



The University of Newcastle - Australia  
Newcastle Graduate School of Business  
Faculty of Business & Law

Dissertation Title: Corporate Social Responsibility: An empirical study of  
Stakeholders and Environmental Disclosure in the Service Industry in Australia

S M Safayet Hossen  
Student ID: C3135002

Principal Supervisor: Dr Anthony Chia

A dissertation submitted to the Faculty of Business and Law for the award of  
the Degree of Doctor of Business Administration (DBA)

Faculty of Business and Law,  
University of Newcastle – Australia

24<sup>th</sup> August 2018

## **STATEMENT OF ORIGINALITY**

I hereby certify that the work embodied in the thesis is my own work, conducted under normal supervision. The thesis contains no material which has been accepted, or is being examined, for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made. I give consent to the final version of my thesis being made available worldwide when deposited in the University's Digital Repository, subject to the provisions of the Copyright Act 1968 and any approved embargo.

Student Signature: Safayet Hossen

## **ACKNOWLEDGEMENT**

Undertaking a DBA dissertation is a very long academic journey. I love to express my gratitude to Almighty Allah who gave passion and patience to complete this dissertation.

I would like to express my sincere respect and thanks to Dr Anthony Chia for providing me guidance and support, motivation and encouragement, identified strength and weakness to complete this dissertation. He taught me how to deal with students in a critical situation. He is a supervisor, every student dreams of.

I like to show my gratitude to Ross Brennan who checked this dissertation many times to make constructive comments, suggestions and help to make this dissertation meaningful. Special thanks to Professor Paul Ryder who guide and encourage me at the time of frustrations with this work.

Finally, I would like to thank my wonderful wife Ms Fahmida Alam, Lovely son Hamza Hossen, beautiful daughter Sharleez Hossen and friends for their support and reassurance which helped to continue and complete this thesis. I would like to dedicate this thesis to my late parents, late mother in law and father in law who valued my education thrust without asking any question.

## **Abstract**

During recent decades, the local, national, and global effects of human activities on the physical environment have increased immensely. Consequently, comprehensive policies have been developed and implemented to ensure that companies outlay a high level of social responsibility to the environment. Equally, research literature and international policies have subjected a full angle of interest in the provision that corporations should disclose their annual activities that have an impact on the wellbeing of the physical environment. According to research, companies have increased their environmental responsibility by providing voluntary yearly ecological reports that outlay the company's financial and non-financial, quantitative and qualitative social activities on an annual base.

For a long time, scholars have addressed environmental disclosure as a broad topic; it is seen as encompassing the evolution of the responsible nature of these companies. However, the study aims to identify the extent to which the annual report coincides with the actual responsibility that these companies deliver. Without a doubt, companies around the globe may provide clear and consistent environmental disclosures; however recent analytical interest in the area has suggested that these revelations are only delivered to suit the wellbeing of the company. For instance, mining companies are profoundly scrutinised and thus affected by the social environment, other primary, secondary and service industries are also under public social scrutiny. This is especially motivated by the fact that; mining companies form a substantial basis of the Australian economy.

The study aims at performing content analysis on 75 annual reports on companies from different industry groups in the country. The purpose of the study is to identify whether environment disclosures serve as social or financial rehabilitation attempts by these companies, or they fulfil the required function. The study analyses the consequence of the environmental disclosure

requirement in the corporate field of the country and will look to evaluate how companies have integrated the condition either as self-beneficial or Corporate Social Responsibility (CSR).

This research identified that all the publicly listed service companies are disclosing environmental issues in their annual reports. However, when a company's operation is directly involved with environmental issue then they provide significant environmental disclosure in their annual report. According to the findings of this research, a key exception is revealed. Ironically universities who are not in-fact directly involved in activities that cause interaction with the natural environment they none the less overtly express their environmental concerns. They do this via environmental reports and by setting up courses and topics within discrete courses which analyse and investigate environmental issues. In this way, they educate and raise awareness through vigorous academic methodology, and importantly they set an exemplary standard and benchmark.

This research found that companies are disclosing Environmental Disclosure (ED) due to CSR and Stakeholders pressure. However, they do have a legislative requirement to disclose this information in the annual report (Chuang and Huang, 2018). In Australia, companies are disclosing CSR information according to their business nature; when they are heavily involved with environmental issues, they do provide adequate disclosed information. In contrast, where companies are having less interaction with the environmental issue at that time due to legitimacy issues they provide ED to have better acceptance in the society.

## Table of Contents

Abstract .....	III
CHAPTER 1: INTRODUCTION .....	1
1.1. Background of the Study.....	1
1.2. Research Justification.....	5
1.3. Purpose of the Research .....	10
1.4. Research Questions: .....	10
1.5. Research Methodology.....	11
1.6. Thesis Structure.....	13
1.7. Summary .....	16
CHAPTER 2: LITERATURE REVIEW .....	17
2.1. Introduction .....	17
2.2. Previous Studies in the Field.....	18
2.3. GRI Guidelines of Environmental reporting.....	22
2.3.1. Environmental Performance Indicators.....	24
2.3.2. Indicators Related to the Management.....	24
2.3.3. Indicators of Business operations.....	25
2.3.4. Transportation .....	26
2.3.5. Stock pollution .....	27
2.3.6. Land Alteration .....	27

2.4.	Impact of environmental ideologies and community perception .....	27
2.4.1.	Community attitude towards Conservatism .....	29
2.5.	Inter-relationship between business organisations and the community .....	30
2.6.	Theories in Environmental Reporting .....	33
2.6.1.	Corporate Social Responsibility.....	33
2.6.2.	Legitimacy theory and Agenda Setting Theory .....	37
2.6.3.	Stakeholder Theory .....	38
2.6.4.	Signalling Theory.....	39
2.6.5.	Impact of environmental ideologies on the accounting for socio-economic sustainability	43
2.7.	Theoretical Arguments for Disclosing Financial Information .....	44
2.7.1.	Accountability .....	44
2.7.2.	Stakeholder Theory .....	44
2.7.3.	Environmental sensitivity.....	45
2.7.4.	Financial Performance.....	45
2.7.5.	Environmental Certification.....	45
2.7.6.	Determinants of Social Environmental reporting.....	46
2.7.7.	Financial performance and size of the company .....	46
2.7.8.	Social and Environmental Performance.....	48
2.7.9.	Ownership Structure.....	48

2.7.10. Corporate Visibility.....	49
2.7.11. Legal requirements within the country of origin and the sector of affiliation 50	
2.8. Effect of the Australian community on environmental philosophies.....	53
2.9. Criteria for Measuring the Environmental report.....	54
2.9.1. Credibility.....	54
2.9.2. Completeness .....	54
2.9.3. Transparency .....	55
2.9.4. Language Used in Environmental Disclosure .....	56
2.9.5. The State of Public Environmental reporting in Australia.....	57
2.10. CSR Relationship with Stakeholder’s and Environmental Disclosure in the Service Industry .....	59
2.11. Gaps within Literature.....	61
2.11.1. Governance and regulation.....	61
2.11.2 Responsibilities in the Corporate Social Responsibility .....	63
CHAPTER 3: RESEARCH METHODOLOGY .....	67
3.1. Introduction.....	67
3.2. Content Analysis .....	67
3.3. Research Design.....	72
3.3.1. Epistemology – Positivism .....	72

3.3.2. Quantitative research .....	72
3.3.3. Secondary data .....	74
3.3.4. Quality of data – reliability, validity, and generalizability .....	74
3.3.5. Time Dimension- Longitudinal.....	75
3.3.6. Measurement of Variables .....	75
3.4. Study Design.....	84
3.5. Study Population.....	85
3.6. Privacy and Ethics.....	86
3.7. Method of Data Collection.....	87
3.8. Environmental reporting .....	88
3.8.1. Company capability for environmental reporting.....	88
3.8.2. Company interest towards environmental awareness .....	89
3.8.3. Environmental Activities .....	90
3.8.4. Data Management .....	90
3.8.5. Data Analysis .....	90
3.8.6. Data Presentation .....	91
CHAPTER 4: DATA ANALYSIS AND FINDINGS .....	97
4.1. Results.....	97
4.2. Testing of Variables.....	99
4.2.1. H1 Variable: Institutional Expectations.....	99

4.2.2. H2 Variable: Institutional Environmental Capacity .....	104
4.2.3. H3 Variable: Institutional Environmental Interest.....	112
4.2.4. H4 Variable: Environmental Disclosure Strategy.....	114
4.2.5. H5: Environmental Actions .....	133
4.3. Rehabilitation.....	139
4.4. Conclusion .....	139
CHAPTER 5: DISCUSSION OF THE FINDING .....	141
5.1. Introduction.....	141
5.2. Theoretical implication of the findings.....	142
5.3. Demographics Covered.....	144
5.4. Summary of Research Questions .....	145
5.4.1. Independent Constituents.....	146
5.4.2. Dependent Constituents .....	148
5.5. Theoretical Implications of the Study .....	155
5.6. Conclusion .....	162
CHAPTER 6: CONCLUSIONS AND IMPLICATIONS .....	164
6.1. Introduction.....	164
6.2. Summary of the Research Questions .....	165
<b>6.3. Summary of the Study .....</b>	<b>167</b>
6.3.1 A new Paradigm for The CSR in the Australia Society.....	169

6.4 The implication to Companies and Policy Makers .....	170
6.5. Limitations of the Study.....	172
6.6. Concluding Remarks and Areas for Further research.....	173
REFERENCES .....	176

## Table of Figures

Figure 1: Research Model (Modified from Foerster, A. 2016).....	12
Figure 2: Interconnection between business, society, and environment: Adopted from Gray et al., 1996, P.34.....	32
Figure 3: Relationship between the theory of ED and Gaining competitive advantage in the market (Barbu, Dumontier, Feleagă & Feleagă, 2014).....	41
Figure 4: Application of theories to have quality disclosure in the annual report (Modified and combined -Barbu, Dumontier, Feleagă & Feleagă, 2014; Kramer & Porter, 2006 .....	51
Figure 5: Guidelines for awarding scores (Adapted from Drisko & Maschi, 2016) .....	94
Figure 6: weighted means of factors contributing to company environmental capacity	108
Figure 7: Trends for average water usage (Source: Industry Average from ABS) .....	122
Figure 8: Greenhouse gas emissions (Source: Industry Average from ABS) .....	123
Figure 9: Trends in Energy Usage (Source: Industry Average from ABS).....	124
Figure 10: Environmental performance in the five industries from 2015 to 2017 .....	125
Figure 11: Level of environmental reporting.....	132
Figure 12: Corporate Social Responsibility and ED though Annual Report .....	161

## Tables

Table 1: Format Showing Analysis of Environmental Reports of Different Sectors in Australia.....	93
Table 2: Showing different capacities of the companies to handle environmental issues (Data Collected from 75 Annual Reports).....	108
Table 3: showing the six important parameters used to determine the company’s financial standing. (Source: Service Industry Average – ABS) .....	110
Table 4: Showing Different methods used for environmental reporting (Data Collected from 75 Annual Report).....	121
Table 5: Showing Environmental reporting for each company (Source: 75 Annual Reports).....	131
Table 6: shows the distribution of the survey within the 25 companies, spanning three years. ....	145
Table 7: Possible of environmental hazards in a company: Source: (Kramer & Porter, 2006). ....	159

## Appendix

Appendix I: Abbreviations List .....	197
--------------------------------------	-----

## **CHAPTER 1: INTRODUCTION**

The chapter introduces background to the research. Additionally, identifying the origin of the environment disclosure report requirement for companies in different sectors. It defines and explains the reasons that led to the introduction of environmental disclosure reports and how they have applied so far within companies and organisations in Australia. Due to the increased environmental detrimental effects caused by organisations scrutiny of activities that pose a threat to the environment has increased. In the analysis of these reports, much emphasis has previously been on the rehabilitation of the financial and social aspects of the company and the resulting sustainability. The study introduces a new viewpoint to the whole issue; it analyses the research based on the benefits that the environment accrues by the introduction of environmental disclosure reports.

### **1.1. Background of the Study**

There has been a call for an increase in accounting environmental standards today. This is due to the financial markets interdependence resulting from globalisation and increased pressure on the atmospheric environment generally. So as a result of increased market demand from stakeholders, ED standards were incorporated via the Corporation Act 2001 as well as this the GRI reporting guidelines where enforce upon companies resulting in the requirement for companies to have ED in their annual reports (Ortas, 2015). The origin of the environmental disclosure requirements occurred with the IAS/IFRS (International Accounting Standard, International Financial Reporting Standard) in a bid to institute financial compatibility between firms (Mitchell, Percy & McKinlay, 2004). There is still flexibility of the reporting standards within companies depending on the differences they have regarding their traditions, and legal and taxation systems

in different countries. It is essential to start by analysing and interpreting the IFRS as they relate to environmental reporting generally over space (between firms) and time (now and in the future).

There is less interest in the scholarly world regarding the way environmental reporting occurs. Barker and Barbu (2007) went over more than 200 articles within the period of implementation of IFRS standards in Europe (1960-2005), and there was, however, no piece of information related to the environmental reporting within these articles and journals. While it is a very important issue within accounting procedures, no much attention had been paid to the information. The need for environmental disclosure, however, became evident in the 1980s (Gray, 2007; Brennan & Solomon, 2008). After the 1980s, investors began attaching importance to sustainability and environmental reporting. Patterns in the USA, New Zealand, and Australia since then have shown a positive relationship between environmental disclosure and the size of the firm; the larger the firm, the more responsible they were in their corporate duty (Jones & Slack, 2010; Chaklader & Gulati, 2015). Further to this, the literature shows that industries that were environmentally associated were the ones most sensitive to environmental information.

In Australia, the environmental reporting started in 1998 with the introduction of the Corporations Law that took effect on 1st July (Centre for Australian Ethical Research, 2003). The law stipulated a requirement for the company's reporting concerning their performance in environmental legislation. Therefore, in yearly director's reports, companies who operated under the particular environmental laws at various levels of government started to incorporate documentation relevant to these environmental laws. The legislation faced much ambiguity in interpretation consequently to its examination by the Parliamentary Joint Committee on Corporations and Securities (PJSC). This committee interpreted the law to introduce a voluntary system for reporting environmental appropriations. The idea behind it was that voluntary reporting

would help companies to try their best to achieve environmental best practice and therefore those that do not adhere would lag behind. In addition to this ED become part of CSR activities for companies which makes them more reluctant to disclose the annual report.

Moreover, they proposed that the quantity of disclosure within a voluntary regime is more than that of a compulsory system.

Later, in the year, the government came forth with amendments to the Corporations Law under the guise of the New Company Law Review Act and made environmental reporting a requirement for director's reports. The amended changes were a response to a lack of evidence of better reporting in the voluntary system (Cobert et al., 2003). There was also insufficient evidence to support the fact that mandatory reporting produces better results to show transparency of the companies.

Environmental disclosure requirements demand that companies should provide a list of activities that pose a risk to the external environment. Similarly, companies are expected to disclose information on gas emissions including the greenhouse gases as well as information on environmental management initiatives, which will uncover the critical ecological risk. Such disclosures would have debt exposure and cost management consequences. Significantly, the materials and energy industry accompanied by the utilities, transportation, and media sectors disclose the highest level of environmental risk in Australia. Companies with a high profile of environmental risk are expected to provide clear reports that express their financial, environmental risk or other ecological related impacts that is useful information for investors and the community.

Most countries have embraced the importance of environmental disclosure, as a measure to ascertain the company's impact on the environment, and consequently a metric to ascertain impacts on the company's risk and performance. Though this measurement is in a voluntary basis

which means there is no legal obligation or there are no specific guidelines to do this measurement. On the other hand, companies use this measurement to provide signalling to the society that they are legitimate to the society and they are disclosing this information to show their transparency and obligation to the society's wellbeing which enhances their reputation in the market acceptance.

Apart from the New Company Law Review Act, (health initiative) programs including the Greenhouse Challenge and the National Packaging Convent have contributed to an increased demand for environmental reporting (Barakat, 2016). Under international commitments regarding the nature of biodiversity and level of CO2 emissions affecting climate change, local and national initiatives have reinforced the importance of voluntary disclosure as a way of companies to nullify their impacts on the physical environment (Nyide, 2013). According to this (Consequently), investors and company stakeholders have increased their demand for information on manufacturing and processing firms. The amount of information disclosed by companies is useful in analysing and deciding where to invest and the total amount of risk and the synergy between the business's performance and environmental performance.

According to the Financial Services Reform Act (FSRA) of March Australia 2002, companies from the service sector are expected to show their investment decisions based on their environmental impact (Burgwall & Vieira, 2014). However, this report assumes that businesses have diverted the purpose of the disclosure requirement from its intention to use it instead to enhance the financial and social appearance of their company. Frequently, researchers who assess compliance do so by analysing disclosure reports based on their size and amount of writing, i.e. content analysis rather than substance analysis. Companies in Australia conform in words rather than actions and avoid accounting for the dollars spent to comply with their environmental responsibilities.

## **1.2. Research Justification**

The environmental trajectory of a country is shaped mainly by the organisations running their activities within the jurisdiction. In the bid to increase the environmental compliance, it is a prominent step to integrate environmental cost-benefit analysis in the decision making of companies. Corporate methods of environmental reporting give information about the companies' decisions and the impact they have on land use, the proper use of renewable resources such as fisheries, soil, and timber, clean air (emissions of greenhouse gases), proper use of fresh water and the degradation of marine and coastal habitats (Chaklader & Gulati, 2015). For the past few years, the need to and context of reporting has expanded for many companies. Globalisation and the growth of transnationals have expanded this on a global scale. However, decisions to disclose have still primarily been associated with the content and depth of the reports rather than an assessment of the real impact the companies were having on the environment.

The prose and revelations above reveal that existing parameters of reporting analysis are limited and less than effective. Therefore, this research brings forth a new way of looking at these reports using a standardised measure. This is needed for currently reports by companies have limitation and are inconsistent in the standards and indicators used. The consequence of this is that it is difficult to measure and meaningfully reveal the degree to which environmental sustainability is being planned for or achieved. As alluded to, this could be seen as a deliberate effort to give the illusion rather than the reality of compliance. A standardised measure is also needed for Environmental and Social Governance (ESG) data from the reports are not comparable across the industry due to a lack of a standard of measure (Chaklader & Gulati, 2015). Introducing a method of measuring the real environmental impact of the company within the reports will introduce a

standardised approach to the measurement via metric indicators of the environmental impacts of companies.

Analysis of environmental reports based upon only their depth does not relay or portray the real environmental value of the efforts made by the company. There are some companies within the market whose primary task is delivering a sustainability analysis for their company based on their activities. Ironically, these companies' services have however failed because they operated according to the tailored interests of the companies' assets and perceived profitability of their ventures. However most often they, end up providing information that would not hurt the company even when it is not true (Mitchell, Percy & McKinlay, 2004). This objective of, content compliance, rather than substance compliance, i.e. an illusion of compliance rather than real compliance affects the confidence of investors and other stakeholders. In contrast, this research is instrumental in introducing a new way of using environmental reporting in the analysis of the real impact the companies have towards the environment through creating a relationship between the environmental reporting and the actual level of responsibility to the environment.

Many researchers in the accounting field neglect environmental analysis as a form of social accounting; with most of them arguing that the study does not reflect that actual analysis, but, its relevance is only tailored to support backup evidence. There is, however, increasing pressure from the mainstream media and the society, in particular, from conservationists to initiate the necessary changes needed to make conservation efforts more viable (Mitchell, Percy & McKinlay, 2004). Therefore, the opportunity presented by this research will challenge the status quo and introduce the research area of social, environmental reporting as a potential field for more research. The important notion behind environmental reporting is holding companies accountable for their actions whether towards environmental conservation or degradation. Public disclosure of

trustworthy information on environmental impact will empower public decision-making. Shareholders, stakeholders and consumers can then assert their democratic right. A virtuous circle of compliance should then ensue where responsible businesses grow and irresponsible businesses due to public pressure comply or fail.

The responsibility of the organisations can be viewed in the three dimensions of economic (financial), social and legal. Legal and economic take priority over social, internal responsibilities over externalities. Financial statements of the firms, released annually are usually mainly directed towards the discharge of financial statements for the financial accountability; it is what the law requires from it in order to effectively monitor, and introduce tax and, regulation incentives. The financial reporting has been the centre of focus for many centuries now, and with much covered in that field in the form of continued research, this research is exhaustive in analysing how this information directs the course of decision making within the company. Thus, there is a need for social, sustainability and environmental reports. This is the part that has received very patchy analysis. Global warming, population growth, species depletion and the planets long term viability have spurred interest in accounting for and assessing this information, and it is what captured attention and interest in this topic.

Another area of research that needs comprehensive study is finding out if there is a correlation between the reporting and the action or commitment to comply. When the new focus shifts towards this form of reporting, there will be a need to examine these reports to determine if they a realistic indicator of actual compliance. There is an underlying expectation that companies will work towards sustainability. The incentive being intergenerational benefits, which will mutually benefit the firm and the community, this will only occur given time and habit change reinforced by the overt and covert imperatives of compliance. Consequently, an exploration into

whether the company's obligation toward conservation issues and reporting are brought about by them succumbing to the pressure should be explored. (Chaklader & Gulati, 2015)

There should be an expectation of every Australian registered company to account for their economic (financial) activity in addition to the resulting consequences and trade-offs that are external to their internal activities. The Government generally takes a back seat with the void being filled by Environmental NGO's, and it would be a good starting point to introduce a method of analysis such that the void is filled by the society in general, who should be the main watchdogs of these companies. Within the void created by the government and the society, many companies have produced weak and partial environmental reports that are not a true or complete reflection of the environmental related responsibility. They have done that to avoid the regulatory efforts that would face them in the case when they have all their information out in the limelight. Suggesting tying the formal accountability coupled with the significant impact it would bring, would change the reporting strategies used by the companies in their environmental and social reporting. However, the situation at hand within the Australian setting stipulates for voluntary reporting, and thus, there is opportunities for unscrupulous disclosure strategies. In the case where the latter inference stands, the strategy used in the environmental reporting blur the whole process, and it is the place where the government should introduce strict measures and legislate towards the conservation-related reporting as a method of assessment of the fulfilment of their responsibility according to legal and moral expectations. In the case where there is effective reporting, then it would bring an end to the corporate propaganda, the false monolithic image that companies create for themselves and thus give power back to the society in the form of the government-run corporations to control the whole economic agenda of the corporations (Burgwall & Vieira, 2014).

Companies within Australia that are ASX certified have been pressured by the expectations of their stakeholder (often at AGM's and social media postings) to ensure they are environmentally sustainable. The communities, the government, and the legal framework further are on the lookout to ensure that these companies are compliant with the current expectations they bestow upon them regarding environmental protection and conservation. Therefore, there is a tendency in these companies, geared to react to the expectations and pressure, and this is the basis of the analysis. This paper will, therefore, analyse the extent to which the expectations drive efforts and are reporting in their annual director's reports. It is evident that in the process of profit venturing, there is an obvious internal conflict in the corporate ecosystem; frankly, disclosure may not be in the self-interest of the company. The accountability, therefore, must be external to the corporation (since the effects are externalities) these are the interest of the community served and surrounded by the organisations. It is, therefore, proper to examine the relationship between the company interests, their inbuilt capacity to conform to environmental protection and the strategies adopted in ensuring conservational measures and threats are disclosed (Burgwall & Vieira, 2014).

The above reasons prove the importance of social accounting and why it would be a starting point for a more grand reveal within the field of accounting and reporting. It will help society to relate to the actual responsibility that the companies have towards them and stop a corporation from dodging conservational issues. It will expose the extent of care the company has towards the employees, community, environment, and respect for the human life. They will, therefore, be forced to act in their best behaviour while making an honest effort towards sustainability. Eventually, there will be a power shift, and corporations will no longer control situations to their favour, but the power will exist in the check and balances introduced to the society in protecting its citizens.

### **1.3.Purpose of the Research**

The goals of environment reporting stipulated by the IFRS and the legal contexts of countries are to increase the case for sustainability in the wake of environmental concerns raised over companies. The standards that were behind the reporting required direct and indirect recognition, disclosure and measurement of environmental liabilities, assets, and expenses. When the reporting took effect since the 1960s' there wasn't much analysis of its effect and responsibility in the wake of making its application to be applicable in a practical manner and within the stipulated context. (Burgwall & Vieira, 2014). Several kinds of research done already before the commencement of this report have been instrumental in introducing the reasons for the law, the relationship between voluntary reporting and compliance, and the effect of the financial size of the firms to the level of disclosures. A gap exists within the information structure, and therefore this research will seek to find a bridge in which the relationship between the two parameters may be consolidated successfully, bringing benefits to society.

The study supports the validity of inferences developed based on the evidence from annual disclosures from organisations from different industries and their real relation to the physical environment. The study will analyse any material regarded as a disclosure in the annual reports of these companies. Furthermore, the study will code the declaration as either rehabilitation or a responsible stride by companies, in regards to the level of expressed dominance in the financial, management and social realms of the company.

### **1.4.Research Questions:**

RQ1 Concerning annual report disclosures relating to environmental exposures, how do Australian Service Industries, in control of remediation sites, perceive the institutional expectations exerted by institutional constituents?

Hypothesis Variable: institutional expectations

RQ2 In responding to institutional expectations, do Australian service industries have the capacity to conform to their perceived institutional expectations and requirements?

Hypothesis Variable: institutional environmental capacity

RQ3 In responding to institutional pressures, do Australian service industries have the interest to conform to their perceived institutional expectations and requirements?

Hypothesis Variable: institutional environmental interests

RQ4 Concerning annual report environmental disclosures, what is the strategy that Australian service industries seem to adopt in their reporting decisions?

Hypothesis Variable: environmental disclosures strategy

RQ5 what are the actions taken by the Australian companies in response to the environmental expectations and pressures?

Hypothesis variable: environmental actions.

### **1.5. Research Methodology**

The research method taken for this study is context analysis. Annual reports from twenty-five companies in different sectors within Australia will get used for the review. The seventy-five reports would feature environmental disclosures for the years 2014, 2015, and 2016. Based on the reports, a comparison would occur on their practical approach towards environmental conservation. All this information is geared to find if there is a significant relationship between the reporting of these companies and their real work towards conservation.

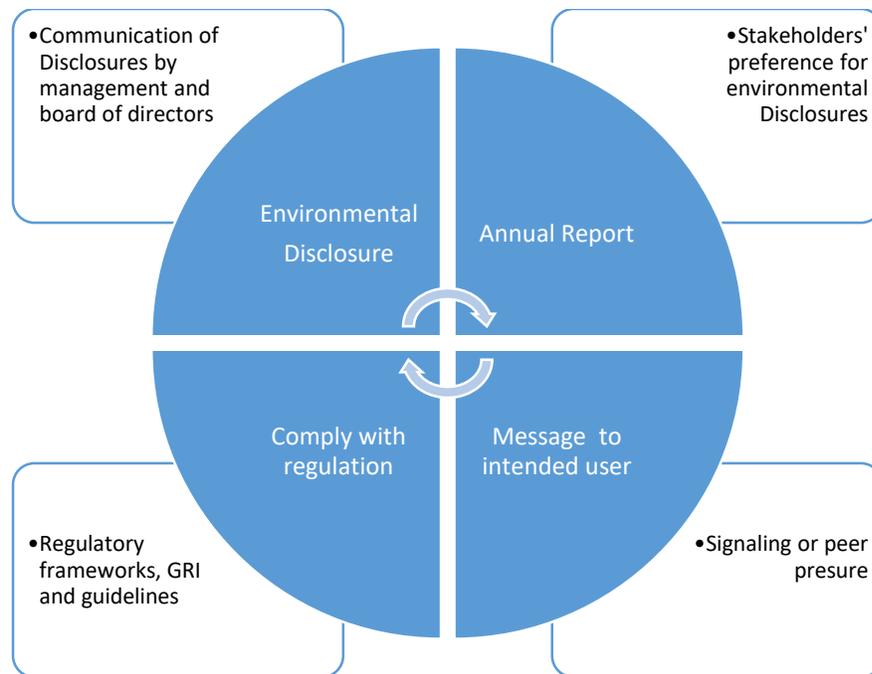


Figure 1: Research Model (Modified from Foerster, A. 2016)

Fig 1 shows the research model adopted for the purpose of the study. The researcher will be delving into the different elements that make up the research model. Then explore whether the company’s intent and actions as indicated in the companies “Annual Report” are fulfilled. This exploration will follow certain steps as seen above. Firstly, “Compliance with Regulations”, the study will examine whether the companies followed the laid-down GRI guidelines among other regulations set up by other bodies affiliated with environmental conservation. Secondly, “Message to Intended User”, will be examined to determine whether they were prompted by the managerial intent at signalling and the extent to which the exposure happened, or it occurred due to peer pressure. Additionally, “Environmental Disclosures” examines the transparency by the management and board of directors of the concerned companies and the stakeholder’s preference for environmental disclosure will be examined. This research identifies how companies are responsive with their

social responsibilities activities and how much they are implementing in their annual report to show their legitimacy to the public.

## **1.6.Thesis Structure**

The purpose of this study is to establish if there is a significant relationship between company environmental reporting and their functional responsibility in the field of environmental conservation. In order to achieve this goal, the thesis is divided into six chapters, with the outline of each shown below.

**Chapter two** is divided into seven parts each crucial to understanding the relationship between the underlying philosophies that have guided the implementation of environmental reporting, and the responsibilities that companies have towards its conservation. The first section identifies and gives credit to previous studies that have been carried out in the Australian society concerning Environmental reporting; these studies lay a foundation for the current studies as well as other studies that will be carried out in future. The second section deals with the GRI guidelines of reporting procedures, and the intricacies contained in the compliance report. Section three delves into the interrelationship between the community, businesses and conservatism; arguably, it is these connections that define and influence the practices that shape up the conservatism policies and reporting. In section four, an exploration into the theories used to explain the different influences that affect the release of environmental reports will occur; this will be followed by the theoretical framework that justifies the disclosure of financial information to both internal and external stakeholders. Section five will concern itself with the effect the Australian community philosophical outlook have on the environmental policies, and thus, affecting even the emergence and maintenance of policies aimed at producing an environmental reporting culture. In section six, the criteria for accessing the environmental reporting effectiveness and measurability will be

explored, while section seven finalises the chapter by exploring the gaps that are dominant in past studies and literature.

**Chapter three** represents the methodologies used following the hypotheses presented in chapter two. The chapter also shows how the theoretical approach is used in the study design as a source data while outlining other different factors that come together to influence the research findings. The criteria used to choose the study population is discussed, and a correlation is drawn toward its relation to the sample size. Finally, data collection and presentation, putting stress on its viability and its weaknesses, is discussed.

**Chapter four** concerns itself with the results affiliated with the data analysis and findings, while testing the variables according to how the test subjects performed in respect to disclosure of environmental records. In this chapter, there is also a discussion of the content analysis including the scope of analysis, categories and measurement of the disclosure. In this chapter, research shows that content analysis is the best method for implementation of corporate social responsibility in the company's annual report. The research identified that all the companies are disclosing information in relation to their needs and the size of the company. This research found that the companies who have direct involvement with the environment, tend to have more disclosure in comparison to who has less involvement with the environment.

**Chapter five** focuses on how the empirical evidence obtained in the research adds to the existing theoretical framework. In this chapter, research identified that theories have been applied in the industry to disclose environmental information in their annual reports. This chapter expresses that due to the stakeholder's pressure and legitimacy reasons companies are disclosing information. In addition to that through Environmental Disclosure companies are proving positive signals to the society that they are transparent with their work and that they are complying with society's norms

and values. On the other hand and additionally, due to institutional pressure, companies are disclosing environment issue in their annual report. Though there is no specific way to measure the relationship between ED and companies performances, most companies believe that positive ED makes them more legitimate to the society which then creates a more positive image in the society.

**Chapter six** contains the summary of the research questions through the analysis of 75 annual reports to determine the scope of corporate environmental disclosure in Australia. In this chapter, content analysis is carried out on the annual reports. The study also summarises the implications for each of the companies outlined, with respect to the information contained in the study itself, and other researches carried out in the past. The study explores the limitations it faced throughout the study; this was meant to define its scope while acting as a basis for future studies to act on the confines, enabling comprehensive coverage in forthcoming research. In this chapter, this research identified that it is required for society to apply more pressure on the companies so that they will provide not only qualitative disclosure but also quantitative disclosure.

The purpose of this study is to establish if there is a significant relationship between company environmental reporting and their functional responsibility in the field of environmental conservation. The structure used in arranging the dissertation is as follows. Chapter 2 discusses the literature regarding the implementation of environmental reporting, and the responsibilities that companies have towards conservation of the environment. It also identifies the parameters of the field of research, research questions, hypothesis, and theoretical framework that will be the basis of the analysis. Chapter 3 represents the methodologies used following the hypotheses

present in chapter 2. The findings of the research get described in section 4 followed by the conclusions in chapter 5.

