviation		0.09	0.21	0.18	0.10	0.05	0.17	0.27	0.12	0.10	0.15	0.06	0.08	0.06	0.24	0.09
Skewness		1.22	0.33	1.39	0.42		1.90	1.66	1.09	0.67	0.35	-0.27	1.58	0.10		0.56
Kurtosis		2.84	1.32		-0.06		3.71		0.00	0.10	-1.23	-4.48	3.04	-5.05		2.12

\* In deriving statistics, Sector 8 and 15 were omitted due to a constant INDIRECTD is recorded.

### Variable: BSIZE

Sector		1	2	3	4	5	6	7	9	10	11	12	13	14	16
N	Valid	9	4	3	17	2	4	3	7	18	5	4	5	4	6
	Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean		7.11	8.25	8.67	9.00	5.50	9.50	8.67	7.29	7.94	9.20	7.75	7.80	9.00	7.00
Minimum		5.00	4.00	7.00	5.00	5.00	8.00	5.00	3.00	6.00	7.00	7.00	6.00	7.00	4.00
Maximum		11.00	12.00	10.00	12.00	6.00	11.00	11.00	11.00	10.00	11.00	8.00	11.00	11.00	9.00
St. Deviation		1.76	3.86	1.53	2.00	0.71	1.73	3.21	2.63	1.35	1.48	0.50	2.17	1.83	2.00
Skewness		1.37	-0.17	-0.94	-0.21		0.00	-1.55	-0.43	-0.21	-0.55	-2.00	0.91	0.00	-0.45
Kurtosis		2.47	-4.41		-0.42		-6.00		0.12	-1.07	0.87	4.00	-0.74	-3.30	-1.18

\*In deriving statistics, Sector 8, 15 and 17were omitted due to a constant BSIZE is recorded.

### Variable: DUALITY

Sector		1	2	4	5	6	7	10	13	14	17
N	Valid	9	4	17	2	4	3	18	5	4	6
	Missing	0	0	0	0	0	0	0	0	0	0
Mean		0.78	0.75	0.76	0.50	0.50	0.67	0.94	0.80	0.75	0.83
Minimum		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
St. Deviation		0.44	0.50	0.44	0.71	0.58	0.58	0.24	0.45	0.50	0.41
Skewness		-1.62	-2.00	-1.37		0.00	-1.73	-4.24	-2.24	-2.00	-2.45
Kurtosis		0.73	4.00	-0.15		-6.00		18.00	5.00	4.00	6.00

\*In deriving statistics, Sector 3,8,9,11,12, 15 and 16were omitted due to a constant DUALITY is recorded.

### Variable: ACIND

Sector		1	2	3	4	5	7	9	10	11	12	13	14	16	17
N	Valid	8	4	3	15	2	1	5	15	5	3	4	4	2	5
	Missing	1	0	0	2	0	2	2	3	0	1	1	0	0	1
Mean		0.93	0.94	0.72	0.80	0.83	0.89	0.85	0.86	0.80	0.78	0.75	0.79	0.63	0.90
Minimum		0.67	0.75	0.67	0.02	0.67	0.67	0.50	0.50	0.60	0.67	0.67	0.67	0.60	0.67
Maximum		1.00	1.00	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	1.00
St. Deviation		0.15	0.13	0.05	0.28	0.24	0.19	0.20	0.17	0.19	0.19	0.14	0.14	0.05	0.15
Skewness		-1.62	-2.00	-1.73	-1.63		-1.73	-1.04	-0.59	0.26	1.73	1.92	1.54		-1.10
Kurtosis		0.73	4.00		2.65			-0.37	-1.20	-2.85		2.00	2.62		1.74

\*In deriving statistics, Sector 8 and 15 were omitted due to a constant ACIND is recorded.

### Variable: ACMEET

Sector		1	2	4	6	7	9	10	11	12	13	14	16	17
N	Valid	8	4	15	4	1	5	15	5	3	4	4	2	5
	Missing	1	0	2	0	2	2	3	0	1	1	0	0	1
Mean		3.63	4.00	5.47	4.50	4.00	4.25	4.94	5.80	2.75	3.80	4.50	6.50	4.00
Minimum		1.00	3.00	1.00	4.00	3.00	4.00	2.00	4.00	0.00	3.00	3.00	5.00	2.00
Maximum		5.00	5.00	15.00	5.00	5.00	5.00	11.00	10.00	5.00	4.00	6.00	8.00	6.00
St. Deviation		1.41	0.82	3.96	0.58	1.41	0.50	2.10	2.68	2.22	0.45	1.29	2.12	1.26
Skewness		-1.16	0.00	1.75	0.00		2.00	1.84	1.26	-0.48	-2.24	0.00		0.00
Kurtosis		0.48	1.50	2.57	-6.00		4.00	3.73	0.31	-1.70	5.00	-1.20		2.50

\*In deriving statistics, Sector 8 and 15 were omitted due to a constant ACMEET is recorded.

