

**The Sustainability Reporting of New Zealand Manufacturing Firms and Compliance with
GRI Sustainability Reporting Standards**

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Candidate Signature (R P Punchihewa)

Date 2nd November 2020

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Abstract

Purpose – This dissertation is designed to answer the question of what New Zealand manufacturing companies are currently doing to report their sustainability performance and how these reporting practices compare to the criteria set out by prominent international reporting standards (GRI).

Methodology – The dissertation answers the first part of this question through a thorough content analysis of publicly available sustainability reports from the New Zealand Stock Exchange (NZX) main board list of manufacturing companies. It answers the second part of the question by comparing the findings of this content analysis with the criteria set out in the reporting standards of the Global Reporting Initiatives, a framework that is widely used overseas.

Findings – Sustainability reporting by New Zealand manufacturing companies is at the initial stage, with good initiatives to develop it further. Most of the companies are developing sustainability reporting measures at company policy level and this is a good sign for further improvements in the coming years.

Outcome – The findings of this dissertation will help New Zealand manufacturers to improve their sustainability reporting in par with international practices. This will further prompt other stakeholders to assess the sustainability reporting governance requirements.

Originality/Value – GRI sustainability standards came into effect in 2016. Since then, there has been no known study on sustainability reporting initiatives in the New Zealand manufacturing sector. This dissertation will fill the gap.

Key Words – Sustainability Reporting, New Zealand Manufacturing Sector, Global Reporting Initiative

CHAPTER 1 – Introduction

1.1 Background on Sustainability

Sustainability disclosures are treated as best practices employed by companies around the world as they provide a basis for companies to manage their social and environmental impacts and improve production efficiency (EY & Boston College, 2013). Previously, sustainability disclosures were undertaken by environmental or communal oriented companies but now they have become popular as a communication tool to differentiate firms within a competitive industry and foster stakeholder confidence.

The term sustainability became popular after 1987 where the Brundtland Report from the United Nations' World Commission on Environment and Development came into effect. There were several definitions for sustainability put forward which differed according to respective disciplinary areas. However, all definitions were focused on economic, social and environmental balance, despite differing in detail (Labuschagne, Brent, & Van Erck, 2005).

Sustainability reporting is on a voluntary basis in most parts of the world but has become popular in recent years based on the views and motives behind it. These views and motives can be broadly categorised into three concepts: Compliance, Competitive advantage, and Normative motives. Lozano, Nummert, and Ceulemans (2016) highlight the internal motivations and external stimuli that lead to sustainability reporting compliance, even it is not a statutory requirement. Companies are operating in a competitive environment where identification of social and environmental threats and opportunities are key to achieving competitive advantage. Companies tend to achieve competitive advantage based on social and environmental threats and opportunities as many researchers have identified a direct relationship between sustainability disclosure, corporate governance and firm value (Sheth & Poojara, 2019). Companies are strongly motivated by stakeholders' expectation of sustainability, which then sets the norm for sustainability. Therefore, corporates tend to invest in social and environmental activities to fulfil stakeholder expectations.

1.2 Sustainability Governing Bodies

There are several sustainability governing bodies which include Carbon Disclosure Project, Dow Jones Sustainability Index, Global Initiative for Sustainability Ratings, Global Reporting Initiatives (GRI), International Integrated Reporting Council and the Sustainability Accounting Standards Board. As there are several bodies responsible for governance, certain challenges have developed around sustainability reporting. Competing frameworks, different views on material aspects and measurement criteria and inconsistency in reporting methods are some of those challenges (D'Aquila, 2018). To overcome these challenges, Global Reporting Initiative introduced the first set of Sustainability Reporting Standards in October 2016. Compared to other competing frameworks, these standards offered comparability and a high quality of information in a globally acceptable manner (www.globalreporting.org, n.d). In this dissertation, New Zealand's sustainability reporting practices are compared against GRI Standards.

1.3 Problem Statement

Sustainability reporting is voluntary in New Zealand as there is no legislative requirement. New Zealand Exchange (NZX) issued a guidance note to listed companies in 2017 to report on Environmental, Social and Governance factors (ESG) on a “comply or explain” basis.

The New Zealand economy consists of four main sectors, out of which the manufacturing sector contributes 10.4% of real GDP (Ministry of Business Innovation & Employment, n.d.). The manufacturing sector has been assessed as able to provide a high potential, production-oriented economy in the future (C Martin et al., 2018).

Therefore, this research was focused on New Zealand manufacturing sector with its high potential to grow in a voluntary sustainability reporting environment. In response to the very limited literature on this subject in the New Zealand context, this research was conducted to answer the following two research questions:

- What are listed New Zealand manufacturing companies currently doing to report their sustainability performance?
- How do these reporting practices compare to the criteria set out by prominent international reporting standards (GRI Standards)?

A sample of 16 NZX listed manufacturing companies were selected for this study. Publicly available data was collected based on 25 codes representing 5 Economic Performances, 7 Environmental Performances and 13 Social Performances. Data was gathered through respective companies' annual reports, sustainability reports, websites, newspapers, trade magazines, corporate information, voluntary disclosures etc. Each identified code was assessed through GRI specified disclosure requirements and a grade was assigned based on the proximity of disclosures.

1.4 Sustainability Reporting in New Zealand

Based on data analysis, all the companies disclosed Economic Performance and Tax. But certain social aspects like Labour/Management Relations, Security Practices and Market Presence were totally ignored. The central observation was that all companies disclosed only partial information on economic, social, and environmental dimensions. In the New Zealand context, the highest graded parameters were Occupational Health & Safety, Emissions, Local Communities, Training & Education, Diversity & Equal Opportunity, and Economic Performances. None of the companies achieved more than 50% of overall disclosure grading on economic, social, and environmental parameters against GRI standards' specified disclosure requirements.

In conclusion, sustainability reporting by NZX listed Manufacturing companies is at the initial stage, with good initiatives to develop it further. Most of the sustainability measures are at the company policy level and this is a good sign for further improvement in the coming years.

The rest of this dissertation is organised as follows: Chapter 2 provides a literature review and theoretical framework. Chapter 3 provides the methodology of this research and Chapter 4 outlines

the data gathering and presents the analysis of the data. Chapter 5 presents the discussion. Chapter 6 presents conclusion and outlines the implications and limitations of the research.

CHAPTER 2 – Literature Review and Theoretical Framework

2.1 Sustainability, Sustainability Reporting & Theoretical Background

The term ‘sustainable’ refers to a system that can be maintained over a period of time (Heinberg & Lerch, 2010). Based on this definition of sustainability, any system that cannot be maintained over a period is unsustainable; that is, any system that does not survive over a period will have a diminishing life cycle.

The term ‘sustainability’ has been used to critique the prevailing economic system, which is fixated on economic activity and economic growth, despite the fact that economic growth has led to severe environmental and social harm (e.g., biodiversity loss, water pollution, displacement of peoples, inequality, etc.). Historically it has been accepted that while economic activity is important as it enables people to meet their valid needs, certain forms and certain levels of economic activity are not sustainable and will, over time, destroy the environment and the societies that business relies on. The pursuit of balance has given rise to definitions such as the well-known Brundtland Declaration in which sustainable development is put forward as a framework for balancing economic activity with social and environmental goals.

The Brundtland Report from United Nations’ World Commission on Environment and Development (WCED) (1987), defined the term ‘sustainable development’ as “meeting present needs and aspirations without compromising the ability to meet those in future”. The Brundtland Report was considered the first policy level document in the arena of sustainability (Bebbington, 2001). The WCED report used the term ‘sustainable development’ in its broader sense and provided a framework for measuring economic, environmental, and social policies and development strategies. Although the report was criticised because it disregarded population growth and usage of nonrenewable resources (Heinberg & Lerch, 2010), it highlighted the fact that economic development always leads to a risk of damaging ecological and social systems and there is no policy decision for balancing these three components. Therefore, sustainability development provides a framework for effective management of economic, social, and environmental activities.

Over the years, more than 100 definitions of sustainability have been developed. Definitions of sustainability depend on the relevant disciplinary area; for example, in the area of natural science, a definition of sustainability would include protection of biodiversity and eco-system resilience, while in the area of economics, natural capital must be maintained and kept independently to service the ecosystem. In the area of political science, the health of environmental systems has an impact on the health of economies and societies (Farley & Smith, 2020, p. 70). All such definitions stress that meaningful sustainability requires paying attention to the ‘three pillars of sustainability’ – the environmental, the social as well as the economic (Lee & Lee, 2014).

The sustainability literature that focuses on corporate sustainability stresses the point that protecting the environment and society can lead to better long-term outcomes for firms and societies. The focus of this research is on corporate sustainability. According to the Dow Jones Sustainability Index, sustainability is,

“a business approach that creates long-term shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments”
(Pilot, 2015, p. 33)

The Standards on Global Reporting Initiatives provides a definition of sustainability that is the same as the WCED definition with three covering notes:

- “Sustainable development encompasses three dimensions: economic, environmental and social.
- Sustainable development refers to broader environmental and societal interests, rather than to the interests of specific organizations.
- The terms ‘sustainability’ and ‘sustainable development’ are used interchangeably.”
(Global Reporting Initiatives, n.d, p. 20 GRI Standards Glossary 2019)

Each definition has its own critics concerning coverage and noncoverage of certain areas. Other strands of the sustainability literature insist that this focus, along with terms such as ‘sustainable development’, tends to accept that economic activity should continue as before, but with a little

more attention given to the environment and society. These critical voices suggest that so long as the economic system remains the same, true sustainability will never be achieved; the only positive outcome is that things are becoming a little less unsustainable. In this context, sustainable development has been widely adopted in business to trade off the needs of economic development against the needs to preserve social and environmental functioning. Bill Baue, a Corporate Sustainability Architect, states that “sustainability reporting measures progress toward achieving sustainability. That would require measuring by real-world yardsticks – the planetary boundaries and social foundations needed for us to shift from unsustainability toward "thrivance"” (Confino, 2013).

In the contemporary business environment, there is an increased expectation from regulators, investors, employees, consumers and other stakeholders for sustainability reporting (Justin, Sophie, & Simon, 2003). Many firms’ annual reports present their social and environmental performance alongside more traditional financial data. Several reporting experts have provided views on aspects of sustainability reports, including the challenges and opportunities involved. Paul Monaghan, director of Up the Ethics, maintains that “sustainability reporting is a driver for improved performance when undertaken with integrity” (Confino, 2013) Allen White, co-founder and former CEO of GRI and founder and co-chair of Global Initiative for Sustainability Ratings, observes that shareholder value creation has been debated for the last three decades based on the evolution of sustainability reporting. The creation of value is a combination of human, social, natural, and financial capital which gives direction for the measurement of company performance. In future, company value will be measured through all forms of capital which are directed through sustainability reporting (Confino, 2013).

Sustainability reporting has become popular in both developing and developed countries. Aparna and Siya (2018) carried out a study on sustainability reporting in emerging economies (i.e., BRIC Countries – Brazil, Russia, India, China) and developed economies (USA & UK) using 232 sample companies. This study was conducted using a GRI sustainability disclosure index based on GRI’s G3 guidelines. The index included 79 sustainability indicators representing 9 economic, 30

environmental and 40 social performance indicators. Mean disclosure was computed based on the values scored for each 79 indicators. BRIC countries had a mean disclosure of 59% whereas developed countries had a mean disclosure of 36% (Aparna & Siya, 2018).

2.2 Motives for Sustainability Reporting

There are many reasons why a firm may engage in sustainability reporting. In 2013, a study to assess the value of sustainability reporting found that 95% of global high ranked 250 companies (G250)¹ were issuing sustainability reports in order to improve performance, acquire employee trust, safeguard their reputation and build up confidence among shareholders and other stake holders (EY & Boston College, 2013). A review of the literature shows that there are a number of opinions and theories behind the increased tendency of reporting disclosures. According to Lozano et al. (2016), internal motives and external stimuli are the main motives for sustainability reporting, whereas Herremans, Nazari, and Ingraham (2010) identify three motives for sustainability reporting: a regulatory motive, normative motive and cognitive motive. As the nature of these motives are similar in every categorisation, the motives were categorised under three headings for the purpose of this study: Compliance, Competitive Advantage and Normative Motives.

2.2.1 Compliance Motive

In a highly competitive market, companies are pressured by market forces, environmental conditions, government regulations, employees etc. These factors force them to adhere to certain reporting requirements. These internal or external forces may not be a regulatory requirement; however, to survive, make acquisitions or maintain their position in the market, companies may have to adopt these reporting requirements. According to Lozano et al. (2016), first-time

¹ G250 companies were the world's 250 largest companies (year 2013) by revenue based on Fortune 500 ranking.

sustainability reports are primarily driven by a company's internal motivations and the subsequent reports and compliances are due to the combination of internal motivations and external stimuli. Their study further found that sustainability reports and publications lead to sustainability changes in the organisation with a mutual strengthening relationship between sustainability changes and reporting. The internal motivations are 'inside-out drivers' for sustainability, such as internal management decisions to solve social or environmental problems, to develop a company's business strategy and to manage reporting initiatives. External stimuli are the 'outside-in drivers', such as the perceptions and opinions of stakeholders on sustainability reporting, including stakeholder dialogues, articles published, rating agency remarks etc. (Burritt & Schaltegger, 2010).

Herremans et al. (2010) explain that regulatory and cognitive motives for sustainability are linked to the compliance motive. The regulatory motive is self-imposed compliance on sustainability reporting as sustainability reporting is still not mandatory. The same view is held by Burritt and Schaltegger (2010), who point out that outside-in drivers act as a compliance motive to serve stakeholder expectations. GRI sustainability reporting standards act as external stimuli as they pressure the management to implement standards. The management of the company regard the GRI standards as self-imposed standards for sustainability reporting expected by the stakeholders. The cognitive motive is the cognitive behaviour of top management personnel led by corporate values towards sustainability reporting.