### **1.7.Summary**

The first chapter introduced the topic of environmental requirements for companies within Australia according to the voluntary legal obligation and according to the world standards introduced by IFRS and the ISO 140001. Stakeholders have become reliant on the director's reports for information that forms their decisions. The increased demand for accountability and transparency in the wake of environmental degradation by companies has resulted in more scrutiny within the activities of the company. Therefore, to maintain an image of good practice before the stakeholders and the public, companies have had an obligation to release the information. In addition to this due to CSR, companies require to have ED as well though most cast they consider ED as a burden for them. This research through analysis will prospectively find that in-depth analysis of environmental impacts have been left out of annual reports and other company disclosed information. Therefore, the research aims at investigating the relationship that exists between the environmental reporting and the practical responsibility that the company takes towards the conservation efforts. The guiding research questions in the investigation are analysed in the remaining sections of the chapter, and this research will identify that in many cases due to stakeholders pressure companies are providing disclose to show that they are legitimate to the society.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1.Introduction**

In the previous chapter, an investigation into the background of the study occurred, showing the strides made by the Australian government in shaping the current policies that guide the environmental reporting. Further, a justification into the current research and others that will follow, aimed at mitigating environmental degradation, and improve on the steps already undertaken was shown, and the purpose of the study outlined. Finally, the research questions that are guiding the current study was defined and the theoretical framework and methodologies introduced.

It can be shown that a positive correlation exists between environmental performance and environmental disclosure in social (Clarkson et al., 2008). It is the relationship the later has on the former, that this research into how environmental reporting will, in turn, enhance the quality of conservation. Therefore, this chapter will explore the literature concerned with environmental disclosure, which in itself could be taken as the foundation of the need for environmental disclosure reporting.

The primary aim of this chapter is to evaluate the relevance of data provided by the Australian industrial sector, and the implication of the disclosure to the conservation efforts geared at improving the environmental impact while reducing the greenhouse gases footprint to enhance the nation's wellbeing (Foerster, 2016).

The study will also focus on developing a coding instrument that evaluates the value of information provided in the annual reports. In particular, specified literature has been produced addressing the concept of implementing environmental disclosure in the Australian commercial industry. Although research has equated Australia as a growing country in regards to the

application of the requirement, much research has supported the assimilation of disclosure reports as ambiguous as presented by many corporations in the industry.

## **2.2.Previous Studies in the Field**

The first studies on Australian environmental disclosures were by Cho and Roberts (2008) and Guthrie and Abeysekera (2006) where they examined the documentation of company disclosures related to social responsibility. A narrower study was however carried out by Degan and Rankin focussing on the companies that had had prosecutions with the by the Environmental Protection Authority (EPA). The information provided information on the incentives for the disclosures and the benefits of the revelations to the community and the investors.

The study by Granada University outlays an exciting outlook on the complicated relationship between environmental performance and environmental disclosure by twenty-five companies in Australia (Barakat, 2016). Through quantitative and qualitative approaches, the study conveys an incomplete connection between what gets provided as the environmental disclosure and what's happening in the environment. The study argues that the level of environmental impacts that these companies have does not relate to the actual level of disclosure provided annually. The study supports that most corporations disclose information selectively to suit their base of shareholder demand for information as well as their costs in management. The report identified that most companies provide a relevantly low value of disclosure as compared to the actual data that they should contribute to the public. Significantly the company size and the capital ability of companies affect the length and value of disclosure (Barakat, 2016). Highly polluting firms were identified to vary a tremendous amount of revelation in the sense of attaining financial cuts and reducing the length of tax benefits subjected to them.

In this research, environmental disclosures are perceived as limited since most companies may evaluate the targeted costs to be higher than the standard benefits that they acquire. To a further length, the study divided the factors that influence environmental disclosure into four categories; basing the argument on the level of performance of a company and the level of exposure portrayed. The analysis found that a high level of disclosure got attained from Green companies (excellent performance and high disclosure) and green-washing enterprises (poor performance and high exposure) (Barakat, 2016). These companies provide an upper length of disclosure due to the high demand for disclosure in the financial market. Similarly, consumers have exhibited a high need for social responsibility in the different period of demand for the product. On the other hand, Silent Con-companies (poor performance and low disclosure) and silent Achiever firms (good performance and small exposure) expressed a low level of environmental declaration due to the low level of stakeholder demand for information.

The study presents the Stakeholder theory as an acute presentation of why most Australian companies disclose information selectively. Not only does the report provide a basis for evidence in the implementation of the environmental requirement, but goes forward to show how Australian corporations have taken the implications of the element. As far as ecological disclosure is concerned, Anita Foerster assumes a new angle in evaluating the environmental effects of firms about carbon risk (Foerster, 2016). The author conveys a significant level of research on the use of renewable and diverse technologies, and its implications for Australian companies especially those that reside in the Industry. Most businesses that emit gases in the country are expected to outline the exposure to material industry risk (Foerster, 2016). However, regardless of some emissions as the changes are instigated, research showed that energy firms do not report these threats, which puts them in a viable position for potential financial risk.

On the other hand, the report analyses how companies in Australia have failed to adhere to climate change policies that expect clear reports on carbon risk disclosure (Foerster, 2016). Organisations have been unable to disclose the financial impacts of the exposure to their investors, creating an economic risk that may emerge in the future. The author presents a well-authenticated argument that carbon risk disclosure may have positive impacts on the financial nature of these companies and to the environment as a whole (Foerster, 2016). As can be expected, most businesses are against change however the assimilation of full environmental disclosure could have positive impacts on the industry and the environment as a whole.

Companies in Australia have been analysed according to the environmental disclosure parameters they provide regarding the climate change policy. Companies face financial and economic constraints under these policies. As the number and scale of businesses grow the consequent carbon risk to the environment organically also grows given a business as usual scenario. In particular companies in the carbon-generating industries including mining, manufacturing and other industries are at the forefront of this disclose imperative.

Environmental disclosure has been proven to make companies more responsible for ecological issues. Companies that disclose information regarding all their ecological implications and practices have been shown to lean towards the improvement of the environment. Karim and Rutledge did a study showed that ones the disclosure law got passed companies began changing their practices to make them environmentally friendly (In Karim & In Rutledge, 2004). Many companies have been on an incentive to reduce the emission they produce which are hazardous to the environment. The following research questions will ask at the time of researching to collect and analyse the data to form an opinion.

Studies by Lu (2008) brought forth resounding evidence of a relationship between good environmental habits and corporate environmental disclosure. Therefore, good performers are more honest with their revelations and the same follows for the moderate and poor conservational performers. The weakest performers were found to hide a great deal of information that came in from the management discussion and analysis section of the director's report. The role of the accountants over the years however improved and they are getting more open in the release of information regarding environmental management, the environmental movement, and remedial liabilities (Agency, 2016). Further, when the decision makers of the companies, specifically the shareholders increased their interest in environmental matters, this becomes a vital point in transforming the whole decision-making framework.

An analysis of the companies prosecuted by the EPS in Australia from 2004 through 2006 in the states of NSW and Victoria exposed significant information regarding the truths of the reporting and the real practical work done by the company Jones & Slack, 2010. The study used relative samples of the annual reports of the prosecuted companies and compared them to two other groups of reports; one from the companies reports in the previous years which they did not get indicted and two for those companies within the same year where they did not get prosecuted (Lehman & Yusoff, 2006). Matching was done compared to the financial size of the companies and the equivalent fiscal years. From the stud, it is evident that during the years that these firms got prosecuted, there is a tendency to release more positive information compared the annuals reports they got matched. There is an increase in disclosure in the data published in the year of prosecution than in the previous years.

### **2.3. GRI Guidelines of Environmental reporting**

Global reporting initiative (GRI) was set up to control the whole reporting procedure and to provide the guidelines for directing the strategies. It is of many forms, but it has a stipulated category for the environmental reporting that deals conclusively with how it should take place. The environmental and sustainability concerns according to GRI are the impacts of organisations on the non-living and living systems within the environment such as air, water, and ecosystems. The aspects dealt with under the GRI regulations include organisation inputs and outputs. Materials that a company should report are the ones used in the production or packaging process including the renewable and the non-renewable ones. They should state in the total amount used in the production and the ones recycled and used back in the production and packaging process (Burgwall & Vieira, 2014). The second aspect that requires reporting is energy consumption. The fuel types (non-renewable) and their consumption, renewable fuels consumption, electricity, heating, cooling and steam use, power, heating, cooling and team sold, totals of energy consumed should include all feature within the environmental report. In the energy aspects, sources of standards for conversions and the assumptions used in conversions should feature in the statement. The energy report also includes a conclusive report on the energy rations, reductions in consumption over a period and the type of energy reductions and the energy requirements for each product sold. Water aspects report covers a report of water withdrawn from several sources (surface, ground rain, wastewater and municipal water supply). It should comprise the effect of removing water from the sources, indicating its size and importance to the nearby community and biodiversity value of the water source. If the company is involved in the recycling of water, they require mentioning the total volumes and percentage of water recycled.

The other factor under the GRI guidelines is the biodiversity. The property owned by an organisation that is near to the biodiversity protected areas should get a mention, specifying the operations, location, and the characteristic of the biodiversity within the site. The report should also describe the impact of the activities of the company within site including the construction, introduction of new animals, reduction of species, and the effects that the events have directly and indirectly to the habitat (Burgwall & Vieira, 2014). Emissions produced by the company covers a crucial parameter for the organisation. The topic should include the greenhouse gases as well as those that deplete the O-zone. There are several scopes defined in the emissions. Scope 1 covers the direct emissions of GHG gases, scope two the indirect energy emissions and scope three the other indirect emissions. The GRI guidelines require reporting on scope 1 and two while the third one is optional. The gases covered in scope 1 are CH<sub>4</sub>, N<sub>2</sub>O, CO<sub>2</sub>, PFCs, HFCs SF<sub>6</sub> and NF<sub>3</sub> (Burgwall & Vieira, 2014). The scope two should cover the excreted carbon dioxide from the energy systems of the company. In a bid to prove the progress of the company in their emissions, the reductions and by percentage should feature.

The waste and effluents of the company are part of the environmental reporting. Water discharges by the company and the destinations, treatment or reuse should appear in the report. The report should also contain the disposal methods such as reuse, recycling, composting, deep well disposal, incineration, landfill or recovery. Spill made by the company such as oil spills, waste, fuel, and chemical spills are essential in the environmental reports. It should contain the effect that the waste has on the biodiversity (Burgwall & Vieira, 2014). The products and services sold by the company have a significant impact on the environment. Therefore, the company should report the effects of their products on the environment and the products that they have reclaimed.

Other aspects that should also feature in the reports are the transportation and the compliance with the environmental regulations of the land.

The information on the GRI guidelines provides a basis for the analysis in the research. Companies contrast with the way that they do their financial reporting. It is the divergent opinion to the GRI guidelines by companies opposed to the depth of the reporting. However, with a standard such as the GRI, which is convenient for all companies would provide a reasonable basis for the analysis of the company reports. (Burgwall & Vieira, 2014) Therefore compliance would be measured by the extent to which the GRI regulations are followed.

### **2.3.1. Environmental Performance Indicators**

These are the indicators that define the efforts the organisations make towards improving the environment around it. It is the basis of environmentally friendly reporting and establishes the relationship between the organisation and the environment. They include;

### **2.3.2. Indicators Related to the Management**

These are factors within the organisation that promote the environmental management system. While there are several defined financial functions of organisations, some activities are carried out within the organisation mainly to improve the public relations and stay on the safe side on the legal and the moral constraints (Mitchell, Percy & McKinlay, 2004). Therefore, the environmental management system is involved in the creation of activities, and ventures that increase the efficiency of the operations carried out by the company to reduce the impact they have on the environment. Technology is also a factor that increases the working rationale and decreases on the wastes released to the atmosphere. Therefore, an increase in the uses of technology by the management shows significant strides towards environmental consciousness. Environmental accounting in the form of reporting within the director's yearly reporting also is an indicator of

steps taken by the management to increase environment management activities (Mitchell, Percy & McKinlay, 2004). Reporting induces efforts in the reduction of wastes, effluents, emissions and conservation of biodiversity in the attempt to paint the image of the management in good faith. Constant and two-way communication between the organisation and the society indicates a good relationship between it and the environment. The connection aims at reassuring the community of the efforts taken by the company towards environment conservation, and it also encourages the public to take a front-row role in the monitoring of the company activities.

### **2.3.3. Indicators of Business operations**

Companies are involved in the processing of raw materials and the production of goods and services as the products. The sources of the raw materials used in manufacturing, and are affiliated to the environment includes; water, minerals, forests, energy, fossil fuels, and other substances poured into the business. The extraction of these materials from the environment results in an imbalance in the ecosystem in the form of land degradation and depletion of the resources. Therefore, the extent to which a company uses the natural resources within their production process is an indicator of their position in environmental conservation. Some companies also take right steps into reclamation of the destroyed lands and in the regeneration of the renewable resources; in this case, it gives them better performance in environmental conservation. During and at the end of the production process, there are by [products such as effluents, wastes, and emissions released back into the ecosystem. They are a cause of a burden to the environment causing air, water, and land pollution. Therefore, the level of wastes coming from a company and the methods used for the disposal of these by-products determines the performance of the company in environmental aspects.

The behaviour adopted by organisations in the purchase of products that are environmentally friendly increases their environmental performance. These products reduce the burden exposed back to the environment. On the other hand, purchases of products that increase the environmental load is an indicator of a poor performing company. The gauge gets mostly used in the organisations that are not directly involved in production but offer services; they include the banking industry, healthcare industry, and the education industry. Therefore, in the analyses of such kinds of business, as in the case of this research, the indirect burdens to the environment such as in the case of the purchases and products they use, is assessed. In the same note, products released by production companies that increase the burden towards the environment show poor performance of the company. The difficulty caused by the product manifests itself in the form of degradation caused by its use and disposal. Overall, the indicators of the environmental performance associated with the products and services analyse the whole process of production, utilisation, distribution and the discarding of the product. The two parameters form the direct and indirect relationship between the products and the environment.

#### **2.3.4. Transportation**

Factors of transportation posing a burden to the environment are the emissions causing air pollution due to the burning of the fuel for energy. There is also noise pollution caused by the vehicles or means of transportation such as trains and ships. In the evaluation of the activities of an organisation, therefore, there is consideration of the means of transport used for the ferrying of their products from the extraction points and to the suppliers and the waste to the point of disposal. Moreover, in organisations that are not involved in the production process, the transportation used in getting the services to the consumer is analysed for environmental performance.

### **2.3.5. Stock pollution**

Stock pollution is the accumulated pollution over the years and would, therefore, pass over to the next generation. It is an important indicator especially in the wake of the new statistics on global warming around the world. Stock pollution exhibits itself in the poor handling of waste products by a company, but because the effects of the menace are not felt effectively, it carries forward to a later date when the accumulation is enough to cause a hazard. It happened within the soil with the release of effluents and contaminated water, it also happens to the underground water with sipping of chemicals in effluent and wastewater and is also seen as the cause of global warming as a result of emission of greenhouse gases that accumulate over the years, destroy the Ozone and cause temperature inversion in the planet. Therefore, when analysing the environmental performance of an organisation, it is a vital parameter to measure.

### **2.3.6. Land Alteration**

There is a large part of the ecosystem supported by the land. Activities of companies such as construction, mining, waste disposal in the form of landfills destroy the habitat of the ecosystem. Therefore, in the analysis of the environmental performance of a company about land, a review of the nearby areas, the location for construction and other activities are necessary to reveal the extent of the impact caused to the biodiversity. Events such as mining destroy the land; take off the topsoil leaving it derelict and exposed to agents of soil erosion. These are the organisation's activities that determine their environmental performance.

## **2.4. Impact of environmental ideologies and community perception**

Environmental impact has been felt the world over, and Australia has not been an exception. For example, according to a research done by Johnson and Haynes (2000), there has been a

concentration of heavy metals in proportion to the recommended environmental percentages affiliated with mining activities in the Great Barrier Reef. Trace metals concentration including Copper, Cadmium, Nickel, Mercury, Lead, and Zinc have found their way to the area through processing sewage waste, ore extraction, and mine establishment, infecting 48 species of algae and seagrasses (Johnson & Haynes, 2000). Fishes and marine animals have not been left behind as toxins ranging from Lindane, Olafson, chlorinated organics, and metal concentrates found in the lungs, liver, kidney and brain tissues (Johnson & Haynes, 2000). Such cases around a mining area are not isolated this effect has been observed in abandoned mining areas in the Strauss Pitt in Drake Australia (Clark, Walsh & Smith, 1999).

The effect of air pollution brought about by coal has also been a thorn in the flesh with areas like the Upper Hunter region which contains the most abundant coal ore deposit in the region reported to produce massive fine particulates (less than 10 micrometres) through mining activities, waste removal, and transportation (Higginbotham, Freeman, Connor & Albrecht, 2009).

It is, therefore, with these considerations that environmental issues show a considerable impact on the Australian community by influencing altitudes affiliated with the economic, health, and resources acquisition conservatism.

The mutual dependence of companies and society has emphasised the growing significance of the concept of corporate social responsibility (CSR). Despite the fact that CSR has emerged as one of the main management issues globally, organisations and academics have to a large part unnoticed its utility. In order to fill the gap between what should and what has been done, they have used the purchaser perceptions of CSR to build a relationship between customers' ethical ideologies (i.e., idealism and egoism) within business enterprise's product services. Thus, passing the responsibility to customers or creating a perception of action within the customers' psyche. An

empirical study amongst Vietnamese customers shows that clients understand CSR in 4 dimensions—financial, ethical, philosophical, and criminal. One of a kind, moral ideology has special consequences on client perceptions of CSR; for example, idealism definitely influences these perceptions, while egoism's effect is poor. Moreover, the perceptions of CSR absolutely mediate the relationships between idealism/egoism and product evaluation.

#### **2.4.1. Community attitude towards Conservatism**

The interconnectivity between how the human species ascribe values that they feel that are subjective to the prioritised experiences are often interrelated with spatial explicitness, even though the former is much preferred to the latter (Larson, De Freitas & Hicks, 2013). Factors that contribute to people construing meaning and start developing individualistic connections affiliated with a sense of place, and especially their dwelling places, are multifaceted. Although the relationship may be complicated, community involvement through spatial recognition involves a perception of site-specific values and subjective judgments that result in community involvement and interest in their community affairs (Larson, De Freitas & Hicks, 2013).

A case study that was conducted on the importance of putting up conservational measures in the sugarcane-based economy of the Herbert River District carried out by Mallawaarachchi et al. (2001) showed that the community was willing to finance environmental based protection and preservation. In the report, it was observed that the communities that directly affiliated with agricultural practices perceived conservational attributes to be on par with development activities. These views follow the subjective opinion of environmental conservation in their site-specific values brought about by objective economic estimation of what the notion of farming conditions degradation and scarcity would mean for their livelihood (Mallawaarachchi et al., 2001).

A case can be argued from the Herbert River District case that the residents are only interested in protecting their source of livelihood. However, it can be shown that clusters of Australian groups composed of volunteers primarily are involved heavily in calling for a change in how environmental issues are handled (Tranter, 2011). People can be seen to be driven by the complex subjective perception of a threat to their spatial territories among other factors more than their need for financial risk. It is these cluster that makes a considerable number of Australian citizens. Ecologist group such as Environmental movement organisations (EMOs) with a membership of about 50,000 members have engaged in protests, changing their tactics to the conventional lobbying of businesses and the government (Tranter, 2011). Further, a study by the Social & Economic Sciences Program CSIRO Ecosystem Sciences showed that 75% of Australians believed that climate change is happening, 65% were willing to pay higher taxes aimed at curbing environmental degradation, while 72% thought that the government should act regardless of global climate agreement results (Leviston et al., 2011).

The relationship between the environmental care and the community's sense of place and belonging cannot be attributed to financial gain attached to such efforts, and it can be noted that Australians are geared towards conservatism based on the value they place in their communities (Larson, De Freitas & Hicks, 2013).

## **2.5. Inter-relationship between business organisations and the community**

The survey discussed earlier shows that Australians care about the implications that environmental degradation would bring if they did not act. It is, therefore, a matter of principle that the community individualises businesses within their spatial domain, and expects them to behave in a manner that befits a community member that co-exists well with other members of the society. These expectations and concerns make up the Corporate Social Responsibility (CSR) aimed at

recognising the needs of other members of the community through acting responsibly in regards to the usage of natural resources and protection of the environment (Jenkins & Yakovleva, 2004). In the start, most companies would comply with the demands of the society into environmental regulation to avoid legal penalties; it was taken as a necessary measure to satisfy the social expectations through projecting an ethical and social face to the world (Porter & Kramer, 2006; Gunningham, Kagan & Thornton, 2004). However, today many corporations have seen it as a guard against public censure, legal liability, and government actions; community groups have continued pressuring them to incorporate social responsibility, human rights, employee welfare, and climate change in their ideologies even when such ventures would not be profitable (Gunningham, Kagan & Thornton, 2004; Jenkins & Yakovleva, 2006). With the polls showing that most Australians consider human activities contribute massively to climate change, there is a call for more responsibility towards how organisations act in respect to the social settings (Leviston et al., 2011). Conclusively, the relationship between the community and business organisations in Australia is predicated on the notion that both need each other for the society to thrive, the former needs the services of the companies in providing wealth, jobs, and products, while the latter needs a justification of its survival through profits. The integration of people's perception and values into successful management planning of natural resources is essential for the society and the businesses to co-exist without exploitation of one another. However, for these plans to be implemented successfully, there should be continued effort to comprehend the social and ecological linkage and exploit it for the common good. It is this mutually beneficial coexistence that makes the community demand that the latter adhere to social and moral obligations for better integration into the society (Porter & Kramer, 2006).

## The interconnection between business, society, and environment

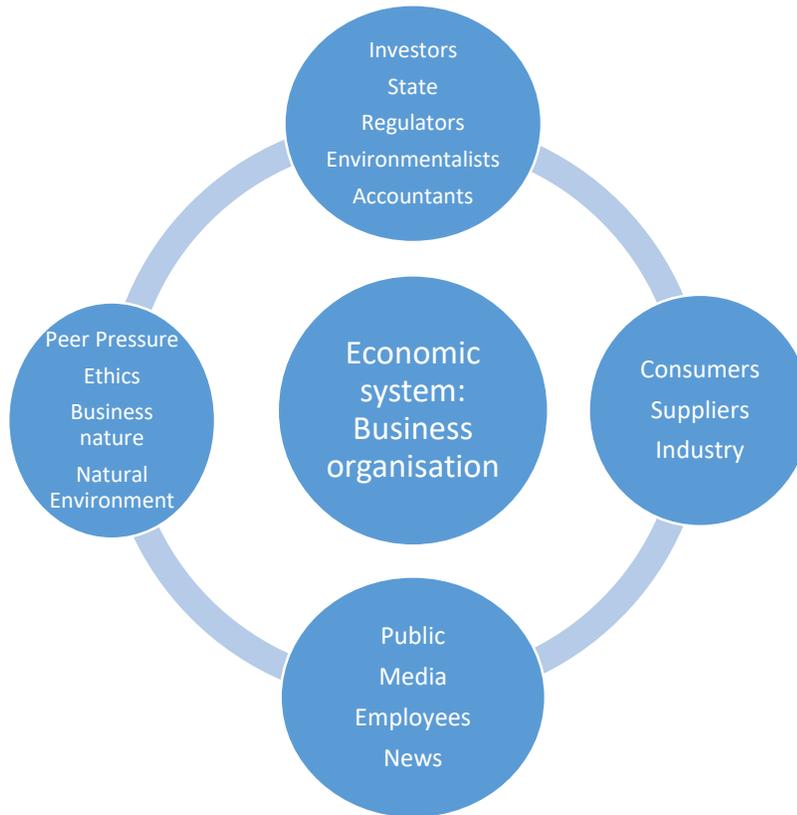


Figure 2: Interconnection between business, society, and environment: Adopted from Gray et al., 1996, P.34

In Fig 2, the interrelationship between the business, society and the environment is shown; these include the economic business system and what external and internal influences affects its behaviour toward the ecological system. The regulators responsible for environmental policing in the location the business is located as well as where goods are sold determine which laws and regulations apply. The factors that affect the registration applying to a business includes business nature, consumers, effects the goods have on the natural environment, type of goods produced, and type of industry it falls under; consequently, these regulators are mandated by the government to regulate industries on environmental issues. However, the state and regulators affect the business's decision capabilities the same as the investors, environmentalists, and accountants, with this cluster of individuals having the greatest impact on the policies and disclosure theory to be

adopted (Neu, Warsame & Pedwell, 1998). On the one hand, the former two are independent variables in which their policies cannot be changed to the advantage of the company, while the latter three interaction with the company is dependent and the company can thus determine if it will use legitimacy theory or stakeholder's theory according to the investment involved in adopting each (Hossain, Islam & Andrew, 2006).

Other influences mentioned are external in nature, the peer pressure to adopt certain policies, ethics, and the business nature may influence the business to adopt policies that are not contained in the policies stipulated by the regulators; this stems from a necessity brought about by the environment the business is working in. On the other hand, the public, media, and employees may push for new reforms in a business due to a threat that may affect the society and working conditions, in this respect, the company is forced to make the changes due to a perceived threat towards integration into the society brought about by the agenda-setting theory, prompting the business to act in order to gain back the public's approval (Shaw, 1979). Finally, consumers, suppliers and the industry may prompt an environmental based move by the company to maintain competitiveness.

## **2.6. Theories in Environmental Reporting**

### **2.6.1. Corporate Social Responsibility**

A clear definition of CSR has been used broadly to define a wide array of developed and implemented concepts and specific rather than its meaning applied to a particular ideology (Dahlsrud, 2006). Arguably, this has resulted in stunted growth and development in the area, with a vast array of half-hearted attempts at CSR efforts spurred by self-interest falling into the category (Dahlsrud, 2006). The concept of Corporate Social responsibility is associated closely by sustainability in that both denote the environmental and social consequences and contributions to

a business activity a more explicit and unbiased definition of Corporate Social Responsibilities. Consequently, this means that the concept takes into consideration the interweaving of the society, and business, allowing each other to co-exist and mutually benefit from their interactions (Jenkins &Yakovleva, 2005; Moir, 2001). It is from this that corporate responsibility and consequently CSR concerns itself with the core behaviour of an organisation and its subsequent impact on the community it operates in; additionally, companies should not perceive it as a philanthropist activity, but rather as responsibility toward society through empowerment and investment toward the community in achieving sustainability (Dahlsrud, 2006).

Corporate social responsibility is one of the tools that aid in gauging the attitudes of a company towards stakeholders (Jenkins &Yakovleva, 2005). It is for this reason that its understanding aids in understanding the involved companies' willingness to incorporate the society's needs into decision-making involving social and environmental concerns. CSR expands this notion not only to the community but also towards other stakeholders including customers, employees, affected the population, and the general public. As discussed above, most companies take liberty with the scope of CSR they are willing to undertake.

Businesses undertake two approaches to adopting CSR in their policies. The first approach involves a neo-classical outlook whereby the company takes only those social responsibilities that aid their businesses by providing more resources and reduction or payment of taxes (Moir, 2001). Arguably, this mindset views CSR as a tool to make more money for the stakeholders. The second approach is one that follows a behavioural pattern theory; companies that support this outlook examines the non-economic and political influences on the managerial behaviour in regards to which strategy gets adopted (Moir, 2001). Additionally, it is a realisation by the business that there are factors that are beyond their control, and internal regulations and decisions are made to fulfil

the requirements while adopting their business model around a CSR theory that best suits those external factors. The justification for why businesses should engage in corporate social responsibilities is twofold. Firstly, some people hold the view that since a company is a personified entity that lives, interact, and share resources with the societies, there is an ethical or moral imperative for it to share the resources in aiding in solving the societal problems whether or not it participated in creating them in the first place (Moir, 2001). Additionally, proponents of CSR also point out the fact that such activities are beneficial to the business itself in the form of reputation, investment into more efficient system meaning more savings, and employee retention and loyalty (Morsing & Schultz, 2006; Jenkins & Yakovleva, 2006). It is therefore imperative for companies to engage in CSR as a means to strengthen their social responsibilities and presence while addressing the sustainability concerns for a viable co-existence and integration into society.

In the discussion below, an examination into how businesses adopt CSR into their reports, and an explanation given on the underlying theories; moreover, an exploration into how most companies respond corporate social responsibilities regarding external influences will occur.

#### ***2.6.1.1. Theoretical Definition of the Corporate Social Responsibility***

According to Australian Human Rights Commission, “The concept of Corporate Social Responsibility (CSR) is generally understood to mean that corporations have a degree of responsibility not only for the economic consequences of their activities but also for the social and environmental implications. Various terms are used to describe CSR initiatives, including ‘Corporate Responsibility,’ ‘Corporate Accountability’, ‘Corporate Citizenship’ and ‘Sustainability.’ The meaning and value of CSR may differ in various contexts, depending on local factors including culture, environmental conditions, and the legal framework”.

Consequently, this research is asking two complementary questions: what is a company's intention to do for CSR issue and how government decide or monitor the company's CSR activities? Friedman proposition that it is not the organisation that has dreams that what to be done for resolving CSR issue, it is the human beings who are working for the company and who has the vision to comply with CSR issue for the wellbeing of the society.

According to Votaw and Sethi (1973) "The term [corporate social responsibility] is a brilliant one; it means something, but not always the same thing to everybody. To some it conveys the idea of legal responsibility or liability; to others it means socially responsible behaviour in an ethical sense; to still others the meaning transmitted is that of "responsible for," in a causal mode; many simply equate it with "charitable contributions"; some take it to mean socially "conscious" or "aware"; many of those who embrace it most fervently see it as a mere synonym for "legitimacy," in the context of "belonging or being proper or valid; a few see it as a sort of fiduciary duty imposing higher standards of behaviour on businessmen than on citizens at large. Even the antonyms, socially "irresponsible" and "nonresponsible," are subject to multiple interpretations". (D. Votaw and S.P. Sethi (1973, pp. 11-12))

CSR is a concept where various individuals and companies have various ways to respond to CSR issue in the society. In most cases, the organisation behaves in accordance with the CSR standards most effective if the people deciding on the enterprise approach are inspired to follow them through in many cases CSR issue inspired by individuals. A great combination of enterprise inspiration and individual inspiration can have a greater implementation of CSR issue in their annual report.

### **2.6.2. Legitimacy theory and Agenda Setting Theory**

Legitimacy theory has been used before in recent Australian research to explain the extent to which companies release environmental information's and how much they take seriously the responsibility they have towards the environment. The results show that the reasons for the legitimacy practices are for the social values of the community within which the organisation exists. Therefore, environmental reporting is viewed to be more of social legitimacy to justify its existence. The layman description would be that "firms disclose information to the community to prove why they should operate within that specific society." The legitimacy theory, therefore, suggests the creation of a social contract between the company and the people who are directly or indirectly affected by seven the operations (Barbu, Dumontier, Feleagă & Feleagă, 2014). The legislation and international environmental standards directly or indirectly confirm the terms of the agreements; the companies, therefore, have to abide by these standards. In the event of breaches, the contract is supposed to get revoked. The revocation process takes many forms such as lawsuits, boycotts such as the elimination of labour supply or market and fines by the people's governments.

In a further Analysis regarding the use of financial information, researchers have identified two groups to be the beneficiaries of the data. They are the stakeholders and the individuals within the organisation who seek environmental information to aid in later decision-making within the organisations. The annual reports, therefore, got identified as the sole source of the interaction between the company and the external environment. The groups outside the organisation such as the stockbrokers and analysts, however, downplayed the importance of the information.

Within the present level of the areas of economy development, new outcomes influencing the competition power of organisations are gaining more ground. One of the manifestations of

such new traits is the fact that the photograph of the employer in the attention of the public is ever more important. Especially, however now not only amongst big companies more and more entities appear that are privy to the reality that their goodwill and status on the market may add significantly improve the employer's popularity concerning its accountable behaviour toward the ecological, social, and so on. This research identified that the usual monetary principle following the neoclassic method simplest disposes of restrained possibilities to take such phenomena under consideration. On the other hand, opportunity tactics to corporations that provide a wider area for the mirrored image of ecological, social and other factors of their environment exist in the economic concept (Barbu, Dumontier, Feleagă & Feleagă, 2014).

Legitimacy theory explains how companies and employees are legitimate to the society to disclose information through various channel one is called annual report. Before publishing annual reports company and or employees are providing announcements in public media to show how serious they are about public interest; and how legitimate they are within the society; additionally how they are serious about complying with environmental rules, regulation and how they are not doing any harm for the society. Companies are setting agendas in such a way that they are complying with environmental regulation, and at the same time, they create a positive image in public media which has a direct impact in financial benefit for stakeholders (Carnevale, Mazzuca, & Venturini, 2012).

