GOING GREEN: THE IMPACT OF INTEGRATED SUSTAINABILITY REPORTING WITHIN JSE COMPANIES

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BY

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DECLARATION

By submitting this dissertation electronically, I declare that the entirety of the content contained therein is my own original work, and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

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J E Nkosi Date

ABSTRACT

The world is threatened by the possibility of an irreversible catastrophe that many would blame on the environmental impact of the present lifestyle, the results of which are climate change or global warming. This is clearly unacceptable to both present and future generations. If going green really means changing the way we live and pursuing knowledge and practices that can lead to more environmentally friendly and socio-ecologically responsible decisions, it is time to protect the environment and sustain its natural resources for current and future generations. Integrated sustainability reporting should be viewed as a vehicle to accomplish this global agenda of going green beyond mere legal requirements.

The purpose of this study was to investigate the impact of integrated sustainability reporting (ISR) on achieving green business status within JSE listed companies. To achieve the purpose, an in-depth literature study and empirical research were undertaken using a triangulation method. After a detailed descriptive and content analysis of the collected primary and secondary data, the study found the following:

- Most of the JSE listed corporations' integrated reports are not utilising the CSR, GRI guidelines and voluntary standards as effective tools to drive the process of green sustainable business. Some of the JSE listed organisations are treating financial and non-financial matters as separate issues in their integrated reports.
- The ISR has no impact in terms of using the NEMA framework in driving the process of green sustainable business in the JSE listed organisations.
- Most of the JSE listed organisations were fully aware of ecological sustainability as a pillar to drive the process of green sustainable business. They treat this pillar of sustainable development as a separate entity from socio-economic developmental issues. Most of the JSE listed corporations adhere to all the bylaws and regulations of ecological sustainability within their required certification of ISO 14001 standards in order to remain effectively certified by the auditing authority.

- Some integrated reports indicated much support for staff in terms of health, educational activities, labour laws and programmes that advance the socio-economic aspects of human beings.
- The study has found that the social pillar of sustainability is mostly supported by JSE listed organisations in South Africa - to the level of the requirements of labour relations legislation. It is not integrated with sustainability policies beyond the statutory requirements.
- It was further noticed in this study that integrated sustainability reports, based on the Global Reporting Initiative (GRI) principles and the King III reporting guidelines, disclose outcomes and results regarding the JSE listed organisations' obligations, strategy and management approach which occurred within the reporting period.

To address the above-listed findings, the researcher recommended that the JSE listed organisations integrate the NEMA, EMS, CSR, GRI and King III guidelines in their integrated sustainability reporting, in order to produce an effective sustainable green business in South Africa that is ecologically accountable and socio-economically supportive to all multi-stakeholders. The government and non-governmental organisations are the key players to drive the process of going green using the ISR. The government needs more structured policies and regulations that will support the National Development Plan in the pursuit of green economy in the form of grants and incentives that are beyond the present status quo.

Key words: Business, Corporations, Green, Sustainability, Reports and South Africa

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

TABLE PAGE

ABBREVIATIONS

ASISA	Association for Savings and Investment of South Africa
CERES	Coalition for Environmentally Responsible Economies
CSR	Corporate Social Responsibility
EMS	Environmental Management System
GDP	Gross Domestic Product
GRI	Global Reporting Initiatives
ICGN	International Corporate Governance Network Statement and Guidance on Non-financial business reporting
IIRC	International Integrated Reporting Council
IoDSA	Institute of Directors in Southern Africa
IR	Integrated Reporting
IRC	Integrated Reporting Committee
IRCSA	Integrated Reporting Committee of South Africa
ISO	International Organization for Standardization
ISR	Integrated Sustainability Reporting
JSE	Johannesburg Stock Exchange
JSE SRI	Johannesburg Stock Exchange Sustainability Reporting Index
NDP	National Development Plan
NEMA	National Environmental Management Act
NGO	Non-Governmental Organisation
OECD	Organisation for Economic Co-operation and Development
SABS	South African Bureau of Standards
SAICA	South African Institute of Chartered Accountants
SRG	Sustainability Reporting Guidelines
UNCED	Report of the United Nations Conference on Environment and Development
UNEP	United Nations Environment Program
WBCSD	World Business Council for Sustainable Development
WCED	World Commission on Environment and Development
WTO	World Trade Organization

CHAPTER ONE

GENERAL INTRODUCTION

1.1 Setting the scene

In South Africa, the Johannesburg Stock Exchange (JSE) listed corporations have been publishing annual integrated reports representing their financial strengths or upcoming projects for many years. The predicament of such integrated reports, however, has been highly observable: they were only indicating the financial matters of the corporation without much reflection on their green economic status (King III, 2010: 25). The corporate world demands a balance between finances and green aspects of any business.

The JSE listed corporations were required to adopt integrated sustainability reporting from years commencing on or after 1 March 2010 (King III, 2009: 15). Buys and Hindly (2012: 1249) state that the main objective of an integrated sustainability report (ISR) is to concisely inform the JSE listed organisation's multiple stakeholders about the corporation and its strategy and risks, linking its financial standing and sustainability performance in a way that gives stakeholders a holistic view of the organisation and its future plans.

The rubrics of the game have been changed by the green socio-economic factors that are embedded in the green sustainable development pillars. The world wants comprehensive business perspectives such as green management, green marketing, green products and services, and holistic business approaches that have been introduced in the green business spheres (Grundey & Zaharia, 2008: 122; Belz & Peattie, 2009: 56; Orange, 2010: 30).

Therefore, the purpose of this study was to investigate the impact of integrated sustainability reporting (ISR) on achieving green business status within JSE listed companies. Many of these companies have reported green sustainability status in their annual integrated sustainability reports without any research audits to assess their "holistic integrated approach" towards achieving a sustainable development standing (IoDSA, 2010: 45; Oates, 2010: 145). In this study, the more than 340 JSE listed companies (JSE Limited, 2013) were assessed as to whether they adopted ISR or not. If adopted, how effective was the holistic approach towards achieving green business status? If the ISR was effective in terms of moving towards achieving green business standing, then what could be the weaknesses and strengths related to this change?

The driver for ISR was the King Code of Governance Principles for South Africa (King III, 2009: 15), which became a JSE listing requirement. South African private and state-owned companies were positive and proactive in adopting ISR (Solomon & Maroun, 2012: 9). Veltri and Nardo (2013: 42) agree that the aim of ISR is to give a holistic view of an organisation, by putting its performance and strategy in the context of its relevant socio-economic and environmental issues. Most importantly, ISR includes forward-looking information to allow stakeholders to make a more informed assessment of the future of a company, as well as of how the organisation is dealing with its sustainability risks and opportunities (Deloitte, 2012: 98).

Magee, Scerri, James, Thom, Padgham, Hickmott and Cahill (2013: 229) define ISR as the practice of gauging financial and non-financial matters in one report, disclosing sustainability and brown issues to the public, and being answerable to internal and external multiple stakeholders for organisational performance towards the goal of going green. Zokaei, Lovins, Wood and Hines (2013: 55) support their definition by citing that ISR is a comprehensive concept considered tantamount to others used to describe integrated reporting on economic, cultural, political, ecological and social impacts. In this study, an integrated sustainability report is viewed as one document or one report which provides a well-balanced and reasonable representation of the integrated sustainability performance of an organisation that includes both positive and negative contributions (Stubbs, Higgins & Milne, 2013: 30).

Integrated sustainability reports, based on the GRI reporting framework and the King III reporting guidelines, disclose outcomes and results regarding the organisation's commitments, strategy, and management approach that occurred within the reporting period (GRI, 2011: 5; King III, 2010: 14). According to the Sustainability Reporting Guidelines (SRG, 2011: 6) and the South African Institute of Chartered Accountants (SAICA, 2012: 8), the integrated sustainability reports can be used, among others, for the following purposes:

- Benchmarking and assessing integrated sustainability performance with respect to laws, norms, codes, performance standards and voluntary initiatives;
- Demonstrating how the organisation influences and is influenced by expectations about sustainable development;
- Comparing performance within an organisation and between different organisations over time;
- Providing greater clarity about the relationship between financial and non-financial key performance indicators;
- Making better management decisions; and
- Creating deeper engagement with multi-stakeholders within and beyond the surrounding communities.

1.2 Background to the study

The King III sustainability reporting guidelines clearly state that the attainment of best practice in sustainability and integrated reporting is only possible if the top management of a company holds the view of integrated sustainability performance and reporting (King III, 2009: 5; ICGN, 2009: 45; King III, 2010: 7). There is a paradigm shift in the business world today, especially in the green sustainable business mind-set, that “it is not the strongest or the most intelligent who will survive but those who can best manage change”. There are four dimensions that fast-track the pace of this green economic shift. They are globalisation, structured civil society, information technology and communiqué and, now, a lack of trust (Azam, Warraich & Awan, 2011: 53). These pillars are embedded in the sustainability approaches of doing green business that go beyond compliance with environmental management systems, safety and health requirements, quality standards, social responsibility procedures and reporting guidelines (Rafiq, 2009: 15; Robert, 2007: 89).

Hopwood, Unerman and Fries (2010: 68) refer to ISR as a document, either online or hardcopy, which covers the combined representation of financial or non-financial results of the JSE listed companies' performance. In South Africa, the King III Code on Governance, released in September 2009, strongly recommends that organisations produce an integrated sustainability report.

It was noted by the Integrated Reporting Committee (IRC, 2010), the Association for Savings and Investment SA (ASISA, 2010), Business Unity South Africa (BUSA, 2010), the Institute of Directors SA (IoDSA, 2011), JSE Limited (2011) and the South African Institute of Chartered Accountants (SAICA, 2011) that integrated sustainability reports should be declared mandatory for public companies listed on the JSE.

1.3 The nature of the research problem

The purpose of this study was to investigate the impact of integrated sustainability reporting (ISR) on achieving green business status within JSE listed companies. According to King III (King III, 2010: 25) and GRI guidelines (GRI, 2010: 68), these companies should be assessed internally to evaluate their ethics, values and governance, and externally to improve the trust and confidence of stakeholders that they are moving towards green business or explain why they are not reaching the goals of sustainable development dimensions.

Cooneys (2009: 145) and Rennie (2008: 99) affirm that a business that is going green always strives to meet the triple bottom line and beyond. Becker (2008: 25) also supports the idea of green business by stating that sustainable businesses have unbiased environmental and human rights integrated policies. Therefore, in this study, business was described as going green if it matched the following six critical criteria as described by Tueth (2010: 18), Meyer (2010: 2) and Sneirson (2009: 33):

- Triple top-line value production;
- Nature-based knowledge and technology;
- Products of service to products of consumption;
- Solar, wind, geothermal and ocean energy;

- Local-based organisations and economies; and
- Continuous improvement process.

1.4 The problem statement

1.4.1 The main problem

The impact of integrated sustainability reporting on business practice within the JSE listed companies is unknown.

1.4.2 The sub-problems

- *Proposition1:* the impact of integrated sustainability reporting towards achieving green business status that respects the environmental impact beyond EMS ISO 14001 standards is unknown.
- *Proposition 2:* the impact of ISR on achieving green business that respects social responsibility of ISO 26000 is unknown.
- *Proposition 3:* the impact of ISR on achieving green business that complements economic responsibility programmes and projects is unidentified.
- *Proposition 4:* the impact of ISR on financial and non-financial issues within JSE corporations is unknown.

1.5 The objectives of the research

This study was aimed at investigating the impact of integrated sustainability reporting towards achieving the ecological, social and economic sustainability (green business status) within the JSE listed companies.

To realise this aim, the following objectives were pursued:

- Establishment of the impact of ISR on achieving green business status that respects the environmental impact beyond ISO 14001 standards;
- Investigation of the impact of ISR on achieving green business that respects social responsibility of ISO 26000 and beyond;

- Investigation of the impact of ISR towards achieving green business that respects economic responsibility programmes and projects;
- Investigation of the impact of one reporting approach (financial and non-financial issues) in terms of benefiting green businesses that are listed on the JSE;
- Determination of the views and perceptions of senior managers regarding the impact of ISR on achieving green business status;
- Identification of any future research necessary to achieve effective, integrated sustainability reporting which targets green business; and
- Development of a classical questionnaire that JSE listed companies and other institutions can use to assess the impact of ISR on achieving green sustainable business.

1.6 Assumptions

This study was approached according to assumptions, based on the related literature review of Smith & Perks (2010); Hahnel (2010); Reinhardt (1999); Kneal (2002) and Stewart (2010), as indicated below:

1.6.1 The positive impact of integrated sustainability reporting towards achieving green business will protect the environment beyond ISO 14001 voluntary standards.

- An ecologically green business will limit the use of non-renewable natural resources in such a way that it does not go beyond the provision of substitutes. Such a green business will fully support and contribute towards environmental programmes and projects of green economy.
- A sustainable green business will decrease the atmospheric pollution, water pollutants and poisonous waste to ensure that emissions do not surpass the environment's absorptive capacity. It will positively support and donate to programmes and projects that reduce ecological impact inside and outside the business. Service businesses will only support businesses that are going green.

1.6.2 Real, integrated sustainability reporting (holistic approach) towards achieving green business will respect social responsibility of ISO 26000 and beyond.

- An active green business that goes beyond the ISO 26000 standard will fully support green programmes that reconstruct society in terms of the distribution of wealth through funds to ensure both the participation of the poor and their access to social development.
- A positive green sustainable business will promote and support social service programmes and projects that are consistent with sustainable development.

1.6.3 A positive integrated (holistic) sustainability reporting approach towards achieving green business will promote green economic programmes and projects.

- An effective green organisation will cooperate with other JSE corporations to promote gender equity, economic growth and human skills development.

1.6.4 An effective sustainability reporting approach (financial and non-financial issues) can benefit businesses that are listed on the JSE. The following are perceived to be the benefits of the green organisation (Asif, Searcy, Santos & Kensah, 2013: 322; Quinn & Strategy, 2013: 45):

- Reduced energy operating costs and improved green economy efficiencies;
- Advancement of green innovative products and services for access to new markets;
- Enhanced sustainability of green economic activities;
- Recruitment and retention of people who respect green economy;
- Advancement of national respect of green economy; and
- Reduced brown economic liabilities through unified risk management activities.

1.7 The significance of this study

This study is significant for JSE listed organisations, non-governmental organisations and multiple stakeholders who are directly or indirectly involved with integrated sustainability reporting. Such corporations stand to gain knowledge of using sustainability reporting guidelines to assess their green business status. They will further use the results and the designed questionnaire to evaluate the impact of integrated sustainability reporting towards achieving sustainability status.

The green corporations that are already engaged in these integrated sustainability reporting approaches will benefit further from this study, because they will be able to assess their image and achievements against a global approach. They can improve their performance by sharing their ideas with other green organisations that look beyond voluntary standards. The greatest risk of not going green is damaging the planet irreversibly.

1.8 Salient concepts

- Integrated sustainability reporting (ISR) refers to the integrated demonstration of JSE listed organisations' performance in terms of both financial and non-financial results. ISR further provides greater context for performance data, clarifies how sustainability fits into operations or a business and may help to entrench going green into company decision-making (Frias-Aceituno, Rodríguez-Ariza & Garcia-Sánchez, 2012: 57).
- King Report on Corporate Governance is a ground-breaking code of corporate governance in South Africa, issued by the King Committee on Corporate Governance (Andreasson, 2011: 648). Three reports were issued, namely King I (1994), King II (2002) and King III (2009). Compliance with the King Reports is a requirement for companies listed on the Johannesburg Stock Exchange. The King Report on Corporate Governance has been cited by other researchers as "the most effective summary of the best international practices in corporate governance" (Masunda, 2013: 21).
- JSE Limited (previously known as the Johannesburg Stock Exchange) is the largest stock exchange in Africa. It is situated at the corner of Maude Street and Gwen Lane in Sandton, Johannesburg, South Africa. The JSE is presently the 16th largest stock exchange worldwide (JSE Limited, 2013).
- Global Reporting Initiative (GRI) produces one of the world's most prevalent standards for sustainability reporting - also known as "ecological footprint reporting, Environmental Social Governance (ESG) reporting, Triple Bottom

Line (TBL) reporting and Corporate Social Responsibility (CSR) reporting" (Wikipedia, 2012:4). Integrated sustainability reporting is a form of value reporting where a JSE listed organisation publicly communicates its economic, environmental and social performance. GRI seeks to make integrated sustainability reporting by all organisations as routine, and comparable to financial reporting (Hess, 2014: 26).

- Ecological footprint is a measure of human demand on the earth's ecosystems (Wikipedia, 2012). It is a standardised measure of demand for natural capital that may be contrasted with the planet's ecological capacity to regenerate (Wackernagel, 2014: 22).
- Corporate Social Responsibility (CSR), also called "corporate conscience, corporate citizenship, social performance, or sustainable responsible business, is a form of corporate self-regulation integrated with a business model" (Thomas, 2014: 48). CSR policy functions as a built-in, self-regulating mechanism by which a corporation monitors and ensures its active compliance with the spirit of the law, ethical standards and international norms (Servaes & Tamayo, 2013: 1046).
- Triple Bottom Line (TBL or 3BL), also known as people, planet, profit (or the three pillars), captures an expanded spectrum of values and criteria for measuring organisational and societal success (Wikipedia, 2012; Halpern, Klein, Brown, Beger, Grantham, Mangubhai & Possingham, 2013: 6230).
- Socially responsible investing, also known as "sustainable, socially conscious, or ethical investing, describes an investment strategy which seeks to maximise both financial return and social good" (Chandler & Werther, 2013:25). Socially responsible investors favour "corporate practices that promote environmental stewardship, consumer protection, human rights, and diversity" (Di Giuli & Kostovetsky, 2014: 166).
- Social accounting, also known as "social and environmental accounting, corporate social reporting, corporate social responsibility reporting, non-financial reporting, or sustainability accounting" (Patten, 2013: 18). It is the "process of communicating the social and environmental effects of organisations' economic actions to particular interest groups within society and to society at large" (Malsch, 2013: 158).

- Self-reporting and third party audits - In most countries existing legislation only regulates a fraction of accounting for socially relevant corporate activity (Meyer, 2012: 25). Accordingly, most available social, environmental and sustainability reports are produced voluntarily by organisations and often resemble financial statements (Christofi, Christofi & Sisaye, 2012: 158). While JSE listed companies' efforts in this regard are usually much-admired, there seems to be a tension between voluntary reporting and accountability, for companies are likely to produce integrated sustainability reports favouring their interests (Reimsbach & Hahn, 2013: 22).
- Environmental, Social and Corporate Governance (ESCG) describes the three main areas of concern that have developed as the central factors in measuring the sustainability and ethical impact of an investment in a green company or green business (Yudelson & Meyer, 2013: 52). Within these three areas, a broad set of concerns is increasingly being included in the non-financial factors that figure in the valuation of equity, corporations and all fixed-income investments (Ten Brink, 2011: 11). ESCG is the catch-all concept for the criteria used in what has become known as socially responsible investment (Epstein & Buhovac, 2014: 15).

1.9 Outline of the thesis

Chapter One of this thesis introduces the research to the reader and discusses the research problem statement and objectives of this study. Chapter One also explains the assumptions.

Chapter Two describes the concepts of integrated sustainability reporting, integrated holistic reporting, the King Report on Corporate Governance, the Global Reporting Initiative, corporate social responsibility, sustainable business or green economy, and triple bottom line in depth. It further builds the framework of ecological, social and economic sustainability.

Chapter Three narrows the concept of the King Report on Corporate Governance which can be used by JSE listed companies when moving towards green business status. This chapter also discusses the ISO 14001 standard, the ISO 26000 standard and guidelines to integrate the systems beyond the set standards.

Chapter Four discusses the research methodology and the research design. The research instruments and the formulation of questions, in respect of studying the impact of integrated sustainability reporting towards green business, form the pillar of Chapter Four. A discussion of the reliability and validity of the research instruments closes Chapter Four.

Chapter Five presents the results and deals with the descriptive analysis of the collected data. This chapter closes with the assessment of the tabulated results.

Chapter Six discusses the findings, conclusions and recommendations concerning the positive or negative impact of integrated sustainability reporting on achieving green business. Possible opportunities for further research in the field of integrated sustainability reporting are discussed in this chapter

1.10 Summary of Chapter One

Chapter One set the scene for this study. It began with the problem statement of the research. The purpose, aim and the objectives of the research were also discussed in this chapter. Finally, the outline of all the chapters of the study was provided towards the end of this chapter.

