Emerging Corporate Disclosure of Environmental Social and Governance (ESG) Risks: An Australian Study

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Abstract

Today, companies across all industries around the globe face the challenges of unprecedented disruption due to climate change and other social disruptions. It is the responsibility of standard setters and regulators of the financial sector to constantly encourage industries to adopt and respond instead of ignoring the disruption. Environmental Social and Governance (ESG) risk disclosure is one of the main emerging corporate disclosures of rising importance. Specifically with new Australian Securities Exchange (ASX) listing rules companies listed in the ASX are expected to comply with new Environmental Social and Governance (ESG) risk discloser requirements from the year 2016 and if they do not comply, the 'if not, why not' rule applies. This study seeks to provide insight into the current ESG risk disclosure practices in the Australian context giving particular reference to the extractive sector companies for which ESG disclosure has become a crucial reporting requirement.

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1. Introduction

The growing focus on organisations to report on environmental, social and governance (ESG) impacts. Fuelled by stakeholder interest, including those of investors, leads to the important question: what is the best way of ensuring such disclosure is undertaken. Considering the significant impacts, businesses have to give due attention to such ESG matters. Furthermore, the critical nature of many such issues for society, seems to support the need for mandatory reporting. Consequently, it is clear that ESG impacts and dependencies are becoming an important part of the core business activities that create organisational value. It is believed that allowing business to undertake reporting voluntarily might be more successful in creating an organisational vision that includes a commitment to addressing ESG risk as part of their organisational strategy. Many companies report on the use of energy or water and waste management as part of their sustainability reports. Some organisations also report on their energy intensity or water intensity and consumption in units and dollar. However, it is hard to interpret or compare that information due to inconsistencies and lack of common reporting practices or disclosure standards. Just as with financial information, investors need good quality, accurate, relevant and reliable ESG information that should be comparable and consistently reported with any changes to methodologies behind data compilation, analysis and information disclosure clearly explained in the company external reports.

Up until the 1960s , reporting of non-financial information in the corporate reports were considered as a corporate social responsibility measure and this information mainly focused on commitment to provide quality products and community involvement, human resources, employee relations. However, the environmental catastrophes such as Bhopal tragedy, BHP Billiton disaster add more fuel to the ongoing public debate on ESG issues such as environmental pollution, climate change, human rights and corporate ethics brought the importance of ESG disclosures to the forefront (Lokuwaduge and Heenatigala, 2017). According to KPMG (2008), two main factors have driven the need for sustainability reporting. Firstly, they find that issues related to sustainability affect the company's long-term economic performance and secondly the business community need to respond appropriately to issues related to sustainable development. As a result, sustainability reporting is gaining prominence as a communicating tool of those companies, which also enhances the quality of the relationship with internal and external stakeholders. Recent contributions from international organisations such as the United Nations Principles of Responsible Investment (UNPRI) and the Global Reporting Initiative (GRI) (2013) proposed various types of improvements to enhance ESG reporting practices around the globe.

Using the arguments of stakeholder theory and legitimacy theory, this research aims to understand the disclosure motives of ESG information and the gap between the existing disclosure practices and expected practices by different stakeholders. This research further addresses the need of a meaningful ESG disclosure framework, which investors could reliably use for their decision-making on their investment "health checks" while other stakeholders could determine and compare the social cost and other pros and cons of ESG related activities of different companies.

2. ESG Risk Disclosure and Sustainability Reporting

As economies globalise, new opportunities to generate prosperity and improve the quality of life were arising through economic development, international trade, sharing of knowledge among nations and access to technology which also accompanied new risks to the stability of the environment and threats to the sustainability of our social relations. This gave rise to the concept of 'sustainable development', and one of the major challenges of sustainable development is that it demands new and innovative choices and ways of thinking to meet the present needs without compromising the ability of future generations to meet their needs (UNEP, GRI, and UNCGA KPMG 2010).