### **2.6.3. Stakeholder Theory**

Freeman (1984) proposed the stakeholder theory which analyses the interests of the stakeholder of an organisation. Freeman defines a stakeholder and the groups or individual internal and external of the organisations that are influenced or can influence the organisation. He also

suggests an integration thesis for stakeholders, which is the idea of the integration of the business with ethics for the successful running of a company. Over the years, the definition of the word stakeholder got expanded to those who have an ownership claim or a claim in the form of rights, or legal and moral interests to the organisation. According to Clarkson (1995), there is a further division of the stakeholders to the secondary and primary ones. The primary stakeholders have a direct influence on the activities of the organisation, and they are essential for its survival. The secondary shareholders, on the other hand, are the people influencing or get influenced by the firm, but their input is not essential to the survival of the company. However, the opinions of the secondary stakeholder possess a significant implication for the company. The stakeholder theory, therefore, conceptualises the balance of the shareholders in the efforts to retain their positive impact on the organisation. Thus, the company should consider the stakeholders within their decision-making. The process of managing stakeholders involves acts of continued communication, contraction, motivation and negotiation. Another factor that keeps the stakeholders interested in the company is the acts of social responsibility, environmental protection, and sustainability. These activities improve the image of the company and thus satisfy stakeholder interested.

According to Castello and Lozano (2011), stakeholders are influencing companies to have positive ED in their annual report as they want to make sure that they are involved with an environmentally legitimate company where they can have positive investment for the society.

#### **2.6.4. Signalling Theory**

Signalling is a form of transfer of information between the sender and the receiver (two parties or more). The signalling theory is significant in the study of environmental reporting to explain the phenomenon where two parties possess a different kind of information yet they are in

a direct communication line. There is a reduction in the symmetry between the two parties especially because most people rely on public sources of information, which is in most cases not accessible to all. Therefore, in the instance where the reporting is efficient, there is an increase in the access of private information for the public, and there it increases transparency and the transaction costs involved in the entrance of data from private sources. The access allows the stakeholders in the process of decision-making. The signalling theory further proposes the notion that good news gets easily transferred or disclosed and good news reinforces good performance. Therefore, the disclosure level of any organisation in the environmental reports increases when they have achieved more significant strides. Taking active strides toward ecological efficiency increase the level of conservation reporting of an organisation (Barbu, Dumontier, Feleagă & Feleagă, 2014).

When company want to have a brand image in the market, then they disclose positive information in the society to enhance their market reputation. On the other hand, information asymmetry can create confusion in the market to destroy their market image. To avoid potential harm in the market, in most cases the company provides relevant environmental disclosure with their signalling information.

### The relationship between the theory of ED and Gaining competitive advantage in a market

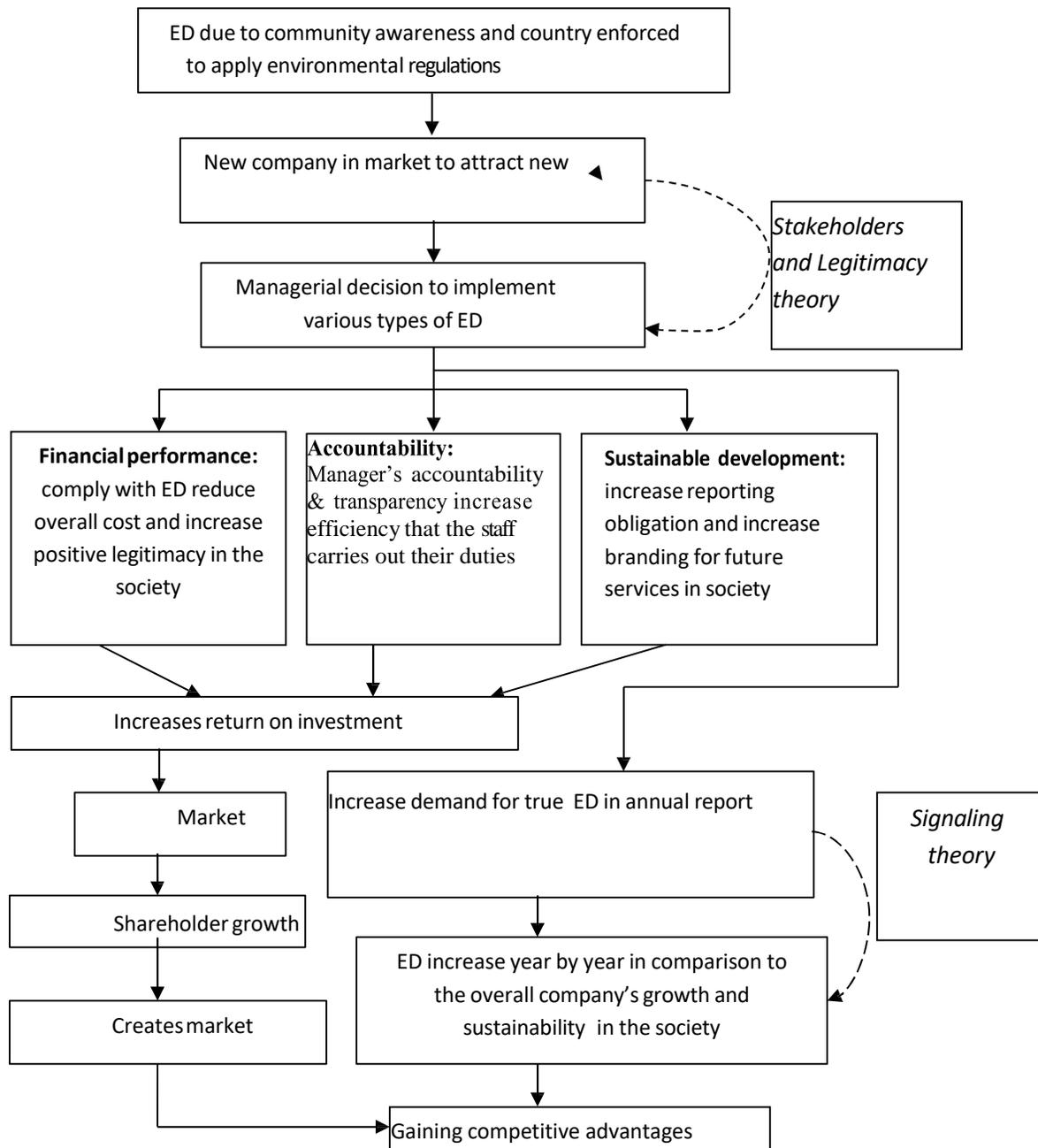


Figure 3: Relationship between the theory of ED and Gaining competitive advantage in the market (Barbu, Dumontier, Feleagă & Feleagă, 2014)

In the adopted pictorial model representation is shown in Fig 3, exploration of the relationship between environmental disclosure and the competitive advantages gained through companies adopting the different theories will occur. The first step towards the awareness and

eventual implementation of eco-friendly disclosure starts with the community awareness that such changes are desirable. Eventually, policies are passed by the country, through the concerned bodies, mandated with environmental protection. From this point forward, the management in any given company chooses the strategy that is most convenient for them to carry out the reporting.

Adherence of both legitimacy and stakeholder's theory, in complying with Environmental disclosure experience financial performance in their institutions, with an overall reduction of cost in goods production (especially when using 'best practices') and legitimacy in the society (Sharma & Vredenburg, 1998). Consequently, the products that they make when advertised correctly, and using the 'environmentally friendly' label justifies in most cases the increase in the sale as well as positive branding according to the society's perspective (Christmann, 1999). Additionally, when the company embarks on process-focused environmental management practices, there is an increased efficiency in both how the staff carries out their tasks, and the overall plant productivity at a lower cost (Christmann, 1999). Arguably, these benefits would find validity in their ability to positively influence the company's competitive advantage over its peers through an increase in resources acquisition and investments, market visibility, shareholder's investment growth, and creation of new markets.

When a company also utilises signalling theory, the shareholder's demand for Environmental disclosure in the annual reports results in increased transparency in reporting, coupled with the benefits already outlined in the Legitimacy and stakeholder's theories, it will also result in a competitive edge towards its competitors. To increase a company's reputation in the market or to get privilege from the market, companies through their announcement provides signalling to the society that they are obliged to follow society's regulation. Through signalling,

companies are ensuring the stakeholders that they have transparency with their actions and they are doing the right thing concerning their corporate social responsibilities.

### **2.6.5. Impact of environmental ideologies on the accounting for socio-economic sustainability**

Accounting has always been focused on providing monetary, quantitative measures that benefit a business (Schaltegger & Burritt, 2010). Over the years, financial accounting which involves itself with financial information gathered in respect to showing the company's standing in regards to its performance within a specific period, and the cost accounting which provides information on inventory asset values have seen the emergence of sustainability accounting. The latter concerns itself with the environmental, social and economic interactions, risks, and sustainability of a corporation or business and the risk it poses on the stakeholder's faith on the company (Schaltegger & Burritt, 2010). On the other hand, a company is taken as an individualised entity that lives amidst a society, and it should practice Corporate Social Responsibilities in all its undertakings (Porter & Kramer, 2006). The price paid for a company that neglects environmental issues is dire, as more of these corporates are held responsible for their negligence or actions that contribute to environmental degradation (Porter & Kramer, 2006). It is with these interactions with the conservation factors that accounting has to walk a thin line between the viability of a company and beneficial ecological relations that result in the profitability of a business. However, public outcry cannot be relied upon to provide the necessary reforms, as Christman (2010) observes in his report, companies react to public outcry not through environmental based self-reformation of their policies, but through public relations aimed at standardising their conservation communication. It is with these factors that we conclude it would be more beneficial for a company to slack on spending their resources on environmental based effort, than engaging in activities deemed to be

eco-friendly when it is left to its devices. On the other hand, looking at the number of companies in Australia that are disclosing environmental reporting, the trend is in the increase the environmental reporting (Gibson & O'Donovan, 2007). Arguably, this has been attributed to the pressure brought about by the stakeholders and the community at large in ensuring that the companies comply with the policies put into place (Gibson & O'Donovan, 2007). The companies then have to justify their existence in the community by balancing their profit margin in accounting with the imperative to be eco-friendly, while creating room to the different expectations that the society expects from them (Jenkins & Yakovleva, 2004). In modern day times, there are benefits to be accrued when a company presents itself as not being selfish with targeting economic gains only but also contributing to social and environmental sustainability (Jenkins & Yakovleva, 2004).

## **2.7. Theoretical Arguments for Disclosing Financial Information**

### **2.7.1. Accountability**

Defined as the right to supply information and the duty to supply it. It is an essential two-way relationship between two parties where one provides the news, and the other one supplies it. It is the primary pillars behind the idea of social responsibility between business stakeholders and the business itself. Accountability is supposed to create a closer relationship and increase transparency (Jones & Slack, 2010). Environmental issues, therefore, require disclosure to achieve these goals; it opens up to the extent of corporate consciousness and exposes the company on a moral discourse. Consequently, this study would provide insight into the relationship between accountability and the improvement of the honest conversation in the environmental context.

### **2.7.2. Stakeholder Theory**

The stakeholder theory affirms that operations within corporations require support from the stakeholders who base their decisions on the activities that make the company gain approval. The

approval comes up in the today world through adaptation to fit into the market structure. Social disclosure is, therefore, a strong point to convince the stakeholders. Stakeholders, therefore, have a right to information regarding the company, which in this case includes the environmental report. The stakeholders can control the assets of the company including the labour, financial assets, and media (Jones & Slack, 2010). Their control over the resources places them at a position that would require constant updates and information. According to the stakeholder theory, therefore the company is obliged to provide environmental reporting even on a voluntary basis.

### **2.7.3. Environmental sensitivity**

When a company is more environmentally sensitive, there is much interest in its environmental information. Companies that operate on a high ecological impact such as the mining industries, there is more pressure on their disclosure than the rest of the companies. Halme and Huse (1997) found that the most influencing factor in the declaration of environmental information the type of industry; they went further to divide the industries within Malaysia and Australia into environmentally sensitive and non-sensitive.

### **2.7.4. Financial Performance**

From previous research, there are mixed feelings regarding the relationship between the two variables: financial performance and environmental disclosures. Alnajar found a significant positive correlation between the two parameters and thus concluded that the bigger the company, the more likely they are to disclose environmental information and the vice versa also applies.

### **2.7.5. Environmental Certification**

The Environmental Management Standards founds within the ISO 14001 criteria represents internationally accepted principles for a definition of best practices by companies and energy management systems. The standards aim at improving the performance of businesses and their

impact on the market. Therefore, it requires that business organisations develop their policies, mission, and procedures and monitor the effects of their activities on the environment. For ISO 14001 accredited companies, it is a voluntary measure to expose their environmental compliance without the litigation from the stringent action. A study by Cobert et al. (2003) proved that the factors that motivate compliance to the ISO 14001 certified companies to their disclosures are the creation of a better corporate image, better viewpoint from authorities, better community relations, and an increase in the opportunities for trade in the market.

#### **2.7.6. Determinants of Social Environmental reporting**

Several factors increase the likelihood of the company engaged in voluntary environmental reporting. Studies by Rudrigger Han introduced the main elements that are the determinants of the reporting (2013). The analysis used for the components was based on reports of 108 Australian companies and analysed the extent of the reporting in various companies within the market. Other factors considered in the research included the quality of the information released in the reports and was compared to characteristics of the firms to bring forth a comparison. According to Rudrigger (2013), the following were the major internal factors behind the reporting of a company.

#### **2.7.7. Financial performance and size of the company**

The total volume of a firm gets measured according to the assets owned by the company, its human assets (employees), and turnover regarding revenue and profits and the total capitalisation within the market. There is a significant pattern established with bigger companies according to the latter definition of the company size. The bigger the company, the better visibility within the market, and the more significant the impact it, therefore, has to the society and thus would also face more substantial influence and scrutiny of its activities. The reverse is true for smaller companies, and they are further described to have higher marginal costs if they are involved in the

disclosure. Companies with a more significant financial turn over can deal with the top, minimal costs associated with exposure and therefore can also deal with the consequences that result from the disclosure of possible damaging information (Burgwall & Vieira, 2014). Other factors examined in the research such as ineptness, gearing or leverage prove that they reduced the likelihood of the company involved in environmental disclosures because they placed the company at a disadvantage of handling the marginal costs associated with it. However, while the idea of reporting as a way of legitimising the company activities towards the stakeholders and shareholders seems to be an incentive towards reporting for the bigger companies, empirical research proves the notion otherwise.

There are also four other factors that are characteristic to the size of the firm that are determinants of the level of reporting of a company. One is the size of the market-to-book-value of a company. While it could imply the increased asymmetry between the investors and the company regarding the growth and the current assets, which reduced capital costs, it is also a positive determinant to the level of reporting. The other factor is the high capital intensity that is used to create a positive relationship with the with sustainability reporting. When a company is involved in highly intensive investment into newer methods of production, new technology, and more current assets, there is an assumption that these actions get aimed at improving the environmental impact they create in their activities as related with pollution. There are however mixed results towards the support or denial of the ideology. However, most of the scholarly articles towards this field show an inclination to the positive relationship.

Financial activities within the capital markets is the third factor associated with the Social and environmental performance reporting. Companies looking to raise their capital would result in methods of improving their reporting in the bid to woo investors. They further lower their capital

Costs. The two factors are ironically intermingled but occur in a positive relationship with SER and thus make the company better placed to handle the annual environmental reporting. The last of the four factors is the systematic risk related to the volatility of the stock or beta prices. When a company has a higher systematic risk, it means that it has an unstable performance within the economic platform and thus reduces the company's capability to handle the marginal costs associated with the reporting. Consequently, there is a negative relationship between the reporting (Rudriger, 2013).

### **2.7.8. Social and Environmental Performance**

The performance of the company in their environmental and social efforts determines the level of reporting. The fines measure the activities it gets due to the transgressions towards the environment, the pollution discharge information, and the sustainability index. Companies with a good performance on these scales would feel more confident in their reporting and would thus use it as a method to woo shareholders. On the other hand, the companies having a poor performance would also face the exact pressure from their shareholders and stakeholders regarding their environmental performance. In the bid to create reassurance on their threat of legitimacy, they will try to improve their engagements in the social, ecological performance reporting. Studies prove a positive relationship between good performance and the extent of reporting and the frequency of reporting. The age of the assets within the company is a factor to be considered in relations to the sustainability performance. The older the assets the company has, the weaker it will be involved in releasing the sustainability reports (Rudriger, 2013).

### **2.7.9. Ownership Structure**

Companies listed within the public stock market show a great interest in disclosure since they have more pressure to comply with the legal framework and regulations, cope with

shareholder pressure and adopt good competition within the market. The research further proves that the extent and quality of sustainability information they release are more compared to the privately-owned companies. Government-owned companies, on the other hand, are also interested in the reporting given that they are at the centre of scrutiny and are subject to stringent regulations as they are the market leaders. In a company where the shareholders own the little percentage of the whole company, there is less information in the reporting using the assumption that the relevant owners of the companies already have the relevant information. Foreign investors within the market also have difficulties with obtaining information from other sources apart from those of the company. Therefore, a company having foreign investors tend to release more information in their environmental reports to keep the investors in check with what is going on.

The other determinants of the environmental reporting are the external determinants. They include the following.

#### **2.7.10. Corporate Visibility**

Corporate visibility is defined in several scholarly articles as the trait of the company as seen by the media exposure, aspects related to the brand and the position of the company within the supply chain. Media exposure for example; measured by the articles the company appears in the newspaper and the number of viewership hours it receives, eventually determines the amount of corporate disclosure that they would engage. Therefore, for a company gaining much visibility within all those platforms mentioned above will increase the depth of the information within their financial reports in the hope of preventing any reputational risks that may arise that would get exploited by the media, competitors and other players within the supply chain. Another factor that determines the corporate visibility is the interactions with the consumers; directly or indirectly. A more direct approach to customer interaction increases corporate visibility and therefore requires

that the company becomes more in-depth in their disclosures. Moreover, when the brand of the company is favourite; as in the case where the brand name is the same as the company name, visibility is imminent and thus requires better environmental reporting.

#### **2.7.11. Legal requirements within the country of origin and the sector of affiliation**

Companies operate in different areas of the economy. It is a proven characteristic that for companies that work within a social and environmental framework that would require more sustainability reporting will increase the depth and quality of their social and environmental performance reports. Companies within a sector that gets associated with environmental degradation effects such as the manufacturing and the mining industry will get faced with more pressure to prove the legitimacy of their waste disposal and community responsibility through SERs. The volume of reporting is also dependent on the country of origin, which defines it in the regulations that should get followed in the cases of the reporting. For example, countries like Sweden, Norway, Denmark, and Australia require that the environmental reporting should focus on the ecological impact itself while others such as Britain and France need the reporting to take more of a sustainability approach (Charles and Robin, 2008).

### Application of theories to have quality disclosure in the annual report

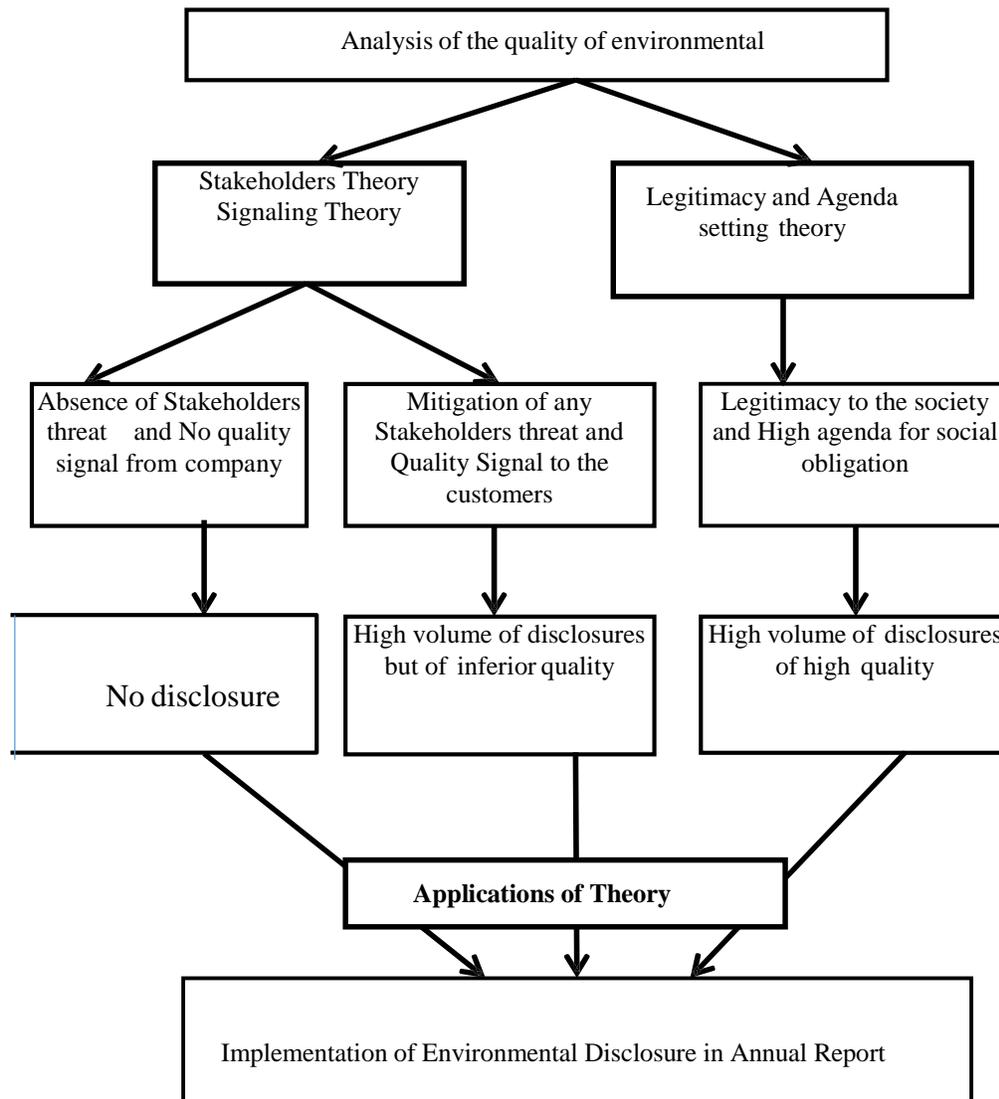


Figure 4: Application of theories to have quality disclosure in the annual report (Modified and combined -Barbu, Dumontier, Feleagă & Feleagă, 2014; Kramer & Porter, 2006)

Figure 4 shows how the theories affiliated with the disclosure are used in preparing a quality disclosure report. Four theories are used to explain the reason why companies undertake disclosure. In the stakeholder’s theory, the focus is more managerial and rooted not only in the cause-effect relationship, but also the structures, practices, and attitudes that encompasses the intrinsic values that each stakeholder holds; these affect the organisation’s structures, and also the

policies that define it, therefore, affecting the decisions made by the company (Donaldson & Preston, 1995). It is, therefore, the duty of the company to satisfy the stakeholders, and if it feels that there is no perceivable threat from the stakeholders, or that the stakeholders do not take seriously environmental disclosure, such companies will choose to invest their resources in places that the stakeholders are much more interested in, therefore, there will be no disclosure. Signalling theory concerns itself with the transfer of information between two parties; in this case the organisation and the stakeholders. Companies may choose not to report their ecological conservation failures that may hurt the overall company's image while displaying successes that they have achieved within a set period (Mitchell, Percy & McKinlay, 2004). In such a case too, there will be a high volume of disclosure, although there will be gaps in the report's information that comprises their failure to act on other impending issues. Arguably, the motivations between the signalling and stakeholder's theory result in non-disclosure or inferior ecological reporting; this will be reflected in the implementation of the disclosure report.

There is a correlation between the institutions that use legitimacy theory and Agenda setting theory as their guiding philosophy toward environmental reporting. While the former is geared towards steering the company's goals towards successful integration with the society, the latter success in implementing the policies is geared towards saving face in the social arena brought about by an exposition. It is these factors that make both theories' projects concentrated towards the community's validation and consumer-oriented projects (Barbu, Dumontier, Feleagă & Feleagă, 2014; Kramer & Porter, 2006). It is, therefore, perceivable; that the disclosures that these organisations produce incorporate high quality and volume environmental-based reports, implementable in their annual reports.

## **2.8. Effect of the Australian community on environmental philosophies**

The human ideologies are crafted through social perception influence how institutions and businesses perform in a given economy through time; choices that eventually affect the viability of a venture is not produced by intentions, but by the underlying perceptions and belief systems upheld by a particular community (North). It is therefore axiomatic that if a society that lives under a standard set of rules and conditions with distinctions and uniqueness marking their collectivism, then, they would have a conventional system of beliefs and ideologies, which are characterised by a spectrum of the individualistic philosophy of their modus operandi. Consequently, this is how divergent ideologies on a common subject comes to be; environmental issues are no exception. Of the school of thought on how environmental issues should be handled; two philosophies are distinct in how they perceive the subject matter should be handled; they include eco-centrist and techno-centrists.

Techno-centrism approach to environmental policies incorporates the emergence of technology into the market economy dynamics through management and planning while addressing the widespread problems that emerge (Henry & Jackson, 1996). It is divided further divided into two categories namely cornucopian and ‘environmental managers,’ the latter policies are of importance to us as they believe that economic growth is useful, but it should mitigate its consequence to the environment through legal protection, taxation, and compensation for ecological systems affected by environmental pollution (Henry & Jackson, 1996).

On the other hand, Eco-centric ideologies reject the notion of economies and technologies since, in their view, they form the foundation of the society indulging in a materialistic and consumer-based trait (Henry & Jackson, 1996). The ideology is further divided into deep ecologists and soft technologists. The former holds the view that the ecological system should be

left alone and unmolested, while the latter takes a softer stance towards by advocating public participation coupled with the involvement of experts in conservation-related decision making (Henry & Jackson, 1996).

It is these ideologies in life that form the basis of how economies and related environmental decisions should interact. Even though ideologies range from extreme measures to moderate measures, a midpoint of co-existence ought to be found in order for the society to progress. It is in this knowledge that measures like environmental reporting has moved from a company's goodwill to initiate change, towards full-fledged policies and openness through incorporating strategic conservational management (Jenkins & Yakovleva, 2004).

## **2.9. Criteria for Measuring the Environmental report**

### **2.9.1. Credibility**

The credibility of the environmental report refers to the expertise used in writing and the level of trustworthiness attached to it. Accuracy is essential, and that is the strong point that investors and stakeholders look for; they also require that the reporting should take a fair and truthful approach. Therefore, when the company produces a report that would satisfy the social and the stakeholders to be an accurate account of the environmental events associated with the company, then the statement would add value to the company. Credibility is tested using external auditors who are accredited with professional competence and to be independent of the company. The GRI guidelines for global reporting have a clause for the assurance provision within the reports. The assurance gets ensured through third parties.

### **2.9.2. Completeness**

Auditing defines the integrity of a report to contain all the records of the events and the materials within the reports. Therefore, all environmental information should get releases

regardless of it getting considered not as relevant to the firm. It is a significant aspect that allows for inclusivity of every stakeholder into the reporting by providing information beneficial to them even if it is not of benefit to the company (Burgwall & Vieira, 2014). GRI guidelines require for completeness of the reporting indicating that its definition involves the inclusion of all relevant information or materials regarding the environmental, economic and social activities of the firm to enable the stakeholders of the company to have enough at hand in the analysis of the performance of the firm.

### **2.9.3. Transparency**

Transparency is the capability of the firm to release information specific to it to the outside public. It consists of timelessness, relevance and reliability characteristics. There are constant pressures and expectation from the external parties of the organisation such as stakeholders, investors, employees, and consumers to get the information. The transparency in the release of the data is the method of improving the trust between the company and these stakeholders. SER information enhances the relationship with investors and the society within which the company operates. Constant communication builds confidence; the best communication tool for an organisation is the annual reporting, it, therefore, builds confidence and assurance to the public because it reveals that the company is acting in accordance to the legal and moral environmental obligations.

These three factors determine the impact of sustainability reports. There are also some factors that affect the quality of the environmental reports. One is the volume; it gets achieved by the release of all significant information on all issues regarding the environmental impacts. Amounts are a measure of completeness of the report. Compliance with the GRI guidelines within the report adds substantial value to the overall report. The GRI guidelines are a convincing standard

of reporting and thus when used effectively ensure that the report is complete, credible and accurate. There are some mandatory and voluntary requirements within the GRI guidelines and therefore guide the company on the legal and most relevant requirements within their reports. Using the GRI guidelines further proves the consciousness of the quality of the report and thus demonstrates the compliance with the legal and societal environmental and sustainability obligation. Assurance of the reporting using external parties assures the quality of the reporting (Burgwall & Vieira, 2014).

#### **2.9.4. Language Used in Environmental Disclosure**

Research by Charles and Robin (2008) introduced a new perspective of analysing the environmental disclosure and relating it to the real impact the companies make within the field. As communication is an essential tool in legitimising a company, the primary information tools are therefore used to create a better impression of the company; this is according to the legitimisation theory. The environmental reporting is one of the best communication tools of the company and therefore it is tailored in a way that would describe the company in good faith. Business communication focuses on avoiding hedging and presenting things as the average eye sees them. The shaping of information in the reports is, therefore, more important than the depth of the content. In most companies within the USA, Sweden, and Australia, there is the use of language bias in the presentation of the environmental information. For example, higher levels of optimism in the reporting and a lower degree of certainty in the expression signify the reduced level of environmental performance. It is a form of language bias that is used to fool the impression of civil society. Moreover, the even poorer performers present more extensive information and tend toward bias in their social and political environment language.

Further research by Jones et al. (2010) introduced new ideas into the languages used within the environmental disclosure. The study proved the presence of increased use of targets in the eco-friendly reports rather the achievements. In the research by Jones, 267 goals got found among the 100 firms studied. Moreover, the companies that have a direct impact on the environment especially those in mining and manufacturing are the ones with the use of low targets at a high of only 2.9 goals per company. The low impact companies had a target average of 2.4. Within the specification of objectives, there are language uses that give undefined, untimed or less precise targets. In most of the companies, the periods of the specified goals do not get defined. For the high impact companies, however, the targets are more precise than with those of low impact companies. While companies determine the objectives, they rarely expose those that have not already met within their environment reports. There is more insistence in what has occurred. High impact companies would, however, get better placed to releasing the missed targets. The above information coincides with the legitimacy theory, which states that companies would like all means to signal their commitment and prove their legitimacy.

#### **2.9.5. The State of Public Environmental reporting in Australia**

The number of Public Environmental Reports is increasing over the years because of a great deal of attention redirected towards the environment and the role the companies play in its conservation. The Asia Pacific region has also shown an increase in the rates of corporate environmental reporting and is now the leading region in the world. In Australia alone, the frequency or disclosure in the year 2017 was at 82 per cent for the top 100 companies; an increase of 25% from the year 2011. The other companies also follow suit, and the rate of disclosure for the whole country stands at 75%, which is an increase of 111% from the year 2011. The World Business Council for Sustainable development and the Environment Australia identified the

benefits of the domestic application of GRI in Australia is common, and the Australian Council of Superannuation Investors defined it as the best reporting framework in the case of comparative analysis of information domestically and internationally. There are many benefits associated to environmental reporting such as the ability to adopt best practices; arguably, this means that the company will re-align the processes to become more efficient while reducing waste, experiencing less pollution through innovation, and engaging in product recycling (Christmann, 2000). On the other hand, management and operations cost reduction act as an advantage to the manufacturing industries as a more comprehensive approach is taken in enhancing the product's environmental practices throughout the product's life cycle (Christmann, 2000). In addition, environmental reporting and 'best practices' are regulated by independent bodies which have policies put into place, and engaging in conservatism reporting can lower cost affiliated to potential liability and legal fees while managing future risks (Christmann, 2000). Industries that have engaged in environmental reporting have also experienced enhanced reputation to the public, as the society becomes more self-aware of the environmental impacts human activity has on the ecological system (Jenkins &Yakovleva, 2004). Additionally, conservation-based reporting will aid in improving both the internal and external stakeholder's confidence in the company; arguably this practice is most successful when advertising of the product's environmental benefits results in confidence to the environmentally friendly products it has to offer (Christmann, 2000). Consequently, the added advantage affiliated with eco-friendly products creates a differential advantage that can be exploited and justified by raising of prices, creating more revenue for the company; arguably, in this way the company will be hailed by consumers as being socially responsible, while monetizing processes that will benefit the ecological responsibility expected of it.

Another new practice coming up within the Australian corporate sector is the integrated reporting. It is the combination of the sustainability and the financial reporting into one document. Investors took note of the concerns raised over viability in recent years and are therefore keen to monitor the sustainability index of the companies. Companies with poor environmental performance are thus placing their stakeholders at risk, and consequently, investors currently do proper screening before creating an affiliation with the company or organisation. United nation's principle for Responsible Investment has already recruited 124 Australian Companies to become their signatories. More evidence is forthcoming to support the relationship between sustainability performance and profitability (Burgwall & Vieira, 2014). Therefore, taking note of them, the investors have become aware, and are no longer investing regarding financial performance but rather the environmental performance and disclosures.

## **2.10. CSR Relationship with Stakeholder's and Environmental Disclosure in the Service Industry**

The embodiment of a businesses' role in the society in regards to the legal, economic, philanthropic, and ethical responsibilities in environmental disclosure and especially regarding the internal and external stakeholders has in recent years experienced tremendous growth (Kolk, 2008). Arguably, this has taken the form of how the companies take into account the CSR and the effect that disclosure has on the stakeholder. In this discussion, the extent to which reporting and auditing impact the notion of transparency and accountability will receive attention, and the impact this has on the stakeholder's concern.