Chapter Two discusses in detail the concepts of integrated sustainability reporting, the Global Reporting Initiative and the King Report on Corporate Governance. It further explains green sustainable business, the pillars of sustainable development in green business, the JSE listed companies in South Africa and the effect of integrated sustainability reporting on achieving green business.

CHAPTER TWO

AN OVERVIEW OF INTEGRATED SUSTAINABILITY REPORTING

"Sustainability is built into the way we do business, and an integrated review and sustainability report allows us to offer a more complete view of the company to multi-stakeholders" (Nooitgedagt, 2011: 2).

2.1 Introduction

Integrated sustainability reporting has increasingly become more important to business research and practice over the past few years as a result of rapid depletion of natural resources and concerns over prosperity, disparities and corporate social responsibility (Lodhia, 2013: 73). This study viewed integrated sustainability reporting (ISR) as the practice of being answerable to multi-stakeholders for organisational performance towards meeting the objective of going green and beyond (Sharma & Singh, 2013: 22). Stead and Stead (2013: 274) support this argument by citing that integrated sustainability reporting is an inclusive term considered identical with others used to describe reporting on economic, political, environmental and social impacts that support green economy. In short, an integrated sustainability report is one document which provides a collected and realistic representation of the financial standing and sustainability performance of JSE listed organisation that includes both positive and negative impacts towards green economy (Morrow, 2012: 280); Manetti & Toccafondi, 2012: 365; Roy, 2013: 45).

Incorporated sustainability reports, based on the Global Reporting Initiative (GRI) framework and the King III reporting guidelines, disclose outcomes and results regarding the organisation's obligations, strategy, and management approach that occurred within the reporting period of green business (GRI, 2011: 5; King III, 2010: 14). The aim of this study is to assess the impact of integrated sustainability reporting (ISR) on achieving green business status within the JSE listed companies. In order to explore the impact of integrated sustainability reporting within the JSE listed companies in South Africa, this chapter will discuss in detail the integrated sustainability reporting and the global reporting initiative that are forming one integrated holistic report.

It will further advance the knowledge of the global reporting initiative towards achieving green economy, and the King III reporting on corporate governance within the context of green business. Chapter Two will further elucidate the pillars of sustainable development in green business and the impact of these dimensions on green economy. Finally, it will describe the JSE listed companies in South Africa and the influence of integrated sustainability reporting on achieving green business in these corporations.

2.2 Integrated sustainability reporting

In contrast to financial and non-financial reporting aspects (McElroy & Van Engelen, 2012: 31), the history of integrated sustainability reporting (ISR) is fairly recent (Sharma, 2013: 189). The proposition that organisations, in particular, should supplement their financial accounting with accounting on their social, economic and environment performances which was first noted in the 1990s, will accelerate the progress towards green business status (Wells, 2013: 35). During the time of the 1992 UN Conference on Environment and Development (UNCED) in Rio de Janeiro, comparatively few JSE listed corporations were engaged in sustainable development in any form towards green business. Bachoo, Tan and Wilson (2013: 75) confirmed that the conference responded to the mass media attention to social aspects, economic growth activities and environmental impacts by agreeing with participants that most integrated sustainability reports should focus on sustainable development dimensions and practices in the near future.

Concurrently, calls for integrated sustainability reporting initially stemmed from advocacy groups and investors (Weybrecht, 2010: 17), as well as some business leaders (Veltri & Nardo, 2013:45). Governments played a significant role in officially identifying the importance of these new pillars of integrated sustainability reporting towards green business status (Baumgartner & Winter, 2013: 78). It is often overlooked that integrated sustainability reporting was precisely documented by the world's governments in Agenda 21, one of the main outcomes of the UNCED conference (Van Genderen, 2013: 2). During the conference in Rio de Janeiro, held between the 3rd and 14th June 1992, it was officially agreed that "Business and industry, including transnational listed corporations, should be encouraged to report annually on their sustainability records, as well as on their use of energy and natural resources" (Orr, et al., 2014: 68).

Jones (2012: 99) noted that during the past decades between UNCED and the 2002 World Summit on Sustainable Development (WSSD), a number of initiatives were undertaken to discover and advance integrated sustainability reporting towards green sustainable business. The most notable was the Global Reporting Initiative (GRI), which was launched in 1997 as a pilot project: it was a multi-stakeholder initiative to design a structure that could make reporting on an organisation's economic, social and environmental performance as routine and accepted as part of financial reporting (Brown, De Jong & Lessidrenska, 2009: 183).

Van Marrewijk (2013: 642) declares that when GRI was formally launched in April 2002, more than two hundred pioneering corporations were using the GRI framework to report annually on their sustainable development policies and practices implemented to achieve green business standing. Turk, Shackleton and Whittington-Jones (2013: 76) agreed that, by the time of the World Summit on Sustainability, the concept had sufficiently matured for different regimes to officially identify both integrated sustainability reporting and the role of GRI towards a holistic approach.

During the Johannesburg sustainability conference, known as the "Plan of Implementation", attendees noted that enhancing corporate environmental, and economic growth, social responsibility and accountability could be accomplished by actions at all levels of management to encourage green industry in order to improve voluntary initiatives (Clémençon, 2012: 315). These corporations on achieving green economy will include environmental management systems, ISR, codes of conduct, certification and public reporting on environmental impacts and social issues in their strategic objectives (GRI, 2012: 25).

Guthrie, Cuganesan and Ward (2012: 24) note that the decision to pursue a voluntary approach to integrated sustainability reporting at that point was not generally supported by many organisations. They further state that many non-government organisations (NGOs) argued that effective corporate transparency and accountability could only be achieved through binding national legislation based on an international treaty. The most vital outcome of these misleading arguments did not succeed for a number of reasons (Epstein & Buhovac, 2014: 77), including the fact that financial reporting, while not voluntary, was largely based on set standards developed by professional organisations, and not legislation (Frias-Aceituno, et al., 2012: 44). The decision was made to explore the potential and flexibility of voluntary integrated sustainability reporting. Integrated sustainability reporting was a fairly new field to research (Van Kerkhoff, 2014: 11).

Fast-tracking the process, at the start of 2012, it was clear that the concept of integrated sustainability reporting was firmly lodged as a desirable and progressively mainstream practice in key segments globally (Niccols, Milligan, Sword, Thabane, Henderson & Smith, 2012: 10). The fundamental proposition of integrated sustainability reporting is the progress towards achieving a green economy or green sustainable business. It was also clear that sustainable development cannot be achieved unless information is disclosed on the economic, social and environmental impacts and performance of businesses (Woo, Chung, Chun & Seo, 2014: 7420). It extensively recognised that, together with financial information, sustainability information is essential if regulators, companies, investors and the wider multi-stakeholders are to be able to measure and understand an organisation's contributions towards green business standing (Smith, et. al., 2012: 2089).

Calabrese, Costa, Menichini, Rosati and Sanfelice (2013: 37) write that the most current evidence of development in the field of integrated sustainability reporting is set out in the European Commission's Communication on Corporate Social Responsibility, published on 25 October 2011. They further confirm that the communication notes that disclose social issues and environmental information, including climate change related information, are entrenched in the section entitled "Improving company disclosure of social and environmental information" of the integrated sustainability report.

Integrated sustainability reporting to achieve green business status may be viewed as a means of legitimising a company to its multi-stakeholders (Lorek & Spangenberg, 2014: 36), as companies seek to encourage society that they have multi-stakeholders' interests at heart and that they share common objectives with them (Rimmel & Jonäll, 2013: 4). Aktas, Kayalidere and Kargin (2013: 113) discuss that the academic literature has taken a relaxed view of integrated sustainability reporting, with some researchers interpreting corporate attempts to legitimise business activities as rhetoric. They further debate that integrated sustainability reporting may be perceived as the outcome of "social constructivism" where the discourse within the accounts is constructed for rhetorical and political purposes without considering much of the green economy or sustainable business.

There are also concerns by Du Toit and Buys (2013: 179) that integrated sustainability reporting may have been coined by corporations in an attempt to gain beneficial control. An important outcome of research into socio-economic activities and environmental reporting is the belief that the act of corporate reporting on integrated sustainability has the potential to influence and transform business performance, but this potential may not always be achieved by businesses that are not green in their operations (Renfro, 2010: 41).

Ioannou and Serafeim (2011: 39) say that, in spite of the significant and recent growth in integrated sustainability reporting, the latest evidence still suggests that only 21% of listed companies worldwide report any sustainability information towards green business. Arnold, Bassen and Frank (2012: 87) support this argument by saying that the potential shift from sustainability reporting to integrated reporting presents a significant opportunity for companies to implant social, economic and environmental issues into the primary corporate integrated reporting mechanism.

An integrated sustainability report should ultimately replace all other forms of corporate reporting and should represent the primary vehicle for communicating with shareholders and other stakeholders who believe in sustainable business (IIRC, 2011: 14). The development of integrated sustainability reporting has accelerated significantly in the past few years and from that progress have emerged specialist terminology and a series of definitions of integrated sustainability reporting

(Bonacchi, Perego & Ravagli, 2012: 25). King III (2009: 8) defines integrated sustainability reporting as "a holistic and integrated representation of the company's performance in terms of both its finance and its sustainability". This study is in favour of Mervyn King's view of integrated sustainability reporting as one report which includes both financial and sustainability disclosure to multi-stakeholders.

An integrated sustainability report is not simply an amalgamation of the financial statements and the sustainability report of organisations who want to move towards green business. It incorporates, in clear language, material information from these and other sources to enable multi-stakeholders to evaluate the organisation's performance and to make an informed assessment about its ability to create and sustain value (Brockett & Rezaee, 2012: 142). Servaes and Tamayo (2013: 66) support the idea that an integrated sustainability report should provide multi-stakeholders with a concise overview of an organisation, integrating and connecting important information about strategy, risks and opportunities that relate to social, environmental, economic and financial issues. By its very nature, an integrated sustainability report cannot simply be a reporting by-product or service. It needs to flow from the heart of the JSE listed organisation and it should be the organisation's primary report to multi-stakeholders (IRCSA, 2011: 1).

The IIRC (2011: 19) states that integrated sustainability reporting brings together material information about an organisation's strategy, governance, performance and prospects in a way that reflects the commercial, social and environmental context within which it operates. Smith and Perks (2010: 45) say that an integrated sustainability report provides a clear and concise representation of how an organisation demonstrates stewardship and creates value, now and in the future (Stubbs & Higgins, 2014: 1070), while it moves towards becoming a green business. An integrated sustainability report combines the most material elements of information currently reported in separate reporting aspects in a coherent way. As a tool to move towards green sustainable business, it indicates the connectivity between these aspects and explains how they affect the ability of an organisation to create and sustain value in the short, medium and long term (IIRC, 2011: 6).

The IIRC has produced a discussion paper with the aim of creating a forum for international institutional collaboration in order to establish a road-map for the further evolution of integrated sustainability reporting (IIRC, 2011: 45). The IIRC (2011: 9) sets out a number of guiding principles that should support integrated sustaining reporting. These principles are: strategic focus, connectivity of information, future orientation, responsiveness and stakeholder inclusiveness, conciseness, reliability and materiality.

2.3 Global Reporting Initiative

The Global Reporting Initiative (GRI) was established in 1997 by the Coalition for Environmentally Responsible Economies (CERES) in cooperation with the Tellus Institute (Levy, Brown & De Jong, 2010: 90). To develop the framework, CERES established a "Global Reporting Initiative" project department (Vigneau, Humphreys & Moon, 2014: 12). The objective was to create an accountability mechanism to ensure companies were following the CERES principles for responsible environmental performance (Levy & Brown, 2011: 129). Wilburn and Wilburn (2013: 67) state that the multi-stakeholder Steering Committee was established in 1988 to develop GRI's guidance.

The fundamental mandate of the Steering Committee was to do more than the environment (Lozano, 2013: 59). On this advice, the framework's scope was broadened to include social matters, economic growth issues, environmental impact concerns and governance challenges that will assist JSE listed organisations to move towards green business status (Ge, 2014: 120). The GRI's guidance became a Sustainability Reporting Framework, with Reporting Guidelines at its core (Na, Bustami, Reeyaal A'mmaari & Nasruddin, 2013: 15).

Marimon, Almeida, Rodríguez and Cortez Alejandro (2012: 33) confirm that the first version of the Guidelines was launched in 2000 and the second generation of Guidelines, known as G2, was unveiled in 2002 at the World Summit on Sustainable Development in Johannesburg. GRI was referenced in the World Summit as the "Plan of Implementation". The United Nations Environment Program (UNEP) embraced GRI and requested UN member states to host it (Forbes & McIntosh, 2011: 199). The Netherlands was selected as host country (Junior, Best & Cotter, 2014: 9). In 2002, GRI was officially inducted as a UNEP collaborating organisation in the presence of then UN Secretary General, Mr. Kofi Annan, and relocated to Amsterdam as an autonomous non-profit organisation (Hilson, 2012: 56).

The acceptance of GRI's guidance was improved by the 2006 launch of the existing generation of Guidelines, G3 (Toppinen & Korhonen-Kurki, 2013: 40). Sector-specific guidance was produced for diverse industries in the form of sector supplements, known as "Sector Guidelines". Toppinen, Li, Tuppura and Xiong (2012: 141) confirm that the GRI's outreach was reinforced by its bi-annual Amsterdam Conference on Sustainability and Transparency at the beginning of 2006, and its third conference in May 2010 attracted over 1,200 representatives from 77 countries.

In March 2011, GRI published the G3.1 Guidelines and updated the completion of G3, with expanded guidance on reporting gender, community and human rights related performances (Lamborghini & Sukoharsono, 2013: 7). From its foundation, the GRI has possessed a mission "to enhance responsible decision making by promoting international harmonisation in reporting relevant and credible corporate economic, environmental, and social performance information" (GRI, 2011: 15). So far, the GRI has developed and published reporting guidelines based upon the broad TBL concept first developed by Elkington in 1998 and integrated the G3 guidelines with ISO 26000 (GRI, 2010: 7).

From the time when the issuance of its "Exposure Draft of GRI Sustainability Reporting Guidelines" in 1999 through to its publication of revised G4 Guidelines in May 2013, the GRI has attempted to provide a sound conceptual basis for its framework that is designed "to assist reporting organisations and their multi-stakeholders in articulating and understanding contributions of the reporting organisations to sustainable development" (GRI; 2013: 25).

Ligteringen (2013: 3) states that when you attend any world economic forum event or look at issues on the agenda of stock exchanges and regulators, it is clear that integrated sustainability reporting is definitely no longer a peripheral pursuit. He further states that 95% of the 250 largest corporations in the universe now produce an integrated sustainability report towards green business status, four out of five of which are choosing to use GRI guidelines.

Research conducted by the Governance and Accountability Institute (Herath & Freeman, 2012: 99) revealed that the number of Standard and Poor's 500 companies and Fortune 500 companies, managing and reporting performance on environmental, social, economic and governance issues, have more than doubled between 2010 and 2011. This is a clear indication that integrated sustainability reporting towards green economy has well and truly gone mainstream (De Villiers, Rinaldi & Unerman, 2014: 1044). In total, over 4,000 organisations worldwide produce integrated sustainability reports using G3 guidelines without any assessment of the impact of these reports on achieving green business status. Countries like South Africa, Brazil and China are disclosing financial and non-financial information in their integrated sustainability reports as a requirement for stock exchange listing (GRI, 2013:45).

The G3 Guidelines state three major components as follows (GRI, 2012: 56):

- Strategy and profile disclosures set the overall context for reporting and for understanding organisational performance, such as its strategy, profile, governance, and management approach;
- Disclosures on management approach cover how an organisation addresses a given set of topics in order to provide context for understanding performance in a specific area; and
- Performance indicators that elicit comparable information on the economic, environmental, and social performance of the organisation.

Dumay, Guthrie and Farneti (2010: 535) discuss the response to criticism of the GRI's "one-size-fits-all approach". To positively respond to such reproach, GRI established sector supplements for "financial services, transportation and logistics, mining and metals, public agencies, tour operators, and automotive industries" (GRI, 2012: 17). The highlighted sectors' supplements are not going to replace the G3 structure, but do address the specific issues encountered by corporations in particular industries or services (Dodds, Laguna-Celis & Thompson, 2014: 56).

In recent years a growing number of companies around the world have started reporting on issues other than those in the financial domain, in order to discharge their accountability efforts towards green business (Shi, Koh, Baldwin & Cucchiella, 2012: 55). The GRI is also recommending that companies should report information for the current period as well as two previous periods (GRI, 2012: 29). One of the general ideas with the GRI report is to provide the company with information to enable it to make continuous improvements along with the connection between the three dimensions of sustainability, namely economic, environmental and social performances (Fonseca, McAllister & Fitzpatrick, 2013: 181). The guideline is designed for use in the entire organisation, but the GRI is also accepting an incremental application of the guidelines just like the environmental management system (Wilburn & Wilburn, 2013: 66).

It is clear from the above arguments that integrated GRI is a valuable tool in moving corporations towards green business. The gap identified by this study is the impact of the holistic reporting approach towards green economy, especially for JSE listed companies which are reporting on sustainability and financial aspects without assessing the impact of these reports in terms of sustainable business status.

According to GRI (2013: 19), the next generation of the GRI Guidelines, G4, addressed the requirements for sustainability data and enable reporters of corporations to provide relevant information to multi-stakeholders. The G4 guidelines improved on content in the current Guidelines G3 and G3.1 with strengthened technical definitions and improved transparency. GRI further explains that during the G4 Public Comment Periods (PCP), the organisation invited any interested party to provide feedback on proposed revisions to the Guidelines.

It was noted by Jain (2014: 1202) that the GRI held three Public Comment Periods (PCP) in 2011. During the first period of PCP, conducted through an online survey, response on the direction GRI should take in developing G4 guidelines was gathered. During the second period of PCP, response was gathered on the G4 Exposure Draft, which presented important proposed changes for the following areas: Application Levels, Boundary, Disclosure on Management Approach, Governance and Remuneration, and Supply Chain. The additional PCP for G4

Thematic Revisions featured proposed changes to the topics of anti-corruption and greenhouse gas emissions (GRI, 2013: 12).

The results of the survey led to decision-making on the formation of working groups and possible ways forward for the G4 development process. The many positive comments received also support the working groups and secretariat during the G4 development process (GRI, 2013: 29). It is worth noting that the GRI and Sustainability Reporting Conference which was held in Amsterdam, the Netherlands, from the 22nd to 24th of May 2013 welcomed the G4 guidelines and adopted them for use as voluntary guidelines for integrated sustainability reporting (GRI, 2013: 39; Lamborghini & Sukoharsono, 2013: 16).

As the G4 guidelines were unveiled before an audience of 1,600 leaders and practitioners from around the world at the GRI's 2013 Global Conference, the audience welcomed the publication of the Guidelines as a major step towards sustainability reporting. Marina Migliorato, Head of CSR at leading Italian power company Enel, stated that: To follow a new green sustainable business model, companies need to integrate CSR into their strategy. It is a long journey, but with G4, GRI has provided organisations with breakthrough to achieve this inspiring objective (Migliorato, 2013: 89).

2.4 Corporate social responsibility

Corporate social responsibility (CSR) has been an interesting topic in the last two decades in both researchers' and practitioners' perspectives (Tyagi, 2013: 52). However, the literature lacks a common definition of the topic especially with the green business flavour (Berete, 2011: 48). Various and often no clear definitions of CSR are given in studies (Smith, 2011: 78). The contemporary era of CSR started in the 1950s (Carroll, 1999:270), but the concept itself can find its roots in the 1930s (Okoye, 2009: 620). The father of CSR, Bowen (1953: 48), was one of the first authors who attempted to define CSR. According to Bowen (1953: 50), CSR is the policies, the decisions, and the actions that align with the goals and values of society.

Recently, Ormiston and Wong (2013: 17) argued that many authors have attempted to define CSR based on their own views of the concept. There have been critiques for and against the idea of corporate social responsibility for many years (Chin, Hambrick & Treviño, 2013: 199). It means different things to different people - this will always depend on who uses the approach. CSR could mean legal responsibility or accountability, social obligation in the ethical sense, charitable contribution and being socially mindful in another view (Azmat & Ha, 2013: 260).