Further, agency theory also supports the compliance motive. Sustainability reporting gives more information to the shareholders to monitor performance of managers. Agency theory deals with the relationship between principal (shareholder) and agent (Manager) based on information asymmetry, conflict of interest and the opportunistic behaviour of the agent and it is prudent to monitor an agent's activities closely and on a regular basis (Hussain, Rigoni, & Orij, 2018).

2.2.2 Competitive Advantage Motive

Organisations are different from each other and under the Resource-Based Approach, the primary question to answer is, "Why are firms different?" The answer to this question is that,

firms have resources that are valuable, unique, rare, inimitable and organised (Barney, 1991). Since there are unique characteristics in firms' resources, firms are able to create a competitive advantage. The fundamental nature of a competitive advantage is earning profit that is superior to that of rivals within the same industry based on the unique characteristics of the resources they hold. The acquisition of these assets depends on a thorough analysis of firms' internal and external environment. The analysis of social and environmental requirements leads to the identification of threats and opportunities in the external environment which have an influence on the strategic direction of the organisation. Many researchers argue that sustainability will have a positive and substantial impact on the creation of competitive advantage (Thum-Thysen, Voigt, Bilbao-Osorio, Maier, & Ognyanova, 2017). Further, in a study by Sheth and Poojara (2019) in which firm value was used as the dependent variable and sustainability disclosures and corporate governance were used as independent variables, a very strong relationship between sustainability disclosures, corporate governance and firm value was identified. Reporting on sustainability and corporate social responsibility (CSR) has helped developing nation companies acquire listings in international stock markets, as sustainability reporting is considered as an important element in many stock exchanges (Aparna & Siya, 2018). Therefore, investment in social and environmental activities may provide long-term benefits to companies, even when it does not improve firms' short-term cash flow position.

2.2.3 Normative Motive

The normative motive refers to stakeholders' expectations that sustainability reporting become the norm (Herremans et al., 2010). From the normative point of view, companies invest in sustainability initiatives without expecting anything in return. However, these initiatives that satisfy stakeholders may create different hypotheses within the financial, social, and environmental dimensions.

According to Preston and O'Bannon (1997), several hypotheses have been developed to support the interdependency of financial, social and environmental performances as well as certain

arguments against such interdependency. Some of the positive hypotheses for sustainability are as follows:

(1) The Social Impact Hypothesis – Environmental and social performance will direct to better financial performance. Satisfying non-owner expectations by investing in environmental and social activities will enhance the confidence of non-owners and reduce the risk premium, which enables greater financial performance.

(2) The Available Funds Hypothesis – Improved financial performance will lead to enhanced environmental and social activities as a company's healthy financial position will motivate it to invest more in social and environmental activities. In turn, this will further improve its financial position (Kraft & Hage, 1990).

(3) The Positive Synergy Hypothesis – The combination of slack resources and effective management of such resources will create positive synergies. The stakeholder relationship is considered important to the organisation's performance (Stanwick & Stanwick, 1998) which indirectly leads to the utilisation of slack resources.

On the other hand, some arguments have been made against the interdependency of sustainability developments such as:

(1) Over Investment Hypothesis – Over concentration on environmental and social performances may lead to a negative trade-off scenario as business managers place more focus on environmental and social aspects.

(2) Managerial Opportunism Hypothesis – An over investment in environmental and social activities may worsen financial position. Managers may reduce investment in environmental and social activities when the financial position is strong in order to increase their personal compensation (Posner, 2010).

In the corporate world, business is managed by a panel of personnel who are the representatives of shareholders; however, the business connects with different stakeholders. Traditionally, businesses concentrate more on financial aspects, prioritising shareholder/owner objectives. At the same time, there are other interested parties connected to the business, such as employees,

customers, suppliers, and local communities who may have a major impact on the business's activities. However, those interested parties may not be given enough opportunities to understand the business. The best way to reduce the gap in information asymmetry is through the reporting mechanism, which indirectly leads to the creation of different hypotheses as discussed above. Therefore, signaling theory addresses information asymmetry by sharing quality information with the market, shareholders and society and receives signals from the respective users of information for their behaviour (Seong Mi, Md. Abdul Kaium, & Jong Dae, 2018). It is evident that sustainability reporting leads most organisations to declare their financial and non-financial information in order to improve their value creation and to make stakeholders aware of the current affairs of the company.

It is evident that sustainability reporting plays a vital role in the corporate sector. However, there is no validity if aspects of such reporting are not standardised. Sustainability governing bodies play a key role in sustainability reporting as they give common grounds for the fair acceptance of reports by their users.

2.3 Sustainability Reporting Standards Governing Bodies

There are certain challenges involved in reporting on sustainability, including the existence of multiple frameworks on sustainability reporting and inconsistencies between reporting measures and definitions of materiality (D'Aquila, 2018). Existing sustainability reporting bodies and measuring initiatives include the Carbon Disclosure Project, Dow Jones Sustainability Index, Global Initiative for Sustainability Ratings, Global Reporting Initiatives (GRI), International Integrated Reporting Council and the Sustainability Accounting Standards Board. The practice of sustainability reporting, however, is still largely dependent on the discretion of companies (D'Aquila, 2018).

The Carbon Disclosure Project (CDP) was established in London in 2000 with the objective of analysing, evaluating and reporting the carbon emission of global firms. This is done through surveys at the global level and CDP has become the most prominent international instrument for

carbon reporting (Li et al., 2019). The Dow Jones Sustainability Index (DJSI) is administered by a Zurich-based fund management firm called Sustainability Assets Management, established in 1999. The index is built on the largest 2500 S&P firms representing different sectors, with the evaluation of total sustainability scores calculated based on best practices, standards and audit procedures (Joshi, Pandey, & Ross, 2017). Global Initiative for Sustainability Rating (GISR) was founded in 2011 to rate the environmental impact of firms, with the aim of promoting worldwide sustainable development (D'Aquila, 2018). The International Integrated Reporting Council (IIRC) was founded in 2010 to establish integrated reporting and thinking within business practices both in the private and public sectors (D'Aquila, 2018). The Sustainability Accounting Standards Board (SASB) was established in 2012 to improve industry specific conditions within the United States (D'Aquila, 2018).

These bodies are focused on sustainability reporting and rating aspects; however, the Global Reporting Initiative (GRI) was the first to introduce a set of standards for global reporting in October 2016.

Sustainability reporting is still a voluntary requirement in corporate reporting in most countries, including New Zealand. Although sustainability reporting is based on different theories, such as agency and signaling, the ultimate purpose of sustainability reporting is strategic business initiative other than corporate responsibility. Strategic business initiative is a long-term business plan to achieve corporate objects. As per KPMG (2013), sustainability reporting focuses on business risk, opportunities, trend spotting and enterprise risk management, which gives long-term strategic direction to the company.

The proper presentation of financial and non-financial data can act as a strategic directive and communication mechanism if such information is presented within globally accepted reporting standards. The only global reporting standards on sustainability reporting were introduced by Global Reporting Initiatives (GRI) in October 2016. Therefore, this study focuses on GRI reporting standards as they are the only sustainability standards introduced for global sustainability reporting.

2.4 Introduction to GRI Standards and Measuring Criteria

Global Reporting Initiatives (GRI) is an international non-government organisation based in Amsterdam that is focused on sustainability development. The GRI introduced its first set of sustainability reporting guidelines in 2000 and the second version (G2) in 2002 (www.globalreporting.org, n.d). As the demand for sustainability reporting gradually increased, GRI introduced its third and fourth sets of guidelines (G3 & G4) in 2006 and 2013 (www.globalreporting.org, n.d). The first set of Sustainability Reporting Standards were introduced in October 2016. Compared to the earlier guidelines, these Standards enhanced the comparability and quality of information in a globally acceptable manner (www.globalreporting.org, n.d). The information provided through the GRI standards allows internal and external stakeholders to determine an organisation's ability to attain sustainable development. Since its inception, the adaptation of GRI standards for sustainability reporting has grown from niche practice to 93% of global big 250 companies today (www.globalreporting.org, n.d).

GRI standards consist of two major parts: The Universal Standards and the Topic Specific Standards. The Universal Standards are applicable for every organisation preparing to report sustainability and include Foundation Standards, General Disclosures and Management Approach. The Foundation Standards provide reporting principles when defining report content and quality. The General Disclosures elaborate the general contextual data and reporting practices within an organisation. The Management Approach provides directives on the materiality aspect of any topic specific standards. The Topic Specific Standards consist of three parts: Economic, Environmental and Social. Each of the Topic Specific Standards deals with a separate series of standards on relevant areas; for example, under the Economic category, topic specific standards are Economic Performance, Market Presence, Indirect Economic Impacts, Procurement Practices etc. The topic specific standards of Environmental Performance are Material, Energy, Water & Effluents etc.

The crucial point in sustainability reporting is the determination of materiality. As per the GRI standards, materiality is defined as “a reporting organization's significant economic,

environmental and social impacts ... that substantively influences the assessments and decisions of stakeholders” (Global Reporting Initiatives, n.d). According to Koehler and Hespenheide (2014), there are two challenges for the determination of materiality from an environmental, social and governance business perspective: casting a net wide enough and establishing robust filters. The materiality assessment involves a wide range of stakeholders and creates value through decision making within the company. It focuses on the future of the company through the risk management aspect external to the organisation. However, the robust filters also deal with smaller subsets that occur on a regular basis, but these smaller subsets are considered in materiality assessment process due to its regular occurrence.

A review of the literature shows that there are several approaches in the determination of materiality. Deloitte’s outlined a process for the environmental, social and governance (ESG) determination of materiality with a wide range of stakeholders, focusing on creating value and a future for the business (Hespenheide, Alsdorf, & Koehler, 2013). A seven-phase materiality assessment process was developed by KPMG, with each phase divided into two parts: the minimal requirement for a robust materiality process and an advanced materiality strategy (KPMG, 2013). Another materiality assessment process was devised by Calabrese, Costa, Levialdi Ghiron, and Menichini (2019) which starts with the evaluation of Stakeholder expectations. Stakeholder expectations are influenced by a company’s actions, responses to sustainability issues and organisational impact. An analysis of stakeholder expectations helps identify threats and opportunities in the external environment within the social and environmental sustainability arena.

GRI standards are relatively new and there are no major critics on the applicability other than materiality. But GRI is treated as soft governance standards which allows the reporting organisation to determine their own interpretations of compliance (Laurence, Michael, & Jeremy, 2015). Standards allow user flexibility on self-assessment of compliance and no binding requirement as a global soft governance standard. Though this argument was brought in 2015, it is applicable for GRI standards which came into effect in 2016.

2.5 New Zealand Sustainability Reporting Initiatives

The World Business Council for Sustainable Development (WBCSD) issued a report in 2010 on their vision for 2050 which laid down the pathway for a sustainable world (The World Business Council for Sustainable Development, 2010). The New Zealand chapter of the WBCSD, the Sustainable Business Council, has undertaken the Vision 2050 process in New Zealand and its work is aligned with the United Nations' 2030 sustainable development goals (SDGs) (Sustainable Business Council, n.d.). The Sustainable Business Council encourages all its member organisations to implement SDG goals by 2030. There is no legislative framework for sustainability reporting in New Zealand under the Companies Act (1993). However, the New Zealand Exchange (NZX) issued a guidance note in 2017 on sustainability reporting under its corporate governance code for main board listed companies. The objective of this guidance note was to promote disclosure of environmental, social and governance factors from balanced, clear and objectivity perspectives. It states that “an issuer should provide non-financial disclosure at least on an annual basis considering material exposure to environmental, social and economic risk and plans to mitigate those risks with operational and non-financial measures” (New Zealand Exchange, 2017).

2.6 New Zealand Manufacturing Sector & the Selection of the NZ Manufacturing Sector

The New Zealand economy is segregated into four main sectors: manufacturing, primary production, services and government health and education spending (Ministry of Business Innovation & Employment, n.d.). The manufacturing sector contributes \$24.2Bn, which is 10.4% of real GDP. As per Ministry of Business Innovation & Employment data, there are seven sub-sectors within manufacturing as shown in Table 1 below:

Table 1 - Composition of New Zealand Manufacturing Sector

Manufacturing Sector	Real GDP (2019) (\$ Mn)	%	Employment Count (2018)	%	Firm Count (2018)	%	Fixed Capital Formation (2017) (\$ Mn)	%
Chemical & Refining	\$2,940	1.30%	12,050	0.40%	624	0.10%	\$575	1.20%
Food & Beverages	\$7,697	3.30%	96,000	3.50%	3,849	0.70%	\$1,823	3.80%
Machinery & Equipment	\$4,635	2.00%	38,700	1.80%	5,688	1.10%	\$948	2.00%
Metals	\$2,679	1.10%	30,650	1.20%	3,039	0.60%	\$323	0.70%
Other Manufacturing	\$2,997	1.30%	35,100	1.60%	5,817	1.10%	\$436	0.90%
Plastic & Rubber	\$1,138	0.50%	12,700	0.50%	651	0.10%	\$210	0.40%
Wood & Paper	\$2,114	0.90%	24,400	0.90%	1,809	0.30%	\$206	0.40%
	\$24,200	10.40%	249,600	9.90%	21,477	4.00%	\$4,521	9.40%
Source - Ministry of Business, Innovation & Employment - Sector Situation & Performance								

This research project is focused on the manufacturing sector as it represents a significant portion of the New Zealand economy. Other sectors contribute 89.6% of real GDP. These sectors consist of Services \$139,138Mn – 64.68%, Government Education and Health \$35,390Mn – 17.30% and Primary \$16,388Mn – 7.62% of real GDP. The service sector is the highest contributor to the national economy but from the sustainability point of view, the effect on social and environmental aspects is high in the manufacturing sector due to the usage of natural resources, power, water, and emission. Further, most manufacturing facilities are built in industrial zones where local communities are highly affected due to air, water, and noise pollution. A review of literature highlights this fact; for example, S Ahmad and K Y Wong (2018) emphasise that manufacturing

activities consume a large portion of natural resources and energy and have a high impact on the ecosystem and human life.