A study by Yeonsoo Kim (2013) found out that stakeholders generally valued transparency in corporations geared towards ethics, philanthropist activities, and economic responsibility;

however, the main attraction towards the stakeholders lay not in communicating the successes but the underlying intentions that spurred the various CSR actions.

One of the factors that affect the outcome of disclosure towards the investors involves the correlation between adverts and CSR activities. As stated earlier, when a company invests a significant amount of capital towards CSR, there is a substantial payback regarding the improvement of the overall image of the company especially when it exceeds the amount used to advertise in the media. However, if the amount announced used for adverts is more than that used for CSR activities, the company received negative evaluation (Gurhan-Canli & Schwarz, 2006). Additionally, the reputation of a company also affected the reception of environmentally based reporting towards the society. For poorly reputed businesses, transparent communicating efforts undertaken to curb and improve ecological issues will enhance the stakeholder's confidence (Kim, 2013). Additionally, such companies should engage in not only society-serving motives but also self-serving motives, in that way such a business increases the shareholder's confidence. Consequently, stakeholders view environmental reporting and CSR in a favourable light especially when done in a transparent manner, and with no obvious deception on the part of the company.

Another significant influence toward environmental reporting by a company hinged on the stakeholder's need for information. The higher the perceived concern raised by the stakeholders and the community at large, the better the level of environmental reporting experienced. Additionally, the competitor's response to environmental issues and also the consumer's concern played the most significant role in determining the depth of conservational-based reporting that a company felt that they owed the stakeholders (Wilmshurst & Frost, 2000).

It is then now left to examine if the stakeholder – company relationship brings benefits to the latter. There is much prove that when a business engages in corporate social responsibilities

receive great returns across abundant stakeholder's realms spanning from investment, customers and internal stakeholders (Bhattacharya et al., 2009).

Corporate social responsibility interrelationship between the stakeholders and environmental reporting has been shown to be beneficial to the advancement of a company's finances as well as reputation. In response to this, most companies have started striving to increase accountability and transparency with the expansion attributed to the benefits accrued (Kolk, 2008). However, the relationship is not defined and the intensity it is carried out with depends on the stakeholder's needs, a perceived threat towards the company's goals, and the impact it has on the businesses finances. Therefore, when the stakeholder's increases expectations for environmental reporting, it results in improved CSR quality.

## **2.11. Gaps within Literature**

### **2.11.1. Governance and regulation**

The concept of sustainability reporting is facing a shift because management does not get widely discussed. There are however several conceptual frameworks that introduce the idea that since environmental reporting is a voluntary initiative, it would actualise corporate accountability (Hess, 2007). There are further hints to a low level of company governance in the world of Dibbinks et al. (2008). He attributes the low level, of self-governance results from insufficient information fed to the stakeholders and investors, lack of proper transparency in the reporting and that the sustainability reports are not standard and therefore are not comparable. Thus there is a call for the institution of a legal framework within the companies that would institute a sophisticated system in the sustainability reporting that is comparable to a system that uses

mandatory reporting. Much has however not been covered to show how this approach would effectively work in improving the level of disclosure.

Strategic disclosure is a phenomenon present in the company environmental reporting; yet is undesirable. Suggestions by Hess and Dunfee (2008) bring the idea of a mandatory reporting under the same GRI guidelines to reduce the effect of strategic reporting. Further, Levi at la (2010) is against the use of the GRI guidelines used in disclosure claiming that they are too generic and do not have a standard for measurements, therefore, would be useful to stakeholders to satisfy a comparison. All these scholars question the nature of the reporting to help the civil society. Their ideology is the introduction of a mandatory reporting system, or a framework close to compulsory and introduction of quantifiable measurements for each category of the disclosure to wipe out the smooth system that encourages deviancy and unscrupulous reporting. Financial reporting over the years has taken the trend towards a mandatory reporting, and even though the environmental reporting is still in its baby steps, it should develop further at the pace of the financial reporting. Some instances have already appeared in South Africa where the stock market makes it a requirement for companies to provide their disclosure in a standard TBL report and case of omissions, explain them conclusively (Burgwall & Vieira, 2014). The effectiveness of the system does not get well researched, and thus it provides a void for more study into the topic.

Another research gap existing in the field of internal corporate governance and reporting is the effect of the governance structures that the company possesses. The governance systems include the committees in charge of the audit, sustainable management and non-executive directors who influence the disclosure. The presence of these people within the system could potentially improve the pressure for better reporting and thus make the company more committed to environmental protection. Research on their actual effect of these individuals within the whole

reporting framework is debatable and brought different results for different scholars (Burgwall & Vieira, 2014). There is room for more investigation on this matter.

### **2.11.2 Responsibilities in the Corporate Social Responsibility**

There are a number of responsible parties that are concerned about CSR issues in a company, and they range from individuals to concerned citizen in a country. Various people in various populations have multiple types of demands concerning the natural environment whether these concerns relate directly or indirectly to companies.

Specific parties who are concerned about CSR issues include:

**Personnel:** the conventional principle of agency theory and regulation contends that personnel are the people who are the principals while companies and others are the agents. The principals then entrust agents to care for their wellbeing in terms of protection of the environment. These principals have expectations that companies are obliged to care about society's wellbeing and to provide benefit to the people. However, as a result of self-interest and shareholder imperatives companies are strongly motivated to maximise their profit.

**Purchasers:** these groups are the acceptors and customers of the corporation's merchandise. They provide materials and supplies to the company. If supplies provide quality inputs using environmentally sound supply chains then consequently its easier for the company to continue along the CSR pathway.

**Lenders:** lenders of an organisation are crucially involved in various kinds of transactions which can direct CSR outcomes. Mostly they are the financing group of the companies, and in most cases, companies are ready to or obliged to listen to their terms and conditions. When they are concerned about CSR issues, then companies tend to follow the CSR issue as well.

Leaders have various duties which include:

The duty of protection and rational usage of environment and assets: Decisions to acquire assets have short term commitments however they have potential long terms consequences. Leaders have a duty to make decisions which incorporate both time horizons.

The duty of financial and social improvement for the local people: that is the duty that an organisation will take to satisfy society's demand. Companies who develop roads or infrastructure for their own business activities should see the external benefits of such infrastructure for local current and future populations. This duty is however incidental and not deliberate. This research revealed that companies are disclosing such social information in their annual report within a CSR report (Karim & Rutledge, 2008; Burgwall & Vieira, 2014).

Hess and Dunfee (2008) suggested that GRI reporting can increase CSR disclosure transparency where companies are showing that they are legitimate in their concerns. Han (2013) accepted Dunfee argument and added that GRI practice in annual report enhance the company's disclosure content and if every company follow GRI guidelines than all over the world, every company will have the similar reporting which will increase company's awareness in the society.

### **Conclusion**

The increase in public concern has in recent years translated to a rise in accountability, but the main question is what motivation leads to these environmental disclosures. There have been efforts to determine these reasons, with a study by Han (2013) showing the main reasons why companies undertake conservatism in its programs. It is undeniable that environmental accountability leads to changes in practices leading to more environmentally friendly practices; the GRI provides guidelines that act as a yardstick to guide in conservation-based reporting (Karim & Rutledge, 2008; Burgwall & Vieira, 2014). However, environmental based activities have been used as leverage by most companies to better their relationship with the society which would act

as a cushion for the future backlash for the most damning environmental exposure. One of the reasons why this is observable in the Australian landscape is the trend for good performers being more honest with their reporting (Lu, 2008). It is in these issues that this has sought to address by looking at the different issues that affect environmental reporting while investigating the literature and other works that have been undertaken by other scholars in addressing the problem.

The literature review in corporate social obligation considers reporting as a necessary element of societal responsibility. A vital evaluation of what has been referred to about company non-financial reporting indicates that there's huge variability on how scholars and companies view this system. Rob Grey (2002), identified that social and environmental reporting is an essential part of their annual report where they can show their transparency to society.

There are a growing number of empirical researches on firms' non-financial disclosure. More and more rigorous content analysis of published company reports has been hired, with perspectives from stakeholder and, political economy theories, data economics and hazard management (Belal and Owen, 2007). The commonplace normative topic within the instructional literature is that CSR reporting complements duty (Bebbington et al., 2008). Indeed, many authors have proposed that the legitimacy principle gives an explanatory frame for social and environmental disclosure (Deegan, 2002).

With respect to the quantity of non-economic reports, there's growing evidence subsequent related to extra disclosure of environmental data through corporate communications: company size, membership in an enterprise dealing with massive environmental troubles, economic performance, media exposure, and is subject to regulatory lawsuits (Adams, 2002).

There have been some studies searching social and environmental records across countries (Adams et al., 1998). They provide proof of differences in the amount and styles of disclosures throughout nations. The quantity of these differences is hard to decide due to the extraordinary traits (for instance length and industry composition) of agencies making up the samples. Further, there are apparent differences in reviews which focus on lifestyle, the extent of rules traumatic social (and environmental) duty; and, the energy of strain agencies.

In Australia, there has been a large number of studies that have used both legitimacy and stakeholder theories to analyse the various behaviours exhibited by a single industry, through examining its behaviour towards conservatism accountancy. Arguably, this has the weakness of dealing with an entity that exhibits similar characteristics within itself, having almost similar attributes when it comes to scope of work, investments, and returns. It is for this reason that the study will dwell on finding a wide array of industries in which to explore; this will enable the study to come up with a more comprehensive picture on the effectiveness of reporting in the Australian landscape. In the next chapter, an exploration into the methodologies and the theoretical framework used will aid in interpreting the findings enabling a viable conclusion.

## **CHAPTER 3: RESEARCH METHODOLOGY**

### **3.1. Introduction**

In Chapter 2, a comprehensive breakdown of the relationship between the philosophies and the environmental theoretical findings and research are correlated; this was done to lay the foundations for the current study while showing why it is important for the Australian environmental landscape. Also mentioned is the outlook the Australian community has on the whole environmental conservatism and its effect on policies. Finally, an exploration into the criteria used for the effectiveness of reporting concluded the chapter.

In this chapter, the researcher will explore the methodology used to achieve the research objective and suggest that environmental disclosure has indeed led to the improvement of environmental practices and reduction in emission of greenhouse gases. Consequently, this includes the factors that influenced the research findings and their correlation to the study; these aspects include the study population, sample size, and data collection and presentation.

In methodology, an empirical study will be used to research this area through content analysis. This study will analyse 75 annual reports of companies from five industry groups, all of which had Corporate Environmental Policy in place (Miller, 2015). Once obtained, the annual reports were analysed using content analysis. Krippendorff (1980, p21) explains that content analysis is a research technique that gets used for making replicable and accurate deductions from data according to their context.

### **3.2. Content Analysis**

Content analysis has proven to be a valuable tool when it comes to research, especially in organisations and companies. Content analysis as a research method also allows researchers to cover the different aspects of an organisation. Content analysis is also a good research design as it

acts as a bridge between the qualitative and quantitative review (Barcus, 1976). Content analysis has become a standard research method because it incorporates both qualitative analysis and quantitative analysis. The content analysis looks at all aspect of the topic under study since it involves systematic analysis. Not only does the method analyse the written text but it also evaluates graphics, documents and oral communications in some instances (Barcus, 1976).

According to a book written by Drisco and Maschi content analysis as research, the method incorporates all aspects of the study, which include the qualitative research methods and the qualitative methods (Drisko & Maschi, 2016). The book also explains the importance of content analysis, especially where large sample sizes are required. Some areas are difficult to analyse using traditional research methods. This method accrues to the fact that fields such as social-cognitive fields cannot be exhaustively investigated using the conventional analysis methods (Drisko & Maschi, 2016; Barcus, 1976)). Content analysis also allows the researcher to analyse large samples within a shorter time frame. Analysis of large samples of data becomes simplified when the content analysis is applied it brings in the combination of quantitative and qualitative analysis thus simplifying the analysis process (Drisko & Maschi, 2016).

The University of Illinois has also produced a handbook on content analysis as a research analysis method. The content analysis gets depicted as a highly productive method linked to its combination of the traditional characteristics of qualitative and quantitative analysis methods (Work Conference on Content Analysis & Pool, 1979). This research method is rigorous and explorative thus allowing researchers to venture in diverse areas such as organisational theory, technological development, organisational cognition and business strategies (Work Conference on Content Analysis & Pool, 1979). Content analysis also gets shown as a method that quantifies the patterns used in communication to bring a broad understanding, which is inclusive of theoretical

materials and the practical part. Content analysis is used to systematically observe the texts or documents provided in an organisation for the area under study. The books and artefacts under analysis are arranged into codes to simplify the process. The systems get organised into patterns, which are not only meaningful but also according to the different areas of research for a straightforward comparison and determination of results.

The introduction of coding and computerisation of research enables the researchers analysing to statistically provide a correlation between the different areas under study to form a comprehensive report (Drisko & Maschi, 2016). The researcher has to label the different patterns identified and their statistical estimates as part of the coding system before entering the data into a computerised system for further analysis. Content analysis is intertwined with information technology, as it is reliant on such programs to provide a qualitative analysis of the data under observation (Drisko & Maschi, 2016).

As has been expounded in the book content analysis consists of several techniques and thus referred to as a family analysis method. The content analysis aims at studying characters that are unambiguous and characterised by simplified frequencies (Drisko & Maschi, 2016). The content analysis gets based on the fact that the understanding of content gets based on reviewing a word in line with the surrounding content (Drisko & Maschi, 2016). Through reviews of the message by analysis of surrounding content, the researcher can place the material under observation in its right context and thus avoid disparities. Analysis of data through this method allows for the precise understanding of words used even where synonyms introduced can be confusing about the meaning. The technique uses dictionary-based means to find out the right purpose and then compares the findings to the frequency in the distribution of words to prevent ambiguity (Drisko & Maschi, 2016).

Different computation tools are involved where this method of analysis is applied. According to the article written by Vaismoradi, Turunen, and Bondas, the most critical aspect of this method are the tools used for the computation of data. The most common tools in this analysis are interviews, written documents, graphs and images among others (Vaismoradi, Turunen, & Bondas, 2013). The systematic review of textual data has recently gotten simplified through the introduction of computerised systems and programs. These computer-based programs are growing in popularity where content analysis is employed as they have been shown to cut the time taken for research by more than 30% (Vaismoradi, Turunen, & Bondas, 2013). The use of computerised systems has also helped in cutting overall costs, as fewer individuals get required for the research operation.

An essential element of research design in content analysis is the selection and development of categories into which content units can get classified. Holsti, (1969 p -69) states that "...content analysis stands or falls by its categories". For this study, the content units get defined as a sentence in the annual report that was considered to be an environmental disclosure. The definition of an environmental disclosure that was developed and provided to the coders is any sentence that discusses or mentions any aspect of the natural environment and its relationship with the organisation (Nyide, 2013).

A coding instrument will develop, which classified each environmental disclosure as either rehabilitation related or other environment-related (Nyide, 2013). The non-rehabilitation environment associated sentences will be then classified further into categories so that the relative dominance of each group can get compared to rehabilitation. In the few studies specifically on the environment, many sub-categories have appeared, these got adapted for use in this study, and additional categories added that got developed from the literature (Aguiar & Bebbington, 2014).

In four places such as director's statement; the financial statements, notes on financial transactions, analysis regarding the environment among other parts of the annual report will be investigated to find the environmental disclosure (Aguilar & Bebbington, 2014).

Reliability is also an important aspect when it comes to choosing the study method. Research done through content analysis is both consistent and reliable. It accrues to the fact that not only qualitative methods get used, but also quantitative methods are used too to make the study comprehensive (Vourvachis & Woodward, 2015). For the research to be reliable, the coding has to get done similarly, which will enhance uniformity and reliability. For the inter-code and intra-code used to form credible system research has to be done on the methodology to come up with universally acceptable coding systems (Vourvachis & Woodward, 2015). This is an issue that has been found to be persistent in the content analysis as a research method. To deal with the problems caused by disparities in coding scholars in the field have come up with guidelines to govern this area. The creation of codes used in the content analysis was based on coders' creativity. However, with the increased popularity of this method, there has been a need for a centralised coding system, which has led to the development of guidelines for the area (Kimberly, 2002).

The content analysis method aims at capturing cognitive modes and logic in research, which can hardly be obtained through other means (Kimberly, 2002). While other methods solely rely on data the content analysis conclusions are based on an evaluation of experiences in combination with value statements. This research method has been proven to be reliable, so applied content analysis as the research method in this analysis.

The analysis of the non-financial disclosure can be conducted following the predominant functions of the report: including accessibility, application of the standardised approach to reporting, accordance to normally frequent reporting standards, availability of a verification

assertion, availability of comments devices and the file contents. This qualitative disclosure will show a company's legitimacy to the ED in their annual report.

### **3.3. Research Design**

#### **3.3.1. Epistemology – Positivism**

Epistemology is a parameter used to question what is accepted as the general truth and what the real truth within the same sphere is. In qualitative research then it takes an interpretive turn, and the researcher seeks to understand the networks created between the paradigms under study. Within a quantitative approach, the researcher checks for the relationship established between the research topic and him/her. There is the debate about the process used in the research and one question an initial philosophical approach determined at the beginning of the study. There are four epistemologies, positivism, realism, interpretivism and pragmatism. The research will take a positivist approach. Positivism as research paradigm checks through data concerning knowledge gained from human experience (Barcus, 1976). It, therefore, suggests the relationship between variables or events and could be determined or observed in a regular manner and deductions made with knowledge from the previous observation. The paradigm assumes that the researcher maintains little contact with any of the parameters in question. The research, in this case, will use annual reports from 25 companies from different fields. The observations on their environmental reporting will tackle the years 2015, 2016 and 2017 and through the continuous coverage, an understanding of the real relationship between expectations, interest, capacity and strategies in the environmental reporting discussed.

#### **3.3.2. Quantitative research**

Quantitative research uses the empirical examination of the research variables and presents the information in differential forms rather than descriptive. The basis of the quantitative analysis

is to create a statistics relationship between the models and thus discuss the hypotheses and relation of the study to theories. It is a common phenomenon with positivist study paradigm in the creation of a relationship between design parameters. Quantitative methods are advantageous because of the use of statistical and computational formulas, and thus least bias is expected in the results. Moreover, other quantitative methods are used to verify the trueness of the data and thus prove the viability of the information projected by the research (Burgwall & Vieira, 2014).

### **3.3.2.1. Explanatory Research**

This research is composed in an evaluation of two kinds of content material analysis; one deals with CSR practices, the alternative one is based on the alternative method proposed in this research.

This research consists of twenty-five Australia companies which the research proceeded with an evaluation of social facts disclosed in annual reports of these twenty-five companies. The sample group has been extracted from the largest company who have been found to have sufficient disclosed content to be analysed using quantitative content analysis. Step one in this analysis is a quantitative content evaluation, primarily based on categories, adapted to the Australia context: surroundings, human assets, merchandise, network, and ethics. This level provides an outline of the number of records disclosed in every category, and the main hypothesis is that this quantity is a proxy of CSR. In a second step use an alternative method to hyperlink facts disclosed and the extent of CSR. The research then evaluated for each enterprise the outcomes acquired from both methods (Burgwall & Vieira, 2014). Primary data sources are the company's annual report because by law a company has to prepare an annual report to show the transparency of their activities. In addition to these annual reports are reliable and publicly disclosed independently audited information which provides social acceptability and provides a research benchmark.

### **3.3.3. Secondary data**

After the quantitative analysis of the research, the secondary is comparatively used for the study of the information. Secondary data is information from previously researched evidence, and the primary sources are the annual reports, peer-reviewed articles, and journals. It is advantageous over the primary data as it is less consuming on time as it only involves the analysis of already researched work. In the research, secondary data will be used in the form of the annual reports from the companies; comparative articles used to create a relationship and the items in magazines and media regarding the expectation bestowed to companies regarding their environmental conduct. The secondary data is usually, better analysed and uses better sets of data and thus is generally better placed to provide reliable information. It is however disadvantaged by the redundancy of information presented in the different articles and journals (Miller, 2015).

### **3.3.4. Quality of data – reliability, validity, and generalizability**

Data for the analysis should be considered for the variety of the investigation. There are set standards for determining the quality of data as discussed within the literature review, they include the generalisation of the data, reliability, and accuracy. Security of the data is defined with the extent to which a process would yield the same result when the process is repeated severally. Reliability is determined by elements such as stability, inter-observer consistency. Consistency in the measurement over a period is the measure of the stability of the data. With consistent data, an index can be built that would be comparable with other data pieces. Similar Subjective judgment in the case of data translation or observation is related to the concept of inter-observability. In the case where two different people view the same process at different times or same time and can observe the same set of results, then the process is termed as inter-observable.

The second criterion for measurement of the quality of data is valid. Validity refers to ‘the extent to which the data collection method or research method describes or measures what it is supposed to describe or measure’ (Lancaster, 2005, p.71). Validity is divided into concurrent validity, face validity, predictive validity, and convergent validity and construct validity. Validity is tested through the creation of statistical relationships such as a correlation coefficient. The third criterion used to check the quality of data is the generalizability. Generalizability is the ability of the research findings to be applied to another research with different settings and produce the same results. Generalizability improves by increasing the population size of the first research. Some tests are present that could test for the generalizability of the test results. Such criteria include the Kolmogorov-Smirnov test or normality tests (Jones et al., 2010)).

### **3.3.5. Time Dimension- Longitudinal**

Research design incorporates another aspect of the time dimension, and their classification is either longitudinal or cross-sectional. The cross-sectional time dimension is used to analyse different data variable over a single point in time. It enables comparison of different datasets for the same period. Longitudinal studies check for the same variable within a different period. It, therefore, exposes differences displayed on the variable with time. It mainly describes the cause and effect relationship. Within the study in this research, it will use both cross-sectional and longitudinal studies. The cross-sectional study will cover the environmental reporting for the different companies within different sectors of the Australian market. The longitudinal design of the study includes the same environmental reporting for the years 2015, 2016 and 2017.

### **3.3.6. Measurement of Variables**

The section determines how the different variables identified in the research questions would be quantified. The dependent variables for the study are the environmental disclosures and

the environmental protection actions. The dependent variables for the study include the institutional environmental expectations, institutional capacity to engage in environmental exposure and protection and the organisation interest towards environmental protection.

### ***3.3.6.1. Dependent Variables***

#### **3.3.6.1.1. Environmental Disclosures**

Research by Hossain Islam and Andrew (2006) introduced investigation that brought forth an index that measures the ecological disclosure of a company. The index consists of the factors that are supposed to contain within the environmental disclosure. According to the GRI regulations, the elements that should appear within the index are compliance, transportation, products and services, wastes and effluents, emissions from the company, biodiversity, water, energy, and materials. The use of the GRI index is because no other defines standard within the Australian market would define the contents of the environmental report. Numerically, the amount of environmental disclosure by a company is not achievable based on the available standards. Hossain et al. proposed however weighted indexes approach of weighing the disclosure by the company. It was defined as the extent of environmental information released to the public compared the amount of data that they ought to have released to the public. In the weighted average, all the items that should be contained within the disclosure are given the same weight to reduce on the insistence on specific parameters which are not defined with a universal standard (Hossain, Islam & Andrew, 2006).

#### **3.3.6.1.2. Environmental protection actions**

Environmental protection actions are measured using the defined performance indicators. They are the business tool that determines the metrics for measuring the presence of the actions taken by the business in the effort towards the conservation of the environment. Therefore using

the KPIs, the company can define the procedure for the operations and try to work towards its implementation. Several reasons make the use of key performance indicators very vital for the case of the business. They help to reduce the lengthy environmental reporting at the end of the actions committed. Moreover, several regulations within the market require that the industry report the actions using key performance indicators. The research will use the longitudinal approach in the measurement of the activities carried out by the company as projected in the aspirations made in the reports for the previous years. The key performance indicators that will be used include emissions to water and air, emissions to land, use of resources, supply chains, products, and biodiversity. Also, in the analysis, a keen eye will be on the environmental expenditures created by the company, and in the cases of companies facing fines due to the reporting's, it will indicate poor performance (Hossain, Islam & Andrew, 2006).

#### **3.3.6.1.3. Environmental expectations**

Environmental expectations asserted to the firm come from the public, legal systems, and the government. The level of relations created between the expectations and the reporting will be analysed for comparison. There is no defined definition for the aspirations of environmental performance for any company, primarily because there no standard prescribing the level of environmental consciousness that should exist within a firm. The companies under analysis are also from different sectors within the market, and therefore they do not have the same metrics of the expectations that people have towards their performance in the market. In this research, therefore, the expectation analysed will include greatly the aspirations that companies have set within their previous years hoping to achieve in the following financial year. Moreover, there is an increasing call for a reduction of specific environmental performance indicators within each firm; they include the gas emissions, wastewater, land disposals, and effluents. Therefore the

standard expectations are that there is a decrease in these emissions with every year (Lancaster, 2005, p.71). Those two are the expectations that will be used for the study of the dependent variable.

#### **3.3.6.1.4. Institutional capacity to deal with disclosure**

The capacity of the company is measured by their financial performance, especially on the corporate scale. Therefore, the best measure for the company capacity to deal with disclosure will be based on two methods; market-based measure and accounting-based test. The accounting measures are defined by the internal control and efficiency in the use of money within the company and externally through the amount of profit that the company registers. Companies with better profit margins have been proven to be more indulged in environmental protection and social responsibility. They are also capable of dealing with the margins associated with environmental reporting and disclosures. The market-based measure, on the other hand, measures the position of the market within the trading environment (Lancaster, 2005, p.71) Companies placed at the top of the supply chain are more visible and are associated with better financial performance. There is a tendance then towards proper environmental disclosure. The companies better placed to deal with the revelation are therefore those defined as with the capability.

Given that facts are high-priced (such as production, amassing, analysing, and reporting of information), the literature on why companies voluntarily expose information has historically focused on the benefits of doing so and penalties for not doing so. At the advantages side, the accounting literature argues that voluntary disclosure reduces facts asymmetry among the firm and its stakeholders, hence overcoming capability enterprise issues, lowering the price of capital, and enhancing the company's differentiation and aggressive performance (Lancaster, 2005, p.71). The economics literature shows that in the case of marketplace failure, the entire enterprise may

recognise the need to self-adjust, which includes voluntary disclosure, which will cope with records and externality troubles and improve the general welfare. At the facet of potential penalties, research on deterrence views voluntary disclosure as encouraged through the goal to prevent the government's formal intervention. As authorities rules tend to be high-priced, inefficient, and overly stringent, corporations opt to disclose simply enough statistics to forestall government involvement. The deterrence of government law can be each particular and preferred: companies that have skilled costly results of government policies inside the past are more likely to have interaction in a voluntary disclosure, and firms which have discovered excessive consequences from enforcement of government policies on other companies within the identical institutional subject are more likely to self-regulate (Hossain, Islam & Andrew, 2006).

Recently, the dearth of clean proof of superior overall performance (economic and social) from firms carrying out voluntary disclosure or self-law in preferred has led pupils to pay greater interest to the impact of broader institutional forces, inclusive of but no longer constrained to the regulative pressures from the kingdom. To continue to exist and grow, firms need to set up their legitimacy and manipulate relationships with diverse stakeholders. Studies have determined that companies voluntarily display their social worries, ranging from environmental protection to product excellent, while there are excessive pressures from social movement activists, customer or shareholder activism, enterprise institutions, and related authorities regulations.

Even as especially insightful, the point of interest on broader institutional forces has given rise to two extra questions. First, organisations are faced with a couple of institutional pressures, not all of which may encourage voluntary disclosure. Certainly, if a voluntary disclosure is supposed to improve a vintage machine in which such disclosure is absent, some institutional forces from the antique device can also nevertheless function to thwart the adoption of voluntary

disclosure. However, while this literature has started to become aware of extra-institutional sources that strain for voluntary disclosure, a good deal less interest has been paid to the institutional sources of resistance. If companies are concurrently faced with opposing and facilitating institutional forces regarding voluntary disclosure, will they divulge and how will the great of their disclosure be affected? Given the significance of the institutional pressures diagnosed in this literature, what explains variant in voluntary disclosure in contexts where the set of institutional parameters are unique? In particular, for voluntary disclosure of CSR through ED activities, regulatory establishments in many rising markets are less probably to exert the same level of deterrence on organisations (Hossain, Islam & Andrew, 2006). While some companies are exposed to standards and expectancies from mature markets thru overseas investment and global market sports, most home corporations cause problems to much weaker normative pressures for CSR.

The wider framework of environmental disclosure is contingent on the complexity of the company's activities and footprint nationally and globally. This then affects a company need and responsibility to disclose this within its CSR. This research draws upon the studies on organisational responses to more than one institutional pressure to develop a framework. The authentic insight from the neo-institutional perspective is that companies comply with institutional pressures to obtain legitimacy and next resource and survival blessings. However, in their selection making, corporations are regularly faced with a couple of and conflicting institutional pressures. Many researchers endorse that positive organisational attributes may additionally filter out these a couple of institutional pressures to the extent that just a few exert power on companies (Krippendorff, 1980, p21.)

Transitional markets such as China feature strong although uneasy co-existence between the country and marketplace affects in the course of the reform generation. At the same time as some

researchers emphasise the growing importance of the market establishments, others pressure the consistently robust position of the country in market transitions. Barbour (2013) argues that during transitional markets the involvement of the country offers an upward push to an extraordinary shape of capitalism and marketplace economic system from that during western democracies. Considers, in Australia's market financial system to be centrally controlled with the aid of the critical authorities, which controls aid allocation, market channels, and personnel selection and assessment, in particular in country-controlled companies. Deegan links local governments to marketers who make guidelines to promote neighbourhood monetary growth.

CSR reporting is a response to the intertwined institutional forces from the national government, other local governments, and market-based institutions in transitional markets. Regardless of the shortage of deterrent measures for non-reporting, the vital government pointers exert normative strain on non-focused firms, and companies with high visibility – attributes recognised in earlier research as magnifiers of institutional stress – may be more responsive (United States, & United States., 2004). This research identifies how the variation institutional forces from the nearby authorities and market, where corporations are embedded, and form company response to the relevant authorities' guidelines to comply with CSR reporting.

#### **3.3.6.1.5. Interest towards environmental protection**

Interest showed by a company towards the implementation of environmental efforts is expressed within their environmental reports. Content analysis will be vital in the study of this variable to determine the primary texts that show the interest of the company. Issues such as projections towards the decrease of emissions, less energy use, and other factors are indicators of interest by the firm to be involved in the improvement of their environmental consciousness.

Since the 1970's stakeholders have shown more interest in to disclose the environmental issues. Media, civil society and non-governmental organisations have also scrutinised organisations regarding their state of operation which include the usage of assets, relationship with the communities, duties toward the environment, as well as respect for human rights including the rights and privileges meted out to the employees. Stakeholders of any commercial enterprise embody an extensive variety of constituencies which include employees, shareholders, clients, suppliers, investors, regulators, worker families, non-governmental organisations, media, civil society and the network around which it operates. Companies need to inhibit a strong stakeholder engagement because attention is increasingly paid on how they conduct themselves and how well they fulfil their responsibilities. Stakeholder's expectations ranged from the monetary reputation of the enterprise to worker satisfaction and the social and moral consequences. Stakeholder is now not most effectively want the commercial enterprise to behave ethically and responsibly, (Barakat, 2016).

It is also seen that stakeholders are themselves becoming better organised and social media has increased their ability to organise and to communicate their opinions. In view of globalisation, technological improvement and growing media transparency and civil society, stakeholders have increased awareness. (Chuang and Huang, 2018). There are extensive evidence and examples of lapses in the duty and care of enterprises and of how agents have breached ethical standards in their operations (Foerster, 2016).

### ***3.3.6.2. Control variables***

The annual reports used for the data panel are those from the years 2015-2017. The observations require a longitudinal study, and therefore the selected framework is of three years with an analysis of the environmental reporting in all the companies for the specific year. It stems

from the indication within the market for pressure towards environmental reporting increasing over the years and the need for a comparative study of the performance. It is also vital to use several years of reporting to show if the plans and aspirations projected by a company in a particular year were fulfilled within the timeframe set. The country of origin for all the companies is the same, Australia, and therefore the parameter defined for the location is identical for all the organisations used for the study.

The companies, however, are sourced from different industries within the market. It is a control variable, and since it is different for every company, then there is a distinct influence on each company regarding their actions. Various industries are attributed to varying amounts of disclosures. The pressure exerted by stakeholders towards the release of financial information is different between the companies. Companies of more prominent profiles and in industries that cause a more significant environmental impact are known to have better reporting than those within the service industry (Cobert et al., 2003). The companies in the high incidence and risky environmental business are also very adoptive of the GRI guidelines in the way they make their reporting and therefore there is difference eventually in the analysis. The industry should be a string variable, and thus each study within the research would be done correctly to the industry. The sectors that feature within the reporting are the banking industry, mining industry, health, education, and energy.

The size of the firm is another essential control variable that is significant in determining the reporting. From the literature review, it became clear that more prominent firms are better placed to handle the costs associated with reporting, they are more visible and would face a more significant blow in the case of reputational damage, and they also can do more regarding corporate responsibility towards the environment. Therefore, in the analysis of firms of their environmental

reporting, the size of the firm is a significant control variable. The economics of scale found with larger firms produce a better standing for them to do more regarding the environment; that is the reason why they are the ones at the forefront of environmental activism. Incentives received by these larger firms reduce the litigation costs that would come about as a result of more indulgence in the environment rather than the formal business venture (Cobert et al., 2003). In this research, therefore, a standard approach was used in the selection of the firms for the analysis to reduce the greater disparities. Top companies within the different industries were used for the study to standardise the expected results.