Cheers (2011: 72) claims that consumers may not have the ability to support companies engaging in CSR activities towards green business, because of their limited power in the open market. Accordingly, CSR initiatives are not rewarded, and the business case for CSR does not hold. Obeng-Nyarko and Grigore (2011: 24) suggest that policy-makers empower customers by providing them with more information through compulsory reporting on social, economic and environmental performance. Cominetti, Poddi and Vergalli (2012: 33) say that JSE listed organisations may be rewarded, in economic, social, environmental and financial issues, for engaging in CSR practices to a certain extent, but if they go beyond a given level of CSR investment the market will cease to reward it, unless the green business ethics are considered.

Smith (2011: 17) notes that corporate social responsibility is also called corporate conscience, corporate citizenship, social performance or sustainable responsible business, and is a form of corporate self-regulation integrated with a sustainable business model. He further states that CSR policy functions as a built-in, whereby a business monitors and confirms its active compliance with the essence of the law, ethical standards and universal norms. This study agrees with Smith that CSR is a process with the aim of embracing responsibility for the company's actions and encouraging a positive impact through its activities on the environment, society, consumers, employees, communities and multi-stakeholders.

Other researchers like Rupp, et al. (2013: 55) argue that CSR is merely a smokescreen, or an attempt to prevent the role of the government as an ombudsman over powerful multinational corporations. CSR is designated to assist an organisation's mission as well as guide what the company stands for and will uphold to its multi-stakeholders. Kemper, Schilke, Reimann, Wang and Brettel (2013: 43) maintain that development business ethics is one of the forms of applied ethics that scrutinises ethical principles and moral or ethical problems that can arise in a green business environment. Hemphill (2013: 311) explains that ISO 26000 is the recognised international standard for CSR. It is recognised that CSR follows the same principles, but without official act of regulation. The UN has established the "Principles for Responsible Investment" as guidelines for investing entities (Sievänen, Sumelius, Islam & Sell, 2013: 198).

It is clear that the world today demands sustainable development. All types of business organisations, large or small, located in developed or developing countries, assume their own social responsibilities, so as to facilitate global environmental sustainability, economic sustainability, social sustainability, cultural sustainability and political sustainability (Pitelis, 2013: 77). On the 1st of November 2010, the world witnessed a milestone in the history of global cooperation: ISO launched the first international guidance on social responsibility, called ISO 26000, which had been awaited for several years (Lee, 2014: 58).

Clause 6 of the 106 page document provides substantive guidance on seven so-called "core subjects" which include organisational governance, human rights, labour practices, the environment, fair operating practices, consumer issues, community involvement and development (Moratis, 2014: 78). Furthermore, these themes are expanded into 37 specific areas. ISO 26000 is a global response to worldwide challenges towards a green economy that supports sustainable development dimensions. ISO 26000 standards will be explained in detail in Chapter Three of this study.

Balzarova and Castka (2012: 266) outline the following sustainable benefits that fulfil the corporate social responsibilities:

- Conserve resources and protect the environment. For sustainable businesses, to advance low carbon economy, explore new energy and renewable energy, implement clean development tools are of special importance to sustain global energy security and tackle global warming.

- Advance the working conditions and the livelihood of people. Social responsibility assists a sustainable business to establish a good image and win the society's respect.
- Increase the competitive ability in the global market. ISO 26000 will take into account the environmental, social, economic and ethical performance of the company's products or services being offered towards sustainable business.
- It expedites the implementation of going green. ISO 26000 aims to assist businesses with the goal towards a good corporate citizen by contributing to the harmonious and sustained development of the society, the economy and the environment.

Boulouta and Pitelis (2013: 12) fully agree with Balzarova and Castka (2012: 45) by stating that sustainability reporting involves the conduct of a business so that it is economically profitable, law abiding, ethical and socially supportive to the green economy. To be socially responsible towards green business, means that profitability and obedience to the law are primary conditions when discussing JSE listed companies' ethics and the extent to which they support the community in which they exist, with contributions of money, time and abilities (Dartey-Baah & Amponsah-Tawiah, 2011: 133). In brief, a CSR practising sustainable organisation should strive to obey the regulations and procedures of the government it operates under, make a profit, and be socially ethical and accountable beyond the present voluntary standard compliance (Fleming, Roberts & Garsten, 2013: 338).

2.5 The King Report on Corporate Governance

The King Committee on Corporate Governance was formed in 1992, under the umbrella of the Institute of Directors, to consider corporate governance in the South African context (Abor & Fiador, 2013: 210; King II, 2002: 7). The commission was chaired by former High Court Judge, Mervyn King, who published the first King Report on Corporate Governance in November 1994 (Coetzee & Lubbe, 2013: 5). According to Maroun and Wainer (2013: 22) the King I integrated a code of corporate practices and conduct. They further declare that the purpose of the first King report was to promote the highest standards of corporate governance in South Africa. It also encouraged an integrated approach towards good governance in the interests of a wide range of multi-stakeholders (Muthuri, 2013: 90).

Ntim, Opong and Danbolt (2012: 85) highlight that the King I report assisted organisations to be aware of what constitutes good governance. They further note that the King I report dealt with the relationship between shareholders and the board of directors. Because of demanding circumstances in the South African economy and in global markets, the need for an updated report was required (Ntim, Opong & Danbolt, 2012: 87).

King I was followed by the second report on corporate governance in 2002 (Fatoki, 2012: 49). According to King II, there were four primary guiding principles for the purpose of the review of King I (Wilkinson & Plant, 2012: 25). Firstly, numerous local and international developments took place since the first publication. Secondly, there was also a need to reassess and explain the "inclusive approach" for the sustainable success of businesses. Wilkinson and Plant (2012: 89) state that the third guideline was to recognise the increasing importance placed on non-financial issues globally, and fourthly, to recommend how compliance with a new Code of Corporate Governance for South Africa can be measured, based on results. Steyn and De Beer (2012: 25) mention that the inclusive approach includes the community in which the company operates and all the multi-stakeholders.

In summary, King II states seven basic characteristics of good governance and these are summarised by Makiwane (2012: 33) as follows:

- Discipline: a commitment by the organisation's senior management in terms of correct standards and proper behaviour;
- Transparency: an outsider can analyse the organisation's actions and performance;
- Independence: the conflict of interest is avoided;
- Accountability: the rights of shareholders to receive information related to the stewardship of the organisation's assets and its performance;
- Responsibility: acceptance of all consequences of the organisation's behaviour and actions;

- Fairness: acknowledgement of rights and interests of the organisation's multi-stakeholders; and
- Social responsibility: the business's commitment to ethical standards, socio-economic activities and environmental impacts.

According to Blom (2012: 39), the King II shortcoming was bridged in King III with the introduction of the "apply or explain" basis, that allows every organisation to apply all the principles of the code of governance as it best meets the objective of the entity and to focus on substance rather than the form of application. The King III report places critical emphasis on leadership, sustainability towards green business and corporate citizenship (Stamper, 2012: 69). Reporting on sustainability towards green business is aligned with good corporate governance in King III (2009: 9).

To conclude: Mervyn King (King III, 2009: 14) states that the new reality of corporate governance is that boards must take account of financial capital provided by shareholders, human capital from employees, natural capital provided by land, air and water and social capital provided by the community and society in which the business operates. In South Africa, all companies listed on the JSE are required to comply with the King reports (JSE Limited, 2012: 15). The King III report further states that listed companies are required to produce an integrated report or explain why they are not.

This requirement was implemented ahead of any formal or legal standards for an integrated sustainability report in South Africa (Herzig & Schaltegger, 2010: 309). The King III report's guidelines were never used to assess the impact of integrated sustainability reporting towards achieving green business status within the JSE listed companies in South Africa. This study was born from an intention to evaluate the impact of these integrated reports towards ecological sustainability, social sustainability, and economical sustainability and beyond.

It is important to note that South African listed companies are regarded by foreign institutional investors as being among the best governed in the world's emerging economies and it is therefore important that South African companies should strive to maintain that high ranking by moving towards green economy and be assessed to inform multi-stakeholders about their green status (Hanks & Gardiner, 2012: 45). According to Gasperini, Doni and Pavone (2012: 22), King III is therefore, in essence, about the building of an ethical culture within the business world and not about the machine-driven of pursuit duties and processes. King III reporting procedures are important guidelines to assess the impact of integrated reports of JSE listed companies on achieving green business status.

2.6 Green business and green economy

Anderson (2006: 99), Cooneys (2009:49), Penfield (2008: 84) and Rennie (2008: 27) define green business or green economy or sustainable business as an enterprise that has no negative impact on the global or local environment, community, society and economy. Green businesses always strive to meet the triple bottom line of sustainability pillars and beyond. Anderson, Cooneys, Penfield and Rennie further associate this kind of business with advanced environmental and human civil rights strategies that drive the green economy.

Battisti and Perry (2011: 188), Cooneys (2009: 20), Onsrud and Simon (2013: 35), Strohhecker and Größler (2012: 589) and Zorpas (2010: 1547) regard sustainable business, or green business, as an enterprise that has positive impacts on the environment, community and society. They further pronounce that a green business will always attempt to meet the triple bottom line strategy and will always be green if it matches the following four standard conditions:

- It integrates principles of sustainability into each of its business decisions.
- It supplies environmentally friendly products or services that replace demand for non-green products and/or services.
- It is greener than any traditional competitor.
- It has made an enduring commitment to environmental principles, social responsibilities and economic growth in its business operations.

Jing and Jiang (2013: 33) confirm that a sustainable business is any organisation that participates in environmentally friendly or green activities to ensure that all processes, products and manufacturing activities are adequately addressing current environmental concerns, social activities and economic growth, while maintaining a reasonable profit. In other words, it is a business that meets the needs of the present world without compromising the ability of the future generations to meet their own needs (Brundtland, 1987). It is a process of assessing how to design products and services that will take advantage of the current environmental situation and how well a company's products and services perform with renewable resources (Zokaei, et al., 2013: 22). Sustainable businesses, with the supply chain, try to balance the three pillars of sustainability through the triple bottom line strategy and beyond any voluntary standard.

The term "green businesses" is defined by Dixon-Fowler, Slater, Johnson, Ellstrand and Romi (2013: 355) as businesses and practices that are viewed as environmentally sound, and which include the use of organic and natural products to build factories, tighter protection against emissions and environmentally friendly sourcing of materials. Kato, Iwata, Ishii, Hino, Tsutsumi, Nakamatsu and Suzuki (2013: 274) view a green business as a business that has adopted the concept of environmentalism across the various functions of the corporation. Kaplan and Minton (2012: 58) state that, due to increased awareness of green business practices, there is a need for companies to implement green elements in their products and services profile. It is worth noting that green economy is more than just environmental in scope. It is also about socio-economic development beyond any voluntary standard (Nidumolu, Prahalad & Rangaswami, 2009: 41).

A green business helps to reduce poverty through the provision of low-cost renewable energy systems (Barnett & Salomon, 2012: 1305). A sustainable business should also assist to reduce the vulnerability of the poor to the impacts of "climate change, desertification, ocean degradation and loss of biodiversity" (Bauer & Scholz, 2010: 14). A shift to a sustainable green business will generate socio-economic benefits.

Devabhaktuni, Alam, Shekara Sreenadh Reddy Depuru, Green II, Nims and Near (2013: 556) support the argument by stating that one of the understandable potential advantages to a green sustainable business is the opening up of new markets like the biofuels, solar panels, renewable energy and wind turbines that support one green global community (Rasul, 2013: 168). Table 2.1 below depicts the material issues and implications by selected sectors that are moving towards green economy.

Table 2.1: The material issues and implications by selected sectors

SECTOR	MATERIAL ISSUES	GREEN ECONOMY IMPLICATIONS
Building and construction Housing; industrial and infrastructure construction	• Energy use and emissions • Materials use • Waste • Water • Health and safety	• Resource efficiency • Sustainable innovation • Life cycle management
Food and Beverage Agricultural production; processing; food production; distribution; retail; and catering	• Overfishing • Increasing meat consumption • Environmental degradation • Health • Resource and energy use • Water • Waste • Worker rights	• Rebuild overfished and depleted fish stocks • Adopt resource-conserving practices • Focus on health and well-being • Improve supply chain conditions
Transport Air; rail; shipping; road vehicles	• Environmental degradation and land use • Alternative fuels • Road safety • Emissions	• Develop lighter vehicles • Increase emphasis on collective and intermodal travel • Increase use of technology to reduce impacts
Tourism Lodging; recreation; restaurants and bars; events; tourism services; culture; tours and excursions	• Environmental degradation • Socio-economic development • Heritage and culture • Water and resource use • Waste • Human rights	• Collectively manage resources between private and public partners • Improved valuation of heritage and culture
Extractives Mining of minerals and metals; oil and gas	• Environmental degradation • Energy and water use • Human rights • Host community benefits including employment, revenues and taxes; Health and safety	• Prepare for a shift in the pricing structure of resources • Increase energy efficiencies • Life cycle resource management
Utilities Water and waste management; energy production and distribution	• Emissions • Nuclear power • Water use • Waste disposal	• Manage demand • Increase efficiencies • Develop renewable technologies at all scales • A shift in the pricing structure of resources • Waste to resource – reuse, recycling and energy recovery from waste

Sources: Two Tomorrows (2012: 2) & UNEP, (2012: 8).

2.7 Sustainable development dimensions in green business

The definitions given in this chapter will include all features of sustainable development towards green business applicable to this research. Presently, there are many dimensions to sustainability as viewed and defined by Connelly, Markey and Roseland (2013: 196). Firstly, sustainability towards green economy requires the removal of poverty in society. Secondly, sustainability towards achieving green business status requires the conservation of natural resources.

Thirdly, sustainability towards achieving green business requires an expansion of the concept of sustainable development so that it is not limited to economic growth, but also social, political, cultural and ethical development. Fourthly, sustainable development towards green business requires a combination of socio-economic strategies in all levels of any green business. This study will embrace the three key pillars of sustainability towards green business which are ecological, social and economic sustainability that will be covered in more detail towards the end of this chapter.

Cook and Smith (2012: 7) view sustainable development of green business as a system whereby current decisions should not harm the prospects for maintaining or edifying the future living standards. This implies that the economic systems towards green sustainable business should be well-managed so that people can live off the dividends of the resources. This also proposes that the present peer group should maintain and advance the asset base of renewable resources for tomorrow's generations.

In the field of environmental accounting, Farouk, Cherian and Jacob (2012: 8) support the argument presented by Cook and Smith (2012: 03) above by stating that environmental accountants seek to determine the highest amount that can be consumed in the current period without reducing projections for consumption in the future. It seems like a good idea for the present global inhabitants to consume all natural resources, but this is perilous for future generations.

This does not mean that sustainable development towards green business demands the preservation of the current stock of natural resources or any particular mixture of human, physical and natural assets, as suggested by Harazin and Horváth (2011: 19). It means that, as development proceeds in any sphere of the universe, the composition of the underlying natural asset base changes dramatically.

Sustainable development is defined by the Brundtland Report of 1987 as “meeting the needs and aspirations of the present generations without compromising the ability to meet those of the future generations” (Brundtland, 1987: 41). Hall and Vredenburg (2012: 12) claim that sustainable development towards green business status is not a fixed, but rather a process of change and adaptation in the use of natural renewable resources, which is made consistent with present and future essentials.

In the neoclassical economic discussion, researchers like Junior and Ferreira (2013: 8) outline sustainable development towards green business as a pattern of social and structured economic transformation which optimises the socio-economic benefits available in the present, without jeopardising the potential for similar benefits in the future. They further state that a primary goal of sustainable development is to achieve a reasonable and justifiably distributed level of socio-economic well-being that can be preserved for many generations to come.

The term sustainable development in the green economic circles, according to Seuring and Gold (2013: 11), suggests that the lessons of ecology can, and should, be applied to economic and social processes and beyond. Therefore, sustainable development towards green business is economic development that can continue indefinitely, because it is based on the exploitation of renewable resources and therefore causes insufficient environmental damage and eventually limiting the future prospects (Vazquez-Brust & Sarkis, 2012: 18).

Vazquez-Brust and Sarkis (2012: 08) further suggest that humanity will achieve sustainability when it becomes a crystal clear outcome of managing the contexts of production and consumption itself. Sustainable development towards green business is the indefinite survival of the human species, with a quality of life beyond mere biological survival, through the maintenance of basic life-support systems like air, water, land and biota (Liu & Liu, 2012: 784).

Hsu, Tan, Zailani and Jayaraman (2013: 657) and Springett (2013: 75) describe the concept of sustainable development towards green business as a collection of methods to create and sustain development, which seek to relieve poverty. They view sustainability towards green business as a process that creates equitable standards of living that will surpass those of the present generation. They further claim that this process should establish sustainable political practices, while taking the necessary steps to avoid irreversible damage to natural capital in the near future and beyond. In this study, integrated sustainability reports and views of multi-stakeholders will be assessed according to the sustainable development criteria of green business.

2.7.1 The impact of ecological sustainability towards green business

In this work, the ecological sustainability pillar towards achieving green business is viewed as a system that must maintain a stable natural resource base, avoiding over-use of renewable resources and depletion of non-renewable resources (Eltayeb, Zailani & Filho, 2010: 23). The concept includes maintenance of ecosystem functions such as biodiversity and atmospheric constancy (Barbier, 2010: 663). Ahlert, Meyer, Zieschank, Diefenbacher and Nutzinger (2013: 4) agree with Barbier that ecological sustainability towards green business is there to conserve and enhance the community's natural resources so that "ecological processes", on which life depends, are maintained and the total quality of life, now and in the future, can be preserved.

Ecological sustainability towards achieving green business requires a positive integration of socio-economic considerations in decision-making processes in all divisions of the JSE listed organisation (Vom Brocke & Seidel, 2012: 122). It can be realised by any JSE listed corporation through the implementation of the following ideologies and green projects:

- The Precautionary Principle in green sustainable business – Monaghan, Pawson and Wicker (2012: 177) state that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. Monaghan, et al. (2012) further state that, in applying these ideologies, JSE listed corporations moving towards green business should be guided by careful assessment to avoid, wherever possible, serious or permanent damage to the environment. The assessment of the risk-weighted consequences should be part of all green projects involving JSE listed corporations which are moving towards green sustainable business.
- Inter-generational equity – Żylicz (2013: 178) indicates that the present generation should ensure that the health, diversity and productivity of the environment are maintained by sustainable business or enhanced for the benefit of future generations.
- Conservation of biological diversity and ecological integrity – namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration by all organisations that are moving towards green economy (Selig, Longo, Halpern, Best, Hardy, Elfes & Katona, 2013: 5).
- Improved valuation, pricing and incentive mechanisms – Whittington and Pagiola (2012: 263) say that all ecological factors should be included in the assessment of an organisation's possessions and services when green business status is to be measured. They further clarify that this would include the "polluter pays" principle, which means that those who generate pollution and waste should bear the "cost of containment". The green businesses should support the "polluter pays" principle in all their products and services especially when dealing with ecological dischargers from operations to disposal.

2.7.1.1 Effective implementation of ecological sustainability towards green business

Dietz, Stern and Weber (2013: 79) note that all organisations that implement effective ecological sustainability towards green business should have green effective programmes to reduce carbon dioxide emissions globally as per 2020 targets of European Union Agreements. Frank, Böttcher, Havlík, Valin, Mosnier, Obersteiner and Elbersen (2013: 311) explain that the most effective implementation of ecological sustainability by JSE listed organisations would support and contribute to green projects and programmes that prevent the build-up of poisonous substances in the natural environment.

Da Ronch, Di Maria and Micelli (2013: 39) debate that organisations which really support ecological sustainability towards green business would ensure that the chemical configuration of the atmosphere and water stays within the required levels. They also elucidate that such listed organisations should ensure that there is no further devastation of species and ecological communities.
Da Ronch, Di Maria and Micelli (2013: 45) further note that effective ecological sustainability as a tool to restore natural habitats to the extent needed to safeguard threatened species. The most effective implementation of ecological sustainability supports green programmes that adopt a closed-cycle economy where all waste is recycled.

It is clear that the above philosophies support the positive impact of environmental sustainability towards green business whereby JSE listed organisations should make internal and external obligations to assist green programmes and projects of change. Bratt, Hallstedt, Robèrt, Broman and Oldmark (2013: 33) explain that the JSE listed corporations need to become environmentally positive by avoiding the default configuration of confining themselves only to internal systems like the EMS and CSR guidelines, health and safety systems.