In the current globalised business environment, corporations around the globe are pressured to be accountable and transparent to the society about their activities that can have a significant impact on the environment and society. Beyond what is disclosed in financial reporting, disclosures of ESG information has attracted the attention of corporate Investors, especially institutional investors who tend to look at longer investment horizons (Lokuwaduge and Heenatigala, 2017).
Indicators that reflect on the impact of ESG issues are essential to an analysis of a company's ability to sustain competitive advantage over the long term. This creates a need for companies to disclose information about their activities relating to sustainability (Soderstrom, 2013). Sustainability reporting is an integral part of the communication between the company and its key stakeholders, including investors (Sjöström, and Welford, 2009). Soderstrom (2013) refers sustainability reporting as the communication tool, which corporations use to publicise their corporate social responsibility (CSR) concerns and activities, including social and environmental impacts in addition to the financial performance of the company. Sustainability reporting is a process that assists organisations in understanding the links between organisational performance measurement and organisation's plans and strategy while making changes to address sustainability related opportunities and threats (Global Reporting Initiative, 2013). This process combines the profitability of a company with corporate social responsibility towards its stakeholders. It is a more forward-looking business approach, which creates long-term shareholder value by embracing opportunities and managing risks derived from economic, environmental and social development. Hence, sustainability report should provide a balanced and reasonable representation of sustainability performance of a reporting organisation, including both positive and negative contributions and the anticipated risks and opportunities (GRI, 2011). Global Reporting Initiative defines sustainability reporting as a combination of economic, environmental, social and governance disclosure in the following manner.

> Sustainability reporting is the practice of measuring, disclosing, and being accountable to internal and external stakeholders for organisational performance towards the goal of sustainable development. 'Sustainability reporting' is a broad term considered synonymous with others used to describe reporting on economic, environmental, and social impacts (e.g., triple bottom line, corporate responsibility reporting, etc.). A sustainability report should provide a balanced and reasonable representation of the sustainability performance of a reporting organisation – including both positive and negative contributions" (GRI, 2011 p 3).

Governments around the world, together with different international organisations follow various approaches to encourage ESG reporting using mandatory and voluntary measures. Legislations and mandatory reporting requirements can be passive and hence leave it to market forces such as international bodies to drive organisations to report on sustainability issues, or they may support various non-governmental initiatives in their attempts to promote reporting or impose mandatory regulations with an obligation to report. There have been different perspectives on the relative value and merits of either approach to corporate reporting, often shaped by a variety of factors from vested interests and perceptions to organisational culture and historically most organisations have supported voluntary reporting. In contrast, external groups such as NGOs and trade unions have pushed for objective and enforced regulation.

The United Nations Environment Program (UNEP) (UNEP, GRI, and UNCGA KPMG 2010) presented a comprehensive overview of voluntary and mandatory approaches to sustainability reporting and elaborated some of the reasons that have been used to support, and oppose mandatory and voluntary reporting frameworks. This report further identified some of the following reporting requirements in Australia as mandatory and voluntary (p 24-26).

2.1 Mandatory Reporting

There are several; relevant examples of mandatory reporting

- Financial Services Reform Act, 2001 that promulgated in March 2002 requires fund managers and financial product providers to state for what extent, which labour standards or environmental, social and ethical considerations are taken into account in the selection, retention and realisation of their investments.
- Energy Efficiency Opportunities Act, 2006 (with an amendment in 2007) which aims to improve the identification and evaluation of energy efficiency opportunities by large energy using businesses. In order to achieve the aim of the act, it requires large energy-using businesses to undertake an assessment of their energy efficiency opportunities, and report publicly on the outcomes of that assessment. The Act outlines the broad requirements for those energy-using businesses and allows regulations to provide detailed requirements for assessment, reporting, verification and other elements of the programme to encourage implementation of cost effective energy efficiency opportunities.
- National Pollutant Inventory, 1998 requires industrial companies to report emissions and inventories for specific substances and fuel to regulatory authorities for inclusion in a public database.
- ASIC Section 1013DA Disclosure Guidelines, 2003 issued by the Australian Securities and Investments Commission, aimed at product issuers for disclosure about labour
  Standards or environmental, social and ethical considerations in Product Disclosure Statements (PDS).
  The guidelines complement the Financial Services Reform Act mentioned above.
- New South Wales (NSW) Greenhouse Gas Abatement Scheme, 2003 – Electricity utilities and certain large end-users of electricity (e.g. metal refineries) in the state of NSW are required to comply with greenhouse gas emission benchmarks, and to report annually on their compliance which requires annual external audits
- Antarctic Treaty (Environment Protection) Amendment Bill 2011
- Environment Protection and Biodiversity Conservation Amendment Bill 2013
- Environment Protection and Biodiversity Conservation Amendment (Declared Fishing Activities) Bill 2012
- Environment Protection and Biodiversity Conservation Amendment (Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development) Bill 2012
- National Greenhouse and Energy Reporting (Audit) Determination 2009.
- National Greenhouse and Energy Reporting (NGER) (Safeguard Mechanism) Rule 2015, made under National Greenhouse and Energy Reporting Act 2007. Australian Government introduced the National Greenhouse and Energy Reporting Scheme (NGERS), providing the first mandated national reporting guidelines for Australian