### **3.4. Study Design**

The study design will be content analysis. The nature of the research topic makes it quite challenging to use quantitative methods in the research. The research will mostly rely on a theoretical approach as a source of research data. The research will look at the academic books, journals, and articles that talk about the topic of research both earlier and recent. The issue of environmental disclosure has slowly been receiving focus from different scholars. The research shall look into the works of these scholars and analyse their research findings. The selection of study material for the preparation of the analysis will be based on the previous research in the field of environmental reporting from different countries. The contents will be analysed to bring forth a relationship between the levels of reporting displayed by companies in their reports and the actual work done in the field. The pressure and expectations exerted by the companies will also be analysed and deductions made concerning the effect of the influence on the behaviour of the companies towards the adoption of environmentally friendly practices. The articles and journals used for the study will source from environmental and accounting databases using the keywords; environmental reporting, Australia, ecological disclosures, sustainability report and analysis of

environmental reporting. This report shall also analyse the annual reports from the 25 companies' 75 yearly reports that shall be used for the review.

### **3.5. Study Population**

The Study population will include all the corporate companies from which the annual reports were submitted for analysis. The annual reports will be downloaded from the company's publicly available information. The population will consist of the top companies in the industries of banking, energy, mining, health, and education. The companies share several common characteristics apart from then identifiable the fact that they are all from Australia. The companies are among the top ten within their industries and therefore have thrived over a while to sustain the environmental reporting. The trait enables them to avail their annual information within their websites. The companies further have been in the market for an extended period; not less than ten years and thus can provide information for three years to aid in longitudinal comparative studies. Moreover, they are all registered by the ASX, and they are under the environmental regulations defined for Commonwealth countries and the GRI regulations. The population selection is varied to ensure that the sample size is fit to represent the whole market within Australia. In the effort to find comparativeness between the industries, companies existing in high environmental impact industries such as energy and mining are involved in the research. Also, companies within the low ecological impact areas of the economy such as the banking and educational sector are included in the study. The neutral industry in all aspects is the healthcare industry to cover for other neutral sectors within the country. Stratified sampling was used in the selection of the firms about their sizes. Choosing only large firms for the study was, however, a disadvantage since it would cover the aspects dealing with sizes. Selection of the years of the financial reports was however not stratified and was based on the fact that the reports for the recent years were easily accessible

through the web sources. All the data will be reorganised to fit into to fulfil the research questions. The participating will choose from the ASIC website and all the annual reports been disclosed to the public after having an independent financial audit by the public auditor which gives assurance for data accuracy. While this research is predominantly into the activities of service industries, the mining industry has also been examined in order to provide a control against which to examine and compare other industries. Mining traditionally and historically has a direct impact on the natural environment. This industry has therefore been at the forefront of being pressured or voluntarily embedding within their reporting aspects of how they affect the environment and how they have taken measures to mitigate this impact

Thus, mining companies are taken for data analysis purpose because world mining companies are mostly complainant with environmental regulation. Comparisons with mining companies and with other companies provide a control against which to compare and contrast the implementation of ED in annual reports.

### **3.6. Privacy and Ethics**

This research respects the confidentiality of the companies involved in the study and will not disclose any information that could harm the business. This study will be based on publicly available information. The University of Newcastle decides that there will be no ethics approval required for this research as the data is using this research are publicly available data, and by law, companies proved their consent to use this data for educational or business use purpose. Microdata released about a company especially on a longitudinal form of study would cause conflicting obligations and rights regarding the disclosure of the subjects, producers and the government which has to provide a structure for the resolution of the conflicts. There are lesser ethical issues associated with the use of annual financial information because they are released voluntarily and

are meant for the public domain. The sources of the data are mainly in company portfolios with their permission to download the information. The materials used for the study are moreover in good faith and wouldn't be used in any way against them. One major ethical issue that would arise would be the active use of all the financial information if there were no beneficial results from the study (Cobert et al., 2003). However, since the research is instrumental in bringing new perspectives and concepts into the view of environmental reporting, then it is useful in the long run and thus uses of the material for the study is justified.

### **3.7. Method of Data Collection**

This research analyses key aspects of ED issue which are being addressed in annual reports. This research identified ED words or content in the annual reports but was not limited to director declaration section, specific environmental disclosure section, sustainability section, GRI report section, CSR section or any other section. The mention of any environmental issue triggered the key determinant of the investigation. Therefore, needed to use an interactive approach that will cover all relevant areas. Research also need to ensure we at the same time develop a rational theoretical background to support the research findings. Content analysis is carried out for the information within the annual reports with the focus on the environmental reports. Aspects of interest within the financial section were to reveal the financial capability of the company to deal with environmental issues. Therefore, metrics that determine the financial ability of the firm such as stock returns, basic earnings per share, return on assets and return on sales were used. The environmental reporting was the primary focus of the content analyses. The data from each company was analysed and checked against the GRI guideline to ensure that they were complete. The data was then recorded into excel tables for comparative purposes either longitudinally or comparatively. Further, efforts made by the company towards the improvement of their

environmental performance were analysed to show the expectations and interest they have regarding the topic. The language of the financial reporting is key as seen from the review of previous literature, and qualitative analysis of the language used within the report was a control variable to determine the accuracy and credibility of the information (Cobert et al., 2003). While the external auditors accredited the information in the reports, a qualitative analysis was used to decipher the depth and quality of the reporting conducted by the company. Effectively, attitudes of the firm towards the environmental concerns were vivid. The following methods were used for each of the specific parameter studies within the research

### **3.8. Environmental reporting**

Reference numbers were accorded to the different aspects of the GRI guidelines for environmental reporting. There are ten aspects of environmental reporting including; water, emission, transport, compliance, products and services, effluents and waste, biodiversity and materials. Therefore, for every annual report, there had to be an inclusion of all the ten aspects of the release to be deemed complete. The number of elements contained within the report was therefore counted with a maximum of ten signifying a comprehensive description and a zero to mean lack of reporting. The information was used to measure the quality and depth of the information within the reporting. Therefore, a company that contained all; the aspects within its report was deemed to have an in-depth and good quality report. The one with below three of the elements in their report was deemed to have poor quality and a shallow environmental report (United States, & United States., 2004)

#### **3.8.1. Company capability for environmental reporting**

The data used in the determination of the capacity of the company to cater to the environmental efforts budget was the measure used market-based and accounting-based

parameters. The factors used were the net sales, net income, total revenue, dividends, EPS and total assets owned by the company. The information was within the financial reporting, within the company website, and within databases for active companies within the world. The values of the values of the above parameter were analysed to check if the company could handle the environmental reporting. Good standing with the market based and accounting-based parameters showed that the company had the right size and the capability to handle activities within the realm of environmental protection (Burgwall & Vieira, 2014).

### **3.8.2. Company interest in environmental awareness**

Curiosity is a qualitative aspect of the annual report. Therefore, qualitative methods of data collection came in handy in the analysis of the information. The language used in the reporting was analysed qualitatively to reveal the company's interest in improving their financial consciousness. More information on the prospects and the steps the company would take towards the reduction of emissions, waste, and pollution showed interest. Moreover, a longitudinal study of the company to show progressive growth in the efforts towards improvement of the company's waste production and more corporate social responsibility would indicate an increase in the overall interest of the company. The variable of company interest answers the third question within the research. With much expectations bestowed by the stakeholders and other external organisations, companies have to prove their credibility by showing interest (United States, & United States., 2004). It is therefore why we measure this interest to prove that the companies have shown that they would work towards being compliant.

### **3.8.3. Environmental Activities**

The environmental activities carried by each organisation within the research sample were identified either directly from the annual reports or other online sources such as RepRisk AG. Analysis based on the

### **3.8.4. Data Management**

After determination of the reports, they will be included in the study. The collected data will then be coded, and entered into the computer and analysed using Excel. This software will describe the data using mean, frequencies and percentages and summarise the data presented using frequency tables, pie charts, and graphs. The data table will provide the summarised the qualitative data into the quantitative information.

### **3.8.5. Data Analysis**

All data will be analysed using data display and conclusion drawing. Comparative analysis of the longitudinal comparison of the companies within the three study years will take precedence. After that, the cross-sectional analysis of the firms within the same industries would follow to draw comparative relationships between the variables presented and against the five hypotheses. Subsequently, a cross-sectional study took place between all the twenty-five companies to identify the links and the difference in the results based on the control parameters. After having conducted the reviewing, transcription, and organisation of data will be considered the first stages of analysis. This data organisation also has to be analysed systematically to assist in the interpretation of data and drawing of conclusions. From the general examination, the factors such as expectations of the firms will be compared to check for the general trend within the market. Since all the firms are all of the same sizes and visibility within the market, the capability of each firm to handle the

environmental reporting is deemed to be enough (Agency, 2016). Therefore a comparative analysis was carried out to identify if there are any retractions from the norm presented.

### **3.8.6. Data Presentation**

The methods used to present research data vary widely. The data presentation will be on graphs, tables and pie charts. The following steps will follow to complete investigations:

Firstly, there are various types of services industries in Australia. This research will choose five different types of services industry group, named Banks, Hospitals, Education, Energy, and Mining companies. Secondly, from each industry group, five different publicly listed leading companies will choose like – from the Banking industry, this research will select Commonwealth Bank of Australia, Westpac, ANZ Bank, National Australian Bank, and BOQ. Same way five companies from Hospitals it will feature Royal Children’s Hospital, NSW, Ramsay Hospital, St. Vincent's Hospital, and Metro South Hospital. The companies from Education; The University of Melbourne, The University of Newcastle, Victoria University, University of Queensland and the Griffith University; 5 companies from Manufacturing it will feature Dulux LTD, Orora Groups LTD., Tassal Group LTD., Michael Hill, and Downer Group.; companies from Mining will be Gold Field LTD., Fortescue Metals group, Rio Tinto, Orica and BHP. From each company, recent last three years publicly available Annual reports will be downloaded. There will be total (25 companies \* 3 annual report from each company) 75 yearly reports for analysis. The year will be 2015, 2016 and 2017.

Thirdly, a specific research paradigm will be developed, i.e., the checklist will expand to fit all data into that checklist (Zhou & Panbunyuen, 2008). This research will develop this checklist according to research questions factors to full fill research objectives. Each checklist item will have two response either compliance standards or non-compliance with the standard (Authority,

2001). According to the results, a deductive analysis will be applied. A deductive analytical method will first aim to draw a conclusion from the various annual reports, the different requirements of the study and then use them to companies such as to gain relevant insights into the same. In the checklist, there will be a score between compliance standards and non-compliance. This scoring system will use to conduct a quantitative data analysis (Hahn & Kühnen, 2013).

The following sample table format is using to analyse the data.

Industry and Items	compliance standards		non-compliance	
	All aspects present	Not all aspects present	Not all aspects present	All aspects present
Banking Industry				
Westpac				
1. RQ 1 Variable				
2. RQ 2 Variable				
3. RQ 3 Variable				
4. RQ 4 Variable				
commonwealth bank				
1. RQ 1 Variable				
2. RQ 2 Variable				
3. RQ 3 Variable				
4. RQ 4 Variable				
HSBC				

*Table 1: Format Showing Analysis of Environmental Reports of Different Sectors in Australia*

Table 1 above shows a checklist used to tabulate the research compliance according to the research objectives. The response will comprise two responses, compliance and non-compliance. In the table, the researcher will concentrate on the five research questions, and whether the compliance standard has been met or not. Both sections will incorporate whether all aspects that were supposed to be present were to be found within the report or not. A more comprehensive data integration is contained in table 2.

Fourthly, the data table will use Excel to conduct data analysis through quantitative techniques; results will be obtained regarding disclosure norms for these listed companies (Zhou and Panbunyuen, 2008). With these quantitative techniques, deduction concept will be applied. Post application of logical reasoning and deriving from the companies, findings, and analysis will be developed and obtained from the research. Deduction from these data can be obtained utilising quantitative analysis then subsequent qualitative content analysis. These findings and analysis will be in line with other researchers.

### Research Design: Environmental Disclosure Score

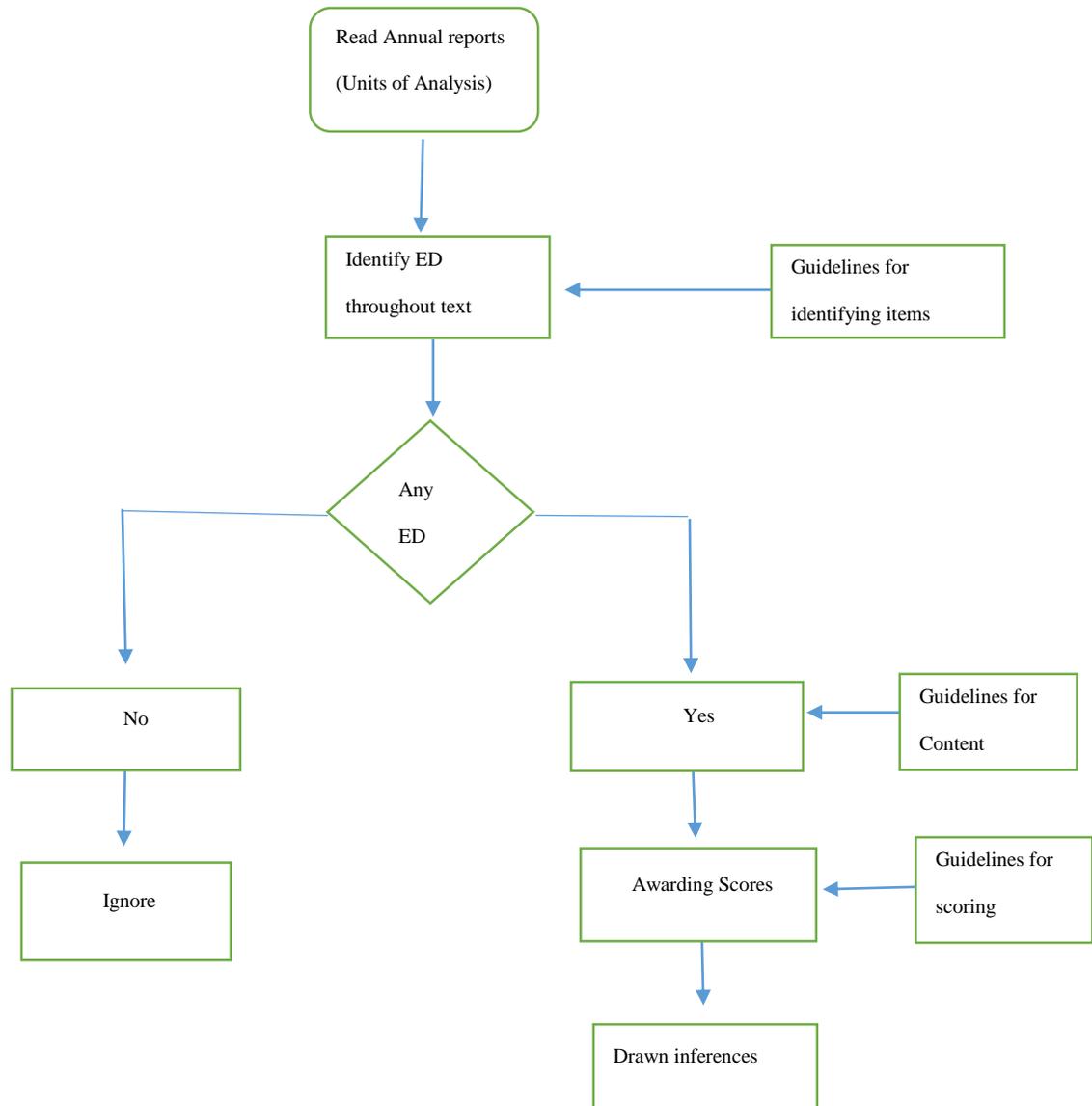


Figure 5: Guidelines for awarding scores (Adapted from Drisko & Maschi, 2016)

Figure 5 shows a Research design flowchart used as a guideline for award scores to companies in respect to whether they have implemented environmental reporting in their reports. The first step involves reading the annual reports to find if there is any mention of conservatism funding. The second step involves the identification of the same through guidelines and tools that have been

discussed in Chapter 2; if its presence is found, the researcher moves on to identify the guidelines for content analysis. The various items have to pass through scrutiny aimed at identifying the scope of reporting, and points are awarded; this follows a set procedure to ensure that varying efforts towards conservatism are fairly recorded. With this categorisation, it becomes clear what internal and external influences, which include the capacity to handle environmental issues and effect of accountancy on reporting, contribute towards a more effective and voluntary environmental based reporting. It is only after grading them, that inferences can be drawn. This has been recorded and discussed in Chapter 5. On the other hand, if there is no ED mentioned or found in the company's report, they are ignored and not evaluated further. In this case, the company has not reported on its environmental undertakings, and therefore, it has not been undertaking conservation-based projects.

### **Conclusion**

The source of the primary data consists of 25 companies and 75 yearly reports; for data this comprehensive to be well sampled, it is prudent to use content analysis (Drisko & Maschi, 2016). The researcher's usage of content analysis as the primary way to carry on the study design can also be attributed to how it effortlessly captures cognitive mode and logic in ways that any other analysis methods could not, acting as a bridge between a qualitative and quantitative review (Kimberly, 2002; Barcus, 1976). It is for these reasons that content analysis was used. The data collected in this manner would then be classified into categories that would aid the researcher in data management; this includes coding it and then analysing using excel. Comparison within the last three years would then identify the correlation, and then virtually represented.

The companies chosen belonged in the five major categories namely banking, energy, mining, health and education; from these categories, the top ten companies in the industry were chosen to compile a comprehensive environmental report. The companies had to be in the industry for a period spanning ten years and beyond, have a three years record for public scrutiny, and follow GRI guidelines. From these companies, ten aspects of environmental reporting were scrutinised which allowed the researcher to determine the capabilities, interest towards environmental awareness, and environmental activities of individual companies as well as the standing of a particular industry in relation to others. Consequently, this data was included in the study and analysis presented; the scope of chapter three is to explain the methodologies used and the extent to which the study reaches before analysis of the data collected. In chapter 4, the researcher will be dealing with how the data collection methods in chapter 3 were analysed and the findings after scrutiny of 75 reports from 25 leading companies in their respective major industries.

## **CHAPTER 4: DATA ANALYSIS AND FINDINGS**

In chapter 3, the methodologies used to define the research were laid out, with an explanation into the scope of the study determined. The data set was shown to belong to 25 companies within the energy, banking, manufacturing, education, and mining industries producing a total of 75 reports within the last three years. Data management was also discussed, with a comprehensive narration into how it will be managed throughout the study. In chapter four, the researcher will be undertaking the task of data analysis as well as presenting the findings; this will enable the subsequent chapters to deal with how the data correlates to the current environmental reporting status, while examining the impact it has on past researches, as well as providing a platform for future studies into the subject.

This research is concentrating on 25 companies has broadened its scope by selecting these companies from a wide range of industries including banking, education, mining, manufacturing and health. The data, therefore, takes a comprehensive overview. The period of the analysis of the 25 companies is three years thus the analysis avoided the selection of obsolete data which might be inaccurate and provide misleading information impacting adversely on the findings. It is emphasised that three years of data gives the best results using content analysis.

### **4.1. Results**

The study conveyed a study on 75 annual reports presented in the years 2015, 2016 and 2017 accordingly. According to the survey, different organisations have exhibited different levels of environmental disclosure at every annual report. The difference between the lengths of exposure will suggest that the size of the company being investigated will vary the value and height of disclosure. Where hospitals and educational enterprises have evaluated a low level of exposure annually, firms from the manufacturing, banking and mining sector have contributed a high

amount of disclosure annually. For the most part, the study suggests that businesses emerging from hospitals and education industries experience a low level of demand for annual environmental information. Shareholders of these companies do not have a high need for accountability from these firms; thereby these businesses may have a good performance but disclose a low note of environmental disclosure annually.

Hospitals and Education firms serve a general public; thereby the analysis on their level of environmental impact may be of a small quantity as compared to other businesses in the Australian industry. Qualitative research on the value of disclosure in the green companies shows that the size of hospitals and the education institutions accounts for the high range of disclosed data that is available through the years (Agency, 2016). On the other hand, banking firms have high shareholder expectancy. Corporations from the mining and banking realms of the industry make up much of the private sector industry in the country. In fact, mining companies are said to contribute a large percentage of the economy of Australia. These companies have exhibited a tremendous value of data regarding environmental disclosure.

The qualitative research reveals that mining, banking, and tourism firms have much effect on the environment. Mining companies have a particular relation to different impacts on the physical environment. Similarly, banking and tourism companies are expected to attract investors, and considerable value of shareholders expects these firms to account for the collective benefit of activities that these firms have encountered in the year. Mining, banking, and tourism companies will give the highest value of data to be examined; however, a quantitative analysis of the data shows that these companies disclose particular information that protects their financial well-being and stability (Agency, 2016). Mining companies exhibited the highest bit of an un-related relationship between the disclosures and the environmental performance. The results reflect that

these corporations have disclosed specific lengths of information's and failed to outline their overall performance.

Consequently, banks provide information that is only applicable to the eyes of their shareholders. On the most part, they have failed to impact the physical environment; they disclosures tend to lean on financial stability and cost management. With an excessive focus on economic figures, banks have been unable to impact positive initiatives that have positive changes in the environment.

## **4.2. Testing of Variables**

### **4.2.1. H1 Variable: Institutional Expectations**

Educational institutions within Australia are accorded the expectations to adopt sustainability projects within their campuses. They are therefore expected to initiate environmental initiatives within their learning process, discoveries and research and in their engagement activities.

#### ***4.2.1.1. United Nations Sustainable Development Goals***

One of the most important sources of environmental goals for the universities, banking sector, mining, and healthcare is the United Nations Sustainable Development Goals (SDG). University of Griffith, Newcastle, and Melbourne are ascribing to the SDGs goals to increases sustainability is several aspects. The SDGs are a collection of 17goals defined by the United Nations in 2015 to cover the areas of hunger, poverty, health, gender equality, sanitation, energy, climate change, urbanisation, education, water and the environment (Sutantoputra, 2016). Two parameters within the goals define the expectations within the Universities ascribed to the SDGs. They are the Climate action and the biodiversity represented by life below water and life on land.

Therefore, in the realm of climate change, there are important factors that would change the processes within the institutions in the expectations that they would go “green” in their activities. Life below water is concerned mainly by the conservation of the water sources and the release of effluents to the rivers and the oceans (Sutantoputra, 2016). Therefore, the expectations for the universities are to create projects that conserve or reclaim water sources, proper usage of the water they get through monitored usage, recycling and reusing. It is all in the processes of preserving the marine life and the life of the other organisms that share the water sources with the humans. Moreover, the universities are supposed to play a role in developing the SDGs through educations; therefore, they are to integrate the topics of sustainability or environmental studies within their curriculum (Sutantoputra, 2016).

In the function of energy within the SDG’s, there is a need for renewable sources of energy use within organisations. Some sectors are energy intensive such as manufacturing, mining, and transport. Most of these organisations depend on non-clean energy sources such as fossil fuels, coal, nuclear power, and biomass (Sutantoputra, 2016). Therefore, under the SDGs, these sectors are consequently encouraged to increase environmental efficiency by using renewable energy. These sources include hydroelectric, biogas, solar and wind power. Thus, it creates an increased expectation to see that the organisations move towards the better use of the energy. Within the industries that are not very intensive on energy use such as the banking, healthcare and education sector, the transition is comfortable into the renewable energy sources.

#### ***4.2.1.2. Legal Obligations***

The legal systems within Australia are another source of pressure as they have their expectations for organisations regarding environmental conservation and reporting. The law was set up to introduce reporting of the greenhouse gas emissions, greenhouse gas projects, company’s

energy consumption, and the ultimate energy production. The definition of the greenhouses gases under the law is nitrous oxide, carbon dioxide, methane gas, hydro-fluoro- carbon, sulphur-hexafluoride and per-fluoro-carbon. Therefore, for every company registered under the act, therefore they had to comply with the law. Within the institutional framework, the institutions had to set up operations policies, safety and health policies, and other environmental policies that geared the activities of the company towards environmental efficiency. Universities within Australia, especially the ones used within the study sample got registered under the act, and therefore it was within their obligation to report their emissions and indulge in projects that got geared towards environmental conservation (Burgwall & Vieira, 2014).

#### ***4.2.1.3. Previous Incidents or Accidents***

Earlier incidents within an institution that resulted in an environmental hazard are another source of pressure for compliance and reporting. Within the annual reports for every institution or organisations, they are obliged to indicate the activities of all the year concerning the environment. It, therefore, includes the incidents or events that had a detrimental effect on the environment. Consequently, there is a need to create a reassurance to the stakeholders of the improvements made within their system and the activities that would result to prevent such an event from occurring. Therefore, there are increased expectations regarding the way they will act. The University of Queensland in 2016, faced tow sewage bursts incidents that cause an environmental hazard in the school according to the University of Queensland annual Report (2017), They were therefore forced to release the result of the review within their financial report and create a measure that would prevent future cases of the same incidents.

#### ***4.2.1.4. The Trend of Environmental Audits***

There is also an increase in pressure for companies within the country to get involved with environmental audits. They are used to cover the areas of waste, biodiversity, procurement, transport, energy, carbon dioxide and greenhouse gases emissions and water. The rising interest is because of the benefits of the audit. The benefits of internal audits are compliance with the regulations, reduction of the impact of the organisation activities to the environment, improving the company image and the relationship with the stakeholders, and giving an excellent base for the environmental management systems (EMS). For the organisation itself, it accrues benefits from the actions such as finding areas that are potential cost savings such as in waste minimisation and creation of efficient procedures and machinery. It allows for comparison between different plants within different regions and therefore benefits the company by finding a benchmark; it provides areas that require training and assists in the organisation of training especially in environmental efficiency. It further identifies failures that may occur within a course of time and thus help the organisations to help in averting them. The primary function of the audit is to provide the company with an assessment of all their activities and the effect they have on the environment. Tellingly, in the case of an emergency at the workplace that involves incidents, the audit gives an essential analysis of the event, causes, and ways to avert such a thing in the future (Burgwall & Vieira, 2014). Tellingly, the auditors provide the organisation with a proper gap analysis on areas, which the company can improve on with the introduction of environmental management procedures.

#### ***4.2.1.5. Cost Saving***

The primary driver for environmental conservancy for the 25 Companies within the study is the cost reductions associated with environmental conservation. The finance departments and the management have therefore been keen on cost-savings within the fight to protect the

environment. One of the areas that increase the cost saving of a company is the reduction of wastes. Through efficient processes and processes such as reusing and recycling, the company gets to spend less on waste disposal and in the procurement of new raw materials or amenities. Therefore, the activities of environmental protection get to save the company more. Use of renewable power within the organisations also reduces the cost of energy over time. The renewable sources such as cogeneration in industries, solar panels, and solar heaters have a high initial cost, but eventually, their operation costs are even less. Reusing of package materials, reusing and recycling water reduce the cost of operations in many industries and institutions. Ultimately, the institutions can save on the amounts used in the paying of energy bills (Burgwall & Vieira, 2014). Other environmentally friendly activities that improve the expenditures of the company are re-engineering processes, working smart environmental issue and sharing resources.

#### ***4.2.1.6. Stakeholder Expectations***

As revealed by the annual reports within the various industries of Australia, the stakeholders are the people affected directly or indirectly by the actions of the organisation. For example, in the educational institutions, the primary stakeholders include the alumni, the students, the staff, the community around the school, the owners, sponsors and the government. Therefore, they all have a role to play in shaping the activities of the organisation. Therefore, their expectations are competent to drive actions from the organisations. In the firms analysed for the study, the organisations developed their environmental activities for the benefit of the stakeholders. The government introduced regulations, and as a stakeholder, it enforced the ordinance. The customer preferences in the market are now tending towards the good that goes “green,” therefore to grasp the share of the market and increase in profits, the companies introduce green energy sources and packaging for their products. Top management is an internal stakeholder

who has the mandate to make the most significant decisions about the firm. Therefore, their input into environmental investments is key in the director report for the University of Queensland, Orica Company and Goldfields mining, they had much to say on the need for sustainability within their firms (Burgwall & Vieira, 2014). It is evident that their input was useful as the sustainability projects for the companies took a rise for the three years subject to the content analysis.

From the content analysis of an article by Lindblom and Ohlsson (2011), it is also clear that the media and the public interest define another set of external stakeholders. They continuously monitor the activities of the organisation and are the most prominent critics. Their role in establishing the environmental expectations for organisations, but they play a significant role in determining the actions to take place. The media, for example, is keen to report on any ecological malfunctions within the firm and cases of poor handling of waste. They, therefore, carry the image of the company, and their opinion is essential to the public domain. Moreover, the public interest through NGOs, lobby groups and individuals are the active creators of idea regarding the expectations accorded to the companies concerning environmental conservation. Therefore, they play a role in the overall framework.

#### **4.2.2. H2 Variable: Institutional Environmental Capacity**

Company	Year	With Capacity	Without Capacity
Educational sector			
Griffith University	2015	X	
	2016	X	
	2017	X	

University of Queensland	2015		
	2016	X	
	2017	X	
Victoria University	2015	X	
	2016	X	
	2017	X	
The University of Melbourne	2015	X	
	2016	X	
	2017	X	
The University of Newcastle	2015	X	
	2016	X	
	2017	X	
Mining Industry			
Orica	2015	X	
	2016	X	
	2017	X	
Gold Fields LTD	2015	X	
	2016	X	
	2017	X	
Fortescue Metals	2015	X	
	2016	X	
	2017	X	
BHP	2015		X

	2016		X
	2017		X
Rio Tinto	2015	X	
	2016	X	
	2017	X	
Banking Industry			
ANZ	2015		X
	2016		X
	2017		X
NAB	2015	X	
	2016	X	
	2017	X	
BOQ	2015		X
	2016		X
	2017	X	
Westpac	2015		X
	2016		X
	2017		X
Commonwealth Bank	2015	X	
	2016		X
	2017		X

<b>Manufacturing Industry</b>			
Dulux LTD.	2015	X	
	2016	X	
	2017	X	
Orora	2015	X	
	2016	X	
	2017	X	
Tassal	2015	X	
	2016	X	
	2017	X	
Michael Hill	2015	X	
	2016	X	
	2017	X	
Downer group	2015	X	
	2016	X	
	2017	X	
<b>Health Industry</b>			
NSW	2015		X
	2016		X
	2017		X
Ramsay Hospital	2015		X
	2016		X

	2017		X
St. Vincent Hospital	2015		X
	2016		X
	2017		X
Royal Child Hospital	2015	X	
	2016	X	
	2017	X	
Metro South Hospital	2015		X
	2016		X
	2017		X

Table 2: Showing different capacities of the companies to handle environmental issues (Data Collected from 75 Annual Reports)

### Weighted influence towards the capacity

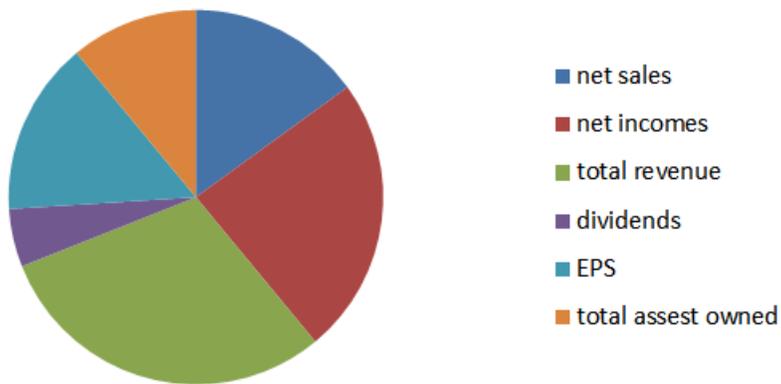


Figure 6: weighted means of factors contributing to company environmental capacity (Data collected from Industry Average – ABS)

Figure 6 shows how several accountancy factors influenced the company’s environmental reporting; these aspects include net sales, net incomes, total revenue, dividends, EPS, and Total assets owned. It was observed that the higher the total revenue gained by a company, the more it was likely to engage in environmental reporting. Other factors contributed too but to a lesser degree. The second most important pointer was their total incomes followed by EPS, net sales, total assets owned, and lastly dividends.

Table 2 shows the capacity of the surveyed companies in engaging with environmental issues; in the health industry, all the hospitals could not undertake environmental issues except Royals children hospital. In the manufacturing industry, all the companies that submitted the reports were found to have the capabilities to engage conservatism; similarly, all the companies in the industry in the mining industry could engage in based environmental activities with the exception of BHP. In the Education sector, none of the Universities was found to have the capacity. Finally, in the banking industry, the capacity to deal with environmental issues was not possible, with the exception of BOQ, which had the capacity up until 2017. This table enables the research to have a clearer picture on whether any company’s lack of resources in dealing with environmental issues actively contribute to their contribution towards it; arguably, it will enable for better and comprehensive data evaluation and reporting in areas not covered by preceding literature, while providing data for future investigation.