2.7.2 The impact of economic sustainability towards green business

The economic sustainability towards green business in this work is always perceived as a framework to produce green products and services on a continuing basis, and to avoid sectorial imbalances between economic and ecological sustainability costs (Haywood, Trotter, Faccer & Brent, 2013: 111). Aşıcı (2013: 328) states that the most active sustainable green JSE listed organisation, will positively support and contribute to the international economic accounts that reduce the depletion and degradation of natural resources.

According to Svendsen (2013: 5), a green sustainable organisation that promotes economic growth will partner with organisations of similar understanding. In such instances, information regarding the capture of natural resource rents and the government subsidies should be made available to the multi-stakeholders who fully support green businesses.

Svendsen (2013: 22) further says that effective green business will contribute to green programmes that reduce the exhaustion of forest resources and the dilapidation of agricultural lands. Svendsen is supported by Dalal-Clayton (2013: 22) who states that an effective green sustainable business will contribute to green economic programmes on the basis of its strategic objectives regarding the role of natural resources.

The overriding green economic sustainability business principles of this research are based on the discussion of Prothero, McDonagh and Dobscha (2010: 149). Their green sustainability principles are captured as follows:

- Take full advantage of the green economic growth and well-being of current and future generations;
- Ensure efficient use of all resources, natural and otherwise, by maximising all economic activities;
- Seek to identify and internalise environmental and social costs to all green business divisions;
- Maintain and enhance the conditions for viable organisations through effective sustainable business; and
- Improve rates of employment and new businesses around the community in which the organisation operates.

2.7.3 The impact of social sustainability towards green business

Schneider, Kallis and Martinez-Alier (2010: 513) argue that the socially sustainable green business must achieve distributional equity, enough provision of social services including health, education, gender equity and political accountability. From their arguments it is clear that a sustainable organisation will fully support and contribute to programmes and projects that promote the distribution of equity, social services, gender equity, population stability, political accountability, and participation. Such green businesses should maintain and support social services, education and health care programmes and projects.

Green businesses should place particular emphasis on providing services and income-generating opportunities for women and youth (Rogers, Duraiappah, Antons, Munoz, Bai, Fragkias & Gutscher, 2012: 67). They further state that these green businesses should support small and medium scale business opportunities for women within their regions. From these deliberations, it is clear that green programmes and projects that promote social equity, concerning the theme of green business, should be supported in all spheres of life. The transitional employment and training development programmes targeting sustainable business or green economy should also be supported by these green organisations.

The social sustainability pillar towards achieving green business ideologies of this work are based on the arguments presented by Nijaki (2013: 258) and White (2013:214) and are briefly captured as follows:

- To make sure that there is a fair distribution of green costs and benefits of those who are alive today and future inhabitants;
- To make certain that the fundamental rights of human beings are respected, cultural independence, socio-economic freedom are uphold and appreciated; and
- To keep and protect the natural resources today and tomorrow for all generations.

2.8 Implications of a sustainable development agenda for green businesses

The Danish 92 Group (2012: 6) proposes five key working principles that aim to inform policy and decision makers in order to progress towards green business and provide the link between green business and a sustainable development agenda.
The suggested principles for green business status are as follows:

- Link to policies specifying clear goals for key cross-cutting prerequisites (enabling conditions) to address systems related to distortions and dysfunctionalities in order to establish the foundation for equitable transformation and achieve sustainable development pillars that drive green economy.
- Establish clear objectives for the necessary means for action to be mobilised (technology, capacity, finance) and define the approach, nature and profile of these means; for example, the role of technology within the context of building a reasonable green business.
- Create the necessary aligned framework of institutions at all levels with clearly defined roles and mandates to enable them to actively advance a realistic sustainable business.
- Are transparent and engage all involved and affected actors, with powerful actors having clearly defined responsibilities and forms of accountability, while making sure that multi-stakeholders are empowered to act both as beneficiaries of and contributors to the green economy.
- Include clear timelines for action to achieve objectives, introduce new systems for measuring progress and success, and integrate the tracking of the well-being of people, places, and the planet.

The above arguments are well coined by Pingali (2012: 12303) when he states that the implications of sustainability towards green economy for sustainable organisations need to pay balanced attention to the social, economic and environmental dimensions of sustainable development. He further argues that the three dimensions are inseparably linked, where social development, economic growth and environmental awareness are pillars to improve the well-being of current and future generations and will maintain green economy.

The United Nations promoted the move towards green sustainable business by defining a green economy as one that results in "*improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities*" (UNEP, 2011: 6). Musango, Brent and Bassi (2014: 258) state that the UNEP report on green sustainable business seeks to motivate policy developers to create the enabling conditions for increased investments in a transition towards green sustainable business in three different ways. Firstly, it makes an economic case for shifting investment, both public and private, to transform key sectors that are critical to “green” the global economy. It further illustrates through examples how added employment through green sustainable jobs offsets job losses in the process of transitioning towards a green sustainable organisation (Brand, 2012: 30).

Secondly, it shows how a green sustainable business can reduce tenacious poverty across a range of important sectors like agriculture, forestry, fresh water, fisheries and energy (Wunder, 2011: 1820). Thirdly, it offers guidance on policies to achieve this change: by reducing or eradicating environmentally harmful or pertinacious subsidies, by addressing market failures created by externalities or imperfect information, through market-based incentives, through appropriate regulatory framework and green public procurement, and through stimulating investment (Swilling, 2013: 98).

In a nutshell, UNEP report towards green sustainable business addresses the following key issues which are in line with this research (Musango, Brent & Tshangela, 2014: 746):

- Green sustainable business recognises the value of, and invests in, natural capital resources;
- Green business is central to poverty alleviation;
- Green economy creates jobs and enhances social equity;
- Green sustainable business substitutes renewable energy and low-carbon technologies for fossil fuels;
- Green business promotes enhanced resource and energy efficiency;
- Green sustainable business delivers more sustainable urban living and low-carbon mobility; and
- Green economy grows faster than a brown economy over time, while maintaining and restoring natural capital.

Fay (2012: 55) states that during the United Nations Rio+20 conference on sustainable development held in Brazil in June 2012, the World Bank promoted its inclusive green growth approach. Ely, Smith, Stirling, Leach and Scoones (2013:

1065) say that the civil society groups were having concerns about the inclusive green growth approach suggested by the World Bank. They further state that the definition of the concept is “green growth that is efficient in its use of natural resources, clean in that it minimises pollution and environmental impacts”. Corbin (2013: 55) supports this argument by saying that the definition accounts for natural hazards and the role of environmental management and natural capital in preventing physical disasters and that it does not fully support green sustainable business with current growth.

Brown, Cloke, Gent, Johnson and Hill (2014: 249) also support the above argument by saying that the suggested green growth patterns are unsustainable because of the environmental degradation involved; the UNEP report calls for a sustainable development path that reconciles developing countries’ urgent need for rapid growth and poverty alleviation with the need to avoid irreversible and costly environmental damage. Rudman and Jenkins (2013: 15) say to achieve this, the UNEP report claims countries must assign monetary value to their natural ecosystems, such as forests, oceans and biodiversity, incorporate them into national accounts to complement the physical and human assets measured by gross domestic product, and grant property rights over this natural capital, which could be traded, thus creating new financing instruments and markets.

There are three reports of green economy from leading global organisations like the United Nations Environment Programme's Towards a Green Economy, the World Bank's Inclusive Green Growth and the Organisation for Economic Co-operation and Development's Towards Green Growth that were considered in this research because these reports support the idea of moving towards a green economy. According to Borel-Saladin and Turok (2013: 215), the main critiques of the concept of the green economy say that the approach is viewed as green-washing and tweaking to the current economic system. This study favours the idea that the green economy has the potential to effectively substantiate and transform change towards the goal of green sustainable business.

2.9 Triple bottom line

Kabiraj, Topkar and Walke (2010: 85) view triple bottom line (TBL) in JSE listed organisations as a means of expanding the traditional reporting framework to take into account ecological and social performance in addition to financial performance. According to Aras and Crowther (2013: 12), the concept of TBL demands that a company's responsibility lies with multi-stakeholders rather than shareholders. In this case, multi-stakeholders refer to anyone who is influenced, either directly or indirectly, by the actions of the organisation. Aras and Crowther further state that the TBL approaches will retain the values and criteria for measuring organisational social success, economic growth and environmental protection. Mirvis and Worley (2013: 21) state that the stakeholder theory supports the green sustainable business as a vehicle for coordinating multi-stakeholder interests, instead of maximising shareholder profit only.

The TBL of green business seeks to benefit many constituencies and not to exploit or endanger any group of them (Willard, 2012: 11). Hollos, Blome and Foerstl (2012: 2970) discuss that the TBL of green business must not use child labour and should monitor all contracted companies for the exploitation of child labour. They further argue that the TBL of green business also seeks to give back to the community in which it operates, by contributing to socio-economic programmes and projects. The Global Reporting Initiative (GRI) has developed guidelines (G4) to enable corporations and NGOs alike to comparably report on the socio-economic impact of a sustainable business (Burkett, 2013: 6).

It is vital to note that green organisations will have a competitive advantage over their competitors. Effective sustainable businesses will earn their local community's goodwill and see their efforts reflected in their triple bottom line strategy (Slaper & Hall, 2011: 3). Taking this argument further, Jing and Jiang (2013: 33) clarify that the voluntary standards are to foster the innovation offsets that arise from new technologies and approaches to production of green business. These standards should adhere to the basic principles of sustainable business practices that are beyond any confinement by reviews and audits (D'Atri, Gururaja, Kamel and Shieh, 2013: 11).

The voluntary standards must create the maximum opportunity for innovation, leaving the approach to the green business industry and not the standard-setting agency (De Jong, Paulraj & Blome, 2013: 15). The regulations and procedures of the ISO standards should foster continuous improvement as in the case of environmental management systems rather than lock in any particular technology that will impact the improvement of sustainable businesses (Heras-Saizarbitoria & Boiral, 2013: 41). It should be noted that the regulatory process should leave as little room as possible for uncertainty at every stage of green business development (De Vries, Bayramoglu & Van der Wiele, 2012: 55).

Adams and Comber (2013: 19) explain that a sustainable business participates in environmentally friendly or green activities to ensure that all processes, products, services and manufacturing activities adequately address current environmental concerns while maintaining a profit beyond the TBL agenda. In other words, it is a green business that meets the needs of the present world without compromising the ability of the future generations to meet their own needs (Pearce, 2013: 49). It is the process of assessing how to design green products or services that take advantage of the current environmental situation, socio-economic activities and how well a company's products or services perform with renewable resources (Stansinoupolos, Smith, Hargroves & Desha, 2013: 102).

As noted by Wicks, Keevil and Parmar (2012: 379), many green business opportunities are developing in the realm of social entrepreneurialism, while adapting to new green business strategies that are in line with the TBL approaches. Green businesses hoping to reach this expanding market must design themselves to be financially profitable, socially beneficial and ecologically sustainable or fail to compete with those companies that do design themselves as such (Carrington, Black & Newholm, 2012: 240). A green business which is planning to work with fair trade or ethical trade companies must design its green business model around TBL (Raynolds, 2012: 279).

This study fully acknowledges some criticisms and limitations associated with the term triple bottom line by researchers like Sridhar and Jones (2013: 99). They claim that the pillars of TBL are canned as separate units of environment, economic and social pillars. However, the view of the researcher is that the green sustainable business depends on the simultaneous achievement or integrated approach of economic, environmental and social goals that are beyond TBL (Juliet & Devi, 2012: 4).

Jackson, Boswell and Davis (2011: 57) viewed green sustainable corporations in terms of TBL mostly taking one of two approaches to implement triple bottom line processes: either a process-based approach, where TBL systems and strategy are planned and entrenched prior to ISR. The second approach is where the actual process of creating the ISR that leads to the design and execution of necessary systems to support a future process of green sustainable business (Gold, Hahn & Seuring, 2013: 42). In this work, both approaches are deliberated during the assessment of integrated sustainability reports.

According to the King III Sustainability Report Guidelines (King III, 2010: 77) and the Global Reporting Initiative (GRI, 2011: 45), businesses listed on the JSE are required to disclose their green and brown organisational activities or performance towards achieving green sustainable business, using the TBL strategy.

Omkareshwar (2013: 3) supports that the TBL approach groups the human being activities under the social pillar of green business, while the global activities are studied under the environmental pillar of green economy, and the profit under the economic dimension of green sustainable business. Omkareshwar further say that these activities should always be integrated with the vision of any green sustainable organisation.

Mcfellin (2013: 2) says the TBL is a critique of the false idea that the traditional economic bottom line is the right way for a green business to operate. Marx and Van Dyk (2011: 39) say that the TBL highlights the importance of balancing the three different pillars: a social bottom line referring to the benefit for communities and workers; an environmental bottom line referring to the health of the planet; and an economic bottom line referring to the ability of a green business to continue to exist and fulfil its obligation to the socio-economic and environmental bottom lines.

The green business is rooted in the goal of fundamentally transforming the economy from one based on endless profit and the growth of gross domestic product (GDP) to one that pursues a broader mission. TBL rests upon a notion of prosperity and human well-being beyond the shallow lifestyle of consumer culture and is much more oriented towards systems related to transformation than the movement to build a short-term green economy. Daily, people see the need for a fundamental transformation that would take the earth's inhabitants well beyond 21st century notions of capitalism, socialism and communism.

People were much more optimistic about capitalism in the past than they are today. The new green business economy is home to those who understand that a more fundamental transformation is necessary and that notions like natural capitalism are part of something greater, something catalysing a movement that would not succeed if a green capitalism is all that is created (Avraham & First, 2013: 71).

2.10 JSE listed companies in South Africa

The discovery of gold in South Africa led to the establishment of the stock exchange in order to be able to raise money for the booming mining and financial industry (Snyman, 2011: 77). In 2013, the JSE was 126 years old and the only full service securities exchange in the country (Kamp-Roelands, 2013: 22). Located in the country's financial hub, Sandton, the JSE has a total number of 394 listed companies and its market capitalisation as of 11 January 2013 was R8 trillion (JSE Limited, 2013: 12). Of the 394 companies, 331 are listed on the Main Board while 63 are listed on the AltX Board. The JSE is one of the top 20 stock exchanges in the world in terms of market capitalisation and the majority of this is based in the companies listed on the Main Board and its top 40 listed stocks, highly considered by investors locally and globally (Ncube, 2013: 46).

As indicated in Chapter One of this study, all corporations listed on the JSE are required to adopt integrated sustainability reporting from years commencing on or after 1 March 2010 (King III:2009). The main objective of an integrated sustainability report is to concisely inform the organisation's multi-stakeholders about the corporation and its strategy and risks, linking its financial standing and sustainability performance in a way that gives multi-stakeholders a holistic view of the organisation and its future plans (Lituchy, Punnett & Puplampu, 2013: 13).

The driver for this was the King Code of Governance Principles for South Africa 2009 (King III, 2009: 15) which became a JSE listing requirement. King III recommends that corporations should adopt integrated sustainability reporting on an “apply or explain” basis. There has been a positive and proactive response from JSE listed companies as well as a number of state-owned entities in South Africa which have incorporated integrated sustainability reporting as part of their King III application programmes.

2.11 Summary of literature review on the impact of integrated sustainability reporting (ISR) towards achieving green business status within the JSE listed companies

Much research has been conducted on different aspects of sustainable business, sustainability reporting, sustainable development and different dimensions of sustainability as separate entities. Integrated sustainability reporting towards achieving green business status within the JSE listed companies was never used as a driving tool for green economy and beyond.

Most JSE listed organisations have used integrated sustainability reporting as this is a requirement for listing on the JSE. It was never investigated beyond reporting the financial and non-financial standing of listed companies towards achieving green business status. Therefore, the purpose of this study is to investigate the impact of integrated sustainability reporting (ISR) towards achieving green business status within the JSE listed companies, using the criteria of ecological and socio-economic dimensions of sustainable development.

Integrated sustainability reporting towards green business status may be viewed as a means of legitimising a JSE company to its multi-stakeholders, as companies seek to convince society that they have multi-stakeholders’ interests at heart and that they share common objectives with them (Lodhia, 2013: 78). The concept of sustainable development needs to be incorporated with the policies and processes of a sustainable organisation. As indicated by Carrim and Basson (2013: 8), sustainability should be part of organisational culture, practices, systems and procedures. The continuous improvement on ecological issues and socio-economic growth as well as accountability to multi-stakeholders should also be part of the reporting procedures adopted by green organisations.

2.12 Summary of Chapter Two

In this chapter, integrated sustainability reporting was viewed as the framework to drive and accelerate the process of green business status especially of the JSE listed companies. Integrated sustainability reporting can be best implemented when it is incorporated with global reporting guidelines, corporate sustainability reporting, triple bottom line strategy and the King III Report on Corporate Governance. All these drivers of integrated sustainability reporting give the world a perception that organisations listed on the JSE in South Africa are complying with the requirements of listing. But the world is not aware of the environmental status, social commitment activities and economic growth programmes and projects that in their efforts to become green businesses. The one report view is inadequate to expose these corporations to multi-stakeholders regarding their green business status.

Therefore, the purpose of this study is to investigate the impact of integrated sustainability reporting (ISR) on achieving green business status within the JSE listed companies. In this study, the combination of sustainability and integrated reports is treated as one report which is known as the integrated sustainability report. Many of the JSE listed companies have reported green sustainability status in their integrated annual reports without any research audits to assess their “holistic integrated approach” towards achieving a sustainable business standing.

Chapter Three narrows the concept of the King Report on Corporate Governance which can be used by JSE listed companies when moving towards green business status in the South African context. Chapter Three also discusses the ISO 14001 standard towards green business, the ISO 26000 standard beyond corporate sustainability reporting and the guidelines to integrate the systems beyond the set standards.

CHAPTER THREE

GOING GREEN WITHIN THE SOUTH AFRICAN CONTEXT

“Going green is no longer just a first world affluent or educated consumer cause, and contrary to popular mythology, South Africans also see the importance of green issues. Going green is moving in from the fringes and will become the central consumer issue of our time, which means we have entered the eco revolution” (Garden, 2010: 9).

3.1 Introduction

In South Africa, the effects of climate change, along with pollution and the depletion of non-renewable natural resources, have given rise to environmental awareness, economic growth and social activities that lead to global protection (Haywood, et al., 2013: 111). Consumers in current years have become aware of the damage being inflicted on the environment by businesses in pursuit of profit (Cook & Murray, 2013: 15). In the pursuit of going green in South Africa (SA), the government and consumer pressure groups have aggressively lobbied for businesses to adopt green practices beyond the voluntary standards of ISO 14001, ISO 9001, ISO 18001 and ISO 26000 (Kahn, 2013: 8). South African businesses can assist in protecting the environment by becoming green businesses: in other words, sustainable businesses beyond conforming to voluntary standards (Dos Santos, Svensson & Padin, 2013: 103).

SA has addressed sustainability, as set out in the King III report, in terms of the triple bottom line concept of economic, social and environmental sustainability. Di Minin, Fraser, Slotow and MacMillan (2013: 263) indicate that both large and small businesses in South Africa have to adhere to the principles of the King III report and move towards green business status. The proceeding sections of this chapter will discuss the broader move of the South African government towards green economy. It will further clarify the ISO 14001 standard as a driving tool of sustainability to achieve green economy in the South African context. It will also explain the ISO 26000 standard beyond corporate sustainability reporting.

3.2 The national strategy for sustainable development

The South African government developed a National Strategy for Sustainable Development (NSSD) to address the challenges of green business status within the local context (Resnick, Tarp & Thurlow, 2012: 218). The NSSD component is the responsibility of the Department of Environmental Affairs (DEA) and is always promote green business status in South African businesses. The NSSD is advised by the National Planning Commission (NPC) which resides in the office of the presidency and controls public and private enterprises (Sewell, 2013: 45).