2.2 Voluntary Reporting: *Several relevant examples of voluntary reporting:*

Voluntary reporting has been used increasingly to support voluntary adoption of sustainable frameworks.

- Australian Minerals Industry Framework for Sustainable Development "Enduring Value", was issued by The Minerals Council of Australia in 2005. The guidelines for sustainable development require a commitment to public sustainability reporting on an annual basis from members, with reporting metrics self-selected from the Global Reporting Initiative (GRI) (2013) Mining and Metals Sector Supplement or self-developed.
- Triple Bottom Line Reporting in Australia, 2003 issued by the Department of Environment and Heritage is a guide to reporting against environmental indicators. It is consistent with the Guidelines of the Global Reporting Initiative (GRI).
- Assurance standards (Standard DR03422): General Guidelines on the Verification, Validation and Assurance of Environmental and Sustainability Reports, 2003 issued by Standards Australia. Environmental Management Systems. DR03422 was issued as an Interim Standard for a period of two years, after which AS/NZ S5911 (Int) 2005 came into effect which was then updated in 2008.
- Australian Auditing Standards (for accounting firms) which can be applied to the audit and review of sustainability reports. AUS102.44 states that Australian Auditing and Assurance Standards was developed primarily in the context of financial report audits are to be applied, and adapted as necessary, to all audits of financial and non-financial information, to all other assurance engagements, and to all audit-related services

According to KPMG, GRI and UNEP (2016) the Australian regulatory environment is generally supportive of business transparency and ASX corporate governance guidelines. However, sustainability reporting, including ESG risk disclosure, is still in an evolving phase in Australia and taking up from the growing awareness of corporate citizenship frameworks such as the United Nations Global Compact and GRI. Due to the voluntary nature of such disclosures, a wide range of motivating factors are needed to support the decision of disclosure. CPA Australia (2016) strongly supports the conclusion that current perceptions of sustainability reporting quality is relatively low in Australia, subject to variability across industry sectors and contains less decision-useful content than can be found in statutory based annual reports. This research points out further to an expectation amongst users of sustainability information that government regulatory initiatives are key factors in driving further uptake.

The dilemma is finding a way forward, which compels this outcome without being excessively rule-based and the experience suggests that highly prescriptive approaches will create a highly legalistic focus and stifle both openness and innovation (KPMG, GRI and UNEP 2016).

3. Why is the sample drawn from the Australian extractive sector?

This study uses a sample selected from mining, utilities, and energy sector companies listed in the Australian Securities Exchange (ASX), as they are the most relevant extractive sector companies in analysing environmental issues due to the nature of their activities and impact on their environment. The Australian extractive sector is highly influenced by the ESG reporting requirements and regulations. Even though Australia is moving away from the so-called mining boom, the contribution of the extractive sector to the Australian economy is relatively high. According to Galbreath (2013), the mining boom in the recent past had a significant impact on the living standards of Australians. This sector was accounted for almost 6% of Australia's GDP and more than 35% of export revenue. Its contribution to national employment was about 1.3%, and 20% of market capitalisation was contributed by the extractive sector. According to the Australian financial stability board's task force on climate-related financial disclosures, coal is the second biggest export, after iron ore, and constitutes over 11 per cent of exports by value while natural gas is the fifth biggest export but once Paris targets are implemented both thermal coal and natural gas are likely to see reductions in demand. However, the negative impacts of extractive activities have brought the attention of institutional investors to focus on ESG issues. This industry is associated with many challenges related to environmental and social issues such as the depletion of non-renewable resources, disturbance of the landscape and above-average threats for health and safety of workers and citizens (Azapagic 2004) even though it has economic benefits related to employment and wealth creation.