**Weighed influence towards the capacity table**

	Weighted influence towards the capacity
Net sales	0.15
Net incomes	0.24

Total revenue	0.3
Dividends	0.05
EPS	0.15
Total assets	0.11

*Table 3: showing the six important parameters used to determine the company's financial standing. (Source: Service Industry Average – ABS)*

Table 3 shows the parameters in the company's financial projection; these will be used to evaluate the company's ability to handle environmental matters. The weighted means used for the analysis of the capacity was based on the six most important financial parameter of a company. The factors used for the study were; net sales, net incomes, total revenues, dividends, earnings per share and total assets owned. These are the major factors used in the determination of the firm's financial capability. The basis of the weighted value used was based on statistics provided by the Bureau of Ocean Energy Management (BOEM) determining the short term and the long-term financial capacity (Christ, 2013). The short-term financial capacity is measured from the entity's liquidity and its capability to deal with short term financial obligations. On the other hand, the long-term financial capacity is measured from the company's leverage and performance within several periods.

The research used the long-term financial capability in the research because of the availability of the financial statements in the director's report for the three years. Therefore, the long-term factors considered in the case were the company's performance and the cash flow. Performance in the study indicated the equity capital in the form of earnings per share and the dividends. It also included the total assets owned by the company. The cash flow analysed factors, such as the income generates, revenues and net sales. The cash flow factors got a better weight because of their direct involvement in the financing of environmental conservation projects.

The companies selected for the study were the top companies within their fields, and this placed them at an advantage regarding the capacity to handle the environmental and sustainability. The capacity to handle sustainability gets first defined by the financial capability possessed by the company. The financial ability gets measured from the income generated by the company, return on assets (ROA), return on profit (ROI) and the sales per share. Therefore, having the top companies for the studies means that all their accounting and market share parameters were up to standard and accordingly they could handle sustainability. The second factor considered for the capacity of the firm is the visibility within the market. The above-selected companies rank among the top visible companies by the number of articles they appear in the newspapers. Their increased media attention, therefore, affirms that they are within the scale where they hand to engage in efforts of environmental sustainability to protect their reputation. Only the health sector companies are the ones without the high visibility capacity. Therefore, most of them cannot participate in ecological stability with significant investments. The third factor considered in the research for the environmental ability is the period of operation. Companies that have had a more extended period of activity and not broken cannot even engage in external efforts geared at the promotion of environmental conservation. However, with the selected companies within their specific industries, they have been in existence for more than ten years and are therefore market leaders. Their profitability is beyond their breakeven point, and consequently, they have appropriations for the sustainability projects (Burgwall & Vieira, 2014).

Given that a company can participate in environmental conservation efforts, therefore it engages by acting directly or using other players in the market to work for them. When companies act directly in environmental initiatives, they create their internal processes that are environmentally friendly. These include the reduction of energy use, use of renewable energy

sources, reduction of the emissions, recycling water, reusing water, treating their chemical waste and promotion of biodiversity. The capacity also helps them to start internal programs and projects that aid in the making their processes efficient and reducing their footprint. When the companies decide to take an external effort towards environmental sustainability, they support other projects geared to the same endeavour. They encourage community conservation activities; they support research within other fields and also provide funding to significant organisations dealing with environmental change. The organisations include the national level and the international level such as the Commonwealth and the United Nations.

#### **4.2.3. H3 Variable: Institutional Environmental Interest**

There is no numerical measure to the level of interest that a company has shown towards the expectation of the public and stakeholder towards their environmental sustainability programs. However, interest can be measured by the actions they initiate and the plans set up for their development. Therefore, the following were the methods used by the companies to show interest in the activities of environmental rehabilitation and protection;

##### ***4.2.3.1. Introduction of Environment Sustainability in the Learning process***

The institutions in this section involved institutions of higher learning within Australia. The primary way of integrating their students and lecturers in the sustainability efforts was the integration of sustainability in the curriculum in different ways. All the universities in the study have a department dealing with environmental programs and the management of sustainability. Through the departments, they create research and content analysis with students in an interdisciplinary affair. Therefore, there is the creation of a research niche within the university, and the students and lecturers are engaged in finding better ways to deal with environmental problems. It also increases consciousness and is a factor that promotes environmental awareness even to their

alumni in different fields after University. The University of Melbourne, Queensland University and the University of Newcastle have an ecological fund that receives applications for grants for people seeking to develop sustainability projects (University of Melbourne Annual Report, 2017; Queensland University Annual Report 2016; University of Newcastle Annual Report, 2017). Because of the funds, there are running projects within the schools. Moreover, these universities have created courses related to environmental sustainability to equip the students with the knowledge to create change within society. The courses include bachelors in Environmental Science, topics include various environmental issues, which will have slow positive changes regarding environmental awareness in future.

#### ***4.2.3.2. Creation of Environmental Goals***

Within their annual reports, the organisations started departments and programs set out to increase environmental awareness, reduce their energy consumption, energy emissions and improve on their sustainable transport plan. Within the environmental GRI guidelines aspects such as emissions, biodiversity, water, materials, transport and energy management, the companies set out the target to reach within the following years. In the next annual report, they were able to show the extent to which they achieved their objectives. The organisations used targets to increase their efficiency, and while the reports did not signify the exact steps taken towards their achievement, it showed that they had an interest in the whole process of environmental efficiency.

#### ***4.2.3.3. Starting of projects***

Most of the organisations analysed for the research within the banking, educational and health sector had introduced solar use for their systems. The Griffith University introduced a 25kW solar plant for the MBA School. The University of Queensland increased their solar use each year to a total capacity of 410kW by the end of the 2017 financial year. The University of Melbourne

increased its solar capacity in 2017 to 2.1MW. The organisations further started projects to collect rain and stormwater; while others reuse and recycled.

***4.2.3.4. Engagement of Staff in Processes of Sustainability***

Companies show interest in ensuring that the whole internal stakeholder framework is involved in the fight to ensure sustainability. Creation of departments that got geared towards monitoring effluents, biodiversity, and analysis of the environmental impacts gets witnessed across all the companies within the research. The other employees were involved directly in projects geared towards the reclamation of the wastes and environmental research. Effectively, it is visible that there is a definite interest in the whole organisation to ensure a sustainable future for the organisation.

***4.2.3.5. Funding Environmental Sustainability***

Creating a budgetary allocation specifically for the goals of environmental sustainability speaks volumes about the company’s efforts. Companies of the high environmental impact such as the mining and manufacturing industries had the highest appropriation into environmentally friendly projects and the processes of monitoring the water and effects to the environment. The other institutions also had their fund for environmental awareness projects and also provided funding in the form of grants to institutions, groups, and individuals involved in environmental research (Lindblom and Ohlsson, 2011).

**4.2.4. H4 Variable: Environmental Disclosure Strategy**

Different organisations took to different methods of disclosure strategy

Industry and Items	Compliance Standards	Non-Compliance
--------------------	----------------------	----------------

	All aspects present	Not all aspects present	Not at all Present	All aspects Present	
<b>Education Industry:</b>					
<b>The Griffith University</b>					
RQ 1 Variable	X		X		
RQ 2 Variable	X		X		
RQ 3 Variable	X		X		
RQ 4 Variable	X		X		
RQ 5 variable	X		X		
<b>University of Queensland</b>					
RQ 1 Variable		X	X		
RQ 2 Variable	X		X		
RQ 3 Variable		X	X		
RQ 4 Variable	X		X		
RQ 5 variable	X		X		
<b>Victoria University</b>					
RQ 1 Variable	X		X		
RQ 2 Variable	X		X		
RQ 3 Variable		X	X		
RQ 4 Variable	X		X		
RQ 5 variable	X		X		
<b>The University of Melbourne</b>					
RQ 1 Variable		X	X		

RQ 2 Variable	X			X		
RQ 3 Variable	X			X		
RQ 4 Variable	X			X		
RQ 5 variable	X			X		
<b>The University of Newcastle</b>						
RQ 1 Variable		X		X		
RQ 2 Variable	X			X		
RQ 3 Variable	X			X		
RQ 4 Variable	X			X		
RQ 5 variable		X		X		
<b>Mining Sector:</b>						
<b>Orica LTD</b>						
RQ 1 Variable	X			X		
RQ 2 Variable	X			X		
RQ 3 Variable	X			X		
RQ 4 Variable	X			X		
RQ 5 variable	X			X		
<b>Gold Field LTD</b>						
RQ 1 Variable	X			X		
RQ 2 Variable	X			X		
RQ 3 Variable	X			X		
RQ 4 Variable	X			X		
RQ 5 variable	X			X		

<b>Fortescue Metals</b>					
RQ 1 Variable	X			X	
RQ 2 Variable	X			X	
RQ 3 Variable	X			X	
RQ 4 Variable	X			X	
RQ 5 variable	X			X	
<b>BHP LTD.</b>					
RQ 1 Variable	X			X	
RQ 2 Variable	X			X	
RQ 3 Variable	X			X	
RQ 4 Variable	X			X	
RQ 5 variable	X			X	
<b>Rio Tinto LTD.</b>	X			X	
RQ 1 Variable					
RQ 2 Variable	X			X	
RQ 3 Variable	X			X	
RQ 4 Variable	X			X	
RQ 5 variable	X			X	
<b>Banking sector</b>					
<b>ANZ Bank</b>					
RQ 1 Variable		X		X	
RQ 2 Variable	X			X	
RQ 3 Variable		X		X	

RQ 4 Variable	X			X		
RQ 5 variable	X			X		
<b>NAB Bank</b>						
RQ 1 Variable		X		X		
RQ 2 Variable	X			X		
RQ 3 Variable	X			X		
RQ 4 Variable	X			X		
RQ 5 variable		X		X		
<b>BOQ bank</b>						
RQ 1 Variable	X			X		
RQ 2 Variable	X			X		
RQ 3 Variable	X			X		
RQ 4 Variable		X		X		
RQ 5 variable	X			X		
<b>Westpac Bank</b>						
RQ 1 Variable	X			X		
RQ 2 Variable	X			X		
RQ 3 Variable		X		X		
RQ 4 Variable		X		X		
RQ 5 variable		X		X		
<b>Commonwealth Bank</b>						
RQ 1 Variable	X			X		
RQ 2 Variable	X			X		

RQ 3 Variable		X		X		
RQ 4 Variable	X			X		
RQ 5 variable		X		X		
<b>Manufacturing Sector</b>						
<b>Dulux Company</b>						
RQ 1 Variable	X			X		
RQ 2 Variable	X			X		
RQ 3 Variable	X			X		
RQ 4 Variable	X			X		
RQ 5 variable	X			X		
<b>Orora LTD.</b>						
RQ 1 Variable	X			X		
RQ 2 Variable	X			X		
RQ 3 Variable	X			X		
RQ 4 Variable	X			X		
RQ 5 variable	X			X		
<b>Tassal group</b>						
RQ 1 Variable	X			X		
RQ 2 Variable	X			X		
RQ 3 Variable	X			X		
RQ 4 Variable	X			X		
RQ 5 variable	X			X		
<b>Michael Hill Company</b>						

RQ 1 Variable		X		X		
RQ 2 Variable	X			X		
RQ 3 Variable	X			X		
RQ 4 Variable		X		X		
RQ 5 variable		X		X		
<b>Downer Group</b>						
RQ 1 Variable	X			X		
RQ 2 Variable	X			X		
RQ 3 Variable	X			X		
RQ 4 Variable	X			X		
RQ 5 variable	X			X		
<b>Health Industry NSW</b>						
RQ 1 Variable	X			X		
RQ 2 Variable	X			X		
RQ 3 Variable	X			X		
RQ 4 Variable		X		X		
RQ 5 variable	X			X		
<b>Ramsay Hospital</b>						
RQ 1 Variable	X			X		
RQ 2 Variable		X		X		
RQ 3 Variable	X			X		
RQ 4 Variable	X			X		
RQ 5 variable		X		X		

<b>St. Vincent Hospital</b>					
RQ 1 Variable	X			X	
RQ 2 Variable	X			X	
RQ 3 Variable		X		X	
RQ 4 Variable	X			X	
RQ 5 variable	X			X	
<b>Royal Child Hospital</b>					
RQ 1 Variable	X			X	
RQ 2 Variable		X		X	
RQ 3 Variable	X			X	
RQ 4 Variable		X		X	
RQ 5 variable	X			X	
<b>Metro South Hospital</b>					
RQ 1 Variable	X			X	
RQ 2 Variable		X		X	
RQ 3 Variable	X			X	
RQ 4 Variable	X			X	
RQ 5 variable	X			X	

*Table 4: Showing Different methods used for environmental reporting (Data Collected from 75 Annual Report)*

In table 4, the data affiliated with the aspects that are available or not in the compliance or non-compliance statistics of different companies are outlined. These variables are grouped according to the research questions postulated in chapter 1. The implications the table has on the findings will be discussed in chapter 5.

The environmental reports, used for the study, were judged by their completeness, credibility and transparency. Completeness can be measured using the five-variable introduced by the research questions; the variables were; institutions expectations, institutions environmental capacity, institutions of environmental interest and the environmental actions got taken. Most of the organisations were evident in the hopes that got directed to them, and their reporting got directed towards those expectations. For example, if the guidelines introduced by the reporting were according to the law, the reporting strategy used was about the law that gave the instructions.

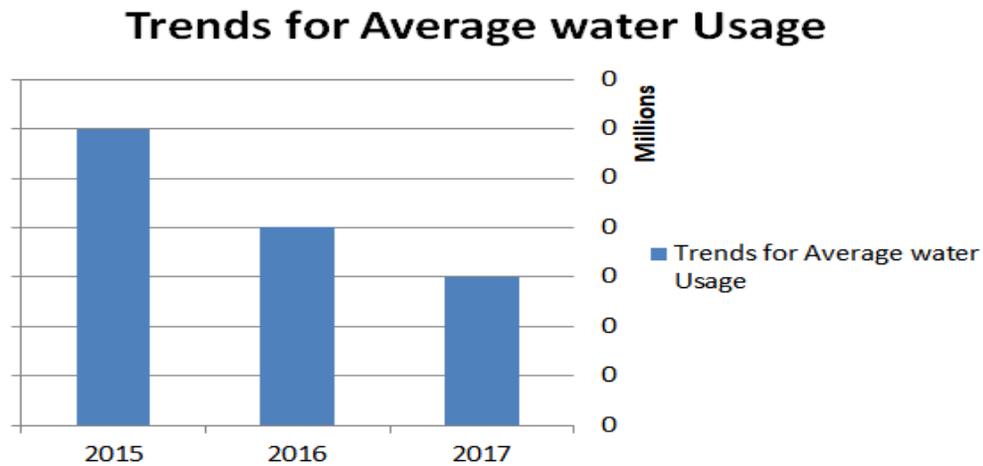


Figure 7: Trends for average water usage (Source: Industry Average from ABS)

Water usage has shifted from use of environmental water to recycled water; this points to better conservation of environmental resources and practices. This is but one example of a shift in companies' attitudes to the environment. In general companies of high environmental impact such as the mining and manufacturing industries have the highest appropriation of environmentally friendly projects. From 2015 to 2017 the graph shows that due to using of recycling water there has been a decrease the overall water usage in Australia. In addition to this, all industries are aware that it becomes a company's social responsibility that water requires recycling to protect the environment.

Figure 7 shows the usage of water throughout the industry; the trend slows down through the three years. As explained in section 4.5.2, water efficiency aids in alleviating the society’s water management problems. It could also mean that the companies are engaging in water harvesting during the rainy seasons, and recycling to ensure efficiency.

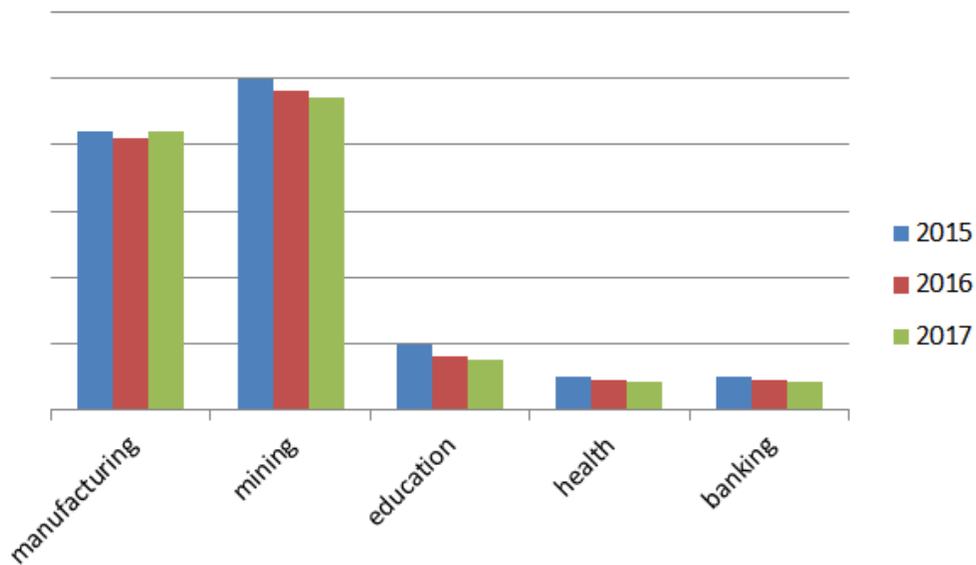


Figure 8: Greenhouse gas emissions (Source: Industry Average from ABS)

The trend in the graph shows that in recent years manufacturing, mining, education, health and banking have also substantially decreased greenhouse gases. According to the annual report of the Industry average ABS shows that the education, health and banking are declining as compared to the manufacturing and the mining industry. Therefore, the corporate social responsibility in the education, health and banking industry needs to be considered as the priority to ensure the continuity of the organisation or industry sector. This analysis identified that from 2015 to 2017 greenhouse gas emissions overall decreased which refers that companies are concern how to minimise the greenhouse gas emission rate.

Figure 8 shows the production of greenhouse gases over the years affiliated with the five industries. As expected due to their high energy demand that accompanies these kinds of industries, Mining and manufacturing are the leading greenhouse gas emitters; however, there is a slowdown in the trend that spans from the year 2015 to 2017 for the former, but the later shows a decline in greenhouse production in 2016 from 2015, but an increase is observed in their output in the year 2017. Education, health and banking also show an improvement over the three years, of the three industries, the highest reduction being is attributed to education. The data herein show that the highest gains that have been experienced in reducing the effect of greenhouse gases are Mining and education, while the industry that lagged in making an environmental impact in the area is manufacturing.

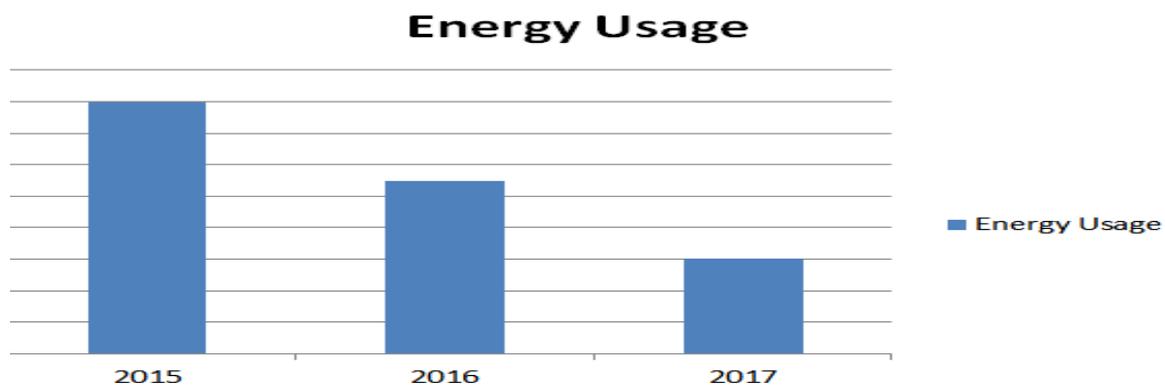


Figure 9: Trends in Energy Usage (Source: Industry Average from ABS)

According to the above diagram, it shows the trend in energy use for the three years the report concentrates on; arguably, there is a reduction observed in the amount of energy consumed from the year 2015 towards the year 2017. This effect is observable in all the sectors that were examined. This trend is helpful in environmental based studies as the energy factor in production contributes to over 30% of the greenhouse gases. According to ABS due to the wide use of air

turbine and solar energy, all over Australia green energy production increases and at the same time natural energy production decreases, though overall energy end-user usage remains the same over the last three years.

Figure 9 shows the trend in energy use for the three years the report concentrates on; arguably, there is a reduction observed in the amount of energy consumed from the year 2015 towards the year 2017. This effect is observable in all the sectors that were examined. This trend is helpful in environmental based studies as the energy factor in production contributes to over 30% of the greenhouse gases.

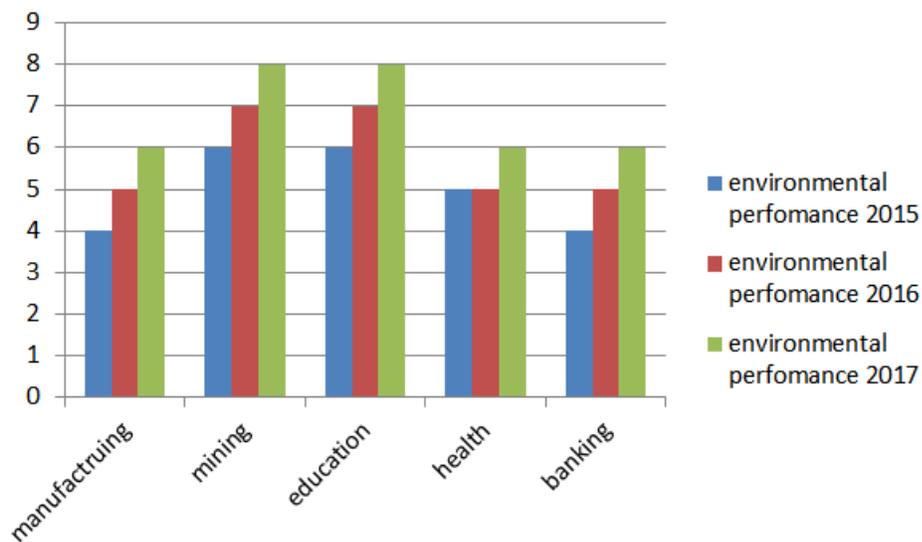


Figure 10: Environmental performance in the five industries from 2015 to 2017

According to the above figure, the education and mining sectors show the greatest performance of the five, followed by manufacturing, health and banking which show almost similar performance index. The five industries show a positive trend that tapers from 2015,

increasing in environmental performance towards 2017. These pictorial indexes show an improvement in how the companies handled conservatism through the years.

Figure 10 shows the environmental trends that were observed in each year from 2015 to 2017. The education and mining sectors show the greatest performance of the five, followed by manufacturing, health and banking which show almost similar performance index. The five industries show a positive trend that tapers from 2015, increasing in environmental performance towards 2017. These indexes show an improvement in how the companies handled conservatism through the years.

The organisations used statistical facts and figures in the form of bar graphs, charts, and line graphs to show their growth in improving environmental conservation. For example, data was used to indicate the energy consumption reduction, water consumption reduction and the reductions in the emissions in the form of gases. The trends shown in the companies are a positive trend from the years of 2015 to 2017. The companies have reduced their dependence on non-renewable sources of energy such as coal and diesel that also are the contributors to global warming through the production of greenhouse gases. Institutions such as banks, hospital, and universities are now starting projects of renewable sources of energy. The manufacturing and the mining industries are increasing their reliance on the hydro, wind and solar power; which are renewable sources of energy. The water usage by companies in the manufacturing mining, banking, and education industry has decreased their water usage. Reusing and recycling cited in most of the annual reports as ways of improving the water usage. Waste produced by the manufacturing industries is also taking a decelerating curve as shown from the illustrations in the yearly releases.

The trends of the environmental consciousness prove that there was progress in the companies' behaviours towards conservation. For the energy usage by the companies, they

reported a decrease in the energy usage. The manufacturing industry recorded the greatest decrease in their energy consumption; it was attributed to the use of efficient processes in the production. The mining and the manufacturing industry used more of the renewable sources of energy such as the hydroelectric, solar and wind energy. Moreover, there was an increase in the use of renewable sources of energy within the institutions. Improvements also are visible within the other fields of environmental conservation except that of greenhouse gas emissions. The greenhouse gas emissions take a reverse trend on the increasing side of the manufacturing industry. It is also noticed that the level of reporting about greenhouse emissions is inadequate for companies within the manufacturing industry. It goes to demonstrate that there is poor performance in the field by the companies.

The companies in mining and manufacturing also show a trend of expressing more of their future aspirations in the reports that the events within the year. The language of communicating the changes using ambitions is an indicator of poor performance. These are the two major industries in Australia with the most significant environmental footprint. Considering that their productions processes are destructive by nature, much could be done by these two entities in their operations to ensure efficiency and also a reduction in wastages. The other trend noticed between these two industries is that there is depth in their reporting. While gravity can be used to signify quality environmental reporting, it is also an indicator of poor environmental performance especially when it involves a larger size of the company.

Company	Year	Report according to GRI guidelines	Not according to GRI guidelines
Educational Industry			

Griffith University	2015	X	
	2016	X	
	2017	X	
University of Queensland	2015		X
	2016		X
	2017		X
Victoria University	2015		X
	2016	X	
	2017	X	
The University of Melbourne	2015	X	
	2016	X	
	2017	X	
The University of Newcastle	2015	X	
	2016	X	
	2017	X	
Mining Industry			
Orica	2015	X	
	2016	X	
	2017	X	
Gold Fields LTD	2015	X	
	2016	X	
	2017	X	
Fortescue Metals	2015	X	

	2016	X	
	2017	X	
BHP	2015	X	
	2016	X	
	2017	X	
Rio Tinto	2015	X	
	2016	X	
	2017	X	
Banking Industry			
ANZ	2015		X
	2016		X
	2017		X
NAB	2015	X	
	2016	X	
	2017	X	
BOQ	2015		X
	2016		X
	2017	X	
Westpac	2015		X
	2016		X
	2017		X
CBA	2015	X	
	2016	X	

	2017	X	
<b>Manufacturing Industry</b>			
Dulux LTD.	2015	X	
	2016	X	
	2017	X	
Orora	2015	X	
	2016	X	
	2017	X	
Tassal	2015	X	
	2016	X	
	2017	X	
Michael Hill	2015	X	
	2016	X	
	2017	X	
Downer group	2015	X	
	2016	X	
	2017	X	
<b>Health Industry NSW</b>	2015		X
	2016		X
	2017		X
Ramsay Hospital	2015		X
	2016		X
	2017		X

St. Vincent Hospital	2015		X
	2016		X
	2017		X
Royal Child Hospital	2015	X	
	2016	X	
	2017	X	
Metro South Hospital	2015		X
	2016		X
	2017		X

*Table 5: Showing Environmental reporting for each company (Source: 75 Annual Reports)*

The above Table 5 Shows the Environmental reporting for each company according to the stipulated guidelines by the GRI. All the researched companies, mining and manufacturing companies, had complied with the guidelines set by the GRI; however, in banking, only NAB and BOQ (in 2017) complied with all set guidelines, while in the health sector, only Royal child Hospital complied. In the education sector, only the University of Queensland complied, the impact of these revelations will be discussed further in chapter 5.

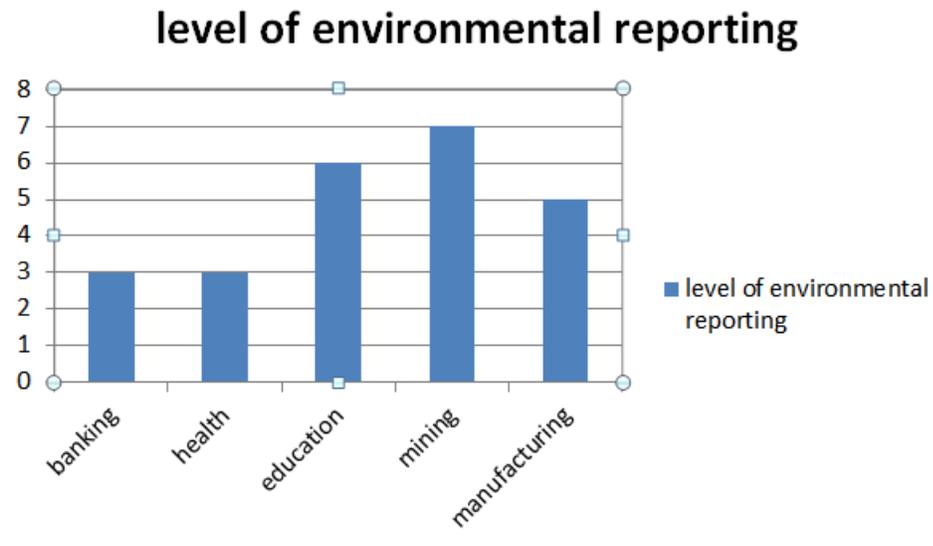


Figure 11: Level of environmental reporting

In Figure 11 shown above, the rate of reporting in the various industries are shown in the form of a bar graph. It is observable that the industry that experienced the greatest reporting is mining followed by Education and manufacturing; banking and health experienced similar environmental reporting. Regarding corporate social responsibility and the environment, the banking and health industry has the best approach to implementing environmentally friendly activities and policies.

#### ***4.2.4.1. Notable points on environmental Reporting***

The guidelines used to assess the environmental reporting strategy used by the companies were the GRI guidelines. Companies within Australia that got picked for the study were ASX certified and also certified by the ISO 14001. Therefore, with their entire endeavour in the reporting, they are obliged to use the GRI guidelines in their reporting. While reporting their expectations and past success was familiar with almost every company in every field, there was

less reporting concerning the reporting of the noncompliance. History of disagreement within the financial year does not get recorded for almost all the companies.

#### **4.2.5. H5: Environmental Actions**

The actions set up by the companies in the research were in the aspects of the GRI guidelines. The annual reports revealed the activities carried out by the company during the year in the effort to ensure that they are sustainable. The information got disclosed with figures showing the positive changes in their processes to improve their efficiency. Moreover, it dealt with the new programs and activities started that introduced new methods of coping with their deficiencies. Reports in the Mining and manufacturing industry used a language that exposed more of their plans in the environmental sustainability fight more than a disclosure of their activities. Therefore, another way to reveal the activities carried out by the company was through the future events projected and accomplished within the next financial year.

##### ***4.2.5.1. Energy***

Energy consumption is a critical area of focus for the companies as it gets directly related with more than 30% of the Greenhouse gas emissions in the production and service industry. The first way of decreasing the energy use within the companies was through reducing the energy intensity. The process involved using more energy efficient instruments, newer equipment and removing unnecessary material from the load line when not in use. Maintenance scheduling was more organised for Michael Hill and Tassal to reduce the water-energy used unplanned maintenance. Downer group introduced more efficient Alternating Current motors to improve the processes and save on energy. In the Mining industries, their annual reports revealed better milling, drilling and extraction methods to increase the efficiency of energy for. Manufacturing processes in Orora and Michael's limited got enhanced in the three years of the research by the

introduction of newer equipment and regulating the supply of electricity. In the banking, health and educational sector, energy efficiency was maintained through the reduction of the use of power during the daytime and using better conditioning systems. Energy efficiency for the whole year got recorded in percentages and projections made for the oncoming year. Overall, the energy management systems created in Gold Fields, BHP and Dulux proved to be the best approach towards working for energy efficiency. The energy management systems involved continuous monitoring of each load within the company. Therefore, any instability within the system that leads to more power consumption was recorded and thus worked on to revert the system to normal. Moreover, the monitoring helped them to identify sectors with consumption rates more than projected and therefore the areas were maintained, or the systems changed.

The organisations within the manufacturing, mining and education industries show immense knowledge in the uses of renewable sources of energy. The mining and manufacturing industries are supplied mainly by the hydro, wind and solar power which are efficient, do not cause pollution through greenhouse gases and are renewable. All the universities used for the survey are connected to the Australian grid but have started projects within their institutions related to solar power for electricity and water heating.

#### ***4.2.5.2. Water***

Australia lies across a broad range of climatic environments and therefore supports a wide range of biodiversity concerning water sources. Organisations analysed have shown a keen interest in the preservation of water and the water sources. Water efficiency is the primary way that was followed by 20 of the 25 industries. Due to the availability of rainfall, the companies harvested the water and store them in water tanks for use within the company. It is a cheap method of creating water efficiency and is thus practised even in the service industries such as banking,

healthcare and educational institutions. Water wastage gets propagated through leakages and slow response to them. It was a common trait with the University of Melbourne and Griffiths. The trend was to wait for the leakages to get too unbearable amounts or a disaster before acting. Therefore, the companies introduced fast response for the leakages by installing several monitoring systems such as the NIER monitoring used for the University of Newcastle Water recycling was used in industrial and mining process that required use of much water; this way they get to save on the wastage and drying of the water sources they were using. Low-quality water was the result of the recycling and was used and reuse, but before release to the environment, it got treated and restored to its original form.