### Variable : ACFINEX

Sector		1	2	3	4	6	9	10	11	12	13	14	16	17
N	Valid	8	4	3	15	4	5	15	5	3	4	4	2	5
	Missing	1	0	0	2	0	2	3	0	1	1	0	0	1
Mean		0.54	0.56	0.53	0.48	0.56	0.47	0.59	0.53	0.35	0.63	0.60	0.53	0.54
Minimum		0.33	0.33	0.33	0.25	0.33	0.00	0.25	0.33	0.25	0.33	0.25	0.40	0.25
Maximum		0.67	0.75	0.75	1.00	0.75	0.67	1.00	0.67	0.50	1.00	1.00	0.67	1.00
St. Deviation		0.11	0.18	0.21	0.24	0.18	0.24	0.29	0.14	0.10	0.28	0.31	0.19	0.27
Skewness		-0.25	-0.48	0.59	1.30	-0.48	-1.50	0.45	-0.51	1.13	0.75	0.36		1.01
Kurtosis		-0.04	-1.70		0.50	-1.70	2.23	-1.35	-0.61	2.23	0.34	0.26		1.07

\*In deriving statistics, Sector 5,8 and 15 were omitted due to a constant ACMEET is recorded.

**Variable: MGMT**

Sector		1	2	3	4	6	7	9	10	11	12	13	14	16	17
N	Valid	8	4	3	15	4	1	5	15	5	3	4	4	2	5
	Missing	1	0	0	2	0	2	2	3	0	1	1	0	0	1
Mean		0.11	0.30	0.18	0.19	0.09	0.10	0.08	0.13	0.22	0.00	0.26	0.04	0.08	0.21
Minimum		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Maximum		0.76	0.67	0.53	0.66	0.34	0.31	0.31	0.82	0.67	0.00	0.75	0.08	0.17	0.67
St. Deviation		0.25	0.35	0.30	0.26	0.17	0.18	0.12	0.25	0.30	0.00	0.31	0.03	0.12	0.31
Skewness		2.69	0.13	1.73	1.05	2.00	1.73	1.40	2.09	1.03	0.20	1.19	0.46		1.04
Kurtosis		7.45	-5.28		-0.83	4.00		0.47	3.42	-0.92	-4.88	1.02	-2.91		-1.45

\*In deriving statistics, Sector 5,8 and 15 were omitted due to a constant MGMT is recorded.

**Variable: BLOCK**

Sector		1	2	3	4	5	6	7	9	10	11	12	13	14	16	17
N	Valid	8.00	4.00	3.00	15.00	2.00	4.00	1.00	5.00	15.00	5.00	3.00	4.00	4.00	2.00	5.00
	Missing	1.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00	3.00	0.00	1.00	1.00	0.00	0.00	1.00
Mean		0.72	0.42	0.54	0.54	0.97	0.71	0.60	0.73	0.55	0.61	0.71	0.53	0.68	0.88	0.44
Minimum		0.00	0.07	0.00	0.11	0.96	0.58	0.32	0.63	0.00	0.17	0.67	0.00	0.38	0.82	0.11
Maximum		0.95	0.76	0.91	0.97	0.98	0.93	0.88	0.86	0.90	0.97	0.83	0.91	0.95	0.94	0.80
St. Deviation		0.29	0.32	0.48	0.28	0.01	0.15	0.40	0.10	0.29	0.41	0.08	0.34	0.25	0.09	0.24
Skewness		-2.19	-0.13	-1.45	-0.37		1.54		0.34	-0.91	-0.48	2.00	-0.92	-0.23		0.12
Kurtosis		5.30	-3.44		-1.42		2.88		-2.18	-0.28	-3.19	3.99	1.04	-2.23		-0.28

\*In deriving statistics, Sector 8 and 15 were omitted due to a constant BLOCK is recorded.

### Appendix 3: Sector wise Descriptive Statistics on Control Variables

#### Variable: LIQUID

Sector		1	2	3	4	5	6	7	9	10	11	12	13	14	16	17
N	Valid	9	4	3	17	2	4	3	7	18	5	4	5	4	2	6
	Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean		1.98	1.60	1.72	1.60	1.25	1.41	0.71	1.56	1.88	1.68	1.09	1.52	0.94	0.58	1.16
Minimum		0.47	0.84	1.30	0.49	0.94	0.64	0.19	0.50	0.66	1.29	0.62	0.42	0.03	0.55	0.62
Maximum		4.13	3.75	2.30	4.00	1.56	3.19	1.18	4.13	4.30	2.14	1.62	4.40	1.41	0.61	2.11
St. Deviation		1.41	1.43	0.52	1.01	0.44	1.20	0.50	1.22	1.07	0.37	0.41	1.66	0.62	0.04	0.53
Skewness		0.75	1.99	1.22	1.41		1.89	-0.45	1.94	1.00	0.11	0.40	1.96	-1.76		1.18
Kurtosis		-1.13	3.97		1.40		3.63		4.33	0.25	-2.23	1.56	3.92	3.34		1.83

\*In deriving statistics, Sector 8 and 15 were omitted due to a constant LIQUID is recorded.