Furthermore, Jenkins (2004) reports that CSR in the mining industry is about balancing the diverse demands of communities and protecting the environment whilst making a profit. Therefore, from the perspective of the mining sector, CSR is about responding to the shareholders as well as stakeholders including employees, customers, affected communities and the general public on issues such as human rights, employee welfare and climate change (Hamann, 2003). Azapagic (2004) has identified many different stakeholders related to the mining sector as industry stakeholders, employees, trade unions, contractors, suppliers, customers, shareholders, creditors, insurers, local communities, local authorities, government and NGO's. This created a need for sustainability reporting. Sustainability reports originated in the last century due to the social and political climates that prevailed during the time and were more focussed on corporate social responsibility performance. There is an increased need for business entities worldwide to be responsible for and to society. According to KPMG (2008), the preparation of standalone Corporate Social Responsibility (CSR) reports by large companies increased from 52% in 2005 to 79% in 2008. By the year 2013 70% of the large extractive companies produced high quality CSR reports (KPMG, 2013) providing information about their environmental and social enhancement programs which has become an important activity integrated into their business performance.

Even though there are number of reporting frameworks such as the International Integrated Reporting Council (IIRC) framework, the UN (Global Compact) and Global Reporting Initiative (GRI) (2013) framework for non-financial reporting that cover aspects of ESG reporting, these frameworks do not provide reliable measures that are comparable between companies in the same or different sectors (Lokuwaduge and Heenatigala, 2017). The information disclosed by companies differs in terms of content, boundary, style and complexity. Hence, it is difficult for stakeholders to judge the environmental performance of those companies and understand which companies are comparatively better or worse (Kokubu et al., 2002). Measurement criteria used may also differ between different business sectors. Therefore, investors' assessments are often undermined (Sjöström, and Welford, 2009) by inconsistencies and insufficiencies arising from the differences of ESG data in terms of industries, regions and countries (IFAC, 2012). Financial reporting of listed companies is regulated, mandatory, and required to meet the financial reporting framework of quality standards, which emphasise relevance, reliability, comparability and faithful representation (De la Cuesta and Valor, 2013). However, as noted above, ESG reporting is problematic due to the lack of reporting standards and a quality framework and does not meet the above-mentioned criteria (Lokuwaduge and Heenatigala, 2017) . As an example, understanding of an organisation's greenhouse gas (GHG) emissions is fundamental to an investor's assessment of the opportunities, challenges and risks associated with climate change both historically and in the future. The Framework does not prescribe the methodology that should be used to calculate GHG emissions. However, it does require GHG emissions results to be prepared according to a methodology or scheme that is either presented according to the global standards or based on national or industry standard based on such global standards.

The use of quantitative data should support and align with the requirements of the commonly accepted framework. The disclosure report should clearly mention which protocols or frameworks are being applied and any relevant legislative frameworks or other relevant protocols.
The Australian Council of Superannuation Investors (ACSI) (2015) proposed an ESG framework which is available on the ASX website as the recommended framework. This report emphasised that investors look for environmental information such as direct and indirect carbon emissions, other indirect exposure to climate change risk, measures to address risks, opportunities and how to manage the physical risks from climate change. This report further says investors look for evidence of the policies of people risk management: employee satisfaction, engagement outcomes, and key drivers of diversity, anti-discrimination, flexible working, training and development, OH&S policies and systems, Voluntary turnover rates and rate of return from maternity/parental leave etc. as social indicators.