According to Pereira (2013: 1234), the Economic Development Department (EDD) includes the green business or green economy under its formulation of a New Growth Path (NGP) for the country. Pereira further states that the NGP has two main state-owned development finance institutions linked to the department. It is further confirmed by Drewes and Van Aswegen (2013: 193) that the Development Bank of Southern Africa (DBSA) and the Industrial Development Corporation (IDC) were the two institutions tasked by the government to drive the process of green business in South Africa. Drewes and Van Aswegen also elucidate that the support for green industry falls directly under the Department of Trade and Industry (DTI). According to Tyler, Boyd, Coetzee and Winkler (2013: 07) the following measures are taken by DTI or other departments in South Africa to promote green industries:

- Environmental fiscal reform (green taxes and subsidies which support both green industries and the greening of the economy as a whole) is under the mandate of the National Treasury (NT);
- The Department of Environmental Affairs (DEA) is responsible for the protection and restoration of ecosystems and the setting of environmental standards like the prevention of pollution or emissions;
- The Department of Energy (DoE) is responsible for issues relating to fossil fuels and renewable energy – a central component of all green economy reforms;

- The Department of Water Affairs (which falls under the same ministry as the DEA) is responsible for issues relating to water, which is the central component of greening;
- The Department of Science and Technology (DST) is responsible for technology policy and research and development; and
- The DTI and DTI-appointed entities have developed supporting programmes for solar water heaters.

Harvey (2011: 5) states that the departments like mining, agriculture, forestry, fisheries, transport, housing and local government contribute to green economy activities by creating green jobs in South Africa. Musakwa and Niekerk (2013: 144) say that South Africa is presently facing important environmental challenges as well, with the percentage of greenhouse gas (GHG) emissions, water scarcity and increasing erosion and soil degradation. These challenges cannot be separated and addressed separately either. Rudman and Jenkins (2013: 12) explain that the country has made commitments under the Cancun Agreement for its greenhouse gas emissions to decline from 42% in 2020 to 34% in 2025. It is a clear indication that the South African government is very serious about reducing greenhouse gas emissions.

According to Sokona, Mulugetta and Gujba (2012: 12), in order to address the environmental challenges in South Africa, the country would need to improve energy efficiency and increase the share of renewable energies in the supply energy systems. They further argue that South Africa needs to provide sustainable transport to all its citizens which is based on public transport. Under the framework of green business strategies, the New Growth Path for job creation should be the key target of developing countries like South Africa (Mahadea, 2012: 4). The strategy policy aims to create 300,000 additional direct jobs by 2020 in green business sectors and 80,000 jobs in manufacturing. It is envisaged that the construction sector, operations and maintenance of new environmentally-friendly infrastructure would account for the remainder of these jobs (Fine, 2012: 554). The primary aim of moving towards green business in South Africa is to create green jobs to the labour market.

The objective of creating decent work and sustainable livelihoods lies at the core of the South African National Strategy for Sustainable Development and Action Plan 2011- 2014 (Nel & Rogerson, 2013: 7). It was already the first priority of the South African strategic framework during the long-term plan from 2009 to 2014. Looking on the positive side, a number of sectors have incorporated sustainability criteria into some of their policies and strategies. On the negative side, it is clear that the issue of inadequate resources, an institutional framework with unclear mandates from different governmental departments, lack of management and institutional capacity, and the absence of effective monitoring and evaluation instruments have prevented the full implementation of this strategy (Maisonnave, Mabugu, Chitiga & Robichaud, 2013: 10).

Overall it is clear that South Africa has a very large number of policies and strategies in place with respect to the shift towards green sustainable business, many of which originated before the concept even came into widespread use (around 2010) as a result of the South African Constitution. The South African Constitution Act (SACA) (108 of 1996) entrenches the fundamental right of every person to an environment which is not detrimental to any person's health or well-being. Section 24 of SACA affords to everyone a right:

- To an environment that is not harmful to their health or well-being; and
- To have the environment protected for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and economic degradation, promote conservation and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

According to Resnick, Tarp and Thurlow (2012: 217), the proper integration of environmental law has been hampered by the separation in legislative competence, imposed by the South Africa Constitution, between national, provincial and local government. A number of environmental policy issues are spread across various government departments. The National Environmental Management Act (NEMA) (107 of 1998) is intended to integrate and harmonise environmental management laws and bylaws countrywide that can move the whole country towards green economy.

Sandham, Van Heerden, Jones, Retief and Morrison-Saunders (2013: 16) confirm that the NEMA has principles that serve as general framework for environmental matters and provides guidelines for interpretation. The NEMA administers and implements other acts and bylaws that affect the environment. They further emphasise the point that each organ of state exercising an environmental implementation and management plan should submit such plan to the Committee for Environmental Coordination and the Director-General of the Department of Environmental Affairs (DEA) annually.

The NEMA also states the need for the creation of a "cradle to grave" obligation for the prevention of pollution or degradation of the environment which is vital to all methods of enforcing multi-stakeholders to comply. The NEMA creates the possibility of a class action against any entity for potential or actual adverse consequences of a particular activity to the environment. The Department of Environmental Affairs (DEA) confirms that the new regulations repeal the erstwhile listed activities identified under the Environment Conservation Act (73 of 1989) and significantly add to them too. However, the new regulations were enacted to streamline the environmental impact assessment procedures as well as to shorten time periods from date of application to date of authorisation (Glazewski, 2011: 57).

The NEMA has the following values which apply throughout South Africa and all JSE listed organisations are affect by these principles:

- Sustainability requires the consideration of all relevant factors including the disturbance of ecosystems and the loss of biological diversity which should be avoided or minimised and remedied.
- Sustainability must be socially, environmentally and economically sustainable.
- EMS must be integrated and acknowledge that all elements of the environment are linked and interrelated.
- Ecological justice must be pursued so that adverse environmental impacts will not affect the vulnerable and disadvantaged people.

- Reasonable access to environmental resources, benefits and services to meet basic human needs.
- Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exits throughout its life cycle.
- The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.
- Global and international responsibilities relating to the environment must be discharged in the national interest.
- The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment.
- The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted.

The above-mentioned principles are well formulated to protect the well-being of South Africans. All sustainable organisations must try by all means to adhere to these principles. The Green Scorpions were formed in 2005 and this highly specialised environmental police unit now has over 800 inspectors across the country that have embarked on a national drive to crack down on contraventions of environmental laws (Pasquini, Cowling & Ziervogel, 2013: 225).

When Kihato (2013: 20) evaluated South Africa's environmental position, he established that the South Africans are living in an environment that is harmful to their health and well-being. He found that the State does not sufficiently protect, promote and fulfil the social, economic and environmental rights of everyone. The State has the laws, but they are not well applied to the JSE listed organisations which affect the environment. The integrated sustainability reports of the JSE companies will be evaluated by this study to determine whether such allegations hold water or not.

3.3 Environmental management systems and international standards

The most used structure for an environmental management system (EMS) is the one developed by The International Organization for Standardization (ISO) for the ISO 14001 standard. It was formed in 1996 as the EMS official standards (Wang & Wu, 2013: 164). Wang and Wu further discuss that, in order to support the June 1992 United Nations Conference on Environmental Development (UNCED) held in Brazil, the ISO undertook to determine ways in which it might support the concept of the green sustainable organisation. The EMS and the technical committee (TC) of 207 members were tasked to develop standards in six different areas (Myyryläinen, 2013: 13).

Each of these areas was the responsibility of a different subcommittee (SC). Subcommittee 1 (SC1) was responsible for the EMS, SC2 for environmental auditing and related environmental investigation, SC3 for environmental labelling, SC4 for performance evaluation, SC5 for life cycle assessment and SC6 was responsible for terms and definitions (Marsh & Perera, 2012: 33).

The ISO is an organisation that has its headquarters in Geneva, Switzerland, with a membership of non-governmental organisations from different countries. It started in 1928 as the International Standard Unification Society. It changed its name to the ISO in 1947 to accommodate the global nations. Its main aim is to formulate and promote the use of international standards for industries like mining, manufacturing, services, agriculture and pharmaceuticals, except electrical technology (Heras-Saizarbitoria & Boiral, 2013: 47).

The International Electro-technical Commission (IEC) is responsible for formulating standards for electrical technology fields. As of June 2013, the ISO had more 22,000 different standards. The ISO is a network of national standards institutes of 157 countries. In South Africa, the South African Bureau of Standards (SABS) became a full member of the ISO in 1995, after the democratic government was elected (SABS, 2012: 22).

Many international earth summits around the world also adopted the approach of Feldman (2012: 70) as the better way of managing the environment, whereby different green sustainable organisations set their own targets and monitoring systems without the government enforcing environmental laws and regulations upon them. Many countries have different environmental laws and regulations that enforce organisations to perform better than the voluntary ISO standards. According to the JSE requirements for listing, a green sustainable company should continually seek to improve its ecological performance by working to reduce and control its direct negative environmental impacts; promoting awareness of its significant direct and indirect impacts; working to use natural resources in a sustainable manner; and committing to risk reduction, reporting and auditing (JSE Limited, 2012: 16).

Krishna, Mansfield and Mathis (2012: 328) noted that the World Trade Organization (WTO) Agreement on Technical Barriers to Trade was endorsed in 2011. The agreement specifies that any WTO member establishing a national standard should base its standard on the international standards accepted by the ISO. According to Searcy, Morali, Karapetrovic, Wichuk, McCartney, McLeod and Fraser (2012: 780), the ISO standards and guidelines define the core of EMS and CSR auditing procedures necessary for verification.

Bratt, et al. (2013: 40) support the above argument by saying that an eco-label identifies overall environmental preferences of a product or service within a specific product/service category. They further state that eco-labels can be understood as the use of labels to inform consumers that a product is more environmentally friendly relative to other products in the same category. In contrast to "green" symbols or claim statements developed by manufacturers and service providers, an eco-label is awarded by an impartial third party to certain products or services that are independently determined to meet environmental leadership criteria.

The eco-labels are based on an environmental policy tool known as life cycle assessment (LCA). LCA is an approach by which the environmental effects of a particular product or services are assessed by analysis of the inputs and outputs of materials and energy and other important factors related to the product. Strazza, Del Borghi and Gallo (2013: 1250) state that the life cycle assessment informs the customer about real reductions of environmental stress and not merely the transfer of environmental harm in the stages of the product's life cycle. Though many existing green eco-labelling programmes may not apply a comprehensive LCA, eco-labelling schemes will involve a sequence of procedures on criteria setting, testing, monitoring and certifying. Criteria for the labels differ in terms of scope and stringency. It is vital to note that this tool of EMS also drives the process of sustainability in organisations that are serious about greening their production processes.

De Jong, Paulraj and Blome (2013: 11) admit that the ISO 14000 series is a standard that allows organisations to control the environmental impact activities, products and services, in compliance with their self-declared environmental policy and objectives. Proto, Malandrino and Supino (2013: 30) say that any JSE listed organisation that adheres to EMS ISO 14001 standards will move towards green sustainable business. The following strategic key elements of implementation, control and monitoring should always be part of the vision of a green business:

- *Environmental management policy*: Senior management should compile and implement the environmental management policy. It should constitute the organisation's objectives in relation to environmental performance.
- *Planning*: The green sustainable organisation should identify environmental aspects and legal requirements with respect to the company's activities, products and services.

The establishment of green environmental management programmes to achieve the objectives should be the major part of internal planning. It should also designate responsibilities in terms of documentation and communication at each organisational level. An effective organisational plan should clarify procedures and times when the objectives will be achieved.

- *Implementation and operation*: It should be well-managed through technology, finance and necessary resources for EMS.
- *Checking and corrective action:* An organisation that moves towards green business status should measure, monitor and evaluate its environmental

performance. All the findings, conclusions and recommendations, reached as a result of measuring, monitoring and audits, should be documented.

- *Management review and improvement*: The senior management of green sustainable business has to review the EMS to ensure its continued efficiency based on audit results, changing circumstances and the commitment to improvement.

Slob and Oonk (2010: 22) state that the three dimensions of sustainable development give the green corporations an opportunity to reconsider the environment pillar beyond statutory agreement. They further agree that most green sustainable businesses have positively reviewed their definition of “environment” and attained remarkable outcomes which exceed their competitors.

Heras-Saizarbitoria, Kouakou and Boiral (2013: 12) state some of the reasons for green sustainable organisations to implement the EMS ISO 14001 standards:

- A customer may require an EMS certificate as a condition to sign a trading contract.
- An organisation may be required by a certified company to implement the ISO 14001 standards for environmental compliance.
- A member of the World Trade Organisation can force an organisation to register for ISO 14001 standards certification for the purpose of the export or import of goods.
- Major multi-stakeholders like shareholders can request ISO 14001 standards registration certificates.

3.3.1 The prospects and limitations of the ISO 14001 standard

According to Hahn (2012:2), the ISO 14000 series tabulated above offers the following prospects to certified organisations:

- It provides a systematic approach to managing environmental issues.
- It provides assurance that policy objectives and targets are being managed.

- It contributes to improve environmental and business performance, locally and abroad.
- It lessens the enforcement burden of regulators by local government.

Simon, Karapetrovic and Casadesus (2012: 13) stipulate the following limitations of the ISO 14000 series in any organisation:

- It cannot replace regulatory requirements. It provides a mechanism to manage performance requirements of an organisation.
- It cannot provide a guarantee of regulatory compliance to any organisation or stakeholder.
- It cannot stipulate or provide assurance of environmental performance.
- It cannot create harmonised international environmental performance requirements.
- It cannot require extensive public disclosure of companies' activities that have great impact on human development, because it is an EMS which is a voluntary system. The ISO 14001 standard covers the environmental pillars of sustainability without considering socio-economic dimensions, when the mind-set is limited to the standard requirement only.

3.4 ISO 26000 - guidance on social responsibility

In 2010, the International Organisation for Standardisation published the ISO 26000 on social responsibility (Webb, 2012: 6). The ISO 26000 standard aims to provide guidance on ways to integrate socially responsible behaviour into the organisation (ISO, 2010: 5). It also assists in maximising the organisation's contribution towards sustainable business using all the pillars of sustainability (Hemphill, 2013: 311). The standard outlines content and approaches to social responsibility and underlines that social responsibility should be an integral part of core organisational strategy like the ISO 14001, ISO 9001 and ISO 18000 standards (Delchet-Cochet & Vo, 2013: 134).

It is noted by Balzarova and Castka (2012:266) that the ISO 26000 is not a management system standard that would assist organisations to develop management systems for social responsibility like the ISO 14001, ISO 9001 and ISO

18000 standards. Researchers like Johnston (2012: 07) and Val, Zinenko and Montiel (2011: 316) questioned and critiqued the usefulness of the ISO 26000 standard as a valuable tool towards green business. Cagnazzo, Raggi and Carbone (2013: 172) viewed the ISO 26000 standard as a good drive towards green economy. They are supported by Lee and Farzipoor Saen (2012: 220) who mention that the ISO 26000 standard is generic and can fit all organisations' strategic management approaches. Lee and Farzipoor Saen further stated that the ISO 26000 standard can also inform an organisation about the impacts of its decisions and activities on society and the environment, through transparent and ethical behaviour that:

- Contributes to sustainable development, including health and the welfare of society;
- Takes into account the expectations of multi-stakeholders;
- Is in compliance with applicable law and consistent with international norms of behaviour; and
- Is integrated throughout the organisation and practiced in its relationships.

Karlsson (2011: 55) states that the ISO 26000 provides guidance to all types of organisations (business and non-business) on:

- Concepts, terms and definitions related to social responsibility;
- The background, trends and characteristics of social responsibility;
- Principles and practices relating to social responsibility;
- The core subjects and issues of social responsibility;
- Integrating, implementing and promoting socially responsible behaviour throughout the organisation and, through its policies and practices, within its sphere of influence;
- Identifying and engaging with multi-stakeholders; and
- Communicating, commitments, performance and other information related to social responsibility.

According to Moratis and Cochius (2011: 67), the ISO 26000 standard covers seven core subjects that are applicable to all green organisations. These core subjects are:

- Organisational governance;
- Human rights;
- Labour practices;
- The environment;
- Fair operating practices;
- Consumer issues; and
- Community involvement and development.

Moratis and Cochius further explain that the standard provides guidance on integrating social responsibility throughout any green sustainable organisation, including:

- Conducting a review of the organisation, its current performance and capabilities, its operating environment and multi-stakeholders;
- Determining the relevance and significance of the core subjects to the organisation;
- Establishing priorities for addressing issues;
- Developing strategy, building capacity and integrating social responsibility into systems and procedures;
- Communicating on social responsibility; and
- Enhancing credibility on social responsibility, monitoring progress and improving performance.

It is worth noting that the ISO 26000 is a universally accepted voluntary standard, drawing on virtually all relevant ISO, OECD, United Nations, ILO (International Labour Organisation), conventions, standards, recommendations and sustainability reports (Pojasek, 2011: 86). A green organisation that takes the ISO 26000 guidance seriously will address the vast majority of aspects covered in the major standards and initiatives. Green business will also be well placed to achieve high marks in the integrated sustainability reporting (Vanclay & Esteves, 2011: 14).

3.4.1 Challenges and benefits of the ISO 26000 standard

Helms, Oliver and Webb (2012: 1122) state that the challenge of the ISO 26000 standard, as voluntary standard, is that it does not need any certification and accreditation such as the ISO 14001 standard. Therefore, organisations cannot attain ISO certification, but they need to comprehensively review and potentially revise their organisational strategy to entrench corporate social responsibility. It is difficult to understand where to start, or where the key areas of risk and opportunities lie. This is especially the case where an organisation already has some social responsibility or sustainability activities in its operations.

According to ISO 26000 (2010), the benefits of integrating social responsibility include:

- More informed decision-making – based on a better understanding of multi-stakeholder expectations, as well as risks and opportunities associated with social responsibility;
- Improved risk management practices;
- Enhanced reputation, greater public trust and social licence to operate;
- Generating innovation;
- Improved competitiveness, including access to finance and preferred partner status;
- New perspectives through better relationships with stakeholders;
- Enhanced employee attraction, loyalty, participation, morale and retention;
- Better employee health and safety;
- Savings associated with increased productivity and resource efficiency (lower energy and water use, decreased waste and recovery of by-products); and
- Reduced or prevented potential conflicts with consumers about products or services.

3.5 Summary of Chapter Three

It is clear in this chapter that the South African government is very serious about moving towards green businesses. The National Strategy for Sustainable

Development was detailed in this chapter as a driving tool towards green economy. The South African Government has the NEMA and the Green Scorpions to monitor the polluters of the environment. It was also noted in Chapter Three that the ISO 14001 and ISO 26000 standards are good drivers of sustainable business. These standards are not enough to drive the process of green economy without the monitoring and evaluation of multi-stakeholders, especially of the JSE listed companies.

Chapter Four will discuss the research methodology and the mixed method research design. The research instruments and the formulation of questions, in respect of investigating the impact of integrated sustainability reporting towards green business, will form the backbone of Chapter Four. A discussion of the reliability and validity of the research instruments will close Chapter Four.

CHAPTER FOUR

THE RESEARCH DESIGN AND METHODOLOGY

"Mixed method research is the act of combining several research methods to study one thing. They overlap each other somewhat, being complementary, at times, contrary at others. This has the effect of balancing each method out and giving a richer and hopefully truer account" (Bronstein & Kovacs, 2013: 354).

4.1 Introduction

The research methodology directs the researcher in planning and implementing the study in a way that is most likely to achieve the proposed objective. It is a design for conducting the study (Chetty, Partanen, Rasmussen & Servais, 2013: 20). In this chapter, a synthesis of the literature review on which the research instruments are based, is given as a point of departure. Chapter Four describes the triangulation method which is based on the structured questionnaire, semi-structured interview and reports of different JSE listed organisations.

This chapter also covers the discussion of the sample used, the pilot study of the research instruments, the interviews conducted and the distribution and return of the questionnaires. Chapter Four concludes by stating the relationship that exists between the researcher and the JSE listed corporations.

4.2 Defining the research method

Heyvaert, Maes and Onghena (2013: 660) describe methodology as the means or methods of doing something, while Plowright (2013: 2445) refers to methodology as the process of following the steps, procedures and strategies for gathering and analysing data in a research investigation. The research method also describes in detail how the study was conducted. Plowright further says that the research method includes the design, setting, sample, methodological limitations, data collection and analysis techniques of a study.

This was the foundation of the scientific methods and techniques employed in this study to obtain valid and reliable knowledge. Over the past few years, there has been an increasing trend of blending quantitative and qualitative data within a study to provide a broader and deeper perspective (Molina-Azorin, 2012: 34). This approach has been followed in this study and it is called *mixed methods.*

Hesse-Biber (2010: 15) describes triangulation as one approach of research that uses more than one method to investigate a research question in order to enhance confidence in the ensuing findings. Since much social research is founded on the use of a single research method and as such may suffer from limitations associated with that method or from its specific application, triangulation offers the prospect of increased confidence (Torrance, 2012: 112). Triangulation is also one of several rationales for multi-methods research. The term derives from surveying, where it refers to the use of a series of triangles to map out an area (Tindigarukayo, 2012: 11).