A report by the World Economic Forum 2018 assesses New Zealand as a high potential economy in terms of readiness for future production based on future production capabilities (C Martin et al., 2018). It is likely, therefore, that the New Zealand manufacturing sector will play a major role in the economy in the future and have a major sustainability impact.

2.7 Identification of gap in NZ Sustainability Reporting

The aim of this dissertation is to determine what listed New Zealand manufacturing companies are currently doing to report their sustainability performance, and how these sustainability reporting practices compare to the criteria set out in the GRI Sustainability Reporting Standards which came into effect in 2016. As the GRI Sustainability Reporting Standards are new in practice and since there is a lack of previous research on New Zealand manufacturing sustainability reporting compared to GRI Sustainability Reporting Standards, this dissertation contributes to knowledge on this area. Since there is no regulatory requirement for sustainability reporting in New Zealand this dissertation's comparison of New Zealand sustainability reporting with GRI standards will identify gaps in existing practice and make recommendations for New Zealand companies seeking to produce meaningful sustainability reporting.

CHAPTER 3 – Methodology

Methodology defines the theoretical underpinning of the research question within domain knowledge. The research methodology can be defined as a systematic approach of resolving the research problem (Kothari, 2004, p. 08). The research method and methodology are two different concepts in the research process. The methodology involves the underlying philosophical worldview that powers the research and underpins the research question. The methodology can be positivist or constructivist, depending on the approach the researcher selects to solve the research problem.

The methods are the tools the researcher uses to gather data and to analyse gathered information to answer the research question using surveys, interviews and statistical or thematic analysis etc. The methods used by researchers involve different techniques to answer problems such as analysis of historical records and documents, observations, interviews, or questions. The researcher should know how, when and what steps to follow to solve the research problem by way of foreseeable, mindful theoretical examination and analysis of methods (Birks & Mills, 2015, p. 04). The gathered data can be broadly categorised under qualitative and quantitative data. Qualitative data deals with the ‘meaning’, whereas quantitative data deals with ‘numeric meanings’. The meaning is expressed by way of text or images. Meaning and numerical meanings complement each other and allow better presentation (Dey, 1993, p. 29). In this paper, focus is given to content analysis techniques as the gathered data will be analysed using qualitative content analysis.

Qualitative content analysis is defined as “a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns” (Hsiu-Fang & Shannon, 2005, p. 1278). It is characterised as a communication language that focuses on the contextual meaning of the text with the purpose of providing knowledge and understanding of the text. According to Hsiu-Fang and Shannon (2005), there are three approaches to qualitative content analysis: conventional, directed and summative approaches. Under the conventional approach, the researcher describes the scenario through observation, but data coding is done in a hierarchical order to develop the relationships. This type

of analysis is typically used when there is limited literature or theories on the subject matter. The directed approach is used when there is already well-developed theory, and data analysis is performed within the existing framework or coding. This type of approach is a deductive use of theory and it is more structured than the conventional approach. The goal of the directed approach is to validate the data with an existing theory or framework. The themes or codes are already in the existing framework and the researcher validates those data against the codes. The summative approach starts with identifying the characteristics of data and expands the identified characteristics into more in-depth analysis by examining its contextual meaning. The summative approach is a nonreactive way of studying the research topic and it may lead to non-consideration of the broader view of data. In this research, the directed approach is used to gather data based on already developed theory based on GRI standards. Data will be gathered through publicly available sources based on GRI codes and analysis will be performed accordingly.

The approaches used to analyse data include manual, or computer assisted qualitative content analysis; however, the applicable procedure is the same in the identification of ‘codes’ through converting data into information. Identifying codes, therefore, can be defined as the process of converting raw data into trustworthy information (Mai Skjott & Steffen, 2019) or the process of converting a phrase, paragraph or page into a meaningful label. This is a process of categorising data into meaningful phrases. As an example, the content of a sustainability report is coded under economic performance, taxation, material, procurement practices etc. These codes are represented by each of the sustainability dimensions which are economic, social and environmental. The coding is categorised as first cycle or second cycle coding at the time of the refinement process and the second cycle coding is used to identify patterns and categories or to explore patterns in and across codes.

In the literature search for GRI standards using content analysis, Talbot and Boiral (2018) focused on Green House Gas emission reporting in compliance with GRI G3/G3.1 and guidelines on climate reporting indicators for EN16 and EN17 for the period 2009 to 2013. During the study, the authors adopted the directed approach of qualitative content analysis for 105 reports representing

21 Fortune 500 companies in the energy sector using GRI indicators as a framework. Initially two general themes were adopted: measurement of climate performance and compliance with GRI requirements. These themes were subsequently expanded into 34 categories grouped under 3 broad themes and 7 sub-themes with a total of 1073 excerpts being coded. During data analysis, 19 categories were grouped into 3 sub-themes: lack of transparency, justification for non-disclosure and complication of information. The research concluded, ineffectiveness of external assurance process while reporting, material non-compliances to GRI standards, complicated information which leads to unclear picture on climate reporting and unreasonable management justifications for non-disclosures.

Most GRI based research applies qualitative content analysis using computer assisted software. Rüdiger and Regina (2014) used this approach to identify negative incidents of GRI sustainability reporting by coding ‘negative, risk, incidents, accidents, adverse’, whereas Johannes and Dorothea (2019) used a deductive approach to assess the materiality principles applied by 186 Electric Utility Companies up to 31st December 2017 as specified in GRI G4 guidelines uploaded to the GRI database. Content information was extracted, first creating categories then category examples and coding those examples in GRI G4 guidelines for materiality and sustainability reporting content data. The results of the research reflected the reporting practices were not based on materiality. The literature on manual qualitative content analysis is limited but Mahmood, Kouser, Ali, and Iqbal (2016) assessed patterns of sustainability reporting in South Asia. Their sample was selected based on sustainability reports published in 2014 on the GRI website. They selected all 99 reports published in 2014 and created an Excel sheet to feed key areas. Before analysing all the reports, a sample of 10 were selected as a pilot study and 13 key codes were identified, which were subsequently used to analyse all the reports. The report contributed by assessing sustainability areas that had been well developed within South Asia and non-conformances.

This dissertation focuses on the applicability of GRI standards to New Zealand Exchange (NZX) listed Manufacturing Companies. GRI standards were used as existing knowledge to analyze NZX listed manufacturing companies’ sustainability data for GRI standards compliance and

applicability. Therefore, the methodology of this study will be the directed approach to the analysis of qualitative data. As explained earlier, the existing knowledge on GRI standards will be used to create the methodology framework. The compliance for GRI standards is voluntary in New Zealand and it may not be practical to check compliance for the entire GRI standards. As per the GRI sustainability database (31st May 2020), only five New Zealand companies² were issued with GRI standards complied sustainability reports for the period 2017-2020 and none of them were in the manufacturing sector (Global Reporting Initiatives, n.d). GRI compliance reports primarily cover seven major sections: Strategy (management approach), Profile, Governance Structure, Economic and Social and Environmental indicators (Skouloudis, Evangelinos, & Kourmouis, 2010). Therefore, this dissertation will be focus only on Triple Bottom Line reporting compliance as a framework to answer the following research questions:

- What are listed New Zealand manufacturing companies currently doing to report their sustainability performance?
- How do these reporting practices compare to the criteria set out in a prominent international reporting standard (GRI)?

As discussed in the literature, New Zealand sustainability reporting is voluntary and there is no statutory requirement to undertake it. Therefore, this research, will analyse the existing sustainability reporting by NZX listed manufacturing companies, rather than assessing their governance and strategy for sustainability reporting.

² Air New Zealand, Precinct Properties New Zealand, Spark New Zealand, Toyota New Zealand, Waste Management New Zealand were the 5 companies lodged indexed sustainability reports with GRI database.

3.1 Triple Bottom Line Pillars (TBL) as the Directed Approach Framework

Businesses are looking for profit maximisation, reduction of waste, improved efficiencies, quality and revenue growth. However, recently, social responsibility has become important, if not superior, to the economic perspective, and businesses are trying to trade-off between economic, environmental and social parameters (Livi, Yu Ha, & Neil, 2013). In GRI Standards, economic, social, and environmental topic specific parameters are assigned to measure sustainability in those areas. In assessing the sustainability performance of the New Zealand manufacturing sector, these parameters are used as data gathering codes and analyse the existing practices of sustainability reporting. 25 codes were selected representing 5 codes under the economic category, 7 codes under the environmental category and 13 codes under the social category for data collection purposes. The selection of these codes was done based on their relevance in New Zealand practice and certain standards (codes) were excluded. Table 2 highlights the selected codes used to collect data. Table 3 depicts the excluded codes/standards with justification.

Table 2 - Selected Codes for Data Gathering

Economic	Environmental	Social
Economic Performance	Material	Employment
Market Presence	Energy	Labour/Management Relations
Procurement Practices	Water and Effluents	Occupational Health and Safety
Anti-corruption	Biodiversity	Training and Education
Tax	Emissions	Diversity and Equal Opportunity
	Effluents and Waste	Non-discrimination
	Environmental Compliance	Security Practices
		Rights of Indigenous Peoples
		Human Rights Assessment
		Local Communities
		Customer Health and Safety
		Marketing and Labelling
		Socioeconomic Compliance

Table 3 - Excluded Codes/Standards with Justifications

Category	Excluded Indicator	Reason for Exclusion
Economic	Indirect Economic Impacts	There will be a minimal impact on infrastructure investment as this is mostly provided by government
Environmental	Anti-competitive Behaviour	The companies are operated in competitive markets and anti-competitive behaviour is minimal through market forces
Social	Supplier Environmental Assessment	Third Party Compliance will not be assessed at this stage
	Freedom of Association and Collective Bargaining	New Zealand labour protection laws are stronger and the right to freedom of association is protected by law
	Child Labour	Child labour is prohibited by law
	Forced or Compulsory Labour	There is no forced or compulsory labour policies in NZ
	Supplier Social Assessment	Third Party Compliance will not be assessed at this stage
	Public Policy	On a political contribution basis, there will be minimal impact as it is evaluated under the anti-corruption standard
	Customer Privacy	This may not be applicable as the focus is on the manufacturing sector (not the service sector)

Gathering of data for coding purposes will be done through secondary sources. Such sources contain non-reactive measures which are free from physical participation of the researcher and include documentary evidence, physical evidence and archival analysis (Gray, 2004, p. 263). Archival analysis includes publicly available data, voluntary disclosures on environmental and social effects through annual reports, CSR reporting, corporate websites, and other publicly available disclosures. NZX listed manufacturing companies' latest available sustainability reports,

annual reports, corporate websites, trade magazines, newspapers and other publicly available documents will be analysed for this purpose.

3.2 Sample Identification

The focus of this study was on New Zealand manufacturing companies' sustainability reporting initiatives in comparison with GRI standards. Publicly available information on New Zealand Exchange (NZX) listed manufacturing companies was analysed.³

As of 16th May 2020, there were 179 companies listed with the NZX Main Board. Out of all listed companies, 60 were Fund Management Companies and the remaining companies were categorised under the following GICS sector-based S&P/NZX Index categories:

Table 4 - Companies Categorized under Sector-based S&P/NZX Index Categorization

Sector	Number of Companies
Energy Sector	3
Material Sector	6
Industrial	16
Consumer Discretionary	15
Consumer Staples	19
Health Care	14
Financial	7
Information Technology	14
Communication Services	5
Utilities	9
Real Estate	11
	119
Source – New Zealand Exchange S&P/NZX Indices, 16 th May 2020	

³ The NZX categorisation of industries are based on the Global Industry Classification Standard (GICS) system. GICS was developed by Morgan Stanley Capital International (MSCI) in 1999, in collaboration with Dow Jones Indices (MSCI, 2020). As per GICS, there are 11 Sectors, 24 Industry Groups, 69 Industries and 158 Sub-Industries.

The research sample was based on 119 companies and carried out scope analysis based on the NZX Company Overview. After the scope analysis, 16 companies involved with manufacturing or production of goods were identified for analysis in this study.

CHAPTER 4 – Data Gathering & Analysis

As discussed above, the publicly available reports of each company were analyzed to determine whether they reported on the selected GRI criteria. These criteria were identified and described in the previous chapter. The identified criteria were coded into twenty-five for data analysis purposes. Each identified code was rated against GRI specified disclosure requirements and disclosure strength was assessed on four main gradings. If all disclosure requirements were fulfilled in accordance with GRI on the relevant code, it was graded as “HIGH”. Partial disclosures were graded either as “MEDIUM” or “LOW” and if no disclosure requirements were fulfilled, the code was graded as “NONE”. Reporting against 25 criteria discussed in more detail under each heading:

4.1 Economic Performance

This criterion measures company’s economic value (revenue) generation, its distribution and financial implications for climate changes. The GRI reporting requirements for this criterion are,

- Direct economic value generated and distributed
- Financial implications and other risks and opportunities due to climate change
- Defined benefit plan obligations and other retirement plans
- Financial assistance received from government

Out of 16 companies, 2 of companies disclosed all four requirements of Economic Performance. In total, 2 reflected medium performance (three reporting requirements were fulfilled except for their response to climate change) and 12 reflected low performance (only direct economic value generated and distributed was disclosed).