4. Theoretical Foundation of ESG Reporting

According to Deegan (2014), even though there are many theories that explain a company's motivation to report ESG information, ESG reporting motives are highly related to regulations, standards, legitimacy and stakeholders. Lokuwaduge and Heenatigala (2017) argue that there is an increasing pressure on management to report ESG information to its influential stakeholders and this pressure creates a legitimacy crisis for the survival of those organisations (Deegan, 2014; Bhattacharyya and Cummings, 2015). Deegan (2002) explains that reporting of information can be employed by the organisation to manage (or manipulate) stakeholders in order to gain their support and approval or to avoid their opposition and disapproval, and to gain legitimacy. Accordingly, managers will have an incentive to report information on various activities and initiatives to those stakeholders who have a particular interest in the organisation and to indicate that they are conforming to stakeholder expectations (Deegan, 2002; Bhattacharyya and Cummings, 2015). Gray et al. (1995) argue that there is an overlap between legitimacy theory and stakeholder theory. Hence, this study uses the legitimacy theory and stakeholder theory in combination to analyse the motive of ESG reporting in the Australian extractive sector context.

4.1 Legitimacy Theory:

"Legitimacy is the generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman, 1995, p. 574). A firm receives permission to operate from society and is ultimately accountable to the society for how it operates and what it does because society provides corporations with the authority to own and use natural resources and to hire employees (Deegan, 2004). If society feels that an organisation has breached its side of the social contract, then the survival of the organisation will be threatened. Thus, legitimacy is considered to be a strategic resource which an organisation is dependent upon for survival (Dowling and Pfeffer, 1975; Lokuwaduge and Heenatigala, 2017).

According to literature (Tilling, 2004; Deegan, 2004), legitimacy theory provides a powerful mechanism for understanding voluntary social and environmental reporting made by corporations. Tilling (2004) proposes a relationship between corporate reporting and community expectations. Matthews (1993) defines legitimacy as the congruence between the social values associated with or implied by their activities and the norms of acceptable behaviour in the larger social system in which they are a part of:

> Organisations seek to establish congruence between the social values associated with or implied by their activities and the norms of acceptable behaviour in the larger social system in which they are a part. In so far as these two value systems are congruent, we can speak of organisational legitimacy. When an actual or potential disparity exists between the two value systems, there will be a threat to organisational legitimacy (Mathews 1993, p.350).

Legitimacy theory emphasises that an organisation must consider the rights of the public at large, not merely the rights of the investors. Failure to comply with societal expectations may result in sanctions being imposed in the form of restrictions on a firm's operations, resources and demand for its products. Social and environmental researchers particularly tend to utilize legitimacy theory, to explain why corporate management undertake certain actions such as disclosing particular items of social and environmental information as part of their business strategy. It does not provide a prescription about what management ought or should do and is a positive theory which seeks to explain or predict particular managerial activities (Deegan, 2014). According to Deegan (2002), due to the desire to legitimise organisations operations, legitimacy theory has been used as the theoretical basis for the environmental and social reporting. Lindblom (1994) states that the organisation gains legitimacy when an entity's value system is congruent with the value system of the larger social system, which the entity is a part of. If society feels that an entity has breached its side of the social contract, then the entity's legitimacy is under threat. Furthermore, Lindblom (1994) and Patten (2005) also suggest that organisations tend to use environmental reporting practice as a tool of legitimisation.

4.2 Stakeholder Theory:

According to the social responsibility model, apart from the shareholders, a company has a responsibility towards its other stakeholders which includes suppliers, customers, employees, the government and the society at large (Lokuwaduge and Heenatigala, 2017). ESG disclosures should be related to issues important to a wide range of stakeholders. They cover issues that are beyond economic concern but also could affect economic aspects (Gray et al., 1995; Jenkins, 2004). Therefore, a theory that provides similar insights to legitimacy theory is stakeholder theory. A stakeholder is an individual or any group of individuals who can affect or is affected by the activities of the firm, in achieving the objectives of the firm (Freeman and McVea, 2001). Accordingly, the shareholder wealth maximisation way of thinking is changing to stakeholder wealth maximisation. A company value management system is based not only on economic profit maximization but also on ESG value maximisation which could be achieved only if stakeholder engagement process is implemented in the management system of the company (Martirosyan and Vashakmadze, 2013).