#### Variable: LEV

Sector		1	2	3	4	5	6	7	9	10	11	12	13	14	16	17
N	Valid	9	4	3	17	2	4	3	7	18	5	4	5	4	2	6
	Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean		0.49	0.81	0.71	0.83	0.39	0.73	0.24	0.41	0.54	0.48	1.23	1.80	1.02	0.55	1.47
Minimum		0.00	0.04	0.27	0.12	0.37	0.04	0.02	0.00	0.00	0.25	0.25	0.00	0.00	0.47	0.47
Maximum		1.95	1.78	1.03	3.76	0.41	1.45	0.60	1.79	3.76	0.82	3.76	3.76	1.62	0.63	2.16
St. Deviation		0.72	0.83	0.39	0.95	0.03	0.74	0.31	0.64	0.85	0.23	1.69	1.43	0.73	0.11	0.72
Skewness		1.31	0.36	-1.19	2.17		0.04	1.62	2.14	3.52	0.86	1.98	0.27	-1.24		-0.37
Kurtosis		0.59	-3.63		5.27		-5.62		4.73	13.67	-0.28	3.93	-0.23	0.88		-2.15

\*In deriving statistics, Sector 8 and 15 were omitted due to a constant LEV is recorded.

#### Variable : PROF

Sector		1	2	3	4	5	6	7	9	10	11	12	13	14	16	17
N	Valid	9	4	3	17	2	4	3	7	18	5	4	5	4	2	6
	Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean		0.14	0.07	0.03	0.11	0.03	0.14	-0.04	0.08	0.14	0.08	0.14	0.03	0.12	0.12	0.13
Minimum		-0.04	-0.18	-0.05	-0.08	0.01	0.05	-0.09	0.01	-0.20	0.01	0.02	-0.09	0.00	0.07	0.00
Maximum		0.36	0.20	0.13	0.40	0.05	0.30	0.00	0.14	0.31	0.14	0.23	0.31	0.20	0.17	0.29
St. Deviation		0.13	0.17	0.09	0.11	0.03	0.12	0.05	0.04	0.11	0.05	0.09	0.16	0.09	0.07	0.12
Skewness		0.78	-1.34	0.51	1.13		1.02	-1.52	0.09	-1.56	-0.29	-0.90	1.74	-0.66		0.32
Kurtosis		0.29	1.21		2.14		-0.41		-0.13	4.03	0.39	1.92	3.25	-1.72		-1.52

\*In deriving statistics, Sector 8 and 15 were omitted due to a constant PROF is recorded.

**Variable : SIZE**

Sector		1	2	3	4	5	6	7	9	10	11	12	13	14	16	17
N	Valid	9	4	3	17	1	4	2	7	18	5	4	5	4	2	6
	Missing	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
Mean		22.56	20.67	22.97	23.31	510.84	22.77	347.05	21.44	21.64	21.85	21.14	22.37	19.33	25.08	20.83
Minimum		19.73	19.11	22.30	19.70	22.69	21.00	20.28	19.59	19.53	20.67	20.37	20.93	17.75	24.76	17.97
Maximum		25.96	22.35	23.95	26.14	999.00	24.11	999.00	23.83	24.08	22.75	21.60	23.50	20.40	25.39	23.56
St. Deviation		2.32	1.35	0.87	1.46	690.36	1.33	564.61	1.41	1.46	0.80	0.57	0.95	1.23	0.45	1.98
Skewness		0.19	0.25	1.41	-0.45		-0.86	1.73	0.55	0.31	-0.72	-1.01	-0.73	-0.74		0.03
Kurtosis		-1.50	0.24		1.47		0.68		0.07	-0.94	0.02	-0.40	1.21	-1.73		-0.27

\*In deriving statistics, Sector 8 and 15 were omitted due to a constant SIZE is recorded.

**Variable : BIG4**

Sector		2	4	6	7	9	10	11	12	14	17
N	Valid	4	17	4	3	7	18	5	4	4	6
	Missing	0	0	0	0	0	0	0	0	0	0
Mean		0.75	0.88	0.75	0.33	0.43	0.89	0.80	0.50	0.75	0.33
Minimum		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
St. Deviation		0.50	0.33	0.50	0.58	0.53	0.32	0.45	0.58	0.50	0.52
Skewness		-2.00	-2.61	-2.00	1.73	0.37	-2.71	-2.24	0.00	-2.00	0.97
Kurtosis		4.00	5.44	4.00		-2.80	5.98	5.00	-6.00	4.00	-1.88

\*In deriving statistics, Sector 1,3,5, 8 ,15 and 16 were omitted due to a constant BIG4 is recorded.