	High	Medium	Low	None	Total
Number of Companies	2	2	12	-	16

The following disclosures were made by two companies against GRI criteria to a high degree,

The a2 Milk Co. Ltd

“[R]esponding to increased demand for transparency on the identification and management of climate-related risks by moving towards alignment of 2018/19 corporate disclosures with the Taskforce on Climate-Related Financial Disclosures (TCFD). The intention of adopting full TCFD recommendations over the next three years.” (The a2 Milk Company Ltd, 2019, p. 35)

Fisher & Paykel Healthcare Corporation Limited

“[C]limate-related risk management is treated as a part of overall sustainability strategy, which is reviewed by senior management twice a year. As carbon, healthcare waste and other sustainability topics have been identified as being potentially material to stakeholders in the materiality assessment, these risks have been reviewed by the risk management team and will continue to be monitored and reviewed. This includes identifying direct and indirect climate-related risks as well as considering short, medium and long-term risk horizons.” (Fisher & Paykel Healthcare Corporation Limited, 2020, p. 100)

4.2 Market Presence

This criterion measures company’s economic performance towards local community development by way of entry level wages and higher management opportunities were assessed. The GRI reporting requirements for this criterion are,

- Ratios of standard entry level wage by gender compared to local minimum wage
- Proportion of senior management hired from the local community

Local communities play a vital role in the environment a company operates in and is directly exposed to. As Syed and Özbilgin (2009) highlighted, the relational approach on the diversity management eliminates power disparity, and social and employment disadvantages. It is the responsibility of a company to upgrade the living standards of such communities by upscaling

entry level salaries on par with industry norms and engaging them in the company decision-making process. Out of the total sample, none of the companies declared base level salary, local community employment generation or representation of higher management personnel within the local area.

	High	Medium	Low	None	Total
Market Presence	-	-	-	16	16

4.3 Procurement Practices

This criterion measures company's supply chain practices towards local suppliers, lead time and any negative impacts. The GRI reporting requirements for this criterion are,

- Proportion of spending on local suppliers

There was little disclosure on procurement practices by the sample except for one company. The reporting requirement is the proportion of spending on local suppliers, but the disclosure was about development programmes for local suppliers:

	High	Medium	Low	None	Total
Procurement Practices	-	1	-	15	16

Synlait Milk Limited

The company assessed the milk suppliers' leadership capabilities towards environmental and other challenges and developed a leadership development program called 'Lead With Pride' in April 2013. The company highlight its success as,

“Lead With Pride™ is a challenging program – but the response to commitments from milk suppliers, customers and investors has been extremely supportive. Today, nearly 50% of South Island farms are part of Lead With Pride™ with 43 new farms certified this year.”
(Synlait Milk Limited, 2019, p. 41)

4.4 Anti-corruption

This criterion measures company's practices against corruption and the assessment on initiatives against corruption. The GRI reporting requirements for this criterion are,

- Operations assessed for risks related to corruption
- Communication and training about anti-corruption policies and procedures
- Confirmed incidents of corruption and actions taken

Only two companies mentioned their policy against corruption, with only one company disclosing a case of a serious fraud offence that occurred in 2017. The remaining companies did not indicate their policy against the corruption.

	High	Medium	Low	None	Total
Anti-corruption	-	1	1	14	16

Fisher & Paykel Healthcare Corporation Limited

The code of conduct sets out company's expectations for all employees in fighting against bribery and corruption and the company had reported that, there were no incidence for the year 31st March 2020. Further the company policy is set as,

“We do not tolerate bribery, corruption, kickbacks or other types of improper benefits, whether committed by our own people or by anyone we deal with.” (Fisher & Paykel Healthcare Corporation Limited, 2020, p. 90)

4.5 Tax

This criterion measures company's intention towards macroeconomic development. The main purpose of taxation system is to create social equality through proper mobilisation of tax collection to macroeconomic development. The GRI reporting requirements for this criterion are,

Under this standard, the company's intention towards macroeconomic development is measured.

- Approach to tax
- Tax governance, control, and risk management
- Stakeholder engagement and management of concerns related to tax
- Country-by-country reporting

All companies disclosed their taxation accounting policy since this is mandatory, according to Accounting Standards. However, one company indicated on taxation strategy exceptionally,

	High	Medium	Low	None	Total
Tax	-	1	15	-	16

Fisher & Paykel Healthcare Corporation Limited

The company has introduced the formation of its taxation strategy based on three parameters: principled, transparent and sustainable in the long term. The tax strategy was developed by a committee (Business and Industry Advisory Committee -BIAC) and approved by the board. They have mentioned the primary purpose of taxation as,

“Comply with all of tax obligations, undertake all transactions with a business purpose considering all of stakeholders, and have an open and transparent relationship with tax authorities.” (Fisher & Paykel Healthcare Corporation Limited, 2020, p. 79)

4.6 Material

This criterion measures company’s material usage towards production facilities. In a production environment, the consumption of material disclosure is important as it may directly link with the natural resources. As per GRI, there are two categories of material- renewable and non-renewable. Renewable material refers to the replenishable material as a product of biological or agricultural process. Non-renewable material are resources that do not get renewed in a short run. The GRI reporting requirements for this criterion are,

- Materials used by weight or volume

- Recycled input materials used
- Reclaimed products and their packaging materials

The disclosure on material usage was at a minimal level in the sample companies concerned. Only four companies specified material used and production capacity but did not meet the full disclosure requirement.

	High	Medium	Low	None	Total
Material			4	12	16

Most of the companies disclosed their production capacity and recycled material use rather than any other input material: For instance, in the case of Skellerup Holdings Limited indicated the initiatives taken to reduce plastic usage across their operation by eliminating plastic bags. One of the production line ‘Conewango dairy liners’ has implemented this initiative and reduced 300,000 plastic bags usage (Skellerup Holdings Ltd, 2019). Further, Camvita Ltd has mentioned,

“Since September 2018, Sustainable Beeswax Food Wraps program has helped save 177km of cling wrap from going to landfill. It began taking steps to reduce impact on the environment by seeking out more sustainable honey packaging solutions. Shortly, all honey jars will be made of 50% recycled plastic.” (Camvita Ltd, 2019, p. 18)

4.7 Energy

Energy consumption has a direct link to environmental pollution as certain energy sources lead to environmental destruction. A study done by Talbot and Boiral (2018) highlighted, urbanization, economic growth and energy use have directly contributed to carbon dioxide emission in United State of America and China. The authors concern on environmental damages due to this effect unless these two countries come to an agreement on the change of sources of energy. As per GRI standards, there are two sources of energy: renewable energy such as wind, hydro, solar and non-renewable energy such as coal, petroleum or natural gases. The GRI reporting requirements for this criterion are,

- Energy consumption within the organisation
- Energy consumption outside of the organisation
- Energy intensity
- Reduction of energy consumption
- Reduction in energy requirements of products and services

The selected sample revealed poor energy consumption disclosures. Five companies disclosed their energy sources or plans for reduction of non-renewable energy consumption.

	High	Medium	Low	None	Total
Energy			5	11	16

However, the companies did not disclose their energy consumption, but instead focused on reduction in the cost of energy consumption. Synlait Milk Limited (2019) has mentioned the initiatives taken to reduce energy consumption by transforming one of their boiler facilities at Dunsandel from coal power to electrode. They have estimated the annual savings of 13,714 tons of carbon equivalent. Further Camvita Ltd (2019) has invested on sustainably designed warehouse facility at Paengaroa which featured with solar panel as a source of power. The forecasted estimated reduction in energy consumption is around 25,000kW annually. Out of five disclosures, Fisher & Paykel Healthcare Corporation Limited (2020) was able to produce renewable energy certification from a third party, which was a leading initiative from the sustainability point of view.

4.8 Water and Effluents

Water is a common resource that the United Nations (UN) has declared as a Human Right. In the UN's 2030 Agenda for Sustainable Development, the sixth goal is Clean Water & Sanitation. According to the 2030 Agenda, one in every three people worldwide does not have access to safe drinking water and there is a forecasted 40% shortfall in freshwater sources by 2030 with the increase in the world's population (United Nations, n.d). GRI standards focus on the amount of water organisations withdraw and consume, their wastewater disposal and their purification

systems, as water has an important relationship with the ecosystem. The GRI reporting requirements for this criterion are,

- Interactions with water as a shared resource
- Management of water discharge-related impacts
- Water withdrawal
- Water discharge
- Water consumption

Though the disclosure requirements are high, the selected sample companies failed to fully disclose relevant information in their sustainability reporting about water.

	High	Medium	Low	None	Total
Water and Effluents		1	2	13	16

Synlait Milk Limited (2019) moderately disclosed its policy regarding water and effluents but did not give adequate data on consumption or discharge related impacts. The disclosures were on the collection of baseline figures for analysis purpose and future goals of reducing water usage and improve quality by 2028.

Two companies mentioned water usage reduction targets, but they did not present quality data with regards to their policies or any initiative surrounding water and effluents.

4.9 Biodiversity

Biodiversity is the balance in natural systems including living and non-living. The main factors for the loss of biodiversity are climate change, invasive species, pollution, over extraction of natural resources and urbanisation (UNESCO, n.d). Protecting the balance in ecosystems fortifies human wellbeing in the present and future as it effects water sources, air, food security and cultural values. An organisation's activities may affect its operating environment, particularly the local community. The GRI reporting requirements for this criterion are,

- Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas
- Significant impacts of activities, products and services on biodiversity
- Habitats protected or restored
- International Union for Conservation of Nature Red List species and national conservation list species with habitats in areas affected by operations

There was a lack of biodiversity disclosures by the sample companies, with three companies disclosing either their policy on biodiversity or one aspect of biodiversity – ‘Habitat Protected or Restored’. The rest of the companies did not disclose any data on the subject.

	High	Medium	Low	None	Total
Biodiversity			3	13	16

Fisher & Paykel Healthcare Corporation Limited declared on their policy of biodiversity management which was implemented in financial year 2020.

“An external Eco-design Advisory Board was established in FY20, made up of four independent experts who are subject matter experts in their respective fields. The role of the Eco-design Advisory Board is to provide expert external independent guidance and support in relation to eco-design and environmental sustainability.” (Fisher & Paykel Healthcare Corporation Limited, 2020, p. 96)

Camvita Ltd and Synlait Milk Ltd done their initiatives on the Habitat Protected or Restored activities. Camvita Ltd (2019) done 2.3 million Manukau seedlings and expected to increase 2.8 million in the next financial year. Synlait Milk Limited (2019) engaged with three activities on habitat restoration. Plant native trees and shrubs in the 15 hectares grazing land in Dunsandel, working with farmers to restore natural ecosystem and improve community areas.

4.10 Emissions

This standard assesses the effect on air, with a central focus on emissions into the air. There are four harmful emissions the standard discusses: Green House Gas (GHG), Ozone-depleting Substances, Nitrogen Oxides and Sulfur Oxide. During the production process, these harmful substances are released into the natural environment and direct emissions and indirect emissions must be assessed. Under the GHG emissions standard, it is recommended to assess scope one, two and three. Scope one assesses an organisation's direct emissions. Scope two assesses emissions due to the use of nonrenewable energy. Scope three assesses the emissions of the organisation's goods and services providers. The GRI reporting requirements for this criterion are,

- Direct (Scope 1) GHG emissions
- Energy indirect (Scope 2) GHG emissions
- Other indirect (Scope 3) GHG emissions
- GHG emissions intensity
- Reduction of GHG emissions
- Emissions of ozone-depleting substances (ODS)
- Nitrogen oxides (NOX), Sulphur oxides (SOX), and other significant air emissions

Out of the total sample companies, four companies disclosed high rating emissions, having carried out or planned to carry out emission disclosures up to scope 3. The remaining companies did not disclose any details on emissions.

	High	Medium	Low	None	Total
Emissions	4			12	16

Out of those four companies, the most comprehensive disclosure was done by Synlait Milk Limited (2019) which they segregated the amount of GHG emission into on-farm and off-farm with 3 levels of emission scopes. The emission was externally audited for the period 1st August 2017 – 31st July

2018 and declared total GHG emission was 912,731 tCO₂e⁴. Further, the company introduced an incentive system to its farmers to reduce GHG emission which was implemented with farmers' leadership development program.

4.11 Effluents and Waste

This criterion measures company's discharge of water and its substance, with a focus on water discharge, treatment and chemical spills and their quality, quantity and destination. Water is a sensitive part of the ecosystem and the discharge of waste fluids may be harmful to aquatic life, available water sources and local communities who make use of natural water. The GRI reporting requirements for this criterion are,

- Water discharge by quality and destination
- Waste by type and disposal method
- Significant spills
- Transport of hazardous waste
- Water bodies affected by water discharges and/or runoff

The disclosures undertaken by the sample companies were very few, with only four companies disclosing water disposal at a low scale level.

	High	Medium	Low	None	Total
Effluents and Waste			4	12	16

⁴ tCO₂e - Tons of CO₂ equivalent

Those four companies did not declare their fluid waste by quantity or disposal destination and instead placed more emphasis on recycling this waste. Out of the four companies, the most comprehensive disclosure was,

Fisher & Paykel Healthcare Corporation Limited

“In FY20, 66% of New Zealand waste stream was recycled. This was a slight reduction from 69% during the prior year. During FY20 piloted two recycling trials for some of products used by customers in New Zealand. Furthermore, developed onsite recycling machinery in FY20 which will become operational in FY21 for some recycling streams.” (Fisher & Paykel Healthcare Corporation Limited, 2020, p. 83)

4.12 Environmental Compliance

This criterion measures company’s compliance with environmental laws and regulations including international declarations on environmental protection and local or regional regulations. The standard is specifically concerned with violations of those environmental regulations. The GRI reporting requirements for this criterion are,

- Non-compliance with environmental laws and regulations

None of the sample companies declared any violations of environmental laws or regulations and instead declared their environmental certification.