The Study of the impact of ESG factors on firm value by Peiris and Evans (2010) reported a significant positive relationship between broader ESG factors and firm valuations indicating that higher rated companies are associated with higher earnings multiples, suggesting that ESG factors impact corporate financial performance and therefore are relevant for consideration of investment decision-makers. This shows that in order to be successful, companies not only have to be responsible to shareholders but also rely on management of a variety of stakeholders who have a stake in the social and financial performance of the firm (Donaldson and Preston, 1995). This was further emphasized by Gray et al., (1995) who stated that the more important the stakeholder to the company, the more effort would be made to maintain good relations. Hence organisations tend to use information to manage or manipulate the stakeholders to get their support for organisational survival as well as a strategic marketing tool to create a positive image among their stakeholders.

5. Methodology

In order to investigate the indicators and measures used for ESG reporting of Australian extractive sector, this research employs the ethnographic approach using a purposive sample of 30 extractive companies selected from the ASX 200 companies listed in the Australian Securities Exchange. Following previous researchers (Tilt, 1994), who considered annual reports of the companies as the most publicised and reliable kind of documents which provide important ESG information on a regular basis, this study uses secondary data collected from annual reports or annual sustainability reports for the year 2014/2015.

The first step of the research was to develop a research framework based on the literature review to identify the main sources of ESG reporting indicators and to distinguish the most important stakeholder groups of those companies. After a careful analysis of available ESG reporting initiatives, this research used the Global Reporting Index (GRI) indicators to develop the research framework. A pilot study was conducted using the 12 top tier companies in the extractive sector based on the market capitalization to determine the indicators that are mostly used by the extractive industry in Australia using the annual reports, annual integrated reports or sustainability reports under different categories to analyse the extent of ESG reporting. Then extended the final study to up to 30 companies listed in the ASX chosen according to the highest market capitalisation.

6. Results: Analysis of the Australian Extractive Sector

This study is an attempt to investigate and report the measures used to report ESG information and to analyse the extent of ESG reporting in the extractive sector listed companies in Australia. The sample used for the study was limited to 30 extractive sector companies listed in the ASX based on the highest market capitalisation in the sector. Investigation of the reporting practice of environmental, social and governance (ESG) reporting of Australian extractive sector companies revealed that 43.3% (13) of the sample used a separate sustainability report and 40% (12) used integrated reports to report the ESG information. In contrast, 17% (5) did not have either of them. Accordingly, 83.3% of the companies use, either integrated reports or sustainability reports, which shows slight progress, compared to KPMG's (2008; 2013) reports (79%) and closer to the findings of Fortune 250 companies (85%). ESG reporting is still a voluntary requirement for the companies listed in the ASX. Even though the ESG risk reporting recommendations are highlighted under the amended listing rules by introducing " if not why not" since 2016 annual reports, this could remain the same for some time as changes to the existing reporting requirements could significantly increase the ongoing compliance burden for listed companies specifically under current volatile economic conditions.

6.1 Environmental Reporting

As a result of the data collection, this study captured seven environmental indicators relating to the impact of businesses interaction with the natural environment, environmental protection, as well as the use of renewable and non-renewable resources. As illustrated in Table 1, direct greenhouse gas emission was the highest reported indicator, and 23 out of 30 companies (76.7% of the sample) reported their emission. However, due to the different reporting measures such as tonnes, kilo tonnes or megatonnes, it is harder to compare the performance mainly due to lack of standards in reporting which was highly emphasized in the literature.