Flick, Garms-Homolová, Herrmann, Kuck and Röhnsch (2012: 98) say that triangulation is associated with measurement practices in social and behavioural research. They further suggest that the method can be used when combining a quantitative instrument and qualitative interviewing techniques. It is true that the two sets of findings may be inconsistent, but as they observe, such an occurrence underline the problem of relying on one measure or method.

Equally, the failure of the two sets of results to converge may prompt new lines of enquiry relating to either of the methods concerned or the substantive area involved. A related point is that, even though a triangulation exercise may yield convergent findings, researchers should be cautious of concluding that this means the findings are unquestionable.

It may be that both sets of data are sometimes faulty (Van Oostrom & Zantema, 2012: 14). It is important to note that in this research, triangulation will be used as a tool to combine quantitative and qualitative approaches to get valid and reliable results.

4.3 Different types of triangulation

Newman, Lim and Pineda (2013: 22) and Taber (2012: 127) extended the idea of triangulation beyond its conventional association with research methods and designs. They characterised four different forms of triangulation:

- First, *data triangulation*, which entails gathering data through several sampling strategies, so that slices of data at different times and social situations as well as on a variety of people are gathered.
- Second, *investigator triangulation*, which refers to the use of more than one researcher in the field to gather and interpret data.
- Third, *theoretical triangulation*, which refers to the use of more than one theoretical position for interpreting data.
- Fourth, *methodological triangulation*, which refers to the use of more than one method for gathering data.

The fourth of these is the most common of the meanings of the term. Flick (2011: 132) described a distinction between the *within-method* and *between-method* of triangulation. The former involves the use of variations of the same method to investigate a research issue: for example, a self-completion questionnaire might contain two contrasting scales to measure the perceptions of the participants, whereas the *between-method* triangulation involves contrasting research methods, such as a questionnaire and interviews (Fielding, 2012: 125).

Occasionally this meaning of triangulation is taken to include the combined use of quantitative and qualitative research to determine to what extent they arrive at convergent or divergent findings (Hesse-Biber, 2012: 138). In this study, methodological triangulation is employed, following the exploration of different variables from quantitative and qualitative approaches.

Torrance (2012: 112) states that triangulation is sometimes used to refer to all instances in which two or more research methods are employed. Thus, it might be used to refer to multi-method research in which a quantitative and a qualitative research method are combined to provide a more complete set of findings than could be arrived at through the administration of one method alone. However, it can be debated that there are good reasons for reserving the term for those specific occasions in which researchers seek to check the validity of their findings by cross-checking them with another method (Okafor, 2013: 61).

The idea of triangulation has also been criticised on several grounds by Drie and Dekker (2013: 339). Firstly, it is accused of subscribing to a naive realism that implies that there can be a single definitive account of the social world (Easton, 2010: 120). Such realist positions have also come under attack from writers like Barusch, Gringeri and George (2011: 15), who are aligned with social constructionism, which argues that research findings should be seen as just one among many possible renditions of social life. Writers like Lieber and Weisner (2010: 559), working within a constructionist framework, do not deny the potential of triangulation; instead, they depict its utility in terms of adding a sense of richness and complexity to an inquiry. As such triangulation becomes a device for enhancing the credibility and persuasiveness of a research account.

Secondly, Teddlie and Tashakkori (2012: 775) also criticised this method of research, by stating that triangulation assumes that sets of data deriving from different research methods can be unambiguously compared and regarded as equivalent in terms of their capacity to address a research question. Such a view fails to take account of the different social circumstances associated with the administration of different research methods, especially those associated with a *between-methods* approach (Flick, et al., 2012: 99). For example, the apparent failure of findings derived from the administration of a structured interview, to converge with structured questionnaire data may have more to do with the possibility that the former taps private views as opposed to the more general views that might be voiced in the more public arena of the semi-structured interview (Kadushin, Hecht, Sasson & Saxe, 2008: 46).

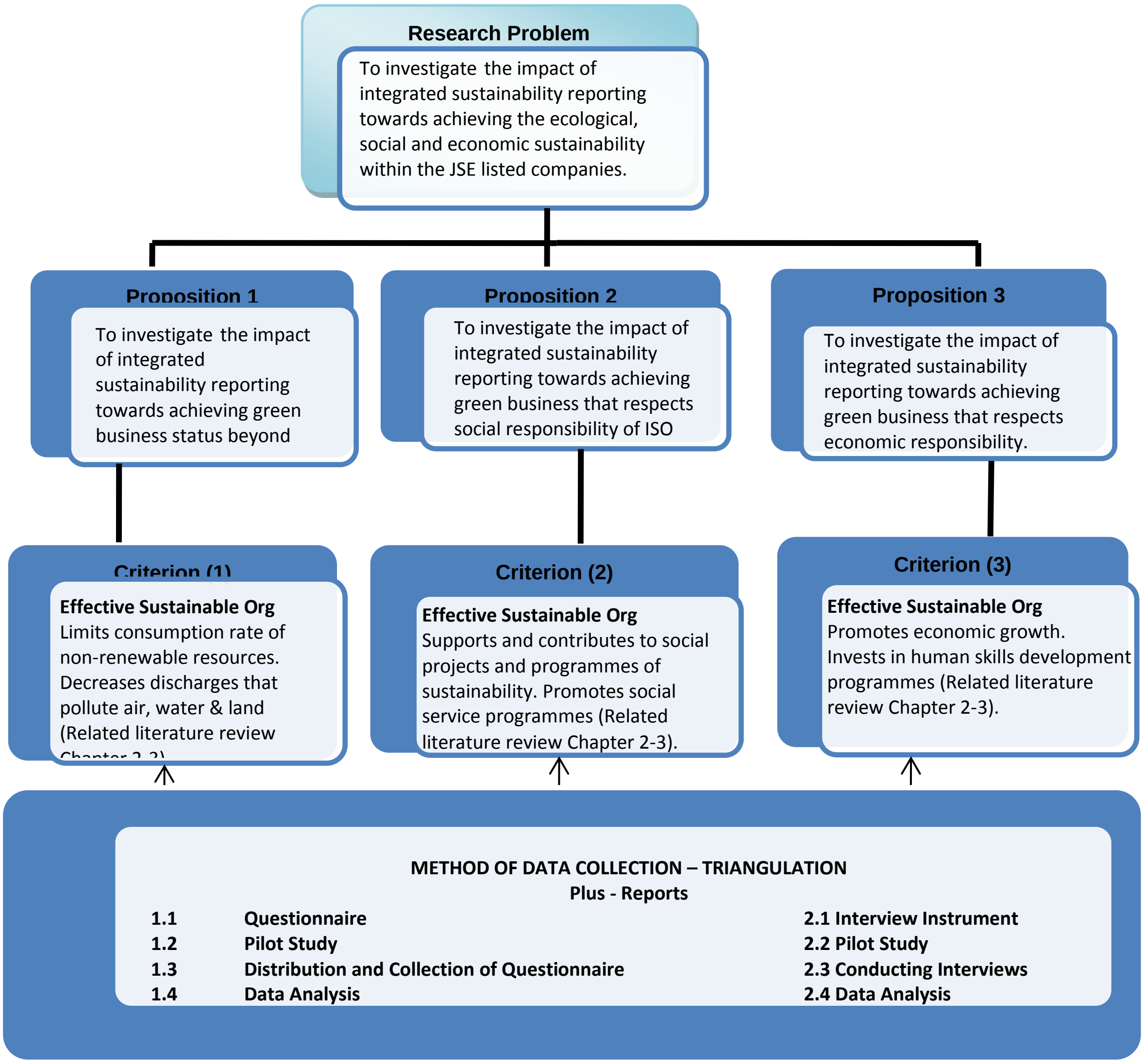
Therefore, in this research, quantitative and qualitative data will be combined to provide a broader and deeper perspective of descriptive analysis. Qualitative research is an intensely personal and subjective style of research. According to Harwood, Hansen and Lotter (2010: 46), quantitative scholars endeavor to test and verify philosophies that can clarify how one set of variables is related to another. Quantitative researchers try to reduce human performance to a set of limited features that can be quantified and operationalised so that they can easily be assessed. They further state that both quantitative and qualitative scholars seek to confirm the reliability and validity of the research results.

Hinkel (2011: 56) noted that the data that are reliable or constant as indicated by the scholar's capability to replicate the findings are of a key concern on the quantitative side, while the validity of the qualitative outcomes are vital so that data are representative of a true image of concepts under study. In the study of JSE listed organisations, it was vital to incorporate both approaches because advantages of each method will complement the other. The shortfalls of individual approaches are reduced and fears of internal validity are eliminated.

In this research, the guidelines, concepts, variables, methods and criteria are carefully selected to guide the researcher towards drawing unbiased conclusions. The researcher has chosen the triangulation technique, because it is in line with the selected variables and concepts of sustainable business approaches which are investigated in this study. Bak (2011: 76) states that the triangulation researcher identifies one or more variables that he/she intends to study and then collects data specifically related to those variables. Multiple methods of measuring each variable are identified and developed with attention to the validity and reliability of the measuring instruments (Hamilton & Corbett-Whittier, 2012: 55).

The literature review presented in chapters two and three of this study forms the foundation on which the contents of the structured questionnaire and the semi-structured interview questions were based. These questions were used to probe the attitudes, perceptions and views of management and multi-stakeholders in respect of the impact of integrated sustainability reporting (ISR) towards achieving green business status within the JSE listed companies. The schematic diagram of this research study is summarised in Figure 4.1.

Figure 4.1 Schematic diagram of the research report of ISR



Source: Researcher's own contribution

4.4 Triangulation research advantages and disadvantages

Diehl and McDonald (2011: 18), and Zikmund, Babin, Carr and Griffin (2012: 45) summarise the advantages and disadvantages of a triangulation method as follows:

4.4.1 Advantages

- It can increase confidence in the researcher's results.
- It can strengthen the completeness of the study.
- It can address different but complementary questions within the single study.

- Divergences can uncover new issues or processes that can result, in turn, in the development of new theories or modification of the existing ones.
- The researcher is closer to the research situation, contributing to a more nuanced understanding of the focus of the study.

4.4.2 Disadvantages

- It is a time-consuming exercise to mix two opposite methods.
- Understanding replication and comparative studies can be very difficult.
- Researchers may not be technically competent in particular methods.
- Researchers might be tempted to make inconsistent data sets artificially compatible in order to produce a more comparable account.

4.5 General view of ISR impact towards achieving green business status

The arguments presented below were utilised to compile the questions based on the general view of integrated sustainability reporting in this study.

4.5.1 Integrated Sustainability Reporting – one holistic reporting approach

Integrated sustainability reporting towards green business status may be viewed as a means of legitimising a company to its multi-stakeholders (Lorek & Spangenberg, 2014: 36), as companies seek to convince society that they have multi-stakeholders' interests at heart and that they share common objectives with them (Lodhia, 2013: 78). Turk, et al. (2013: 76) agreed that, by the time of World Summit on Sustainability, the concept had sufficiently matured for different regimes to officially identify both sustainability reporting and the role of GRI towards a holistic approach.

During the Johannesburg "Plan of Implementation", attendees noted that enhancing environmental issues, economic growth, social responsibility and accountability could be achieved by "actions at all levels to encourage green industry to improve voluntary initiatives, including environmental management systems, codes of conduct, certification and public reporting on environmental impacts and socio-economic issues, taking into account such initiatives as the ISO standards and GRI guidelines on integrated sustainability reporting" (GRI, 2012: 22). It was clear, as noted by Smith, et al. (2012: 2089), that sustainable development cannot be achieved unless information is disclosed on the economic, social and environmental impacts and performance of green businesses.

It is extensively recognised that, together with financial information, sustainability information is essential if regulators, companies, investors and the wider multi-stakeholders are to be able to measure and understand an organisation's contributions towards green sustainability. Ioannou and Serafeim (2011: 39) say that, in spite of the significant and recent growth in integrated sustainability reporting, the latest evidence still suggests that only 21% of listed companies worldwide report any sustainability information towards green business.

Arnold, Bassen and Frank (2012: 87) support this argument by saying that the potential shift from sustainability reporting to integrated sustainability reporting presents a significant opportunity for companies to implant social, economic and environmental issues into the primary corporate integrated reporting mechanism. An integrated sustainability report should ultimately replace all other forms of corporate reporting and should represent the primary vehicle for communicating with shareholders and multi-stakeholders who believe in sustainable development towards green economy (IIRC, 2011: 13).

According to Deloitte (2012: 6), the definitions of integrated sustainability reporting, coined by the International Integrated Reporting Council (IIRC, 2011) and the Integrated Reporting Committee (IRC, 2012), have the components that can be utilised to assess the effectiveness of different JSE listed companies towards green business status. Table 4.1 below depicts the summary of these components that can be used to develop the questions based on the general views of integrated sustainability reporting in this research.

Table 4.1 Summary of Integrated Sustainability Reporting components used

Components According to IRC - SA	Components According to IIRC
Organisational overview, business model, and governance structure	Organisational overview and business model
Remuneration policies	Governance and remuneration
Understanding the operating context	Operating context, including risks and opportunities
Strategic objectives, competencies, KPIs and KRIs	Strategic objectives, and strategies to achieve those objectives
Account of the organisation's performance	Performance
Future performance objectives	Future outlook

Source: Deloitte (2012:6)

4.5.2 Global Reporting Initiative and green business

From its inception, the GRI has held a clear mission "to enhance responsible decision-making by promoting international harmonisation in reporting relevant and credible corporate economic, environmental, and social performance information" (GRI, 2011: 13). So far, the GRI has developed and published reporting guidelines based upon the broad TBL concept, first developed by Elkington (1998: 93), and integrated the G3 guidelines with the ISO 26000 (GRI, 2010: 7).

Research conducted by the Governance and Accountability Institute (Herath & Freeman, 2012: 99) revealed that the number of Standard and Poor's 500, and Fortune 500 companies managing and reporting performance on environmental, social, economic and governance issues more than doubled between 2010 and 2011. This is a clear indication that integrated sustainability reporting towards green economy has well and has truly gone mainstream.

In total, over 4,000 organisations worldwide produce integrated sustainability reports without any assessment of the impact of these reports towards green business status. In countries like South Africa, Brazil and China, disclosing integrated sustainability information is already a listing requirement (GRI, 2013: 11).

The G3 Guidelines state three major components as follows (GRI, 2012: 19):

- Strategy and profile disclosures set the overall context for reporting and for understanding organisational performance, such as its strategy, profile, governance, and management approach;
- Disclosures on management approach cover how an organisation addresses a given set of topics in order to provide context for understanding performance in a specific area; and
- Performance indicators that elicit comparable information on the economic, environmental, and social performance of the organisation.

According to GRI (2013: 18), the next generation of the GRI Guidelines, G4, addressed the requirements for sustainability data, and enabled reporters of corporations to provide relevant information to multi-stakeholders. The G4 guidelines improved on content in the current Guidelines G3 and G3.1, with strengthened technical definitions and improved clarity. Table 4.2 below depicts the summary of the components used to develop the questions based on global reporting initiative – G4 in this research.

Table 4.2: Summary of Global Initiative Reporting components

Global Initiative Reporting	Components to be Assessed
General Standard Disclosures	Strategy and Analysis; Organisational Profile; Identified Material Aspects and Boundaries; Stakeholder Engagement; Report Profile; Governance; and Ethics and Integrity.
Specific Standard Disclosures	Category: Economic Category: Environmental Category: Social – Sub-Category: Labour Practices and Decent Work – Sub-Category: Human Rights – Sub-Category: Society – Sub-Category: Product Responsibility

Source: Deloitte (2012:20)

4.5.3 Corporate Social Responsibility

Smith (2011: 17) notes that corporate social responsibility, also called corporate conscience, corporate citizenship, social performance, or sustainable responsible business is a form of corporate self-regulation integrated with a sustainable business model. He further states that CSR policy functions as a built-in, whereby a business monitors and confirms its active compliance with the essence of the law, ethical standards and universal norms.

CSR is a process with the aim to embrace responsibility for the company's actions and encourage a positive impact through its activities on the environment, social responsibility, consumers, employees, communities and multi-stakeholders.

Other researchers like Rupp, Shao, Thornton and Skarlicki (2013: 55) argue that CSR is merely a smoke screen, or an attempt to prevent the role of governments as ombudsmen over powerful multinational corporations. CSR is titled to assist an organisation's mission as well as act a guide to what the company stands for and will uphold to its multi-stakeholders.

Kemper, et al. (2013: 43) maintain that development business ethics is one of the forms of applied ethics that scrutinises ethical principles and moral or ethical problems that can arise in a green business environment. Hemphill (2013: 311) states that the ISO 26000 is the recognised international standard for CSR. It is widely accepted that CSR follows similar principles, but with no official act of legislation. The UN has developed the Principles for Responsible Investment as guidelines for investing entities.

Table 4.3 below depicts the summary of the components used to develop the questions based on corporate social responsibility in this research.

Table 4.3: Dimensions of CSR to be assessed

CSR Dimensions	What to be assessed
1. Organisational strategic planning systems	The company's ethical and human resources strategy; to evaluate socio-economic trends and social aspects of the company; to provide the required level of governance and economic responsibility; to institute a proper internal reporting system to monitor and control social accountability and social investment; to provide environment protection and sustainability; and to respect the human rights of its employees and the general public at large.
2. Social accountability and social investment	An organisation should have transparency and openness regarding its business activities; a system for preventing corruption, financial irresponsibility and underhand dealings; arrangements to produce an overall positive impact for a better society; facilities for socially responsible investment for education, healthcare, etc.
3. Environment protection and sustainability	Do not pollute water; do not dump toxic wastes, etc. According to the latter view, business would be said to have direct moral responsibility to the natural world. If animals, plants, or ecosystems have moral standing, then business ethics must address business's moral responsibility to such natural objects. Reducing paper consumption can improve efficiency and reduce costs while also earning your company a reputation for being environmentally conscious.
4. Corporate governance and economic responsibility	Profitability: A business creates profit when it sells products or services that are more valuable than the materials and labour it uses to create them. Put simply, the business creates profit by adding value. Transparency: When a business acts with transparency, it provides as much information as possible about its operations. The company allows direct stakeholders to clearly see its practices, strategies and financial position. Transparency benefits direct stakeholders. Non-discrimination: In an economic sense, non-discrimination does not refer to the absence of bias against gender or ethnic groups. It means a business applies the same financial criteria to all of its customers, suppliers and employees. Sustainability: Businesses ensure the sustainability of their operations by improving business processes and developing secure, long-lasting relationships with suppliers and customers.
5. Ethics and human resources	Hence businesses will have to incorporate these issues into their business strategic planning. A corporation ought to have in-house ethical training to help employees make appropriate ethical decisions, to meet the environmental and ethical concerns of consumers. A transparent system is needed to examine, in respect of the company itself and the entire supply chain, labour practices such as normal working hours, taking any necessary steps against labour exploitation, harsh and inhumane workforce treatment, ensuring safe and hygienic working conditions, no discrimination on the basis of age, sex or ethnic origin, etc. and the involvement of staff in activities such as payroll, fundraising and community volunteering, etc.

Source: Brammer, Jackson & Matten (2012: 8)

4.5.4 The King Report on Corporate Governance

The section below depicts the summary of characteristics of good governance used to develop the questions based on the King Report on corporate governance.

- Discipline: a commitment by the organisation's senior management in terms of correct standards and proper behaviour;
- Transparency: an outsider can analyse the organisation's actions and performance;
- Independence: conflict of interest is avoided;
- Accountability: the rights of shareholders to receive information related to the stewardship of the organisation's assets and its performance;
- Responsibility: acceptance of all consequences of the organisation's behaviour and actions;
- Fairness: acknowledgement of rights and interests of the organisation's multi-stakeholders; and
- Social responsibility: the business's commitment to ethical standards, socio-economic activities and environmental impacts.

4.5.5 Sustainable development dimensions in green business

Hsu, et al. (2013: 657) and Springett (2013: 75) describe the concept of sustainable development towards green business as a collection of methods to create and sustain development, which seek to relieve poverty. They view sustainability towards green business as a process that creates equitable standards of living that will surpass those of the present generation. They further claim that this process should establish sustainable political practices, while taking the necessary steps to avoid irreversible damage to natural capital in the near future and beyond.