	High	Medium	Low	None	Total
Environmental Compliance	1		2	13	16

Fisher & Paykel Healthcare Corporation Limited is the only company rated as ‘high’ on this dimension. The company disclosed the continuous compliance with ISO 14001, environmental systems audits and disclosures, thus giving a better presentation(Fisher & Paykel Healthcare Corporation Limited, 2020). The company comprehensively disclosed on environmental management system, its governing and assurance mechanism structure.

“Environmental Management System evaluate the day-to-day management of environmental risks and opportunities across manufacturing sites in New Zealand and Mexico. These are audited annually against the standard and are certified tri-annually by the Swiss-based European notified body, Société Générale de Surveillance.” (Fisher & Paykel Healthcare Corporation Limited, 2020, p. 82)

4.13 Employment

This criterion measures company’s policy approach to recruitment, grooming up and retention of employees, as well as working conditions and parental leave practices. Employment is a legal agreement between employer and employee which is governed by the relevant labour laws in the governing country. The labor laws dictate the minimal required terms and condition in this relationship, and it is the employer’s responsibility to create a safe and friendly working environment. The GRI reporting requirements for this criterion are,

- New employee hires and employee turnover
- Benefits provided to full-time employees that are not provided to temporary or part-time employees
- Parental leave

Most companies in the sample declared their recruitment and retention policies but no other disclosures were made available.

	High	Medium	Low	None	Total
Employment	1		12	3	16

Fisher & Paykel Healthcare Corporation Limited (2020) is the highest-ranked disclosure made. The employment pay policy, their entitlements, annual leave and working hours are the main disclosures made. Employees are paid based on performance, complexity and nature of the individual role which compensate, base pay, benefit and discretionary variable remuneration. The discretionary variable remuneration consists of annual, long term and all employee profit share

scheme (Fisher & Paykel Healthcare Corporation Limited, 2020). Further it was declared, the company hired 600 more manufacturing employees after COVID-19 outbreak (R Howard, 2020). The company contributed more employment opportunities to national economy during the pandemic situation especially more companies trying to cutdown their employees.

Fisher & Paykel Healthcare Corporation Limited (2020) implemented flexible working hours policy, parental leave policies to accommodate changing needs of their employees. Financial year 2020, the company paid 12 million (2019: 5.9Mn) as profit share and 3.9% annual increment to the base pay.

4.14 Labour/Management Relations

A good relationship with lower level operational employees and higher-level decision-making management is a sign of a healthy workplace environment. Talati, Grapes, Davey, Shilton, and Pettigrew (2020) discussed in their paper, the working environment has the influence over individual's healthy behavior as the term 'healthy' is used in terms of pleasant, given the number of hours people spent at work. Freedom of association and collective bargaining is also part of a good labour management relationship, including consultative operational changes. The GRI reporting requirements for this criterion are

- Minimum notice periods regarding operational changes

None of the sample companies mentioned their trade relationship with employees or any union or trade association formation.

	High	Medium	Low	None	Total
Labour/Management Relations				16	16

4.15 Occupational Health and Safety

The International Labor Organization upholds its standards on Occupational Health and Safety by guiding respective governments and policy makers in modelling and drafting the fundamental

rights of occupational health and safety in their respective domestic laws (Clarence, 2014). Therefore, health and safety measures deal with both physical and mental harm and promote workers' wellbeing as it is regarded as a human right. These measures focus more on prevention and workers are involved in the identification of possible risk factors, the implementation of prevention measures and performance evaluation. The GRI reporting requirements for this criterion are,

- Occupational health and safety management system
- Hazard identification, risk assessment, and incident investigation
- Occupational health services
- Worker participation, consultation, and communication on occupational health and safety
- Worker training on occupational health and safety
- Promotion of worker health
- Prevention and mitigation of occupational health and safety impacts directly linked by business relationships
- Workers covered by an occupational health and safety management system
- Work-related injuries
- Work-related ill health

The selected 13 companies declared their health and safety procedures, with six having a high-ranked grade.

	High	Medium	Low	None	Total
Occupational Health and Safety	6		7	3	16

The most comprehensive health and safety disclosure among the six high-ranked companies was done by Fisher & Paykel Healthcare Corporation Limited. All health and safety related information like, 'Total Recordable Injury Frequency Rate (TRIFR)', 'Lost Time Injury Frequency Rate (LTIFR)' etc. were declared and showing year by year improvement. Further, health and safety

management procedures comply with ISO 45001:2018 and continue to strengthen those procedures (Fisher & Paykel Healthcare Corporation Limited, 2020).

4.16 Training and Education

Employee training and education includes the upscaling of employees' skills, knowledge and performance including career development. The development of employees' skills improves working efficiency, which is a benefit for the organisation. In a highly competitive markets, companies are trying to achieve competitive advantage through their service level to customer. The training and education programmes are the pathway to achieve competitive advantage which benefited for employer as well as employees. In a study done by Pattanee, Alan, and Emmanuel (2019) the relationship between training and development programmes were assessed against employee commitment and innovative behaviours. The research results reflected, there is a positive relationship between training and development and employee commitment and innovative behaviour. On the other aspect, the employee gain benefits for their personal development which indirectly leads to upscale skill levels. The GRI reporting requirements for this criterion are,

- Average hours of training per year per employee
- Programs for upgrading employee skills and transition assistance programs
- Percentage of employees receiving regular performance and career development reviews

Two of the selected companies in the sample produced high-ranked Training and Education disclosures whereas 11 companies did not disclose anything on this topic.

	High	Medium	Low	None	Total
Training and Education	2	1	2	11	16

The most comprehensive disclosure among the two high-ranked companies was as follows:

Fisher & Paykel Healthcare Corporation Limited

Fisher & Paykel has designed their training and education policy to develop employees' skill capacity and motivation. The company has mentioned it "programs are designed for people at all levels within the organization, including leadership training for those in management positions. The company strives to provide an environment where people have the opportunity to reach their full potential through planned career development and succession conversations." (Fisher & Paykel Healthcare Corporation Limited, 2020, p. 75). The company has created a leaning culture where all employees are encouraged to take part. Internal recruitment policy, creation of sustainable and highly skilled pool of talent to enable the growth, succession planning, on the job training such as secondments, project assignments, job enrichment and enlargement are few of them. (Fisher & Paykel Healthcare Corporation Limited, 2020)

4.17 Diversity and Equal Opportunity

Meso level diversity management develops competencies among employees. The diverse background of teams brings task-related knowledge, experience and a unique and non-redundant skill set (van Knippenberg, De Dreu, & Homan, 2004). Organisations that actively promote diversity and equal opportunity in the workplace benefit society by creating social equality in the workplace. The GRI reporting requirements for this criterion are,

- Diversity of governance bodies and employees
- Ratio of basic salary and remuneration of women to men

The disclosures of the selected NZX listed manufacturing companies were at a satisfactory level in terms of diversity and equal opportunity, with only three companies failing to make any related disclosures. The remaining companies made relevant disclosures but at different gradings.

	High	Medium	Low	None	Total
Diversity and Equal Opportunity	2	5	6	3	16

Out of two high graded disclosures, the most comprehensive disclosure was as follows:

Fisher & Paykel Healthcare Corporation Limited

The company declared diversity and equal opportunity policy as “The company strives to develop a workforce consisting of individuals with diverse skills, values, backgrounds, ethnicities and experiences” (Fisher & Paykel Healthcare Corporation Limited, 2020, p. 72) and diversity policy is directed through 3 values, creating an inclusive culture, committed to fostering an inclusive workplace, measuring and reporting on diversity with qualitative and quantitative measures. The board is the ultimate responsible body for diversity management and maintain thin pay gender gap. Further, the company was recognized and awarded at the 2019 Diversity Awards hosted by Diversity Works NZ. The following targets were set for 2021 diversity management, “extend gender diagnostic activities to global offices, pilot unconscious bias workshop for New Zealand, complete ethnicity diagnostic for New Zealand, understand and improve female representation in the R&D function” (Fisher & Paykel Healthcare Corporation Limited, 2020, p. 73)

4.18 Non-discrimination

Discrimination is defined as treating people unequally without considering their individual merits on a fair basis and by imposing unfair burdens and denying benefits (Global Reporting Initiatives, n.d). An organisation is expected to avoid any mode of discrimination affecting its workers, customers and all other stakeholders. The GRI reporting requirement for this criterion are,

- Incidents of discrimination and corrective actions taken

Most of the selected organisations did not indicate their non-discrimination policy, irrespective of disclosure requirements. Only one company declared their focus on non-discrimination.

	High	Medium	Low	None	Total
Non-discrimination	1		1	14	16

Fisher & Paykel Healthcare Corporation Limited (2020) had identified their weakness in non-discrimination area as they mentioned in annual report, “there are differences in ethnic diversity in different areas of business, across both functions and levels. This may indicate biases in our recruitment, development or retention processes” (Fisher & Paykel Healthcare Corporation Limited, 2020, p. 74) Further, Fisher & Paykel indicated on the further investigation of the matter and take corrective actions in 2021. (Fisher & Paykel Healthcare Corporation Limited, 2020)

4.19 Security Practices

This criterion measures company’s excessive use of security practices or violations against human rights. This may be applicable to inhouse security personnel as well as outsourced third-party security personnel, who are expected to be trained in dealing with human rights and procedures. The GRI reporting requirements for this criterion are,

- Security personnel trained in human rights policies or procedures

None of the selected sample disclosed their security practices or training of security personnel.

	High	Medium	Low	None	Total
Security Practices				16	16

4.20 Rights of Indigenous Peoples

Indigenous Peoples are defined as ancestral people in an independent country whose cultural, social and economic values are distinguished from other people in the country and who are fully or partially governed by their own customs or regulations (Global Reporting Initiatives, n.d). As these Indigenous Peoples have faced historical injustice, they are likely to be vulnerable within an organisation. The GRI reporting requirements for this criterion are,

- Incidents of violations involving rights of indigenous people

	High	Medium	Low	Non	Total
Rights of Indigenous Peoples			1	15	16

None of the companies have disclosed on the violation of indigenous peoples' rights but Fletcher Building Ltd indicated on the development of Indigenous Peoples skills.

“Whakatupu Program which aims to support Maori into leadership roles had 54 participants in FY19. The program is well respected and integrated within the business since 2016.”
(Fletcher Building Limited, 2019, p. 15)

4.21 Human Rights Assessment

With reference to the United Nations ‘Guiding Principles on Business and Human Rights, the Framework for Protect, Respect and Remedy’, all organisations are bound by the principles of corporate responsibility to respect human rights, irrespective of their size, sector, location or ownership (United Nations, 2011). All organisations must work to provide direct or indirect impact on human rights. Direct impact is through the organisation’s operations whereas indirect impact is through interaction with others, including local governments, suppliers, customers and local communities. The GRI reporting requirements for this criterion are,

- Operations that have been subject to human rights reviews or impact assessments
- Employee training on human rights policies or procedures
- Significant investment agreements and contracts that include human rights clauses or that have undergone human rights screening

Only one company in the sample disclosed their policy on human rights.

	High	Medium	Low	None	Total
Human Rights Assessment			1	15	16

The a2 Milk Company Ltd (2019) indicated the concern on human rights and other ethical risks in value chain which will be addressed in the year 2021.

4.22 Local Communities

Local communities are defined as person or groups of people who are impacted socially, environmentally or economically due to an organisation's operations (Global Reporting Initiatives, n.d). The GRI reporting requirements for this criterion are,

- Operations with local community engagement, impact assessments, and development programs
- Operations with significant actual and potential negative impacts on local communities

There was found to be a reasonably high tendency to make local community disclosures amongst the sample, with three of the sample companies having a high reporting rating, one a medium report rating and 12 offering no disclosure on this topic.

	High	Medium	Low	None	Total
Local Communities	3	1		12	16

The 3 companies graded as 'high' disclosed their activities towards local communities and social events organized to interact with them. These are multiple events organized throughout the year. But Synlait Milk Limited (2019) disclosed their policy level event named 'Whakapuāwai' which every staff is given one paid leave per year to engage with their community activities and environmental restoration activity. This initiative is a good policy level initiative to engage company staff to mix with local communities.

4.23 Customer Health and Safety

This standard covers the health and safety measures taken by an organisation across its product life cycle aimed at the health and safety of customers. The GRI reporting requirements for this criterion are,

- Assessment of the health and safety impacts of product and service categories
- Incidents of non-compliance concerning the health and safety impacts of products and services

In the manufacturing sector, product safety and health procedures are highly relevant, especially in food manufacturing. Three companies declared their health and safety measures in the production process at different scales.

	High	Medium	Low	None	Total
Customer Health and Safety	1	1	1	13	16

The highest disclosure score was achieved by Synlait Milk Ltd: The company disclosed international food safety certification FSSC2200 which is a greatest achievement by the company. Further, they have heavily invested on rigorous food safety testing protocols and procedures that strengthen food safety strategy (Synlait Milk Limited, 2019).

4.24 Marketing and Labelling

This standard relates to product and service information, labelling and marketing communication. A company is required to disclose positive or negative economic, social and environmental information related to its products or services, along with labelling and fair and responsible marketing communication. The GRI reporting requirements for this criterion are,

- Requirements for product and service information and labelling
- Incidents of non-compliance concerning product and service information and labelling
- Incidents of non-compliance concerning marketing communications

None of the selected companies disclosed all the requirements except The a2 Milk Company Ltd (2019) which declared its plan for packaging and the removal of unnecessary single use plastic packaging.