Monitoring of water usage was another method used to promote sustainability. Comparisons between the amount of the water supplied and the water needed to be helped to detect the deficits and the excess to regulate the wastages in the processes. Overall, every company with water aspect in its report had many aspirations to their effective newer ways of handling the resource. The activities included; groundwater management, surface water management, stormwater management and water recycling. EMS

Environmental management systems got found in the companies within the mining and infrastructure industries of the study. The systems were sent to align the mission and vision of the company to maintain environmental management procedures that minimise the impact on the environment. Mining, for example, had the most effect on the environment by destroying the land, releasing emissions and destroying the water and biodiversity; all these happening ant substantial amounts. Orica Ltd, Gold Fields LTD., Fortescue Metals, BHP and Rio Tinto, therefore, all had integrated the Environmental management systems within their structures. The policies further enable the companies to align their reporting procedures to the GRI regulations and also align their

activities with the guidelines provided by ISO 14001. Resultantly, the alignment ensured continues monitoring, evaluation review, and control; of their environmental impact activities. Extensive internal audits took place in the years 2015, 2016 and 2017 to review the activities and provide a way forward on how to continue with the events.

#### ***4.2.5.3. Biodiversity***

Australia gets marked with extreme biodiversity in the form of flora and fauna, and within the wetland, there are unique ecological systems. Animal life and water animals are also within the ecosystem, and therefore within the activities of the company, they are deemed to collide. The mining companies, for example, had the most effect on the biodiversity due to their exposure to the land. Flora, fauna and animal species in existence in the area before mining processes began were therefore affected. The companies registered research to identify the unique species within the mining sites that were affected by the extraction processes and find other suitable locations to grow them to ensure sustainability. Rio Tinto is the largest company producing Iron ore in the world; through its vast resources, it is directly involved in the processes for rehabilitation of the biodiversity within the regions that it carries out its mining activities. According to their 2017 annual report, they started a new project termed Embley Boyd where they would initiate rehabilitation of the mining areas immediately after covering a specific area. BHP Billiton has developed several strategies of rehabilitation of the land biodiversity by recreating the topsoil to make the land arable again for the survival of the species that existed there previously. In their 2016 annual report, they announced aspiration of pasture rehabilitation of several regions within their former mining areas including Mount Arthur Coal. Endangered animal species affected were also transferred to wildlife orphanages where they provided continuity of their species. The universities put in effort in research and found newer ways of promoting the life of the almost

extinct species. An activity shared by the banking sector, the education, and mining, manufacturing, and health sectors were that of tree planting. On the other hand, CBA is playing a significant important role for environmental disclosure, 2015 to 2017 almost every year, they took a new initiative to enrich their legal and social compliance through their annual report, but there was no evidence that they are encouraged to biodiversity. ANZ and Westpac have gone a step further to involve their employees and stakeholders in the biodiversity plan. They have annual tree planting sessions within different regions that they operate in. Involvement of the employees and stakeholders make the campaign more extensive and thus would bear more fruits for the environment and their reputation. The Royal Child Hospital represents the health sector gracefully with their concurrent tree planting and rehabilitation programs.

#### ***4.2.5.4. Land***

Land actions for sustainability were a pertinent issue with the mining industry. In addition to exposing the area, they added waste rock, tailings, chemical waste and hydrocarbon waste. The companies after every year released a new figure of the land print they had created. Therefore, all the companies involved in the study; Orica, Gold Fields, Fortescue Metals, Rio Tinto and Billiton have shown interest in land rehabilitation. Gold Field, Orica and Fortescue metals initiated more modern methods of reducing the land-fills by planting of trees and introducing biodiversity into the derelict land and thus creating more modern life forms on the ground. BHP has started mega projects into planting pasture in the land; left behind after extraction of their minerals. The projects would then extend to nearby locations where the mining was not carried out; the aim being improving the general land structure. Companies within the manufacturing industry also have a role to play in the process of land pollution through their wastes seeping into the ground. Tassal and Michael Hill have developed the process of cleaning their water and wastes before releasing

them to the land and rivers. The process removes the chemical and materials that would slip into the soil and cause an imbalance of the nutrients in the soil. Through the initiatives by Royal Children Hospital, ANZ and Westpac Bank to plant trees, the land will, therefore, gain (Christ, 2013). Trees are important in holding the topsoil particles and therefore eventually reduce the erosion effects. Therefore, the efforts to plant trees are directly related to land rehabilitation.

#### ***4.2.5.5. Contribution to the scientific knowledge***

Educational institutions were at the forefront of research to define the environmental print from the companies. The University of Newcastle has running research on ocean plants and coral reefs conservation and the rehabilitation of the water sources. Through continued research, they developed better ways of managing water sources, managing the plant and animals and increasing their concentration in the country. Victoria University in 2017 kicked off concurrent research on reduction of water usage, energy and greenhouse gases, waste and recycling, and sustainability in the day to day activities. The universities have created educational degrees regarding environmental protection. Griffith University, The University of Newcastle and University of Melbourne have a running program for Environmental Science. The University of Melbourne is even ranked number 15 in the top universities providing the course. The University of Queensland offers several degrees within the Department of Earth and Environmental Sciences. Moreover, they developed projects that aided in the reclamation of derelict land, extinct species. The other manufacturing, mining and banking industries provided the funding for the projects. Preference is for the projects that are related to their environmental print. Fortescue metals fund Climate Change, research, science and tertiary education in the field of extreme weather events risk. Rio Tinto Supports the research carried out on the Great Barrier Reefs, Weipa rehabilitation. It also supports Foundation Sea-Quence research on biodiversity.

### **4.3. Rehabilitation**

Mining and manufacturing industries are the only type of sectors within the research that recorded the processed improvement of the environment. Mining claimed the land throughout the stages of the mining cycle. After the area was devoid of the minerals, there is a need to make it arable again for other purposes. Before the rehabilitation process, the land gets reviewed for the nutrients remaining in the soil and the species still found within the region. After that trials for rehabilitation of the area take place followed by a rehabilitation process itself and monitoring. Rehabilitation monitoring does not get done by the same members of the organisation but is done by external parties who are specific to the field of land rehabilitation (Christ, 2013). Fortescue for example set up a waste rock dump for trial in the year 2016 and continued to start recovery and monitoring in the year 2017. Rio Tinto started a land rehabilitation program in Weipa in North Queensland, Ranger Uranium Mine and pasture rehabilitation in Pilbara.

### **4.4. Conclusion**

The data contained in the reports was used in variable testing; it should be noted that the nature of industries like health and education has a low impact on environmental due to them serving the public, whereas the mining, banking, and manufacturing have a high responsibility due to shareholder's expectations.

In Institutional expectations, several stakeholders influenced individual firms as well as the whole industry with their expectations. These included the UN Sustainability development goals, legal obligations, cost savings, and stakeholder's expectations; it can be shown that these factors are continually demanding a more comprehensive environmental reporting, contributing to institutions increased activities in that area. Secondly, in the Institutional environmental capacity, several industries are categorised according to their ability to handle environmental issues. In the

education sector and manufacturing, all the industries involved had the capabilities, while in the mining industry, only BHP showed the inability to engage in conservatism. In the banking industry, only NAB had the capacity, with BOR gaining enough resources to undertake based environmental investment in 2017. Finally, in the health sector, only the Royal child hospital could handle environmental issues.

The institutional environment interest measured the actions at environment-based development. These actions varied from conservation-based courses offered by universities, the creation of environmental goals, starting eco-based projects, engaging staff in sustainability processes, and funding projects aimed at environmental viability.

The results showed that trends in water usage declined from 2015 to 2017 in all industries. In greenhouse emissions, the highest emitters were the mining and manufacturing industries, this is expected due to their nature of activities, and although there were indications of a significant reduction, there was still much room for improvement. Energy use in all industries experienced a decline, which showed that the industries were using more efficient systems. According to the findings, the industries that had the largest impact on the environmental footprint were the mining and manufacturing; although it can also be noted that they had the greatest depth in reporting of all the industries sampled.

Chapter 4 concerned itself with analysing the data, presenting the results, and testing of variables. In Chapter 5, the researcher will show how the empirical evidence obtained in the research adds to the existing literature.

## CHAPTER 5: DISCUSSION OF THE FINDING

### 5.1. Introduction

In chapter 4 the study concerned itself with analysing the 75 records from 25 companies, presenting the findings, and testing the variables in respect to records affiliated with environmental disclosure. The content analysis was carried out, and the measure of disclosure comprehensively discussed.

The 25 companies were used to conduct and analyse the results and to produce findings. The researcher opted to use this number of companies to ensure that all the data that needs to be used in the findings are detailed. Furthermore, the companies are of various industry sectors, and it gives the researcher a wide span of the information regarding the validation of variables.

In this chapter, the results of how different institutions across the board cope with environmental issues will be explored. The purpose of the project was finding out if the companies under survey complied with conservation-based information, and what the motivation behind these disclosures comprised of. In order to come to these conclusions, the following had to be taken into consideration.

- Obtaining an analysis of 75 annual reports from different companies to determine whether they disclosed environmental records and the consequence of their actions in integrating social responsibility.
- Identification of the significance of the relationship between environmental reporting and real effort undertaken towards conservatism.

The exploration of these issues will enhance the knowledge that is available on how these disclosures aid corporates to benefit while acting as a pointer to the perceptions they hold on its viability. The findings are very critical as they would follow the community's justification of

integrating the companies amongst themselves, policing the latter to achieve social validity in sharing the same resources as the former; this is known as legitimacy theory. An amalgamation of the argument with the stakeholder's model, which suggests that both internal and external stakeholders influence organisations' ethics and behaviours, determines the quality and extent of the environmental disclosure.

First of all, the paper will be exploring whether the findings represented the various theories outlined in chapter 2 while concentrating on the collective behaviour exhibited by the companies. Secondly, the demographic covered in the study will be explored and summarised. Finally, the research questions 1 to 5 will be revisited with an in-depth analysis examining if the conditions have been met, and how these findings correlate to the investor's preference trends and willingness to view conservation concerns to be beneficial to the organisation rather than the inverse. The summary of the results will be presented, as per the theoretical framework used for the study.

## **5.2. Theoretical implication of the findings**

The results of the study support the different theories suggested by previous scholars in the area of interest. The shareholder theory suggests that companies will tend to disclose information that will please the shareholders of the company, or otherwise outlay a subtle investing environment for potential shareholders. Service companies from the Australian industry have exhibited varied disclosure of information based on their size, industry, and audience (Christ, 2013). According to the study, companies disclose information that is useful for investment purposes. The study varied a survey across the comparison of market responsiveness of these businesses and their amount of disclosure to this field.

Hospitals and Education institutions have a legitimate responsibility of providing environmental disclosure. About the legitimacy theory, organisations will account for annual

exposures to fulfil the political will of the state, thus protect their legitimacy and ensure that they retain a level of influence on public opinion and policy. These companies reflect a certain length of pressure emerging from social and political backgrounds. For instance, it is required by the government that public institutions provide a particular value of disclosure that focuses on a defined area (Burgwall & Vieira, 2014). Thereby health care providers and educational institutions will disclose information in the expected areas. Mining and banks assume the shareholder theory, where the results of these agencies show that the length of disclosure depends on shareholder references. These companies have been shown only to disclose information that protects their interest and fail to account for their full environmental influence.

Companies provide the annual disclosure to provide an assessment of the company's environmental risk. The environmental risk of the company reflects on the relative and potential risks that may emerge due to the policies and initiatives adopted. Investors use the report to gain a better financial understanding of the company. Most Australian companies provide environmental disclosures that satisfy the urge of potential investors to invest in their organisations. However, the study suggests that companies can gain positively from full disclosures. In this particular case, mining companies that provide a comprehensive disclosure event of the impact of the firm to the environment may increase undoubtedly. Accurate exposures may cause the state to improve the policies that govern pollution and the environmental effect (Agency, 2016). Organisations should look forward to utilising the information as a means of growth, rather than hide information that may affect the financial status of the company in the future. Various scholars have supported the use of transparent disclosures as stepping-stones to better and socially responsible corporations with a healthy and developing environment in mind.

### **5.3. Demographics Covered**

The study used the content analysis of 75 annual reports from different clusters of industry groups. The industries covered come from five different types of service industry namely Education, Banks, Mining, Energy, and Hospitals. The table below shows how the survey distribution was done with respect to different sectors. The effect of the distribution of demographic variables will be discussed in chapter 6.

In table 6 below, the distribution of the 25 industries within the five sectors is shown. The distribution of the companies in regard to the business landscape, coupled with the fact that only the top performers with over ten years operational period were chosen, and also a scrutiny into their last three years of operation aids in getting a comprehensive data on how the large players in the industrial arena deal with environmental reporting.

### Service Industry Distribution

Type of Service Industry	Organisation names
Banking	Westpac ANZ Bank National Australian Bank BOQ CBA
Hospitals	Royal Children’s Hospital NSW Ramsay Hospital St. Vincents Hospital Metro South Hospital
Education	The University of Melbourne The University of Newcastle Victoria University University of Queensland Griffith University
Manufacturing	Dulux LTD Orora Groups LTD Tassal Group LTD Michael Hill Downer Group
Mining	Gold Field LTD Fortescue Metals group Rio Tinto Orica BHP

Table 6: shows the distribution of the survey within the 25 companies, spanning three years.

#### 5.4. Summary of Research Questions

*RQ1-Concerning annual report disclosures relating to environmental exposures, how do Australian service Industry, in control of remediation sites, perceive the institutional expectations exerted by institutional constituents?*

### **5.4.1. Independent Constituents**

It is evident that from the results that several groups have their expectations within the industry, they are the primary drivers of the companies' decision towards environmental sustainability. These institutional constituents have been found out to be the legal bodies and the government, United Nations and the other international organisations and the case of past events such as accidents. These three factors are the independent factors (Burgwall & Vieira, 2014). The companies have no control over them, and, therefore, they are obliged to follow them without questions.

The national parliament of the country is the one tasked with setting the regulations and making amendments as per the constitution. The parliament since the 1980s in Australia has played a significant role in the introduction of environmental sustainability under the umbrella of Commonwealth. By setting up laws governing the reporting, the organisations had no input in the decisions. In the emissions amendments, which, oversees the reporting of the emissions, the organisations had no say in the matter. Therefore, the expectations that are set forth by the legal system within the country are independent of the organisation. Thus, these are the compulsory expectations and have to be adhered to without question.

The United Nations is the umbrella body that governs the affairs of the member states of the world. In a political realm, it is superior to the input of smaller organisations. It has several bodies within it that gets tasked with monitoring the environmental activities within the world to ensure that the future of the world is safer for the coming generations (Christ, 2013). United Nations Environmental Program was set up in 1972 and was set out with the following missions;

Firstly to assess the environmental conditions and trends within the national, regional and global scale. Secondly to introduce international treaties and agreements that will be ecological instruments. Finally, to strengthen the environmental management within institutions.

Therefore, within its mandate, several contracts got created within the global framework and are binding to the national and the regional level. In 2015, the UN further introduced the SDG that came to replace the Millennium development goals and the primary focus of the goals is sustainability. As the goals apply on the global scale, they also have a mandate on the local, national level. ISO (International Organisation for standardisation is another governing body that has set out its conditions that a company has to abide by if they are to be certified. The companies introduced in the study had gotten environmentally certified under the ISO 14001. Therefore, they have an obligation to the certifications principles. All these are international bodies that work within a specified gauge of the parameter that is not adjustable (Christ, 2013). Thus, the organisation has to follow these regulations, as they are independent.

Whenever accidents occur within an organisation, and the effects are detrimental to the people, animals, plants, and other organisms, there is cause for alarm. Such accidents include leakages in the sewer, water pipes, landfills and many more. Besides, whenever an organisation is found to be non-compliant to the case of environmental conservation, it is hit by lawsuits and faces lots of scrutinies. It thence can be viewed as an accident within the legal framework of the company. Another form of a mishap within the environmental structure of an organisation is when there is a failure in it is apart in the monitoring, management and action planning of a conservative ecological measure (Christ, 2013). When such incidents are reported previously within a company, then there is constant scrutiny that gives the company management more pressure to perform better. For example, an Accident in the mine of Majeure for Rio Tinto in 2017 placed the company

under more scrutiny on its procedures and therefore they had to refine their processes to reduce fatalities in the future. According to Environmental Justice Australia statistics (Christ, 2013), more people in Australia die because of mining pollutants than they die from car accidents. Therefore, with such statistics, the government would get keen to reduce the rates of accidents in the mines. Thus, in the case of a mishap occurring that causes the release of pollutants, the companies are questioned, and they have to be on the lookout. It, therefore, results in the company taking more initiative to complete better to maintain its profile. It is an internal source of pressure, and thus the company cannot have control over it.

#### **5.4.2. Dependent Constituents**

The dependent constituents are the factors which the company or organisation has influence over, and therefore it could readjust them to align them with the sources of expectations. Therefore, the organisations perceive them as controllable variables. One of the dependent variables that drive environmental sustainability is costs. The company, management has control over the charges, and therefore they could appropriate them in ways they deem fit. A company that has survived the market for a while and has broken-even has the power to allocate a section of the total profits into the social responsibility that includes environmental sustainability (Cobert et al., 2003). Therefore, this factor is under the control of the organisation itself. When an organisation indulges in the process of environmental conservation, there are processes that it may select that increase efficiency of the production processes thus eventually reduces the cost of utility bills such as energy band eater and reduces the costs involves in transportation, packaging, purchasing the raw materials and processing. Therefore, within the dependent variable, the company may either spend or save on the costs.

The company stakeholders are another source that creates expectations regarding the sustainability index of a company. The merging trend since 1980 is that people would want to invest in sustainable companies. Therefore, with companies aware of that, they can adjust their actions towards sustainable efforts to get support from the stakeholder. Thus, they can change their actions towards sustainable efforts to get support from the stakeholder. Environmental reporting another parameter that is adjustable and can improve the view of the company of the stakeholders. With in-depth reporting that sows progress towards sustainability and aspirations of projects that would lead to that, then the expectations of the stakeholders would have been met.

The trends within the market also create their expectations towards the companies. Increase in internal audits is a factor that the company can readjust itself to play along (Cobert et al., 2003). The management should take the necessary step to increase their accountability to improve their image and also their relationship with internal and external stakeholders. Several companies within the research such as Fortescue Metals, BHP, Rio Tinto, Michael Hill, Aurora Group, Downer group and Dulux Ltd had carried out environmental audits for the three consecutive years. It came to confirm their conservational input and the reporting in the director's report. The conservation reviews are also prevalent in the companies that have a more extensive ecological print as in the case of the mining and manufacturing. Internal audits are one way of disclosing information to the public to create a better relationship.

RQ2 In responding to institutional expectations, do Australian service industries have the capacity to conform to their perceived institutional expectations and requirements?

The research analysis was carried out within a cross-sectional framework and a longitudinal one. The companies analysed for the study were from different industries within the market, and the research took place during the annual report time frame of three years starting

from 2015. From the financial analysis and the image of the companies, it is clear that they can handle the sustainability projects (Mitchell, Percy & McKinlay, 2004). Within the budgetary allocation for every company every year, there is an allocation of the total expenditure to the social responsibility. The assignment deals with environmental sustainability among other things. Therefore, companies in Australia can handle the processes involved in sustainability.

Environmental conservation is an expensive endeavour. There is cost saving within the effort, but it also incorporates a variety of capital-intensive procedure. Research within the environmental field is capital intensive and requires several years to accomplish. To have the capability to fund the equipment, and the research facilities for an extended period, then the companies need to be financially stable. Initiating community projects or internal conservational projects also requires a massive investment in funding, time and personnel. Therefore, before launching such projects companies need to have the necessary funds — the companies used for the research as the leaders within their particular fields. The preference of choice was to get the companies that have enough capacity to handle the conservation efforts and also to report their ecological flaws.

Environmental reporting further proves that ecological efficiency comes not only as a source of expenditure but, as a cost-saving exercise. Reductions in emissions, energy use, water use and efficiency in the production processes ensure that the costs associated with the parameters got saved educational institutions such as the Griffith University, and the University of Melbourne had their emission and energy use statistics in their 2016 and 2017 annual reports. The procedures they used in the reduction of energy costs were the introduction of renewable energy sources and water use reduced because of reusing and recycling. The two processes effectively cut their energy

and water costs. Therefore, looking at it from that perspective, it is clear that these companies can work towards environmental sustainability even without injection of the expenses to the processes.

*RQ3-In is responding to institutional pressures, do Australian service industries have the interest to conform to their perceived institutional expectations and requirements?*

The companies show interest for sustenance by the taking necessary steps within their capability to tackle degradation. There are many expectations driven towards the companies compared to their abilities. Since it is mostly from independent sources, the companies have to act to survive in the business and have an edge over their competition. From the study, the companies express their interest is through participation through the processes involved in conservation, initiating environmental campaigns, setting goals and aspirations, starting projects, funding other projects and engaging the stakeholders within the ecological conservation processes (Burgwall & Vieira, 2014). In this way, the organisations have confirmed to how the set expectations expect them to be. Without their interest, it is hard to get certification from the legal and international organisations. Forthwith, it would also be a deal breaker with the stakeholders of the company including the financiers and the customers.

Top universities within Australia such Griffiths, Newcastle, Victoria, Melbourne, and the University of Queensland show their interest in environmental protection in ways such as the introduction of ecological courses; they then act as examples for other universities in the country. Mining industries in the research have shown great interest in environmental protection, rehabilitation, and conservation. Research by Rio Tinto and Goldfield on land rehabilitation, for example, show their interest in the whole endeavour and they are therefore conforming to the expectations bestowed upon them when it comes to protection. Another significant way of

measuring the benefit of the companies is by the depth of their reporting. Environmental reporting within the manufacturing and mining industry, for example, showed a trend of the creation of many expectations that the companies are willing to achieve. BHP, Fortescue Metals, and Tassal, for example, showed in their 2017 report projections towards the reduction of their energy consumptions. It is a sign of their interest to conform to the set standards.

*RQ4- Concerning annual report environmental disclosures, what is the strategy that Australian service industries seem to adopt in their reporting decisions?*

This research aimed to get the relationship between the reporting and the real activities that the company gets to do within the field of environmental sustainability. Therefore, in the analysis of the strategy used by the companies in reporting, the comparison is made with the real activities that the organisation is involved in to create a relationship. The companies within the study, for instance, had much to mention about their progress in the reduction of emissions and consumption of water energy; which got stated in numerical figures. The reporting here is one that signifies the real activity done by the companies concerning reducing the expenditures and emissions. It is a clear indication of the extent to which the company had progressed in the sustainability journey. Therefore, it is a positive to the level of reporting

In reporting the non-compliance of the organisations, many of the companies in the study were either omitting information or giving fewer details about the events. While it creates a bad image for the company in question, it also promotes credibility and accountability (Mitchell, Percy & McKinlay, 2004). Therefore, it is clear that most of the organisations are reluctant to report their noncompliance issues and therefore it makes the environmental reporting not a clear indication of the real events that the company is doing within the ground.

Another strategy used by the companies was an indication of the goals they described regarding what it was that they would achieve in the future. In the literature review, such a language in reporting that exposes more of what gets planned than what gets done already is an indicator of poor performance. Concerning the aim of the study, a plan of future events is not the real notation of the actual events that will occur (Burgwall & Vieira, 2014). A further revelation from the survey is that when propositions got made of the targets for the company in the coming year when the following year's report was out, the objectives did not get fulfilled. All the companies had projections for their forthcoming year, but few referred to those of the previous year indicating that they were achieved. For example, The University of Newcastle had it noted in their 206 reports the plants to increase their solar energy contribution by several megawatts in the coming year; however, the account for the following year did not indicate the additional solar power introduced within the university. Therefore, the reporting strategy of showing the plans for future events does not fit as a perfect indication of the activities that the company is involved in. The best way to determine the company's environmental operations is by looking at the records of the activities done in the past not their aspirations for the coming financial year.

Tellingly, the only sure way of knowing the actual activities of the company on the ground is through record reporting. In this case, report reporting carries the information on the achievement and noncompliance issues that the companies have faced within the year. The records should be the central segment of the report and less about the future aspirations and the goals that the company is looking forward to achieving.

*RQ5 what are the actions taken by the Australian companies in response to the environmental expectations and pressures?*

Having determined that the best measure of the events carried out within the firm is through the record of the gains already done, and then the Australian Companies have responded gracefully to the pressure and expectations exerted on them. The companies have shown that they are capable of introducing sustainability through internal and external systems (Suntantoputra, 2016). Internal systems are those of improving efficiency. According to the GRI guidelines followed in the reporting, they involve ten aspects. They are; transport, water, materials, energy, biodiversity, emissions, wastes and effluents, and products (Cobert et al., 2003). These are the internal processes that the company can improve to improve their environmental sustainability rating. Not all the companies are disclosing all ten factors in their annual reports. Some are disclosing more than others. In this research found that mining industries are proving all ten factors disclosure, but other industries are disclosing which factors are related to them.

Internal processes span from the production process to the general day to day office activities. Within the banking, health and education industries, the efficiency of energy, waste, and water is achieved through proper monitoring and creation of awareness. Getting the staff, students, and visitors to join in in the campaigns will increase the output. The mining and manufacturing industry have direct and indirect actions towards efficiency. Monitoring and making improvements to the whole production and waste disposal systems increase efficiency. Overall in all sectors, involving the stakeholders and the community in the entire process improves the results of the campaigns.

There are also some external procedures that companies can initiate environmental campaigns. Through collaboration with other institutions, they can start community projects, they can fund research and other ongoing projects, and they can also carry out their research and external projects to the community. It had happened before when the Rio Tinto and Uroora mining

corporations worked with their community towards land rehabilitation. The part of the public plays involves even the employees; the Royal Children Hospital involved their staff in their annual tree planting sessions.

## **5.5. Theoretical Implications of the Study**

The study operates within a defined scope, and it is within these areas that the following implications are drawn as regards to environmental reporting; this scope is taken as a sample area that reflects the industrial practices as a whole. It has been observed that corporate ecological issues are too complex to be analysed by a single theory, and the factors that surround a disclosure is multi-faceted. A case is made in evaluating the different responses given in RQ3 and RQ4, even if they seem contradictory, they are in themselves a reflection of the self-conflict that a company that investors demand's results in the form of profits, is also required to engage in environmental reporting that may hurt their endeavours. In RQ3, the question on whether Australian service industry has interest in conforming to institutional requirements and expectations received an overwhelming nod from the institutions marked by in-depth reporting through projects aimed ranging from environmental protection, rehabilitation, conservation, and reduction of energy consumption. Other areas that received considerable interest is initiating programs aimed at environmental protection, setting and funding projects, and engaging stakeholders in conservational conservation drives. However, when it came to the strategies that the Australian service industries were willing to adopt in reporting decisions, we find that there is a discrepancy between reporting and the real activities being carried out by the company. It is undeniable from the RQ4 research that companies are progressively undertaking projects that will lead to environmental progression, but on the other hand, they are omitting information that would reduce their credibility and accountability.

For their actions to be understood, Kramer and Porter (2006) outline four arguments that any company undertaking Environmental sustainability reporting may take, they include sustainability, moral obligation, license to operate, and moral appeal. Moral appeal argue about the duty of every person and institutions to carry out their work morally and responsibly. On the other hand, license-to-operate approach, social responsibilities that are crucial to stakeholders are identified and outlined in such a way that they favour them; this happens through dialogue with the concerned parties which include the government, local community, regulators, and activists. This approach has the advantage of involvement of all interested parties to chart a viable solution as a community, but the disadvantage of ceding the power of decision making to outsiders, which may affect the profit margin and productivity of the company.

On the one hand, it can be seen through the analysis of RQ4 that moral appeal and license to operate approach are not the two paths that are being followed by the Australian service industry (Kramer & Porter, 2006). The principle of sustainability is founded on the ideology that corporations should act in a manner that they secure their long-term economic future. As much as an assertion can be made that transparency is beneficial and more sustainable than corruption, it offers little in the form of forming long-term objectives unless it provides a comprehensible benefit to the company (Kramer & Porter, 2006). This strategy is seen in the introduction of environmental based courses in Universities as outlined in RQ3 observation, in which they benefit through tuition fees; arguably, these institutions view eco-friendly practices as a framework to further their agenda, while seemingly performing social obligations to the community. The reputation argument seeks a strategic premise to hatch on; this means that the company aims to pursue social responsibility initiatives that are less harmful to its operation which is strategically placed to satisfy external audiences. Consequently, this may take the form of seeming to comply with the legal and

social expectation mandate like environmental reporting and well-placed consumer-oriented projects while sweeping other less-perceivable conservational issues away from prying eyes (Kramer & Porter, 2006).

It should be noted that both reputation and principle for sustainability argument is not necessarily driven by greed, rather than the need to be strategic and competitive in a societal framework that is poorly defined. It is these strategic decisions by the concerned companies that lead to the conclusion that the service companies behaviour follows the pattern set up by the legitimacy theory; this is due to their lack of tendency towards revealing some information associated to environmental disclosures at the expense of adding costs to their books. Relatively educational organisations (The University of Melbourne, University of Newcastle, Victoria University, University of Queensland, and Griffith University) are more likely to be more open about their conservational agendas, since they have fewer operations, less impact to the environment, and gain monetary benefits through programs introduced; again, they are more likely not to be political scrutiny of their activities. It can, therefore, be deduced that the more an organisation stands to gain, the less the legitimacy threat affects its operations regarding conservational disclosures; the same could be said for political scrutiny.

Furthermore, it can be argued that entities in the education sector do not have to fear the repercussion that such disclosures would have, especially for international businesses, to their profit margin and hence competition in same market industries when the same change is demanded of in other areas the company is operating. It can, therefore, be argued that there would be no apparent competitive advantage for such disclosures unless these policies were universally adopted and therefore take effect on all players in the industry on equal terms. It is for the all the stakeholders to understand that interdependence between the organisations and the society should

play a pivotal role in consolidating the efforts to reduce tension between themselves by identifying points of intersection in which both of them would benefit (Kramer & Porter, 2006). Arguably, this is way better than the tension experienced between business and society in trying to please each other. Every activity that an organisation does touch upon the community, some positively while other negatively; these actions result in a consequence to the organisation that affects its competitive edge, which in turn affects its capability towards carrying out its strategy (Kramer & Porter, 2006).

Consequently, these issues can best be addressed through encouraging the companies to form a corporate environmental agenda that not only works beyond communicating expectations, to achieve social and economic benefits; this can be achieved by reinforcing corporate strategy to advance conservational conditions. An affirmative ecological based agenda that is individualistic to a firm, aimed at producing the best effect rather than well-intended public relations and pressure related conservational reporting should be encouraged; this strategy would be valid through mapping the hazardous operations and using it as a framework to root out the detrimental ecological activities. Below is a figure illustrating a possible of environmental hazards in a company.

**Table showing the environmental hazards mapping in an organisations sector**

<b>Primary Company's Activities</b>	<b>Environmental impact Mapping</b>
<b>Inbound Logistics:</b> <i>e.g.,</i>	<b>Transportation impacts, e.g.,</b> Congestion

data collection incoming material storage	Logging roads emissions
<b>Operations, e.g.,</b> component fabrication, assembly, branch operation	Bio-diversity & ecological impacts Hazardous materials Emission and waste Energy and water usage
<b>Outboard Logistics, e.g.,</b> warehousing, Order Processing, Report preparation	Transportation impacts Disposal of packaging materials
<b>After Sales Services, e.g.,</b> Repair Customer support Installation	Disposal of environmentally hazardous materials Handling of Hazardous Products

Table 7: Possible of environmental hazards in a company: Source: (Kramer & Porter, 2006).

Table 7 shows the shows the environmental hazards mapping in an organisations sector; these are examples of some hazards that constitute the different department in a company. Arguably, this kind of mapping different departments with the ecological threat each department faces would enable a company to be able to effect better environmental based programs based on the level of threat while seeking ways in which they can make the processes more efficient as a way of gaining from such ventures. All service industries use those activities to perform their services. Except for mining industries, none other companies are disclosing any of those activities.

Regulations require to include all those items in their disclosure requirements then all companies will disclose how they are showing their legitimacy to comply with the regulatory requirements.

The findings in regards to the signalling theory reveal that for larger organisations, there is a pattern of preference for engaging in environmental-based activities that bring impact. Furthermore, there has been a more open interaction and openness between the organisations and the external environment in regards to the availability of the annual reports and the environmental reporting thus justifying the former's right to their existence in the society. Conclusively, the study also found out that the internal and external sustainable systems that have been introduced to regulate the environmental challenges that are cropping up in the organisations under review. On the other hand, there are hindrances such as competitiveness and legitimacy, which influence to what extent that the organisations disclose the information.