In this study, integrated sustainability reports and views of multi-stakeholders should be assessed according to sustainable development criteria towards green business.

Table 4.4 below depicts the summary of the components used to develop the questions based on sustainability dimension in green business.

Table 4.4: The three pillars of sustainable development in green business

Economic Sustainability	Ecological Sustainability	Social Sustainability
Growth Development Productivity and Profit Market expansion Externalise costs	Ecosystem integrity Carrying capacity Biodiversity Conservation Elegance	Equity Empowerment Accessibility and Participation Cultural identity Institutional stability

Source: Singh, Murty, Gupta & Dikshit (2009: 190).

The Table 4.5 below depicts the criteria that were used to develop some of the questions based on the environmental management system as a driving tool for sustainable development in this study.

Table 4.5: EMS as a driving tool for green sustainable organisations

EMS driving tool	Triple bottom line (TBL)	Sustainable development (SD)
Integrated EMS Policy Top management committed to ISO 14001 standard improvement: EMS, social, economic and ecological aspects	**Integrated EMS Policy – TBL** Environmental benefits Social benefits Economic benefits Processes, products, services, communities' activities, employees and economic growth	**Integrated EMS Policy - SD** Ecological sustainable policy Economical sustainable growth policy Social development policy
Integrated Planning EMS legal requirements and beyond to accommodate social, economic and ecological aspects.	**Integrated Planning - TBL** Environmental benefits Social benefits Economic benefits	**Integrated Planning - SD** Economic, social and ecological requirements to meet the needs of all multi-stakeholders
Implementation & Operation EMS, social and economic aspects from raw material to by-products.	**Implementation & Operation - TBL** Processes, products, services, communities' activities, employees and economic growth.	**Implementation & Operation - SD** Processes and products that accommodate zero pollution, social development and economic growth for all.
Checking & Correction Check and audit all systems. Corrective measures to all the integrated systems.	**Checking & Correction - TBL** Environmental benefits Social benefits. Economic benefits, processes, products, services, communities' activities, employees and economic growth.	**Checking & Correction - SD** Check all products and services - whether they are environmentally friendly, promote economic growth and are part of community development.

Multi-stakeholders Review	Multi-stakeholders Review – TBL	Multi-stakeholders Review - SD
Review the integrated systems.	Processes, products, services, communities' activities, employees and economic growth.	Review the three pillars of sustainability - locally and globally.

Source: Researcher's own contribution

4.5.6 The National Environmental Management Act as a framework for assessing effective green business

The National Environmental Management Act (107 of 1998: 9) and all other related Acts have the following principles which apply throughout the Republic of South Africa, and all the JSE listed organisations are also affected by these principles:

- Sustainable development requires the consideration of all relevant factors including the disturbance of ecosystems and the loss of biological diversity which should be avoided or minimised and remedied.
- Development must be socially, environmentally and economically sustainable.
- Environmental management must be integrated and acknowledge that all elements of the environment are linked and interrelated.
- Environmental justice must be pursued so that adverse environmental impacts shall not affect the vulnerable and disadvantaged people.
- Equitable access to environmental resources, benefits and services to meet basic human needs.
- Responsibility for the environmental health and safety consequences of policy, programme, project, product, process, service or activity exits throughout its life cycle.
- The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated and decisions must be appropriate in the light of such consideration and assessment.
- Global and international responsibilities relating to the environment must be discharged in the national interests.
- The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further

pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment.

- The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted.

The above-mentioned principles were used to develop the questions based on the effectiveness of green organisations using the NEMA and other acts as a framework towards achieving sustainable business.

4.6 Research design

Creswell (2013: 8) says that the research design is a complete strategy of attack on the central research problem. He also states that it provides the overall structure for the procedures that the researcher follows, the data that the research collects, and the data analyses that the researcher conducts. In short, it is a complete planning strategy for the research study.

In this work, the investigator's goal is objectivity. That is: the researcher seeks to keep personal values, beliefs and biases from influencing the process of data collection and analysis. Thus, the researcher typically administers tests that involve minimal personal interaction between the investigator and the research sample.

Bryman (2012: 47) writes that the interaction process is standardised to make it identical for every individual in the sample. The respondents' role in the research is relatively passive. The respondents' function is to react to the researcher's questions. They are not asked to interpret the research data or to offer any opinions other than those requested by the measuring instruments.

Bryman (2012: 59) has further compiled distinguishing characteristics of quantitative approaches to other research methodologies as follows:

- *The Purpose of the Research* is to explain, predict, confirm, validate and test theory.

- *The Research Process* is structured, focused, works with known variables, established guidelines, static design, is context free, and has a detached view.
- *The Methods of Data Collection* is representative, includes a large sample and standardised instruments.
- *The Data Analysis* is based on deductive reasoning. It uses numbers, statistics, aggregated data and a formal voice and scientific style.
- *The Reporting of Findings* is based on the reduction of data to numbers, after which the researchers present the results of statistical tests. The researchers' power of interpretation rests in the large number of scores that depict the norm, or average of the group's performance. The results are presented in a report that employs a formal scientific style.

4.7 The structured questionnaire as an instrument of research

4.7.1 The questionnaire

The structured questionnaire consisted of 43 closed-ended statements excluding the six general information statements. The questions were designed to obtain the perceptions of senior management about the impact of integrated sustainability reporting (ISR) towards achieving green business status within the JSE listed companies.

Most questions were formulated using the three dimensions or pillars of sustainability to investigate whether the effective implementation of ecological, social and economic sustainability is achieved or not by JSE listed organisations towards green business when using one holistic report approach. All the questions relevant to this study are indicated and grouped in Table 4.6 to make it easy for the respondents and the researcher when the results are analysed in Chapter Five.

Table 4.6: Questionnaire statements associated with the impact of integrated reporting

GROUPED QUESTION ITEMS	ITEMS DESCRIPTION
Q.1 Six Statements	General Information
Q.2 Ten Statements	Integrated Sustainability Reporting components: GRI, CSR and King Report on Corporate Governance
Q.3 Four Statements	EMS ISO 14001 and CSR ISO 26000 as tools to drive sustainability in green business
Q.4 Five Statements	The NEMA as framework for effective green business
Q.5 Eight Statements	Impact of ISR in terms of ecological sustainability
Q.6 Eight Statements	Impact of ISR in terms of social sustainability
Q.7 Eight Statements	Impact of ISR in terms of economic sustainability

Source: Researcher's own contribution

According to Table 4.6, the general information in the questionnaire was grouped into six statements. These statements were formulated in such a manner that the respondents will give the researcher most of the demographic information that is needed in the analysis of the results. All the other questions will prompt the respondents to give specific answers based on each category as highlighted above.

4.7.2 Discussion of questions

All the statements of the questionnaire, attached in Appendix 1 at the end of this thesis, request senior management to rate the impact of their integrated sustainability reports in terms of achieving green business status. The first part of the questionnaire gathered general information. The respondents were asked to provide the following information: their position in the organisation, number of years in the organisation, gender, age group, number of years using integrated sustainability reporting (ISR) and education background.

The second part of the questionnaire was made up of specific questions directed to management about the impact of using one report towards achieving green business status. A Likert grading scale of 1 to 5 was provided. If the statement is rated 1, respondents strongly agree that their organisation is moving towards achieving sustainable business status when using one report. If it is rated 5, respondents strongly disagree that their organisation is moving towards achieving green business status when using an integrated sustainability report.

All the specific questions, from question two to question seven, were based on the components of integrated sustainability reporting and beyond as indicated by the literature review. As stated in the literature review, an integrated sustainability report is not simply an amalgamation of the financial statements and the sustainability report.

It incorporates, in clear language, material information from these and other sources to enable multi-stakeholders to evaluate the organisation's performance and to make an informed assessment about its ability to create and sustain value (Brockett & Rezaee, 2012: 142).

Servaes and Tamayo (2013: 66) support the notion that an integrated sustainability report should provide multi-stakeholders with a concise overview of an organisation, integrating and connecting important information about strategy, risks and opportunities and relating them to social, environmental, economic and financial issues. By its very nature an integrated sustainability report cannot simply be a reporting by-product or service. It needs to flow from the heart of the organisation and it should be the organisation's primary report to multi-stakeholders (IRCSA, 2011: 1).

Table 4.6 above shows ten specific questions based on the general view of ISR, CSR and the King Report on Corporate Governance towards achieving green business status and these questions were based on the literature review in Chapters Two and Three of this study.

The questions in Table 4.6 were formulated in such a manner that respondents will rate the effectiveness of ISR using EMS ISO 14001 and CSR ISO 26000 as tools to drive sustainability in green business. It is explained in the literature review that many countries have different environmental laws that enforce organisations to perform better than the voluntary ISO 14001 standards.

According to the JSE requirements for listing, a sustainable company should continually seek to improve its environmental performance by working to reduce and control its direct negative environmental impacts; promote awareness of its significant direct and indirect impacts; work to use natural resources in a sustainable manner; and commit to risk reduction, reporting and auditing (JSE Limited, 2012: 14).

The standard outlines content and approaches to social responsibility, and underlines that social responsibility should be an integral part of core organisational strategy like the ISO 14001, ISO 9001 and ISO 18000 standards (Delchet-Cochet & Vo, 2013: 134). Cagnazzo, Raggi and Carbone (2013: 172) view the ISO 26000 standard as a good drive towards green economy.

They are supported by Lee and Farzipoor Saen (2012: 220) who state that the ISO 26000 standard is generic and can fit all organisations' strategic management approaches. Lee and Farzipoor Saen further state that the ISO 26000 standard can also assist an organisation for the impacts of its decisions and activities on society and the environment, through transparent and ethical behaviour.

Table 4.6 indicates five questions designed in such a manner that the respondents will rate the NEMA as a framework for effective green business in the South African context. The principles of the NEMA and other legislation in Chapter Three of the literature review were used.

The NEMA has the following principles which apply throughout South Africa and all the JSE listed organisations that affect the environment:

- Sustainability requires the consideration of all relevant factors including the disturbance of ecosystems and the loss of biological diversity which should be avoided or minimised and remedied.
- Development must be socially, environmentally and economically sustainable.
- Environmental management must be integrated and acknowledge that all elements of the environment are linked and interrelated.

- Environmental justice must be pursued so that adverse environmental impacts shall not affect the vulnerable and disadvantaged people.
- Equitable access to environmental resources, benefits and services to meet basic human needs.
- Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exits throughout its life cycle.
- The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.
- Global and international responsibilities relating to the environment must be discharged in the national interests.
- The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment.
- The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted.

There were seven questions designed in such a manner that the respondents will rate the effectiveness of integrated sustainability reporting towards green business status using the components of ecological or environmental sustainability. Pratt (2003: 441) records that most of the green organisations that support positive environmental sustainability should have green programmes to reduce carbon dioxide emissions. Such green organisations fully support and subsidise projects and programmes that stop the accrual of poisonous substances in the natural environment.

Schermer and Hoppichler (2010: 480) note that organisations which really support ecological sustainability by effective environmental management would ensure that the natural composition of the atmosphere and of water stays within the required levels. They also say that such organisations should ensure that there is no further destruction of species and ecological communities when they make their environmental impact. Cairns (2010: 188) views effective ecological sustainability as a tool to restore natural habitats to the extent needed to safeguard threatened species. The most effective implementation of ecological sustainability by organisations should support programmes that adopt a closed-cycle economy in which virtually all waste is recycled.

Table 4.6 has noted eight questions in this category that cover the impact of ISR towards achieving social sustainability. Respondents were requested to assess and evaluate their organisations by rating the way their organisations support and contribute to socially sustainable projects and programmes.

It was noted by Hanley and Atkinson (2012: 108) that the socially sustainable corporation should grant equal rights to workers and provide social services like health and education to encourage dynamic citizenship.

Green organisations should place particular emphasis on providing services and income-generating opportunities for women. These organisations should support small and medium-scale business opportunities for women within their regions. Programmes and projects that promote distributional equity, around the theme of sustainability, should be supported (Gerbens-Leenes, Hardi & DeSouza-Huletey, 2013: 231).

Transitional employment and training development programmes and projects targeting sustainability should also be supported by effective sustainable organisations.

The eight questions indicated in Table 4.6 required the respondents to rate their ISR impact in terms of achieving effective economic sustainability. The economic sustainability dimension in this study is viewed as a key system to produce goods and services on a continuing basis, and to avoid sectorial imbalances between such areas as economic stabilisation and fair distribution of environmental costs. Looking at the most effective green organisation in terms of the economic dimension, it will fully support and contribute to the national economic accounts in terms of which a register of depletion and degradation of natural resources is established (Brown & Corbera, 2012: 41). Davidson and Winkler (2012: 97) state that the JSE listed organisation that supports economic growth will always partner with green sustainable corporations that promote green economic activities throughout South Africa. In such cases, the government subsidies should be made available to organisations which move towards green status.

4.7.3 The research sample

As stated in this study, there are 394 companies in South Africa listed on the Johannesburg Stock Exchange as of 11 January 2013. Two hundred and eighty companies (71%) were selected for the purpose of this study. The questionnaires were sent via email to senior managers. One questionnaire was distributed to each JSE listed organisation.

The receiver of the questionnaire was requested by the sender to complete the questionnaire via email and send it back. The completed questionnaires were also lodged with the supervisor of this study. The interviews were done after the descriptive analysis of the questionnaires to further endorse the attitudes, perceptions and views of the participants.

The top fifteen JSE listed companies were used as pilot sites to test the questionnaire. Only fifteen questionnaires were distributed for the pilot study.

4.8 The semi-structured interview

According to Rowley (2012: 260), the semi-structured interview is the most common form of interviewing. In it, the interviewer worked out a set of questions beforehand, but intends the interview to be conversational. To do so, the interviewer can change the order of the questions or the way they are worded (Kvale & Brinkmann, 2009: 42). He or she can give explanations or leave out questions that may appear redundant. Thus, the main job is to get the interviewee to talk freely and openly while making sure you get in-depth information on what you are researching.

Irvine, Drew and Sainsbury (2013: 88) as well as Seidman (2012: 31) state that, in order for the interviewer to do this effectively, he or she must remember to:

- Listen, and do not talk while the interviewee is responding to your questions.
- Keep questions short, straightforward and clear, otherwise the interviewee may only remember part of the question.
- Remain neutral; do not do anything while the interviewee is talking.
- Enjoy the interview or look as if you do.
- Sit up, look interested, smile and keep good eye contact.
- Use probes and prompts to get as much information as possible.
- Take a full record of the interview during the process.

4.8.1 Semi-structured interview steps to be followed

The researcher followed the following process during the semi-structured interviews:

- Introduced himself, explained the purpose of the interview, and asked for permission to record or take notes, and explained the confidentiality of the process and the length of interview.
- Carried out the interview in a logical progression. Started with the easier, more general questions and gradually moved to more in-depth and challenging ones.
- Showed appreciation and said goodbye to participants. Remained alert to the "half-way out the door" confession, once the recorder was switched off. Often, this was when the most meaningful information was given, and the researcher may want to use it later.

Following the above interviewing techniques, the questions were designed to obtain the perceptions, views and attitudes of management about the impact of ISR towards green business within the JSE listed corporations. As of 11 January 2013, the JSE had a total of 394 listed companies and its market capitalisation was more than R8.62 trillion. The interviews were conducted as follows: a total number of 10 senior managers, from 10 randomly selected JSE listed companies were interviewed. They were telephonically interviewed. It is vital to note that these companies also participated in answering the questionnaire. A systematic random sampling method was used during the selection of the interviewees.

An explicit statement of purpose of the research was written as introductory notes to the semi-structured interview questions. These notes were used to explain to the interviewees the purpose of the study before the interrogation process. All the specific questions relevant to the interviews are indicated and grouped in Table 4.7 below to make it easy for the researcher when the results are analysed in the next chapter. It is significant to note that during the interviews the questions were not followed according to the sequence in the table, but randomly asked according to the response of the interviewee.

Table 4.7: Semi-structured interview questions related to the effectiveness of EMS towards achieving green sustainability

GROUPED QUESTION ITEMS	ITEMS DESCRIPTION
Q.1 Six Statements	General Information
Q.2 Ten Statements	Integrated Sustainability Reporting components: GRI, CSR and the King Report on Corporate Governance
Q.3 Four Statements	EMS ISO 14001 and CSR ISO 26000 as tools to drive sustainability in green business
Q.4 Five Statements	The NEMA as framework for effective green business
Q.5 Six Statements	Impact of ISR in terms of ecological sustainability
Q.6 Six Statements	Impact of ISR in terms of social sustainability
Q.7 Six Statements	Impact of ISR in terms of economic sustainability

Source: Researcher's own contribution

According to Bryman (2012:38), a semi-structured individual interview technique deals with issues determined by the researcher in advance. These issues confirmed the questions to be formulated for the questionnaire and can be used after the data collection to verify any validity of the data from the questionnaire. It is vital to note that during the interviews the questions were not followed according to the sequence of the above table, but randomly asked according to the response of the interviewee.

4.9 Recording of responses

The recording of responses was done as systematically, thoroughly and completely as possible with the help of a thirty-minute tape-recording per interview. It took the researcher approximately two hours to convert the taped transcription to a written transcription for each individual interview. During the interviews, answers were written on the question sheets. The 50 randomly selected companies were issued letters to inform their senior managers about the purpose of the study and permission from the senior management of the JSE listed companies was granted to the researcher to carry out the interviews.

4.9.1 Analysis of responses

The main technique used by the researcher in this study is content analysis as described by Zhang and Wildemuth (2009: 309). Its purpose is to describe systematically the content of the responses and classify the various meanings expressed in the material recorded.

The researcher followed five stages of analysis which are active and judgmental processes from the obtained responses. Table 4.8 below briefly explains these stages.

Table 4.8: Analysis stages

Stages	Explanation
Preparation Stage	Unit analysis is identified and classified as word, sentence and whole conversation under the correct category of items.
Categorising Stage	A set of categories like the six specific questions was followed as indicated in Table 4.12 above.
Coding Stage	Each utterance is classified as one element of the core elements.
Tabulating Stage	All 50 interviewees' perceptions and views are tabulated and discussed according to the criteria of literature reviews.
Illustrating Stage	All elements are listed and presented as a set.

Source: Researcher's own contribution

4.9.2 Generating categories, themes and patterns

After the interviews were transcribed verbatim as described in Table 4.8 above, the researcher identified the themes, ideas and patterns of belief emerging from the data. Through inductive, open-ended analysis the researcher was able to make generalisations from themes and categories that were uncovered.

Logical analysis was utilised to cross-classify schemes with one another to generate new insights (Glaser & Strauss, 2009: 44). The advantage of cross-classification is that logical discrepancies in the analysed data are revealed. It is also imperative to note that the data obtained from the interviews were incorporated in Chapter Five of this dissertation.

4.10 Validity and reliability

When research attempts to determine the attitudes, perceptions and views of senior managers, using the questionnaire and semi-structured interview, it is essential to note that the instruments must be valid and reliable. According to Abowitz and Toole (2010: 1950), the validity of the measurement instruments is the extent to which the instruments measure what they are supposed to measure. The measurement instruments of this study are based on content validity. They further state that content validity is the extent to which measurement instruments are a representative sample of the content being measured. The content validity in this study measures the perceptions and views of senior managers regarding the impact of one report towards achieving green business status in JSE listed corporations.

According Gass and Mackey (2013: 28), reliability is the consistency with which measuring instruments yield to certain results when being measured have not changed. In this study the same measuring instruments were utilised for all the selected organisations. The content and the items of the questionnaire and the semi-structured interview questions were exactly the same for all the JSE listed organisations.

4.11 Data analysis of the questionnaire

The descriptive analysis approach was used to analyse the collected data. Descriptive research refers to a research study that has, as the main objective, the accurate portrayal of characteristics of persons, situations or group of specified variables (Shank, 2012: 60). It is defined by Yin (2014: 15) as a non-experimental research design used to observe and measure a variable when little conceptual background has been developed on specific aspects of the variables under study.

In this research, the full statistical analysis which was followed is attached at the end of this dissertation. The Nelson Mandela Metropolitan University Statistical Department was used during the data analysis process to compile and analyse the collected data.

In this study, the descriptive analysis was applied to the demographic details of the questionnaires to obtain a general indication of tendencies in the data. The information on the demographic details became important in the statistical analysis of the observed frequencies. The same approach was followed when the specific questions of the questionnaire were discussed and analysed. Descriptive statistics quantitatively describe the main features of a collection of data. It summarises the population data by describing what was observed in the sample numerically or graphically.