	High	Medium	Low	None	Total
Marketing and Labelling			1	15	16

4.25 Socioeconomic Compliance

This criterion measures company's compliance in social and economic areas, especially in tax related fraud, corruption, bribery, labour related issues etc. The GRI reporting requirement for this criterion is,

- Non-compliance with laws and regulations in the social and economic area

	High	Medium	Low	None	Total
Socioeconomic Compliance			1	15	16

The a2 Milk Company Ltd (2019) disclosed its plans for the socioeconomic aspects of animal welfare even though this is not a non-compliance aspect. The company mentioned by 2021, “all farms supplying milk to the company will govern by a third party certified framework for animal welfare” (The a2 Milk Company Ltd, 2019, p. 28)

4.26 Current Reporting Practices Compared to the Criteria Set Out in the Global Reporting Initiative Standards

The individual criteria discussed above are summarised in Table 5 below to reflect all 16 companies reporting performance against the selected GRI criteria. In general, few companies were reported with high grading on certain criteria and rest of the companies were low or no disclosures at all. Out of 25 criteria, 2 criteria were reported by all companies either on high or low grading which are economic performance and tax. These reporting abnormalities are further analysed under discussion chapter.

Table 5 - GRI criteria reported by each company and Sustainability Reporting Index

	High	Medium	Low	Non	Total
Economic					
Economic Performance	2	2	12		16
Market Presence				16	16
Procurement Practices		1		15	16
Anti-corruption		1	1	14	16
Tax		1	15		16
Environmental					
Material			4	12	16
Energy			5	11	16
Water and Effluents		1	2	13	16
Biodiversity			3	13	16
Emissions	4			12	16
Effluents and Waste			4	12	16
Environmental Compliance	1		2	13	16
Social					
Employment	1		12	3	16
Labour/Management Relations				16	16
Occupational Health and Safety	6		7	3	16
Training and Education	2	1	2	11	16
Diversity and Equal Opportunity	2	5	6	3	16
Non-discrimination	1		1	14	16
Security Practices				16	16
Rights of Indigenous Peoples			1	15	16
Human Rights Assessment			1	15	16
Local Communities	3	1		12	16
Customer Health and Safety	1	1	1	13	16
Marketing and Labelling			1	15	16
Socioeconomic Compliance			1	15	16

CHAPTER 5 - Discussion

This dissertation focused on two major areas of sustainability reporting in the New Zealand manufacturing sector. It examined the current sustainability reporting practices of 16 NZX listed manufacturing companies and compared those reporting practices against international Sustainability Standards. The dissertation assessed sustainability performance against 25 codes that measured performance on 5 economic, 7 environmental and 13 social criteria. When analysing the current sustainability reporting practices, it was observed that certain areas were disclosed by all sample companies whereas certain areas were not. As discussed in the literature section, sustainability reporting is still voluntary in New Zealand and there are different motives for companies to report such practices. Those motives were categorised into three main areas: compliance, competitive advantage and normative.

5.1 Current Sustainability Practices of NZX Listed Manufacturing Companies

5.1.1 Compliance Motives of Sustainability Reporting

Sustainability reporting is voluntary in New Zealand but there are certain regulatory requirements in place to govern corporate bodies not directly related to sustainability reporting. The Companies Act of 1993 requires every company to produce financial statements in accordance with Generally Accepted Accounting Practices which are signed by two directors, or if company has only one director, by that director (Companies Act Section 201, 1993). Complying with the Companies Act requirement automatically covers Economic Performance of Sustainability reporting standards. Further, the NZX Corporate Governance Code aims to promote good corporate governance and disclosure and outlines a range of recommendations for issuers which should be met on a "comply or explain" basis. Recommendation 4.3 of the NZX Corporate Governance Code includes the recommendation that listed companies publish information on environmental, social and governance (ESG) factors and practices (New Zealand Exchange, 2020). NZX has also published a guidance note to provide additional resources for listed companies to support them in their disclosure practices. Although these statutory requirements are not as detailed as the GRI

standards, they provide direction in sustainability reporting. The analysis of reporting practices revealed, all companies disclosed economic performance and tax. The other criteria were reported by few companies and majority of the companies were not disclosed adequate data. This follows Companies Act requirements and accounting standards requirements. Specifically, listed companies are obliged to produce their financial statements in accordance with the governing country's Accounting Standards. Further, ESG reporting under NZX is on 'comply or explain' basis and the disclosure requirements were not as detailed as GRI standards. Therefore, companies have the option to disclose minimal data or rather company policy on that particular criteria.

On the other hand, the cognitive attitudes of top management is also treated as a compliance motive (Herremans et al., 2010). Perception, attitude towards social and environmental activities, companies' business strategies and reporting initiatives on sustainability are the cognitive factors affecting sustainability reporting. According to Burritt and Schaltegger (2010), cognitive behaviour starts with business strategies which transform into key performance indicators (KPIs). These KPIs lead to reporting sustainability performance. Businesses are managed by a group of people (agents) who are appointed by shareholders. These agents act on behalf of owners and are responsible for advancing the best interests of the business. Business strategies are developed according to stakeholder requirements and management tend to show the success of their business strategies through KPI reporting. As a main observation, all the sample companies disclosed partial information on economic, environmental and social dimensions, as noted by other authors internationally in studies on company sustainability practices. Alexandra-Oana Marinescu undertook a study in Romania that examined the GRI standard compliance of eight Romanian companies and observed only partial disclosures on three sustainability dimensions (Marinescu, 2020). Further, the same observation was made by another group of authors who examined 300 Swiss companies' reporting of CSR practices (Birth, Illia, Lurati, & Zamparini, 2008). None of the sample companies fully disclosed all the parameters selected for evaluation. Companies where parameters were graded as "High" did not achieve the same grading for other parameters. The parameters graded as "High" were Occupational Health & Safety, Emissions, Local Communities,

Training & Education, Diversity & Equal Opportunity and Economic Performance. The partial disclosure of information reflects that businesses align their sustainability reporting based on business strategies and top management's KPI assessments.

5.2 Current reporting practices compared to the criteria set out in a prominent international reporting standard (GRI)

5.2.1 Competitive Advantage Motive

There is a great deal of literature which shows the relationship between competitive advantage and sustainability reporting (Aparna & Siya, 2018; Sheth & Poojara, 2019; Thum-Thysen et al., 2017). Sustainability reporting enhances the companies' reputation through good business practices, innovation, cost minimization and differentiate the company from its competitors. The findings of this study show, however, that the majority of NZX listed manufacturing companies do not report much on sustainability though sustainability reporting leads to competitive advantage. It is interesting to further analysis on the relationship between sustainability reporting and competitive advantage in New Zealand context. Therefore, the assessment was done on (see Table 6) current sustainability practices against GRI standards, existing position of New Zealand sustainability reporting and the financial strength of the companies. The evaluation against GRI standards was assessed through a scorecard system on individual companies' sustainability reporting on the following basis:

- High Grading Equals 3 Points
- Medium Grading Equals 2 Points
- Low Grading Equals 1 Point
- None Grading Equals 0 Points

In total, 25 parameters were selected for the evaluation and if a company scored high grading for all parameters, the total score would be 75. Based on the above grading system, the total points earned by all companies are shown in table - 6 below:

Table 6 - Sustainability Reporting Index and Financial Strength

	Score Out of 75	Score %	Turnover	Net Profit / (Loss) after Tax	Accumulated Profit /(Loss)
			NZ\$ Mn	NZ\$ Mn	NZ\$ Mn
Fisher & Paykel	35	47%	1,070.40	209.20	686.30
Synlait Milk Ltd	29	39%	1,302.03	75.21	323.98
Fletcher Building Ltd	23	31%	8,308.00	164.00	898.00
The a2 Milk Co Ltd	20	27%	1,730.70	388.17	964.28
Skellerup Holdings Ltd	11	15%	251.39	29.06	119.46
Camvita Ltd	11	15%	0.20	(0.01)	0.02
Metro Performance Glass Ltd	9	12%	254.91	(76.90)	(60.47)
Mercer Group Ltd	8	11%	0.05	0.00	(0.04)
Blis Technologies Ltd	6	8%	10.64	1.60	(32.39)
Wellington Drive Technologies Ltd	5	7%	61.72	0.13	(114.74)
Cannasouth Ltd	5	7%	0.05	(2.18)	(2.59)
Cavalier Corporation Ltd	5	7%	135.23	(16.78)	34.78
Moa Group Ltd	4	5%	38.27	(4.04)	(28.10)
Rakon Ltd	4	5%	118.98	3.98	(65.88)
Me Today Ltd	2	3%	0.64	(4.98)	(5.03)
AFC Group Holding Ltd	2	3%	1.23	(1.17)	(26.32)

Note – Financial data extracted on 22nd Oct 2020 based on the latest available financial reports.

The last eight companies that scored less than 10% of the total points mostly reported on Economic Performance, Tax, Employment, Occupational Health & Safety and Diversity & Equal Opportunity. Further, those companies declared their policy on the parameters rather than providing any data, except on Economic Performance. Bachoo, Tan, and Wilson (2013) proved

this scenario by reflecting a positive relationship between quality sustainability reporting and long-term profit. In New Zealand context, the less scored companies having accumulated loss position which constraint the future earnings. On the other hand, companies are concentrating on short term profit to recover the loss already incurred rather than investing on social and environmental activities. The companies that have disclosed quality sustainability data than other companies reflect decent financial performance. Those companies invested mostly on Emissions, Training & Education and Local Communities, Anti-corruption, Environmental Compliance and Non-discrimination whereas future focusing areas (currently at the company policy level) as Energy, Water & Effluents and Biodiversity.

Although the NZX listed manufacturing companies reported strongly on certain sustainability practices, none of the companies scored more than 47% of the total marks. This reflects that current reporting practices are not at the level of required GRI standards in certain areas. The above table and discussion reflect, companies having high reporting scores have more financial capacity whereas low reporting grades with low financial capabilities. Companies differ from each other based on the resources they hold. Those resources bring specialties to the organisation which create competitive advantage. This argument is supported by Barney (1991) in his theory of the Resource Based View (RBV). Therefore, companies aim to create unique assets that will allow them to achieve greater profit than others in the same industry. These assets can be human, physical or intellectual in nature: however, in terms of sustainability, human assets are more vulnerable to change. The GRI standards have given due consideration to human capital by releasing social aspect standards on Employment (GRI 401), Labour / Management Relations (GRI 402), Occupational Health and Safety (GRI 403), Training and Education (GRI 404) and Diversity and Equal Opportunity (GRI 405) (Global Reporting Initiatives, n.d). Based on our observations on sustainability reporting by NZX listed manufacturing companies, the top four companies that scored more than 25% of total points disclosed the most human assets related GRI standards in their sustainability reporting except for Labour/Management relations (see Table 7).

Table 7 - Top Four Companies' Employee Specific Disclosures

	Employment	Labour/ Management Relations	Occupational Health and Safety	Training and Education	Diversity and Equal Opportunity
Synlait Milk Limited	Low	None	High	High	High
The a2 Milk Co Ltd	Low	None	Low	None	Medium
Fletcher Building Ltd	Low	None	High	Medium	Medium
Fisher & Paykel	High	None	High	High	High

Out of these four companies, Fisher & Paykel (F&P) showed distinct differentiation. F & P has expanded its business worldwide and has made high level disclosures on employee related dimensions. They invest more on human capital in order to create a world-wide competitive advantage. The other three companies are regionally expanded companies – for example Fletcher has expanded into Australia, The a2 Milk Company has expanded into Australia, China, the US and the UK, but are relatively new in the US and UK markets. Synlait Milk Ltd is the sourcing party for local milk processing companies. Therefore, it is evident that companies increase their investment in social activities to achieve competitive advantage, especially when the companies are dealing with international markets. But on the other hand, the companies do not invest on sustainability activities may not achieve competitive advantage.

5.2.2 Normative Motive of Sustainability Reporting

The normative motive acts as a genuine and willingness effort to report on sustainability but companies' actual behaviour depends on the resource availability (Preston & O'Bannon, 1997).

In the selected sample, most of the companies have built up company policies around sustainability dimensions but actual implementation has not been done due to limited resources. For example, Wellington Drive Technologies Ltd (2019) mentioned under diversity and equal opportunity, the

company got very small number of people which makes challenging to adopt any formal target to achieve on diversity and equal opportunity.

Gregory, Noah, Robert, and John (2019) argued, certain social norms have an influence on behavioural change in the real world. For example, social issue of alcohol consumption and health risk or environmental issues of energy consumption and usage of natural resources. These social norms lead to change behavioural actions. The data collection showed that companies scored high sustainability reporting points, having strong operating profit and financial situation. Fisher & Paykel, Synlait Milk Ltd, Fletcher Building Ltd and The a2 Milk Company were the four companies that reflected the availability of funds and social norm. These companies published financial positions create stakeholder normative behaviour on the strength to involve on social and environmental activities. Therefore, stakeholders' normative behaviour is influenced by companies' provision of sustainability reporting as supported by signalling theory. Signalling theory accommodates the resolution of information asymmetry, which allows the management of a company to provide quality information on the company's performance both in financial and non-financial terms (see Table 6) (Seong Mi et al., 2018).