Table 1: Environmental Reporting

Indicators identified for the data collection	**Reported**	**Percentage**	**Not Reported**	**Percentage**
Non-Renewable material used '000 tonnes	3	10.0	27	90.0
Renewable material used '000 tonnes	2	6.7	28	93.3
Total Fuel consumption	20	66.7	10	33.3
Total reduction/increase in energy consumption	10	33.3	20	66.7
Volume of water recycled / reused by the organisation	8	26.7	22	73.3
Direct GHG Emission (Scope 1)	23	76.7	7	23.3
Bio diversity value of the water source which affected by the water withdrawal	12	40.0	18	60.0

Source: Authors calculations (2015)

6.2 Social Reporting

According to Azapagic and Perdan (2000), social indicators show the extent of the company's responsibility towards the communities in which it operates. Those social indicators selected for the study are mainly related to employees, human rights, health and safety and social inclusion.

As reported in Table 2, all the 30 companies in the sample reported a majority of the social indicators used in the study. When looking at those indicators with a lower reporting rate, it is not clear whether companies avoided reporting information or whether this sort of incident did not take place during the reporting period. These included items such as fatalities, incidents of discrimination during the reporting period, grievances about human rights, total number of confirmed incidents of corruption and the total number of non-monetary sanctions. This could be worth exploring in a future study.

Table 2: Social Reporting

Indicators identified for the data collection	Reported	Percentage	Not reported	Percentage
Employment of new employees hired	30	100.0	0	0.0
Employment of new employees by reporting type	30	100.0	0	0.0
Total employees by reporting type	30	100.0	0	0.0
No. of Indigenous people	30	100.0	0	0.0
Employees turnover	30	100.0	0	0.0
No. of strikes exceeding one week duration	6	20.0	24	80.0
No. of lockouts exceeding one week duration	6	20.0	24	80.0
Overall injury rate	21	70.0	9	30.0
Occupational diseases rate	4	13.3	26	86.7
Lost day rate denominator	30	100.0	0	0.0
Absenteeism rate	0	0.0	30	100.0
Average hours of training	30	100.0	0	0.0
Fatalities	7	23.3	23	76.7
Incidents of discrimination during	2	6.7	28	93.3
Operations have been subject to human rights reviews	1	3.3	29	96.7
Grievances about human rights - Addressed	2	6.7	28	93.3
No. of confirmed incidents of corruption	2	6.7	28	93.3
No. of non-monetary sanctions	2	6.7	28	93.3
Product Stewardship Programme	30	100.0	0	0.0

Source: Authors calculations (2015)

6.3 Governance Reporting

This study investigated the reporting of governance information by using 12 indicators included in the GRI index, all of which are included in reporting requirements of the ASX good governance principals for Australian listed companies. Even though those reporting requirements are not mandatory, if a company decided not to report any of those governance indicators, it should explain 'if not, why not' in their integrated reports. As shown in Table 3, all the 30 companies used in the sample reported the information relating to the structure of the boards such as the number of executive directors, non-executives, independent directors, board committees and females in the board and the lowest reporting also accounted for 93.3%.

Table 3: Governance Reporting

Indicators identified for the data collection	**Reported**	**Percentage**	**Not Reported**	**Percentage**
Structure of the governance board	30	100.0	0	0.0
Committees of the Board	30	100.0	0	0.0
Committees responsible for economic, environmental and social decisions	30	100.0	0	0.0
No. of Executives in the BOD and its committees	30	100.0	0	0.0
No. of non-executives in the BOD and its committees	30	100.0	0	0.0
No. of Independent directors in the BOD and its committees	30	100.0	0	0.0
Tenure on the Director Board (Years)	28	93.3	2	6.7
Females Directors in the Board	30	100.0	0	0.0
Competences relating to economic, environmental and social impacts	30	100.0	0	0.0
Stakeholder representation	30	100.0	0	0.0
The nomination and selection processes for BOD/ Whether and how diversity is considered	30	100.0	0	0.0
The frequency of the board's review of economic, environmental and social impacts, risks, and opportunities	29	96.7	1	3.3

Source: Authors calculations (2015)

7. Discussion and Conclusions

The results of the study reveals that companies tent to report the indicators those impacted by the existing regulatory requirements such as corporate governance reporting requirements for listed companies, greenhouse gas emission, occupational health and safety and work safe Australia regulations while the voluntary type of reporting was not popular even though they could create a positive image among stakeholders which proves the legitimacy theory argument. According to legitimacy theory, the motive of ESG reporting is to legitimise the organisations' operations (Bhattacharyya, and Cummings, 2015; Deegan, 2002).