## Corporate Social Responsibility and Environmental Disclosure

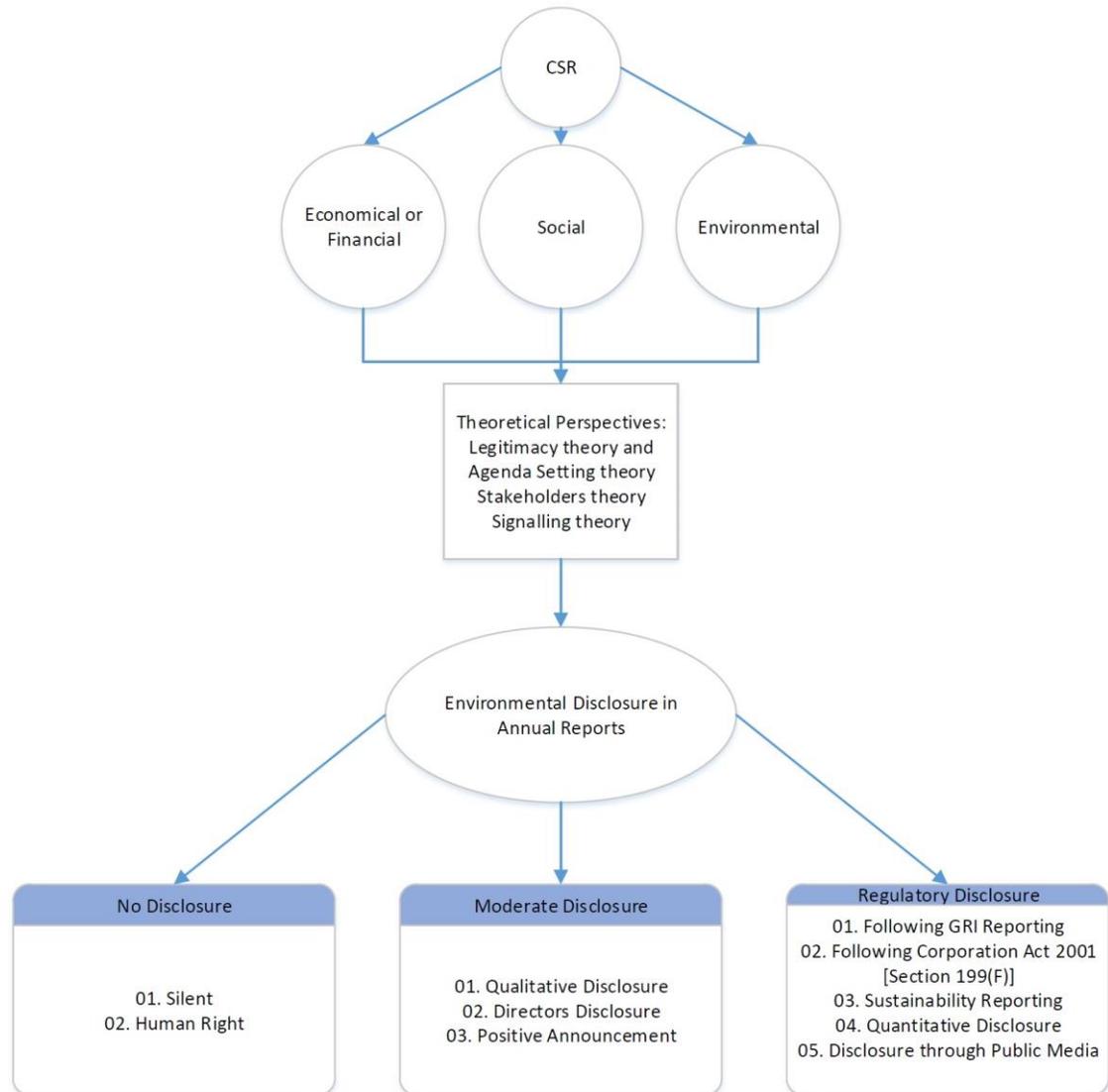


Figure 12: Corporate Social Responsibility and ED through Annual Report

The figure above summarises the relationship between CSR and ED through the annual reports. This research found that CSR reporting disclose was within three major categories economic, social and environmental. Due to stakeholder’s pressure and to show legitimacy to the society or to increase positive image in the society companies are disclosing ED in their annual report. All the listed sample companies in Australia are disclosing ED in their annual report.

Education and mining industries are providing extensive regulatory ED in their annual report. On the other hand, banking, health, manufacturing industries are providing moderate disclosure in the annual report. Finally, an organisation social commitment within the social community has a significant impact on the process of developing a relationship between the organisation and its corporate social responsibility. The importance of this social commitment in the community develops and builds trust which enables a more harmonised environment in the workplace, entrenching corporate social responsibility within all stakeholders.

## **5.6. Conclusion**

In the chapter, the researcher dealt with how the findings represented various theories that were outlined in chapter 2 and the consequence of behaviour by the concerned companies. The study noted that service industries like education and health took a legitimacy theory approach in their reporting with the responsibility towards stakeholders holding minimal sway, and pressure from the society and politics driving them towards adopting the theory. On the other hand, mining, banking, and manufacturing followed the stakeholder's theory with disclosure aimed at protecting their interests; arguably, this also means that the three industries were more prone to failing at full disclosure if they felt that such actions would interfere with their ability to remain competitive.

Another area that the chapter covered is a summarization of the research questions. In investigating how the industries perceived the expectations exerted by institutions constituents, it all depended on how much control they had in manipulating the policies. In independent institutions such as GRI and United Nations Sustainable Development Goals (SDG), the industries had to comply since the expectations are independent of organisations. On the other hand, factors such as costs handed over to environmental-based projects are dependent constituents and can be easily manipulated depending on factors such as stakeholders, trends in the market, and social

expectations and pressure. In the capacity to conform to perceived institutional expectations and requirements, the institutions were found to have the capacity to conform. One of the ways that would reduce the cost of such projects is by handling sustainable environmental ventures that will aid the company to cost savings on its usage. Finally, in the strategies adopted in the decision to report, some companies, as mentioned above, are reporting their successes and real activities while leaving out the non-complaint areas.

In chapter 6, the research questions and the study itself will be summarised, with an outline of the implication the latter has on the policymakers and companies explored. Also, an exploration of the limitations faced in researching outlined, and areas for further research analysed to aid in guiding future study into the subject.

## **CHAPTER 6: CONCLUSIONS AND IMPLICATIONS**

In chapter 5, the research questions were summarised, with their applicability to existing theories explored; this is done by showing how the empirical evidence obtained in the research correlated to the theoretical framework. Last chapter research identifies that every company are disclosing environmental disclosing and their level of implementation depends on how their services related to the environment. In chapter 6, the research will be concluding the research with reflection into what the research means for the current environmental landscape while paving the way for future research.

### **6.1. Introduction**

The objective of this study was to examine the quality of Australian service industries in regards to environmental reporting. The service industry in the country makes up to 76% of Australia's GDP, and regarding employability, it employs 4 out of 5 Australians currently in the workforce (Chapman, Soosay & Kandampully, 2002). Furthermore, the industry is projected to rapidly grow with its transformation encompassing the service-focused and customer-oriented environment that has in recent years outpaced other types of industries. It is for these reasons that the industry has received much attention regarding its relationship to the social structure and most precisely the environmental landscape. On the one hand, there has been pressure put on ensuring the quality of environment goes hand in hand with profitability through management of risk and improvement of management choices in addressing the issue (Kramer & Porter, 2006). Furthermore, there is enhanced trust that is gained through openness and decision making geared at involving all the concerned stakeholders.

A group of service companies' annual reports and environmental reports have been analysed for three years starting from the year 2015 to 2017; consequently, the findings of the

content analysis were used in the statement to make definitive conclusions and recommendation on the way forward.

## **6.2. Summary of the Research Questions**

The following research questions were of interest to the study, and their formulation makes up the foundation for environmental disclosure analysis through the corresponding annual reports.

RQ 1: Due to increasing pressure from society, stakeholders, suppliers, consumers, companies are disclosing ED to show they are greener companies and to show that they respect the consumer; awareness, believes, norms and values, they provide ED in their annual report. In addition to the larger companies with significant good profit, percentage tend to have more disclosure than smaller companies. Companies are providing positive signals to their stakeholders that they are legitimate and socially aware and that they are transparent.

RQ2: there is a traditional belief that a company formed to make a profit is now working towards providing greener quality services to their customers and that this will increasingly drive their activities. Disclosure capacity is dependent on a company's direct environmental involvement, which means that if they are dealing with the environment. This research found that health industries are disclosing minimally, as they are less involved with the environment. They do however have enough capacity to disclose ED in their annual report.

RQ3: There is no such specific format or rules about the best way to disclose ED in an annual report. The exception is the education service industry, here due to legislative requirement's, Directors or Managers are disclosing ED. In addition to Universities are disclosing ED due to a sense of their moral responsibilities, though they have less legislative requirements to disclose this information.

RQ4 identified that service industries are disclosing qualitative disclosure in their annual report. Mining industries though are having separate sustainability reporting to provide societies awareness or to provide a positive signal to their stakeholders that they are not doing anything that is considered harmful for society. The University of Newcastle and The University of Melbourne had one sustainability reporting out of 2015 -2017. None of the financial service industry had any sustainability reporting for ED purpose.

RQ5: identified that companies wish to show their legitimacy to the society, they are however providing minimum disclosure in their annual report though they feel pressure to disclose ED in their annual report. It is the time for the regulatory body to provide more pressure on companies to have adequate reporting for ED purpose. It is required for all service industries to have qualitative and Quantitative reporting in the annual report, which will make them transparent to the society. There is a significant issue related to specific guidelines for ED and regulatory body. The regulatory body should provide some specific guidelines for companies to follow to incorporate environmental disclosure adequate reporting in their annual report.

An investigation of the questions aids in getting comprehensive knowledge about how the current service industry interacts and relates to environmental disclosure and reporting in Australia. In being able to comprehend this information, the study can be used as a guide into formulating ways in which the inter-relationship between the businesses landscapes that can be used to benefit the society through introducing mutually beneficial policies. Provision of such disclosure can also be used to manage the expectation of all the parties involved, through formulating viable operations that are not public relations driven, but concrete policies dealing with conservational initiatives, pollution reduction, and waste management.

The research questions and were dealt with in chapter 5, while the methods are covered in section 3, and the findings comprehensively covered in chapter 4.

### **6.3. Summary of the Study**

The ecological disclosure requirement expects companies to have excellent transparency in reporting data. This expectation is brought about by the hopes that the society places on any business in ensuring a peaceful and viable coexistence; this is known as corporate social responsibility. Companies are expected to adopt a favourable policy that benefits the community especially when such a venture becomes affiliated with the company's actions. In section 2.11, it became evident that the higher the stakeholder's expectations on environmental reporting, the higher a company will set aside its resources to accomplish it. The report has shown this to be right in mining and manufacturing, which produce environmental hazards, showing much reporting. This trend occurs in the bar graph figure 7 depicting the greenhouse emissions and environmental performance improvement in the last three years. This trend indicates that the companies involved engaged in better and more efficient systems that aided in addressing environmental concerns.

One other area that experienced a spike in performance was the education sector. It is in the learning institutions that much environmental-based issues becomes raised with research being carried out to find solutions to impending ecological problems. It is this heightened level of concern that spurred the education institutions to address the issue by concentrating on stakeholder's interest. The study shows that the greenhouse gases emissions were low, and they significantly reduced within the three years, while its performance on environmental issues was leading and at par with the mining industry. The study has consistently shown that corporate social responsibility plays a significant role in determining the level of reporting; consequently, CSR profoundly affects the stakeholder's level of concern, need for information, and accountability.

Additionally, corporations have integrated the demand to their advantage, however, disregarding the actual purpose of the provision. The study shows that the relationship between the information reported does not contrast with the actual performance that most companies deliver in the annual disclosures (Sutantoputra, 2016). The height of exposure is influenced by the size of the firm, decision usefulness and the social and political expectations of the state. Regardless of the point of influence, the study has exhibited a high degree of manipulation of the information provided in annual reports by different companies.

Instead, the study supports the use of environmental performance as a measure of better growth and development (Agency, 2016). The report suggests that companies should outlay their overall performance not ejecting any information. Consequently, this will improve the level of transparency in the networking industries and accomplish the primary goal of environmental sustainability.

Expectations on environmental reporting come from all sources including government, non-government and community bodies. Since the companies do not operate in their sphere, they influence the environments and community around it. There has therefore to be expectations that the people and the environmental bodies have regarding their activities. Thus, these expectations drive the actions of the companies. Some of the expectations are regulation and not working under them will result in legal pursuits. The community has also set their standards, and without following their expectations, the result is increased tension.

Therefore, the Australian companies have shown interest in conforming to these interests by initiating activities geared towards conservation. The activities geared towards preservation include monitoring, recycling, reusing, cleaning of wastes, campaigns, reporting, research and development of their production systems (Agency, 2016). The capacity of a company to hold

sustainable projects in the realm of conservation depends on financial ability. The trends of the efforts show a likely rise in awareness and conservation plans. Conclusively, with the leaders of the different industries following with the tactics, the other companies are deemed to follow suit (Agency, 2016).

### **6.3.1 A new Paradigm for The CSR in the Australia Society**

It has been found that CSR is an ill-defined idea, and a few corporations work to incorporate it into their mainstream activities. The thoughts of CSR are vigorously promoted by way of authorities, who appear anxious to shift the burden of social welfare onto companies at the same time prescribing the actual regulatory burden onto them. Agencies respond because of a preference to protect and enhance their reputations; this preference is arguably exploited with the aid of authorities and NGO's who see the protection of popularising as a method of furthering their targets (Agency, 2016).

This component will ask a few essential questions about the role of CSR in Australian society. Is it suitable for corporations to be more and more liable for the welfare of societies stakeholders? Alternatively, is the corporates liability within their consciousness to primarily earn profit's for shareholders and fulfilling a broader liability to the society through paying taxes to central authorities who then, in turn, bears this responsibility? What are the dangers in governments moving social duty to businesses? Isn't it sufficient for the quality and quantity of social responsibility to be a simply voluntary commitment on the part of companies, who then decide the items to be targeted and the quantity and quality and degree of their CSR activities and commitments? (Agency, 2016).

## 6.4 The implication to Companies and Policy Makers

The analysis of these findings by using a sample of a sector of services industries in Australia, provide insights into environmental disclosure. There is conclusive evidence that an organisation will offer comprehensive ecological driven revelations if there are relative advantages towards the company itself, or if its failure will result either in a regulatory or public backlash. The introduction of conservation-gearred activities depends on the significance it has on the organisation's activities including profitability; subject to regulatory measures by the government, public, or environmentalists and relevance to the stakeholders

These findings are crucial in formulating recommendations that will enhance the quality of the Australian service sector environmental disclosures. These include:

*The community should take an active role in determining the extent to which sector-specific environmental disclosures are carried out.*

The community should take the initiative to demand that organisations engage in environmental disclosure, and also take an active role in ensuring that the relevant disclosures are beneficial to their environment. Underhandedness means that most companies act in disclosing environmentally-friendly information, geared towards public relations. These media releases should be replaced with ones that are overt in how they are acting actually to impact the environment less. It is also crucial for the community to involve lobbyists and company's representative in meaningful dialogue on how the company plans to integrate social responsibility into their reports, prioritizing higher risk environmental issues, and providing assurance conservational discourse reports.

*Regulatory bodies should make it compulsory for the companies to release measurable targets, quantified data, and achievements made within a specific period, with an obligation for such*

*objectives being measurable and closely monitored in respect to how they are impacting the environment.*

The regulations that are available currently in Australia treat the inclusion of environmental disclosures into the company's sustainability report as a voluntary exercise. Arguably, this makes the company reveal the only information that they feel will be beneficial to them regarding public relations while omitting some information that is not favourable as seen in the RQ4. The omitted data may reveal more hazardous materials being dumped into the environment, and the environmental disclosure may only be a ruse to gain the public's trust. It is recommended that specific information, especially concerning handling and disposing of materials known to produce adverse effects on people, should be provided; regulatory requirements and monitoring should be integrated into the legislature to ensure that the organisations responsible complies. The companies should be obligated to release measurable targets and achievements set by a regulatory body. Arguably, the hazardous materials divided into several categories depending on their effect to the environment, and then the companies should be obligated to provide essential environmental data on how they have been handling materials up to a certain level of toxicity, leaving less environmentally hazardous substances to the discretion of the organisations.

*The regulators should involve the relevant stakeholders and experts in the environmental fields to continually monitor existing and potential threats that may aggravate or impact the community through direct involvement by the industries.*

The reason why a company may choose not to reveal environmental disclosures is when they feel that it will gain no strategic advantage in doing so, or that it is at insignificant levels and does not pose any significant danger. However, this decision should not be left to the discretion of the company, but the monitoring of these levels should be left to the stakeholders to decide. There

are some pollutants that are very dangerous at very low levels, and may cause adverse health conditions; on the other hand, environmental disclosure should not be done only when there is a strategic advantage attached to it, but should be taken as a responsibility of any business willing to co-exist with other members of the society.

### **6.5. Limitations of the Study**

The criteria that was used for this study was designed to analyse raw and mathematical data that were contained in the reports. Therefore, descriptive data that was presented by the reports which included methods adopted for waste management, environmental strategies and innovation in recycling trends were not included in the statement as they were not quantifiable; However, an exception to this kind of data that was accompanied by data was involved in the report. On the same note, there was an “obvious meaning” interpretation that was attached to processing the information, in that the disclosures meaning got taken literally. To overcome this limitation, explanations from the certified source material’s website and company databases were used to interpret the contents.

The study was carried out using companies that are high ranking in their industries to make ease the availability of annual reports. The bigger companies also had better performance because of their capability to finance environmental activities, unlike the smaller companies. Therefore eventually, the research would not work as a proper representation of small businesses such as start-ups that cannot deal with environmental issues.

Other issues that affected the research is the lack of a comprehensive population cluster to study. As pointed out earlier, the service industry comprises of more than 76% of the country’s GDP, and the sample that was used for this research consists of 5 companies from 5 groups of service industries. In statistics, it is understood that the higher the cluster of the demographic is

represented the higher the accuracy of the study. This limitation can be attributed to the lack of enough resources to cover a broad area, but this handicap was partially overcome by usage of different industries situated from the diverse demographic area within three years. The change in the data for these companies could, therefore, be construed to represent changes that have happened within the timeframe. Interpolating the data from different companies while allowing for a range of discrepancies caused the limitations to be substantially narrowed down.

Though there are many other forms of sustainability reports from the sample companies over the three-year timeframe such as separate sustainability reports from BHP, Rio Tinto, CBA and the University of Newcastle these are not considered in this analysis. If these reports were used, they would provide ad hoc data and company-specific insights, while, annual reports allow for a general cross analytical overview of companies' environmental commitments. Additionally, these extraneous reports are not under the umbrella of a legislative requirement. Further future research, however, might examine the importance of these other reports.

## **6.6. Concluding Remarks and Areas for Further research**

The analysis used in the report has extended the scope of knowledge base affiliated with environmental disclosures, by assimilating the qualitative analysis of the data available within the range of the study, with the conventional framework. The research identified some weaknesses that exist within the confines of the research questions and established the extent of disclosures in the service industry. It also showed how the current weaknesses in the system could be remedied for corporations to give them opportunities to be more effectively be assimilated positively into society.

The study was conclusive in introducing the relationship between the reporting done by in the Director's annual report and the real events occurring within the organisation. It, therefore,

leaves much to ask about the role of the management in the whole framework of sustainability and environmental conservation. The control of the company is the ones vested with the power or disseminating information to the outside world and the stakeholders of the company. While their role in environmental reporting is viewed as clerical, it holds much power since, in the case of hoarding any information, they determine the way critical decisions will be made. Therefore, further research should be carried out to understand the active role of management in the dissemination of information and the connection between environmental reporting and the activities carried out by the company.

The report did not seek other methods of data acquisition like surveys and questioners being sent to the stakeholders to get a comprehensive report that could be used to expand the extent of the investigation. An extension of this study using other methods of data acquisition, and using a larger sample will enhance the understanding of how the issue of corporate environmental management and disclosures affects society. Future research should also incorporate experts from other fields spanning from psychology, sociology, environmentalists, auditors, regulators, economists among others to contribute on developing means that will aid in the co-existence of the community and corporations. The problem is multi-faceted, and it should be treated as such, it is with the significance of the complexity of the challenges affiliated with societal, environmental resolutions that it requires input from other fields of science.

Conclusively, for the Australian community to address the environmental problems that it is currently facing, not to mention the future adaptability, regulations should stop being viewed as a virtue extended by organisations as a courtesy to the society. The government with the help of lobbyists group gathered from different areas of expertise, community members and representatives from the industrial complex should work together to arrive at a viable solution

involving regulations and obligatory guidelines into environmental disclosure protection. Arguably, these groups should actively seek to target the welfare of a healthy society whereby capitalism and the community live side-by-side harmoniously while taking care of the environment to ensure sustainability into the future.

## REFERENCES

- Agency, I. R. (2016). *Roadmap for a Renewable Energy Future*. Abu Dhabi: International Renewable Energy Agency.
- Authority, A. N. Z. F. (2001). *Safe food Australia: a guide to the Food Safety Standards*. Australia New Zealand Food Authority.
- Barcus, F. E. (1976). Communications content: Analysis of the research, 1900-1958 (a content analysis of content analysis).
- Barbour, I. (2013). Mixed result on sustainability reporting, but ASX proposes greater disclosure. *The Conversation- Business and economy*, 31-33.
- Barbu, E. M., Dumontier, P., Feleagă, N., & Feleagă, L. (2014). Mandatory environmental disclosures by companies complying with IASs/IFRSs: The cases of France, Germany, and the UK. *The International Journal of Accounting*, 49(2), 231-247.
- Baker CR, Barbu EM. 2007. Trends in research on international accounting harmonization, *The International Journal of Accounting* 42(3): 272-304.
- Barakat, F. S. (2016). Corporate transparency and CSR policies in developing countries: the case of listed companies in Palestine and Jordan.
- Bhattacharya, C. B., Korschun, D., & Sen, S. (2009). Strengthening stakeholder–company relationships through mutually beneficial corporate social responsibility initiatives. *Journal of Business ethics*, 85(2), 257-272.
- Burgwall, D. v., & Vieira, R. J. (2014). *Environmental disclosure determinants in dutch listed companies*. Amsterdam: Scielo.

- Brennan, N. M., & Solomon, J. (2008). Corporate governance, accountability and mechanisms of accountability: an overview. *Accounting, Auditing & Accountability Journal*, 21(7), 885-906.
- Carnevale, C., Mazzuca, M., & Venturini, S. (2012). Corporate social reporting in European banks: The effects on a firm's market value. *Corporate Social Responsibility & Environmental Management*, 19(3), 159-177.
- Castelló, I., & Lozano, J. (2011). Searching for new forms of legitimacy through corporate responsibility rhetoric. *Journal of Business Ethics*, 100(1), 11-29.
- Centre for Australian Ethical Research. (2003). *The State of Public Environmental Reporting in Corporate Australia*. Commonwealth of Australia
- Chaklader, B., & Gulati, P. A. (2015). A study of corporate environmental disclosure practices of companies doing business in India. *Global Business Review*, 16(2), 321-335.
- Chaklader, B., & Gulati, P. A. (2015). A study of corporate environmental disclosure practices of companies doing business in India. *Global Business Review*, 16(2), 321-335.
- Chapman, R. L., Soosay, C., & Kandampully, J. (2003). Innovation in logistic services and the new business model: a conceptual framework. *International Journal of Physical Distribution & Logistics Management*, 33(7), 630-650.
- Cho, C. H., & Roberts, R. W. (2008, May). The Language of Corporate Environmental Disclosure: A Research Note. In *la comptabilite, le contrôle et l'audit entre changement et stabilite* (pp. CD-Rom).
- Christmann, P. (2004). Multinational companies and the natural environment: Determinants of global environmental policy. *Academy of Management Journal*, 47(5), 747-760.
- Christmann, P. (2000). Effects of “best practices” of environmental management on cost advantage: The role of complementary assets. *Academy of Management journal*, 43(4), 663-680.

- Chuang, S. P., & Huang, S. J. (2018). The effect of environmental corporate social responsibility on environmental performance and business competitiveness: The mediation of green information technology capital. *Journal of Business Ethics, 150*(4), 991-1009.
- Clark, M. W., Walsh, S. R., & Smith, J. V. (2001). The distribution of heavy metals in an abandoned mining area; a case study of Strauss Pit, the Drake mining area, Australia: implications for the environmental management of mine sites. *Environmental Geology, 40*(6), 655-663
- Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2008). Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis. *Accounting, organisations and society, 33*(4-5), 303-327.
- Corbett, C., J., A. Luca, M., et al. (2003). "Global Perspective on Global Standards: A 15-Economy Survey of ISO 9000 and ISO ISO Management Systems: 31-40.
- Dahlsrud, A. (2008). How corporate social responsibility is defined: an analysis of 37 definitions. *Corporate social responsibility and environmental management, 15*(1), 1-13.
- Donaldson, T., & Preston, L. E. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of management Review, 20*(1), 65-91.
- De Aguiar, T. R. S., & Bebbington, J. (2014, December). Disclosure on climate change: Analysing the UK ETS effects. In *Accounting Forum* (Vol. 38, No. 4, pp. 227-240). Elsevier.
- Foerster, A. (2016). Carbon risk disclosure: The risk for Australian companies. *Legal Affairs, 22*-31.
- Gunningham, N., Kagan, R. A., & Thornton, D. (2004). Social license and environmental protection: why businesses go beyond compliance. *Law & Social Inquiry, 29*(2), 307-341
- Gray, R. (2007). Taking a long view on what we now know about social and environmental accountability and reporting. *Issues in Social and Environmental Accounting, 1*(2), 169-198.

Guthrie, J., & Abeysekera, I. (2006). Content analysis of social, environmental reporting: what is new?.

*Journal of Human Resource Costing & Accounting*, 10(2), 114-126.

Halme, M. and M. Huse (1997). "The Influence of Corporate Governance, Industry and Country

Factors on Environmental Reporting." *Scandinavian Journal Management* 13(2): 137-

157. Herawaty, M. (2007). Disclosure in the annual reports of Australian government

departments: a research note. ., . *Disclosure in the annual reports of Australian government*

*departments: a research note*, 147-168.

Hahn, R., & Kühnen, M. (2013). Determinants of sustainability reporting: a review of results, trends,

theory, and opportunities in an expanding field of research. *Journal of cleaner production*, 59, 5-

21.

Haynes, D., & Johnson, J. E. (2000). Organochlorine, heavy metal and polyaromatic hydrocarbon

pollutant concentrations in the Great Barrier Reef (Australia) environment: a review. *Marine*

*Pollution Bulletin*, 41(7-12), 267-27

Henry, I. P., & Jackson, G. A. M. (1996). Sustainability of management processes and tourism products

and contexts. *Journal of Sustainable Tourism*, 4(1), 17-28.

Higginbotham, N., Freeman, S., Connor, L., & Albrecht, G. (2010). Environmental injustice and air

pollution in coal affected communities, Hunter Valley, Australia. *Health & place*, 16(2), 259-

266.

Hossain, M., Islam, K., & Andrew, J. (2006). Corporate social and environmental disclosure in

developing countries: Evidence from Bangladesh.

In Karim, K. E., & In Rutledge, R. W. (2004). *Environmental disclosure practices and financial*

*performance*. Westport, CT: Praeger.

- Jenkins, H., & Yakovleva, N. (2006). Corporate social responsibility in the mining industry: Exploring trends in social and environmental disclosure. *Journal of cleaner production*, 14(3-4), 271-284.
- Jones, M. J., & Slack, R. (2010). Environmental disclosure and targets in environmental reports: impression management or legitimacy theory.
- Kolk, A. (2008). Sustainability, accountability and corporate governance: exploring multinationals' reporting practices. *Business strategy and the environment*, 17(1), 1-15.
- Kim, Y. (2014). Strategic communication of corporate social responsibility (CSR): Effects of stated motives and corporate reputation on stakeholder responses. *Public Relations Review*, 40(5), 838-840.
- Kimberly, N. A. (2002). *The Content Analysis Guidebook*. Thousand Oaks, CA: Sage.
- Krippendorff, K. (1980). *Content Analysis: An Introduction to its Methodology*. London, UK: Sage Books.
- Larson, S., De Freitas, D. M., & Hicks, C. C. (2013). Sense of place as a determinant of people's attitudes towards the environment: Implications for natural resources management and planning in the Great Barrier Reef, Australia. *Journal of environmental management*, 117, 226-234.
- Lehman, G. D., & Yusoff, H. (2006). International differences on corporate environmental disclosure practices: a comparison between Malaysia and Australia.
- Leviston, Z., Leitch, A., Greenhill, M., Leonard, R., & Walker, I. (2011). Australians' views of climate change. *Canberra: CSIRO*.
- Lindblom, A., & Ohlsson, J. (2011). Stakeholders' influence on the environmental strategy of the firm: A Study of the Swedish Energy Intensive Industry.
- Lu, Y. J. (2008). A study of environmental disclosures made by Chinese mineral extraction corporations.

- Mallawaarachchi, T., Blamey, R. K., Morrison, M. D., Johnson, A. K. L., & Bennett, J. W. (2001). Community values for environmental protection in a cane farming catchment in Northern Australia: A choice modelling study. *Journal of Environmental Management*, 62(3), 301-316.
- Miller, P. (2015). Dragging Australia's financial reporting regime into the 21st century. *The Conversation- Business and Economics*, 22-28.
- Neu, D., Warsame, H., & Pedwell, K. (1998). Managing public impressions: Environmental disclosures in annual reports. *Accounting, organisations and society*, 23(3), 265-282.
- Nyide, C. J. Environmental management accounting: a conceptual model for the reporting of environmental costs. *Corporate ownership & control*, 195.
- O'Riordan, T. (1977). Environmental ideologies. *Environment and Planning A*, 9(1), 3-14.
- Porter, M. E., & Kramer, M. R. (2006). The link between competitive advantage and corporate social responsibility. *Harvard business review*, 84(12), 78-92.
- Sharma, S., & Vredenburg, H. (1998). Proactive corporate environmental strategy and the development of competitively valuable organisational capabilities. *Strategic management journal*, 19(8), 729-753.
- Shaw, E. F. (1979). Agenda-setting and mass communication theory. *Gazette (Leiden, Netherlands)*, 25(2), 96-105.
- Solomon J. F., Solomon A. 2006. Private social, ethical and environmental disclosure. *Accounting, Auditing & Accountability Journal* 19(4): 564-591.
- Tranter, B. (2011). Political divisions over climate change and environmental issues in Australia. *Environmental Politics*, 20(1), 78-96.
- Mitchell, J. D., Percy, M., & McKinlay, B. (2004). Voluntary environmental reporting practices: a further study of poor environmental performers.

- Moir, L. (2001). What do we mean by corporate social responsibility?. *Corporate Governance: The international journal of business in society*, 1(2), 16-22.
- Morsing, M., & Schultz, M. (2006). Corporate social responsibility communication: stakeholder information, response and involvement strategies. *Business ethics: a European review*, 15(4), 323-338.
- Rankin, M. W. (2011). An investigation of voluntary corporate greenhouse gas emissions reporting in a market governance system: Australian evidence., . *Accounting, Auditing & Accountability Journal*, 1037-1070.
- Schaltegger, S., & Burritt, R. L. (2010). Sustainability accounting for companies: Catchphrase or decision support for business leaders?. *Journal of World Business*, 45(4), 375-384.
- United States, & United States. (2004). *Environmental disclosure: SEC should explore ways to improve tracking and transparency of information: report to congressional requesters*. Washington, D.C.: U.S. Government Accountability Office.
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences*, 15(3), 398-405. doi:10.1111/nhs.12048
- Votaw, D., & Sethi, S.P. (1973). *The Corporate Dilemma*. Englewood Cliff, N.J.: Prentice Hall.
- Vourvachis, P., & Woodward, T. (2015). Content analysis in social and environmental reporting research: trends and challenges. *Journal of Applied Accounting Research*, 16(2), 166-195.
- Work Conference on Content Analysis, & Pool, I. S. (1979). *Trends in content analysis: Papers of the work conference on content analysis of the committee of linguistics and psychology, social science research council*. Urbana: University of Illinois Press.

Wilmshurst, T. D., & Frost, G. R. (2000). Corporate environmental reporting: A test of legitimacy theory. *Accounting, Auditing & Accountability Journal*, 13(1), 10-26.

Yoon, Y., Gürhan-Canli, Z., & Schwarz, N. (2006). The effect of corporate social responsibility (CSR) activities on companies with bad reputations. *Journal of consumer psychology*, 16(4), 377-390.

Zhou, M. M., & Panbunyuen, P. (2008). *The association between board composition and different types of voluntary disclosure: A quantitative study of Chinese and Swedish listed companies.*

Handelshögskolan vid Umeå universitet.

## Appendix I: Abbreviations List

Abbreviations	Details
ABS	Australian Bureau of Statistics
BOEM	Bureau of Ocean Energy Management
BOQ	Bank of Queensland
CBA	Commonwealth Bank of Australia
CSR	Corporate Social Responsibility
ED	Environmental Disclosure
EMO	Environmental Movement Organisations
EPS	Earnings Per Share
ESG	Environmental and Social Governance (ESG)
GRI	Global Reporting Initiatives
IFRS	International Financial Reporting System
ISO	International Standardization Organisation
PJSC	Parliamentary Joint Committee on Corporations and Securities
ROA	Return on Asset
ROI	Return on Investment
RQ	Research Question
TBL	Triple Bottom Line Reporting