5.3 Dualities in Reporting

It was observed in the data collection and analysis chapter that certain GRI indicators were reported by most of the sample companies (at least at company policy level), whereas other indicators were not reported at all. The most reported indicators were Economic Performance, Tax, Employment, Occupational Health & Safety and Diversity & Equal Opportunity. Certain social indicators were totally ignored by all companies, such as Labour /Management Relations, Security Practices and Market Presence. High scoring companies (more than 25% of total points) reported on Emissions, Training & Education and Local Communities, whereas company policy level reporting on Energy, Water & Effluents and Biodiversity. Company policy refers to the set of actions company is going to implement in a subject. For example Fisher & Paykel Healthcare Corporation Limited (2020) indicated their policy under employment "The employees are paid based on performance and the complexity and size of the individual role" (Fisher & Paykel Healthcare Corporation

Limited, 2020, p. 73). In a voluntary sustainability reporting environment, there is a duality among companies on reporting criteria and the literature support this duality. According to Laurence et al. (2015), there are two reasons that companies adopt sustainability standards. One reason is strategic and other as learning activity. Strategic intention refers to an analysis of the external environment to identify opportunities and threats, while learning activity refers to implementing new management practices based on the information gathered through the reporting process. However, in this study, sustainability indicators scored lower ranks and companies were still at the stage of gathering data on those indicators. Strategic direction will be set to start based upon the analysis of reported data. For example, Synlait Milk Limited (2019) scored 'Medium' disclosure rank for water & effluents. They are in the process of collecting baseline data on water to get it evaluated by an independent party. Upon completion of their study, Synlait aims to improve 20% water quality by the year 2028. This is the dualities of sustainability reporting. One angle, it gives the existing position of the company on the subject and on the other hand it leads to a strategic direction. In this instance Synlait strategic direction is to improve water quality by 2028 through "20% reduction in water use per kilogram of milk solids, 45% reduction in nitrogen loss to waterways per kilogram of milk solids, 20% reduction in water use per kilogram of product and 20% improvement in the quality of wastewater" (Synlait Milk Limited, 2019, p. 34).

There are 2 views on dualities of reporting, one aspect as sustainability reporting act as learning activity which leads to strategic direction. The other aspect of sustainability reporting is companies tend to 'Greenwash' its non-financial performance without reporting on negative aspects. This study observed, companies tend to report only the positive aspects of sustainability dimensions. For example, Fletcher Building Ltd has not provided a sustainability report on the Ihumātao land dispute with the local community, which has remained unresolved since 2016. The same observation was made by Dobbs and Staden (2016), who noted that companies tend to report positive aspects in CSR disclosures rather than negative aspects.

5.4 Reporting Regime

New Zealand sustainability reporting practices are voluntary; however, the NZX issued its Corporate Governance Code to promote good governance and disclosures by issuers to meet them on a 'comply or explain' basis. In the absence of a national level law governing on sustainability reporting, the global standards have become 'Soft Law'. The world is continuing its move towards globalisation and this is the period in which sustainability standards have reached the global level and became international 'Soft Law'. Many authors have argued that sustainability is a global issue which cannot be understood in local term (Logsdon & Wood, 2002). As most of mass production facilities are relocating to cheap labour and less regulated countries, the governing of sustainability is no longer applicable in local terms. Therefore, there should be a self-enforcement mechanism within an organisation to govern and report on sustainability in a voluntary reporting culture.

Unlike accounting standards, sustainability standards do not have any corresponding monitoring body within New Zealand and there is no penalty imposed for non-compliance. However, even the New Zealand Exchange has issued a guidance note on sustainability reporting, despite it not being a compulsory regulatory requirement. Therefore, the institutionalisation view of sustainability reporting is appropriate from the New Zealand perspective, which creates a self-regulatory mechanism within the organisation. The institutionalisation of sustainability reporting is the adaptation of macro level soft regulation into a microenvironment through standards on a self-enforcement basis (Scherer & Palazzo, 2011). The self-enforcement of sustainability reporting has its own limitations; for example, companies can interpret the standards according to their own criteria and the management of reporting inside the firm, and GRI has not implicitly promoted the management of reporting standards within the organisation (Laurence et al., 2015). However, these limitations can be eliminated through a proper assurance system which will bring quality, credibility, consistency and transparency in the reporting of sustainability performances (Nilipour, De Silva, & Roudaki, 2017).

As discussed at the beginning of this chapter, this dissertation focused on two areas of sustainability reporting in the New Zealand manufacturing sector. It examined the current

sustainability reporting practices of NZX listed manufacturing companies and compared those reporting practices against international Sustainability Standards. The results of this dissertation reflect, sustainability reporting in New Zealand manufacturing companies are very little. GRI sustainability reporting standards came into effect in 2016 and relatively new. The findings of this dissertation will support New Zealand manufacturers to improve their sustainability reporting par with international standards together with governing requirements. In terms of limited reporting disclosures, this study analysed the factors based on sustainability reporting motives, dualities in reporting and recommendation on the way forward actions to improve sustainability reporting in New Zealand perspective.

Cognitive behavior of compliance motive aligns sustainability reporting based on business strategies and top management's KPI assessments (Burritt & Schaltegger, 2010). Therefore, companies focus only on specific areas of sustainability reporting to align with business strategies. Under competitive advantage motive, quality sustainability information leads to acquire competitive advantage (Bachoo et al., 2013) through the investment on specific areas of sustainability like human factors, energy. Investment on sustainability will lead to achieve long term profit through competitive advantage but the investment decisions will depend on the companies' financial capacities. The normative motive creates two-fold of sustainability reporting. One aspect of normative behavior is companies genuine and willingness effort to report on sustainability (Preston & O'Bannon, 1997) and the other aspect is stakeholder normative behavior (Gregory et al., 2019). Company's genuine and willingness effort to report on sustainability and stakeholders' normative behavior depend on availability of resources. In relation to the dualities of reporting, one aspect as sustainability reporting act as learning activity which leads to strategic direction (Laurence et al., 2015). The other aspect of sustainability reporting is companies tend to 'Greenwash' its non-financial performance without reporting on negative aspects (Dobbs & Staden, 2016). All these factors have affected the inadequate reporting disclosures in New Zealand Manufacturing companies and way forward it would appropriate to implement institutionalisation of sustainability reporting (Scherer & Palazzo, 2011) with assurance process (Nilipour et al., 2017).

CHAPTER 6 – Conclusion

6.1 Conclusion

In the New Zealand context, sustainability reporting practices are at initial stage though NZX had issued corporate governance code for ESG reporting. The ESG reporting requirements were issued on 11th December 2017 with the aim of improving the reporting framework and communication of ESG opportunities and risks and providing guidance to issuers on the benefits of ESG reporting. As can be seen from the data analysis, the majority of sample companies made disclosures on Economic Performance, Tax, Employment, Occupational Health and Safety and Diversity and Equal Opportunities. These reporting elements are required by NZX corporate governance code and companies are encouraged to disclose their initiatives on those performances. However, NZX corporate governance does not indicate the penalties for those who do not follow these codes. Therefore, most of these codes are limited to company policy level disclosures rather than giving actual nonfinancial information. Further, NZX codes came into effect in December 2017 and companies are adopting these sustainability practices in recent years, especially during 2019 and 2020. Wellington Drive Technologies Ltd indicated:

“In 2019 the company successfully completed an internal audit of its corporate social responsibility (CSR) processes and procedures. The audit was facilitated by EcoVadis, a well-recognized global provider of CSR ratings and scorecards.” (Wellington Drive Technologies Ltd, 2019, p. 8)

Further, Synlait Milk Limited indicated that there have been 50 million Environmental, Social and Governance (ESG) linked loan agreements with ANZ bank and it is the first loan in New Zealand which encourages borrowers to further improve their reporting performance against a set of independent ESG criteria (Synlait Milk Limited, 2019).

Additionally, no negative reporting was found in the sustainability reports. However, while examining secondary sources through newspapers and other public documents, there were several negative sustainability aspects of the companies. Blis Technologies Ltd (2019) reported the

deterioration of a chemical container in their research and development laboratory at their South Dunedin manufacturing site. Action was taken by the staff and Fire and Emergency New Zealand were informed. Fire and Emergency New Zealand confirmed that appropriate risk mitigation actions were undertaken. This information was published on 12th July 2019 in the company's announcements at NZX, but nothing was reported in the 2020 annual report or sustainability reports published by the company.

In another incident, two CEOs resigned from The a2 Milk Company within an 18-month period and this was declared in their 2019 annual report (The a2 Milk Company Ltd, 2019). According to the report, the resignations were due to the CEOs' personal commitments; however, frequent change in higher management reflects company's ability to retain its employees. Further, Fletcher Building Limited acquired land at Ihumātao in 2016 for a housing project but there has been public protest over this project since then (Dunlop, New Zealand Herald 24th June 2020). The company did not report on this issue in its annual report or in its sustainability reports.

The study shows that the existing sustainability practices of listed New Zealand manufacturing companies are at the beginning stages of sustainability reporting. In total, 12 (75%) of the sample companies disclosed the minimal requirement of data specified by NZX Corporate Governance Practices. The remaining 4 (25%) of the sample companies attempted to disclose some useful information on Energy, Water and Effluents, Emission and Biodiversity. The additional disclosures made by these companies were exceptional; however, the companies showed good initiative in their sustainability reporting when compared to the GRI standards disclosure requirements and further improvements are expected in coming years.

6.2 Limitations of this Research

First, this research was conducted based on publicly available data disclosed by New Zealand listed manufacturing companies in their annual reports, corporate disclosures and any other publicly available reports. As there is no regulatory requirement for sustainability reporting,

publishing nonfinancial data is not fully accepted in the New Zealand market, especially by the issuers.

Second, the assurance aspect of nonfinancial data was not available and none of the sample companies engaged any third-party assurer to verify sustainability reporting. Some of the companies engaged third parties to assess their systems and procedures in certain sustainability areas but not in the reporting aspect.

Third, the research was based on 16 NZX listed manufacturing companies and the generalisability of the research findings may not be applicable to the entire manufacturing sector. Further, sustainability and sustainability reporting are still in the developing stage in New Zealand and it may not be possible for the conclusion of this research to be projected into the future.

Despite the limitations, this study gives insights into current sustainability reporting practices in a voluntary reporting environment and their validity against the International Reporting Standards (GRI).

List of References

- Aparna, B., & Siya, T. (2018). Sustainability reporting: an empirical evaluation of emerging and developed economies. *Journal of Global Responsibility*, 9(2), 207-234. doi:10.1108/JGR-01-2018-0003
- Bachoo, K., Tan, R., & Wilson, M. (2013). Firm Value and the Quality of Sustainability Reporting in Australia. *Australian Accounting Review*, 23(1), 67-87. doi:10.1111/j.1835-2561.2012.00187.x
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99. Retrieved from <https://ezproxy.aut.ac.nz/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=5978921&site=eds-live>
- Bebbington, J. (2001). Sustainable development: a review of the international development, business and accounting literature. *Accounting Forum*, 25(2), 128. doi:10.1111/1467-6303.00059
- Birks, M., & Mills, J. (2015). *Grounded theory : a practical guide* (Second edition. ed.): SAGE.
- Birth, G., Illia, L., Lurati, F., & Zamparini, A. (2008). Communicating CSR: Practices among Switzerland's top 300 companies. *Corporate Communications*, 13(2), 182-196. doi:10.1108/13563280810869604
- Blis Technologies Ltd. (2019). Chemical Incident at Dunedin Site [Press release]. Retrieved from <https://www.nzx.com/announcements/337588>
- Burritt, R. L., & Schaltegger, S. (2010). Sustainability accounting and reporting: fad or trend? *Accounting, Auditing & Accountability Journal*, 23(7), 829. Retrieved from <https://ezproxy.aut.ac.nz/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=53975352&site=eds-live>
- C Martin, R Samans, H Leurent, F Betti, M Drzeniek-Hanouz, & T Geiger. (2018). *Readiness for the Future of Production - Report 2018*. Retrieved from <http://wef.ch/fopreadiness18>
Retrieved on 22nd April 2020
- Calabrese, A., Costa, R., Levialdi Ghiron, N., & Menichini, T. (2019). Materiality analysis in sustainability reporting: A tool for directing corporate sustainability towards emerging economic, environmental and social opportunities. *Technological & Economic Development of Economy*, 25(5), 1016-1038. doi:10.3846/tede.2019.10550
- Camvita Ltd. (2019). Annual Report. Retrieved from <https://www.comvita.co.nz/assets/Investors/30-June-2019-CVT-Annual-Report.pdf>

- Clarence, T. (2014). Placing the right to occupational health and safety within a human rights framework: trends and challenges for South Africa. *The Comparative and International Law Journal of Southern Africa*, 47(2), 276. Retrieved from <https://ezproxy.aut.ac.nz/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.24585872&site=eds-live>
- Companies Act Section 201, , (1993).
- Confino, J. (2013). What is the purpose of sustainability reporting. Retrieved from <https://www.theguardian.com/sustainable-business/blog/what-is-purpose-of-sustainability-reporting>, Retrieved on 30th January 2020
- D'Aquila, J. M. (2018). The Current State of Sustainability Reporting. *CPA Journal*, 88(7), 44-50. Retrieved from <https://ezproxy.aut.ac.nz/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=131153460&site=eds-live>
- Dey, I. (1993). *Qualitative data analysis : a user-friendly guide for social scientists*: Routledge.
- Dobbs, S., & Staden, C. v. (2016). Motivations for corporate social and environmental reporting: New Zealand evidence. *Sustainability Accounting, Management and Policy Journal*, 7(3), 449-472. doi:10.1108/SAMPJ-08-2015-0070
- Dunlop, M. (24th June 2020). Potential Ihumātao decision: How we got here. *New Zealand Herald*. Retrieved from <https://www.nzherald.co.nz>
- EY, & Boston College. (2013). *Value of sustainability reporting*. Retrieved from https://www.ey.com/Publication/vwLUAssets/EY_Value_of_Sustainability_Reporting/%24File/EY-Sustainability.pdf, Retrieved on 13th February 2020
- Farley, H. M., & Smith, Z. A. (2020). *Sustainability : If It's Everything, Is It Nothing?* (2nd ed. ed.): Taylor & Francis Group.
- Fisher & Paykel Healthcare Corporation Limited. (2020). Annual Report. Retrieved from <https://resources.fphcare.com/content/2020-fph-annual-report.pdf>
- Fletcher Building Limited. (2019). Annual Report. Retrieved from <https://fletcherbuilding.com/assets/4-investor-centre/annual-reports/2019-annual-report.pdf>
- Global Reporting Initiatives. (n.d). GRI Standards. Retrieved from <https://www.globalreporting.org/standards> Retrieved on 05th May 2020
- Gray, D. E. (2004). *Doing research in the real world*: Sage Publications.