To respond to challenges of investors and other stakeholders in highly vulnerable financial markets, it is important to be able to report information that can be comparable within the different industries and sectors (Lokuwaduge and Heenatigala, 2017). ESG reporting is not meaningful unless they are comparable and findings of this study show that there is no uniformity due to the lack of reporting standards. Even though GRI serves as a very useful reporting index, the company has the choice not to use the GRI index and instead just to comply with essential ESG requirements such as Greenhouse Gas Emission as these ESG disclosure requirements are voluntary. Extractive Sector companies are expected to comply with the GRI complete Sector Supplement content introduced by the G4 guidelines in the ESG reports published after 31 December 2015 if these companies intend to claim that they follow the GRI index while ASX Listing Rules expects companies to follow "if not why not" approach for ESG reporting since 2016.

Whilst a majority of companies in the sample have a sustainability report, integrated reporting seems to be the popular mean of reporting ESG. The results further show that the extent of ESG reporting is highly influenced by the regulatory or compliance requirements as the most reported indicators such as the governance index., ASX listed companies have to comply with 'if not why not' rule for governance reporting requirements and this regulation influenced the rate of reporting index. This outcome is consistent with the argument of the legitimacy theory as well as the stakeholder theory and further supports the conceptual overlap between these two theories.

Evidence from this research agrees with the findings of existing research (Tilt, 1994; Rahman Belal and Owen, 2007; Azizul Islam and Deegan, 2008; Coleman, 2011, CPA Australia 2016, Lokuwaduge and Heenatigala, 2017), that there are perceived pressures from stakeholders including regulatory authorities to report certain ESG information. In particular Australian extractive sector companies are motivated to report this information in order to overcome the pressure they receive from the powerful stakeholders, including regulators. Consistent with the legitimacy theory and stakeholder theory, extractive sector companies in Australia chose to report ESG information in a manner that reduces the regulatory risk and to safeguard the legitimacy. When the Australian Government introduced NGERS in 2007, there were nine greenhouse gas emissions in mandatory reporting schemes and six voluntary schemes across federal and state governments (de Wit & Coonan 2008). In 2007, the Australian Government introduced the National Greenhouse and Energy Reporting Scheme (NGERS), providing the first mandated national reporting guidelines for Australian companies. This is the highest used environmental indicator, which supports the mandatory reporting argument. This study further reveals that the information such as industrial disputes, grievances that could create negative reactions among the stakeholders was either not mentioned or were the least mentioned in the reports. As noted by Deegan (2002), the expectation may be to strategically create a positive attitude among stakeholders by managing or manipulating information in order to gain their approval or to distract their disapproval.

According to CPA Australia (2016), ESG reporting practices in Australia are still evolving, and the quality of information is low and inconsistent. This research also supports the above argument. Findings of this study clearly show the need for a framework with uniform measures and indicators to report ESG risk that can be used to measure ESG performance and report of materialistic and relevant ESG information specifically in the Australian extractive sector context. Nature of ESG reporting is still a voluntary requirement, and the existing argument remains that establishing standards to measure nonfinancial information is problematic due to the technical difficulties of measurements. Especially due to the nature of the information, mandatory ESG disclosure could create an additional compliance cost which could create another financial burden on the current volatile corporate environment.

There is a growing public expectation for organisations to be transparent on an expanding range of sustainability issues. Furthermore, the wide range of themes addressed by reporting instruments raises questions of prioritisation and materiality. It is clear from this study that ESG reporting is in its early stages and a process that is continually evolving. However, one particular methodology is unlikely to provide for a comprehensive analysis of the issue. Instead, differing approaches provide for different levels of understanding. While the ESG disclosure trend is in the right direction, an important next step is for the bodies that issue-reporting instruments to focus on coordination and harmonisation that requires increased levels of collaboration and joint commitments between these regulatory agencies. The adoption of an ESG reporting index approach could provide a comparative snapshot of the state of ESG reporting with respect to extractive companies, specifically in Australia.

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