- Gregory, C., Noah, J. W., Robert, W. M., & John, C. (2019). Links between sustainability-related awareness and behavior : The moderating role of engagement. *International Journal of Sustainability in Higher Education*, 20(7), 1240-1257. doi:10.1108/IJSHE-09-2018-0161
- Heinberg, R., & Lerch, D. (2010). *The post carbon reader : managing the 21st century's sustainability crises*: Watershed Media.
- Herremans, I., Nazari, J., & Ingraham, L. (2010). Externalities and internalities in sustainability reporting [Paper presented to CAAA Annual Conference SSRN Electronic Journal Saskatoon]. *Paper presented to CAAA Annual Conference*.
- Hespenheide, E. J., Alsdorf, C., & Koehler, D. A. (2013). Going from good to great - Ways to make your sustainability report business-critical. *Deloitte Insights*. Retrieved from <https://www2.deloitte.com/us/en/insights/topics/social-impact/going-from-good-to-great.html> Retrieved on 18th April 2020
- Hsiu-Fang, H., & Shannon, S. E. (2005). Three Approaches to Qualitative Content Analysis. *Qualitative Health Research*, 15(9), 1277. Retrieved from <https://ezproxy.aut.ac.nz/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=18890850&site=eds-live>
- Hussain, N., Rigoni, U., & Orij, R. P. (2018). Corporate Governance and Sustainability Performance: Analysis of Triple Bottom Line Performance. *Journal of Business Ethics*, 149(2), 411-432. doi:10.1007/s10551-016-3099-5
- Johannes, S., & Dorothea, G. (2019). Compliance with materiality in G4-sustainability reports by electric utilities. *International Journal of Energy Sector Management*, 14(3), 583-608. doi:10.1108/IJESM-03-2019-0010
- Joshi, S., Pandey, V., & Ross, R. B. (2017). Asymmetry in Stock Market Reactions to Changes in Membership of the Dow Jones Sustainability Index. *Journal of Business Inquiry: Research, Education & Application*, 16(1), 12-35. Retrieved from <https://ezproxy.aut.ac.nz/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=121051361&site=eds-live>
- Justin, J. K., Sophie, T., & Simon, B. (2003). Using Indicators to Measure Sustainability Performance at a Corporate and Project Level. *Journal of Business Ethics*, 44(2/3), 149. Retrieved from <https://ezproxy.aut.ac.nz/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.25075024&site=eds-live>
- Koehler, D. A., & Hespenheide, E. (2014). How materiality drives improved sustainability reporting. Retrieved from <https://www.greenbiz.com/blog/2014/01/28/materiality-drives-sustainability-reporting> Retrieved on 18th February 2020

- Kothari, C. R. (2004). *Research methodology : methods & techniques* (Second revised edition. ed.): New Age International (P) Ltd., Publishers.
- KPMG. (2013). *The essentials of materiality assessment*. Retrieved from <https://assets.kpmg/content/dam/kpmg/pdf/2014/10/materiality-assessment.pdf> Retrieved on 20th February 2020
- Kraft, K. L., & Hage, J. (1990). Strategy, Social Responsibility and Implementation. *Journal of Business Ethics*, 9(1), 11-19. doi:10.1007/BF00382558
- Labuschagne, C., Brent, A. C., & Van Erck, R. P. G. (2005). Assessing the sustainability performances of industries. *Journal of Cleaner Production*, 13(4), 373-385. doi:10.1016/j.jclepro.2003.10.007
- Laurence, V., Michael, H., & Jeremy, M. (2015). How Do Firms Comply with International Sustainability Standards? Processes and Consequences of Adopting the Global Reporting Initiative. *Journal of Business Ethics*, 131(2), 469. Retrieved from <https://ezproxy.aut.ac.nz/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.24703515&site=eds-live>
- Lee, J. Y., & Lee, Y. T. (2014). A framework for a research inventory of sustainability assessment in manufacturing. In (Vol. 79, pp. 207-218).
- Li, H., Fu, S., Chen, Z., Shi, J., Yang, Z., & Li, Z. (2019). The motivations of Chinese firms in response to the Carbon Disclosure Project. In (Vol. 26, pp. 27792-27807).
- Liviu, F., Yu Ha, C., & Neil, C. H. (2013). For All Good Reasons: Role of Values in Organizational Sustainability. *Journal of Business Ethics*, 114(3), 393. doi:10.1007/s10551-012-1355-x
- Logsdon, J. M., & Wood, D. J. (2002). Business Citizenship: From Domestic to Global Level of Analysis. *Business Ethics Quarterly*, 12(2), 155-187. doi:10.2307/3857809
- Lozano, R., Nummert, B., & Ceulemans, K. (2016). Elucidating the relationship between Sustainability Reporting and Organisational Change Management for Sustainability. *Journal of Cleaner Production*, 125, 168-188. doi:10.1016/j.jclepro.2016.03.021
- Mahmood, Z., Kouser, R., Ali, W., & Iqbal, Z. (2016). Patterns of Sustainability Reporting in South Asia. *Pakistan Journal of Social Sciences (PJSS)*, 36(2), 917-933. Retrieved from <https://ezproxy.aut.ac.nz/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=sih&AN=121491044&site=eds-live>
- Mai Skjott, L., & Steffen, K. (2019). Coding qualitative data: a synthesis guiding the novice. *Qualitative Research Journal*, 19(3), 259-270. doi:10.1108/QRJ-12-2018-0012

- Marinescu, A.-O. (2020). Analysis on the Compliance of Sustainability Reports of Romanian Companies with GRI Conceptual Framework. *Audit Financiar*, 18(158), 349-363. doi:10.20869/AUDITF/2020/158/011
- Ministry of Business Innovation & Employment. (n.d.). Retrieved from https://mbienz.shinyapps.io/sector_report_prod/ Retrieved on 22nd April 2020
- MSCI, M. S. C. I. I. (2020). *Global Industry Classification Standards Methodology*. Retrieved from <https://www.msci.com/documents/1296102/11185224/GICS+Methodology+2020.pdf/9caadd09-790d-3d60-455b-2a1ed5d1e48c?t=1578405935658> Retrieved on 07th June 2020
- New Zealand Exchange. (2017). Environmental, Social and Governance - NZX Guidance Note. Retrieved from <https://www.nzx.com/regulation/nzx-rules-guidance/corporate-governance-code> Retrieved on 19th April 2020
- New Zealand Exchange. (2020). NZX Corporate Governance Code. In *Principle 4 – Reporting & Disclosure*. Under Listing Rules 3.8.1(a) – (b).
- Nilipour, A., De Silva, T.-A., & Roudaki, J. (2017). State of Sustainability Reporting Assurance in New Zealand. *Annual International Conference on Accounting & Finance*, 94-102. doi:10.5176/2251-1997_AF17.58
- Pattanee, S., Alan, C., & Emmanuel, A. (2019). Training and development in small professional services firms. *European Journal of Training and Development*, 43(5/6), 517-535. doi:10.1108/EJTD-11-2018-0113
- Pilot, M. J. (2015). *Driving sustainability to business success : management system integration and automation--the DS factor*: Wiley.
- Posner, B. Z. (2010). Values and the American Manager: A Three-Decade Perspective. *Journal of Business Ethics*, 91(4), 457. doi:10.1007/s10551-009-0098-9
- Preston, L. E., & O'Bannon, D. P. (1997). The corporate social-financial performance relationship. *Business & Society*, 36(4), 419. Retrieved from <https://ezproxy.aut.ac.nz/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=9712225002&site=eds-live>
- R Howard. (2020, 01 July 2020). Fisher & Paykel Healthcare on hiring spree. *New Zealand Herald*. Retrieved from <https://www.nzherald.co.nz/business/fisher-paykel-healthcare-on-hiring-spreed/BMP32FZKOH7HP2J56ZMJ3OOSII/>

- Rüdiger, H., & Regina, L. (2014). Legitimizing Negative Aspects in GRI-Oriented Sustainability Reporting: A Qualitative Analysis of Corporate Disclosure Strategies. *Journal of Business Ethics*, 123(3), 401. doi:10.1007/s10551-013-1801-4
- S Ahmad, & K Y Wong. (2018). Sustainability assessment in the manufacturing industry: a review of recent studies. *Benchmarking: An International Journal*, 25(8), 3162-3179. doi:10.1108/BIJ-08-2017-0214
- Scherer, A. G., & Palazzo, G. (2011). The New Political Role of Business in a Globalized World: A Review of a New Perspective on CSR and its Implications for the Firm, Governance, and Democracy. In (Vol. 48, pp. 899-931).
- Seong Mi, B., Md. Abdul Kaum, M., & Jong Dae, K. (2018). A Cross-Country Investigation of Corporate Governance and Corporate Sustainability Disclosure: A Signaling Theory Perspective. *Sustainability*, 10(8), 2611-2611. doi:10.3390/su10082611
- Sheth, C. R., & Poojara, J. (2019). Sustainability Reporting and Firm Performance: A Case Study of Energy Utility Companies. *CLEAR International Journal of Research in Commerce & Management*, 10(5), 1-6. Retrieved from <https://ezproxy.aut.ac.nz/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=137838185&site=eds-live>
- Skellerup Holdings Ltd. (2019). Annual Report. Retrieved from https://www.skellerupholdings.com/Reports/Skellerup_FY19_Annual_Report.pdf
- Skouloudis, A., Evangelinos, K., & Kourmoussis, F. (2010). Assessing non-financial reports according to the Global Reporting Initiative guidelines: evidence from Greece. In (Vol. 18, pp. 426-438).
- Stanwick, P. A., & Stanwick, S. D. (1998). The Relationship Between Corporate Social Performance, and Organizational Size, Financial Performance, and Environmental Performance: An Empirical Examination. *Journal of Business Ethics*, 17(2), 195-204. doi:10.1023/A:1005784421547
- Sustainable Business Council. (n.d.). Retrieved from <https://www.sbc.org.nz/about/how-we-work>
Retrieved on 21st April 2020
- Syed, J., & Özbilgin, M. (2009). A relational framework for international transfer of diversity management practices. *International Journal of Human Resource Management*, 20(12), 2435-2453. doi:10.1080/09585190903363755
- Synlait Milk Limited. (2019). Annual Report. Retrieved from <https://www.synlait.com/wp-content/uploads/2019/09/Synlait-Milk-Annual-Report-2019.pdf>

- Talati, Z., Grapes, C., Davey, E., Shilton, T., & Pettigrew, S. (2020). Implementation Outcomes Following Participation in a Large-Scale Healthy Workplace Program Conducted Across Multiple Worksites. *American Journal of Health Promotion*, 34(5), 512-519. Retrieved from <https://ezproxy.aut.ac.nz/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=s3h&AN=143230102&site=eds-live>
- Talbot, D., & Boiral, O. (2018). GHG Reporting and Impression Management: An Assessment of Sustainability Reports from the Energy Sector. *Journal of Business Ethics*, 147(2), 367-383. doi:10.1007/s10551-015-2979-4
- The a2 Milk Company Ltd. (2019). Annual Report 2019. Retrieved from https://thea2milkcompany.com/wp-content/uploads/The-a2-Milk-Company_FY19-Annual-Report_double-pages-1.pdf
- The World Business Council for Sustainable Development. (2010). Vision 2050 Refresh. Retrieved from <https://www.wbcsd.org/Overview/About-us/Vision-2050-Refresh>
Retrieved on 20th April 2020
- Thum-Thysen, A., Voigt, P., Bilbao-Osorio, B., Maier, C., & Ognyanova, D. (2017). Unlocking Investment in Intangible Assets [Discussion Paper]. *European Economy*. doi:10.2765/71516
- UNESCO. (n.d). UNESCO's Commitment to Biodiversity. Retrieved from <https://en.unesco.org/themes/biodiversity>
- United Nations. (2011). *Guiding Principles on Business and Human Rights*. Retrieved from https://www.ohchr.org/documents/publications/guidingprinciplesbusinesshr_en.pdf
- United Nations. (n.d). Sustainable Development Goals Retrieved from <https://www.un.org/sustainabledevelopment/sustainable-development-goals>
- van Knippenberg, D., De Dreu, C. K. W., & Homan, A. C. (2004). Work Group Diversity and Group Performance: An Integrative Model and Research Agenda. *Journal of Applied Psychology*, 89(6), 1008-1022. doi:10.1037/0021-9010.89.6.1008
- Wellington Drive Technologies Ltd. (2019). Annual REport. Retrieved from <https://www.wdtl.com/img/Wellington%20Annual%20Report%202019%20-%20final%20-%20web%20ready.pdf>
- World Commission on Environment and Development (WCED). (1987). *Our Common Future*. Retrieved from <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf> Retrieved on 02nd May 2020

www.globalreporting.org. (n.d). The Power of Sustainability Reporting. Retrieved from <https://www.globalreporting.org> retrieved on 18th April 2020