In this study, the frequencies and percentages were used to describe the different categories of data in a combination of tabulated description (tables) and statistical commentary (discussion of the results). It is vital to note that the descriptive statistical analysis allows the researcher to present the data in a more meaningful way for simpler interpretation of the results (Lawless, 2013:120). The descriptive analysis of the questionnaire and the demographic information are presented and analysed in the next chapter.

4.12 Limitations of the research instruments

- The questionnaire consisted of closed-ended questions, allowing the respondents no opportunity to elaborate or give reason for their choices of rating. This approach was complemented by the open-ended questions of the semi-structured interview.
- All questions of the questionnaire and the interview guiding questions were in English only. That alone may have limited free flow of quality input from respondents whose first language was not catered for.
- Not all sustainable business indicators were used to assess the impact of ISR towards achieving green status - only the components or key pillars of green economy as discussed in Section 4.5.
- This research study is limited to the South African context of JSE listed organisations.

4.13 Relationship between the researcher and the JSE listed corporations

In this work, the investigator's goal is objectivity. That is: the researcher seeks to keep personal values, beliefs and bias from influencing the process of data collection and analysis of the JSE listed corporations. Thus, the researcher typically administers tests that involve minimal personal interaction between the investigator and the research sample. The researcher developed interests in the green industry when he was doing his master's degree in business management with Oxford Brookes University. The researcher is not involved in any of the JSE listed organisations in this study, except to administer the tests during the investigation process, data collection and results analysis.

4.14 Summary of Chapter Four

This chapter covered a synthesis of the literature review on which the research instruments are based. It also explained the triangulation research methodology which was used to answer the specific questions raised by the problem statement. The Schematic diagram of the research report of ISR was discussed in this chapter.

The four sub-problems were explained and linked to the different components which were based on the related literature review of chapters two and three of this study.

Integrated sustainability reporting components that cover GRI, CSR, EMS and the King Report on Corporate Governance were grouped together and tabulated in this chapter. The related literature review of Chapters Two and Three was used to develop the specific questions of the questionnaire and the instrument of the semi-structured interviews. The final part of the chapter explained the descriptive data analysis and the limitations of this study.

The next chapter will discuss the research results and evaluation of this study which will be based on the collected data and the analysis of the two instruments.

CHAPTER FIVE

RESEARCH RESULTS AND EVALUATION

5.1 Introduction

In Chapter Four, the design of the research instruments was explained as well as how the research questions were relevant to the investigation of the impact of integrated sustainability reporting (ISR) towards achieving green business status within the JSE listed companies. This chapter deals with the outcomes of the collected data from the questionnaires sent to the respondents and the detailed analysis of the interviews conducted after the questionnaires were analysed to validate the findings thereof. The last part of this chapter evaluates all the tabulated results according to the specific questions of the questionnaire, the results of the semi-structured interviews and the analysis of the integrated sustainability reports of different JSE listed organisations.

5.2 General and demographic information of the questionnaire

In this part of the analysis the general and demographic information were explained. All the tables are designed to depict the different categories of this information. The explanation covers the position of the respondents in the organisation, number of years in the organisation, gender, number of years involved in ISR activities, age group and educational background.

5.2.1 Position of participants in the JSE listed organisation

The respondents were categorised into six main positions in the organisation and a representative sample is depicted in Table 5.1. It is noted from the table that the CEOs or Managing Directors (81%) who are the decision-makers in the field of integrated sustainability reporting participated in big numbers. These senior managers' perceptions were considered as relevant statements in assessing the extent to which ISR is moving towards achieving ecological and socio-economic sustainability of green business. Within the organisations, 5% of the Chief Financial Officers answered the questionnaire. It was further noted that 5% of the ISR Managers or SHEQ Coordinators responded to the questionnaire. Only 4% of other stakeholders answered the questionnaire. The stakeholders are people who are directly or indirectly involved with the compilation and implementation of ISR such as board members and shareholders.

The reliability and validity of this work were supported and confirmed by the semi-structured interviews conducted and the integrated sustainability reports analysis after the quantitative survey in some of the JSE listed corporations. It is important to note that the qualitative results are further explored in Section 5.4 of this chapter.

The last category was included to obtain the views of the people who are indirectly involved with the compilation and implementation of ISR towards achieving effective green business.

Table 5.1: Positions of participants

POSITION	FREQUENCY	PERCENTAGE
CEO/MD	151	81
CFO	09	5
ISR Manager	09	5
ISR/SHEQ Coordinator	10	5
Other (Board & shareholders)	07	4
Total	**186**	**100**

5.2.2 Number of years involved in the corporation

Table 5.2 below reflects the number of years the respondents have been involved in the organisation. The table indicates that most of the respondents (53%) who answered the questionnaires are people who have been involved with the JSE listed organisations for approximately three years. It is also noted that 26% of the respondents are people who have work in their different organisations between four and nine years. Ninety per cent of the people been involved with the JSE listed corporations between nine and 12 years, and 2% are people who were involved with the JSE listed organisations for more than 13 years.

This means that most of the people who participated in this research study are people who are and experienced in terms of assessing the effectiveness of ISR towards achieving ecological and socio-economic conditions of green business. This point was supported by the triangulation approach which was employed by the researcher to verify the outcomes of this survey. Most of the people who were interviewed by the researcher have been employed for more than three years in the JSE listed companies and have worked with ISR. Their contributions made this study more valid and reliable.

Table 5.2: Representing number of years involved in the corporation

GROUPING (YEARS)	FREQUENCY	PERCENTAGE
00-03	99	53
04-09	48	26
10-12	35	19
13-18	02	01
19 and above	02	01
Total	**186**	**100**

5.2.3 Gender

The gender category was included in the questionnaire to ensure that a gender balance of respondents was achieved. The gender category also indicated to the researcher the number of males and females involved in managing the ISR in the different JSE listed organisations. Table 5.3 below depicts the representation in this category. The table reflects that more males than females answered the questionnaires (Males = 89%, Females = 11%). What is interesting though is that the JSE listed organisations are dominated by males, especially in the senior management roles. It is also noted that there are few females who are involved in the ISR compilation and implementation at senior and operational levels. These listed companies are presently not addressing the gender equity issues as required by the labour laws in South Africa.

Table 5.3: Gender representations

POSITION	FREQUENCY	PERCENTAGE
Male	166	89
Female	20	11
Total	**186**	**100**

5.2.4 Number of years using integrated sustainability reporting

Table 5.4 indicates the number of years the JSE listed organisation has been using integrated sustainability reporting. The table shows that 94% of the respondents are from JSE listed organisations that have been using integrated sustainability reporting between two and six years. This is an important finding for this study, because it indicates that most of the JSE listed organisations who responded to this study are presently using ISR in different levels. Only 5% of the respondents come from JSE listed organisations that have been using the integrated sustainability reporting for less than a year. Most answers, therefore, were received from respondents who are in a better position to give their perceptions and views about ISR towards achieving green business.

Table 5.4: Number of years using ISR representations

YEAR	FREQUENCY	PERCENTAGE
00-01	09	5
02-03	96	52
04-05	44	23
05-06	35	19
07 and above	02	1
Total	**186**	**100**

5.2.5 Age group

This category was included in the questionnaire to ascertain the age group of the respondents. Table 5.5 portrays the age group representation. More than ninety two per cent of the population sample group were people older than 31 years. The number of mature respondents correlates with the number of years involved in the organisation as indicated in Table 5.4 above. The information collected in this research study comes from mature, well-informed and experienced people who are knowledgeable about the implementation of ISR in their JSE listed corporations.

During the process of interviewing the senior management of JSE listed organisations' candidates, it was noted that most of the candidates are familiar with and knowledgeable about the integrated sustainability reporting processes.

Table 5.5: Age group representations

AGE IN YEARS	PERCENTAGE
19 – 20	01
21 – 30	7
31 – 40	27
41 – 50	20
51 and above	45
Total	100

5.2.6 Educational background

The educational background of the respondents is indicated in Table 5.6. Most of the respondents (97%) who answered the questionnaires are people who have diplomas and degrees, and are thus considered literate.

These are mostly people who implemented the ISR system for more than two years and, therefore, understood the content and the context of the ISR system. The results of the semi-structured interviews also supported this point of view. During the interviews the interviewees did not have any problem to respond to the questions asked by the researcher.

Even the least educated of the respondents (3%) who participated in this study are matriculated and literate. Their views and perceptions were considered important in this study.

Table 5.6: Educational background representations

QUALIFICATIONS	FREQUENCY	PERCENTAGE
Matric	04	2
Certificate	01	1
Diploma	18	10
Degree	60	32
Higher Degree	103	55
Total	186	100

5.3 Specific questions of the questionnaire

The following sections will explain the specific questions of the questionnaire. All the responses were also grouped under the headings of the specific questions. The specific questions were related to the impact of integrated sustainability reporting contributing towards achieving ecological and socio-economic green business status.

The questions were designed around the following categories:

- Questions associated with components of ISR, GRI, CSR and the King Report on Governance.
- Questions associated with Environmental Management System and Corporate Sustainability Reporting tools to drive green business.
- Questions associated with the National Environmental Management Act as a framework to promote green business status.
- Questions associated with impact of ecological sustainability towards achieving green business status.
- Questions associated with the impact of social sustainability towards achieving green business status.
- Questions associated with the impact of Integrated Sustainability Reporting (ISR) in terms of economic sustainability towards achieving green business status.

5.3.1 Questions associated with components of ISR, GRI, CSR and the King Report on Corporate Governance

The purpose of these specific questions, which were grouped under the components of ISR, GRI, CSR and the King Report on Corporate Governance as was indicated by Table 4.8 in Chapter Four, was to provoke the participants' views with regard to the impact of their ISR on achieving green sustainable business. This category of questions was divided into ten statements.

The questions were formulated as closed-ended questions and participants were given a chance to rate each statement according to the applicability status of the statement to their JSE listed corporation in terms of ISR moving towards achieving green business status. A five point Likert scale was utilised. It presents two positive responses (1 = Strongly Agree and 2 = Agree), one uncertain response (3 = Neutral) and two negative responses (4 = Disagree and 5 = Strongly Disagree).

In order to calculate the degree of positive responses, the two positive response alternatives of strongly agree and agree were integrated in the analysis of results. This approach of integrating positive or negative responses is supported by Babbie (2013: 394), Gray (2013: 45), and Pedhazur and Schmelkin (2013: 350). They state that this approach can be utilised provided the groupings of totals do not change the final outcomes. In this research, it was witnessed that the combination of positive answers did not change the final results.

In order to measure the participants' understanding of each statement as well as their uniformity, a positive statement was purposely articulated instead of a negative statement (Eyvindson, Kangas, Hujala & Leskinen, 2014: 11).

The tables below depict the frequencies and percentages of responses regarding the impact of the components of ISR, GRI, CSR and the King Report on Corporate Governance towards achieving green business status. Table 5.7 indicates that the integrated sustainability report is not integrated or flexible enough to respond to changes towards green business status. The respondents were asked to rate this statement in their different JSE listed companies.

The table below shows that 64% of the respondents agree that the integrated sustainability reports of some JSE listed companies are not integrated or flexible enough to respond to changes that require organisations to move towards achieving green business status. This suggests that some JSE listed companies' integrated sustainability reports do not clearly indicate changes towards green economy.

Table 5.7 of Q.2.1 also indicates that 26% of the respondents disagree that their companies' integrated sustainability reports are not integrated or flexible towards green business; they are moving towards the calling for sustainable development. Only 10% of the respondents indicated that their integrated sustainability reports are impartial in terms of moving towards achieving green business status.

Table 5.7: Flexibility of integrated sustainability report towards green business status

Q.2.1 The report is not integrated or flexible enough to respond to changes in the green business environment.			
		Frequency	**Per cent**
Valid	Strongly agree	1	0.6
	Agree	118	63.4
	Neutral	18	9.7
	Disagree	49	26.3
	Total	**186**	**100.0**

The Table 5.8 of Q.2.2 below indicates that 75% of the respondents agree that sustainability pillars should form part of their reporting strategy of green economy. Twenty-five per cent are uncertain whether sustainability should be part of their reporting strategy towards green business.

The responses from these employees indicate that some JSE listed corporations do not consider green economy as an important part of their daily business. It is just another requirement from the JSE in order to be listed as a trading company.

Table 5.8: Sustainability as part of integrated reporting strategy

2.2 Sustainability is vital to be included in our reporting strategy of green economy.			
		Frequency	**Per cent**
Valid	Strongly agree	110	59.1
	Agree	29	15.6
	Neutral	47	25.3
	Total	**186**	**100.0**

Table 5.9 below illustrates that 69% of the respondents are uncertain whether their integrated sustainability reports depend on financial issues rather than green economic issues. It means that the green economic issues that drive businesses to be sustainable in some JSE companies are considered less important than financial matters that the shareholders need to comprehend.

It is clear from the table that 20% of the respondents agree that their integrated sustainability reports are highly dependent on historical financial figures rather than green business issues. Only eleven per cent of the respondents disagree that their reports contain more financial issues than green economics matters. It means that their reports balance the figures with sustainable business matters.

Table 5.9: Report dependent on financial issues rather than green matters

Q.2.3 The reporting is too dependent on historical financial issues rather than green issues.			
		Frequency	**Per cent**
Valid	Strongly agree	1	0.5
	Agree	37	19.9
	Neutral	128	68.8
	Disagree	20	10.8
	Total	**186**	**100.0**

It is clear from Table 5.10 that 95% of respondents agree that the key components of green business status are included in the integrated sustainability reports of their listed companies. This indicates that most of the JSE listed corporations do comply with the listing requirements of the JSE. Only eight out of 186 respondents (4%) disagree with statement 2.4 of the questionnaire. They state that their organisations' integrated sustainability reports do not include key components of green business status. It means that few of the listed organisations do not incorporate key features of green economy in their ISRs.

Table 5.10: Key components of green business are part of one report

Q.2.4 Key components of green business status are included in our report.			
		Frequency	**Per cent**
Valid	Strongly agree	109	58.6
	Agree	68	36.6
	Neutral	1	0.5
	Disagree	8	4.3
	Total	**186**	**100.0**

It is clearly noted in Table 5.11 below that a total number of 138 (74%) out of 186 respondents agree that their JSE listed companies' integrated reports indicate clear alignment between strategy, remuneration, governance and key performance indicators that promote green status. It means that some JSE listed companies' reports are in line with the requirements of the King III Code of Governance.

The integrated sustainability reports of few listed companies are viewed by 47 (25%) out of 186 respondents as unsupportive to strategy, remuneration, governance and key performance indicators that promote green economy. It means that in some corporations ISRs are not supporting the growth of sustainable businesses in their sectors. In order for listed corporations to be seen as contributors towards green economy, their ISRs should reflect sustainable development beyond compliance that is required by shareholders and standards.

Table 5.11: ISR shows alignment between strategy, governance and key performances

Q.2.5 The report clearly shows alignment between strategy, remuneration, governance and key performance indicators that promote green economy.			
		Frequency	Per cent
Valid	Strongly agree	106	57.0
	Agree	32	17.2
	Neutral	1	0.5
	Disagree	47	25.3
	Total	**186**	**100.0**

Table 5.12 suggests that the majority (70%) of people who answered the questionnaire have rated statement 2.6 as positive related to their organisations. It means that the integrated sustainability reports (ISRs) of some organisations institute proper internal reporting systems that monitor and control social accountability and social investment that promote green business.

The table also indicates that 27 (15%) out of 186 respondents disagree with statement 2.6. This shows that some organisations on the JSE do not institute proper reporting systems that monitor and control social issues.

Table 5.12: One report reflects proper internal reporting system for social activities

Q.2.6 The report institutes a proper internal reporting system to monitor and control social accountability and social investment.			
		Frequency	**Per cent**
Valid	Agree	130	69.9
	Neutral	29	15.6
	Disagree	27	14.5
	Total	**186**	**100.0**

It is suggested in Table 5.13 that 79% of the respondents agree that their companies' reports show clearly the issues of environmental protection and sustainability advancement. This indicates that some companies are positive in terms of green business status, and they reflect these advancements in their ISRs. Ten per cent of the responded disagree with statement 2.7. It means some of the JSE listed companies' reports are not supporting environmental protection and sustainability advancement.

Table 5.13: ISR depicts environmental protection and sustainability advancement

Q.2.7 The report depicts clear environmental protection and sustainability advancement.			
		Frequency	**Per cent**
Valid	Agree	147	79.0
	Neutral	20	10.8
	Disagree	19	10.2
	Total	**186**	**100.0**

In Table 5.14, 165 out of 186 respondents agree with statement 2.8 that their organisations' integrated sustainability reports integrate in-house training programmes to assist employees. It suggests that most of the companies (89%) have in-house training to assist in their employees' well-being. Twenty out of 186 responded neutrally regarding the statement. It means that in some organisations, it is unclear whether their reports are inclusive or not in terms of training programmes that support the well-being of employees. It is also noted that the table below indicates that one of the respondents strongly disagrees with statement 2.8. It means this statement is not supported by the integrated sustainability report of one company.

Table 5.14: One report reflects in-house training programmes for employees

Q.2.8 It incorporates in-house ethical training programmes to help employees to make appropriate ethical decisions.			
		Frequency	**Per cent**
Valid	Strongly agree	29	15.6
	Agree	136	73.1
	Neutral	20	10.8
	Strongly disagree	1	0.5
	Total	**186**	**100.0**

All participants (100%) agreed with statement 2.9 of the questionnaire. It means that most of the JSE listed companies' integrated sustainability reports reflect both green business issues and financial matters that multiple stakeholders can easily analyse.

Table 5.15 states that 109 (59%) out of 186 respondents agree that most of their organisations' ISRs are compiled with reference to a corporate sustainability reporting system, global reporting initiative procedures and the King III Report on Corporate Governance requirements.

The table also shows that 77 (41%) out of 186 respondents disagree with statement 2.10. It means that not all integrated sustainability reports of JSE listed organisations are prepared with reference to CSR, GRI and the King III Report on Corporate Governance.

Table 5.15: ISR reflects CSR, GRI and King III guidelines towards green business

Q.2.10 It is prepared with reference to CSR, GRI and King III guidelines that promote green business status.			
		Frequency	**Per cent**
Valid	Agree	109	58.6
	Disagree	49	26.3
	Strongly disagree	28	15.1
	Total	**186**	**100.0**

5.3.1.1 Summary of descriptive analysis associated with question two

Table 5.16 depicts the summary of the descriptive analysis of question two. It is noted from this table that most of the scores are near the mean which indicates that most of the participants answered the questions. The table also indicates that standard deviation from the mean is relatively lower, which shows that the data collected measures the required purpose.

Table 5.16: The summary of the descriptive analysis of question two

Factor	Valid N	Mean	Median	Minimum	Maximum	Std.Dev.
Q2.1	186	2.62	2	1	4	0.88
Q2.2	186	1.66	1	1	3	0.86
Q2.3	186	2.90	3	1	4	0.57
Q2.4	186	1.51	1	1	4	0.72
Q2.5	186	1.94	1	1	4	1.26
Q2.6	186	2.45	2	2	4	0.74
Q2.7	186	2.31	2	2	4	0.65
Q2.8	186	1.97	2	1	5	0.56
Q2.9	186	2.00	2	2	2	0.00
Q2.10	186	2.98	2	2	5	1.21

To further corroborate the above results, Table 5.17 below shows the Cronbach alpha value of question two. The Cronbach alpha value was calculated for the variables in each factor which was greater than 0.5 and ranging from 0.85 to 0.90 conveying that the combination is acceptable.

To further strengthen the results, Cronbach alpha value for all 10 variables was also calculated and showed a value of 0.9, which is more than 0.5 and proves that the combination is excellent and acceptable. It is also noted in this table that Q2.3 and

Q2.8 have figures that are less than 0.25. These correction values do not measure the same thing as the other items, and they were excluded in calculating the overall final score.

Table 5.17: Final combined study factors with Cronbach alpha value for question two

Average inter-item Corr.: 0.5	Item-Total Correlations	Alpha Value
Q2.2	0.75	0.84
Q2.3	-0.06	0.90
Q2.4	0.68	0.85
Q2.5	0.96	0.82
Q2.6	0.66	0.85
Q2.7	0.73	0.85
Q2.8	0.05	0.89
Q2.10	0.94	0.82
Cronbach alpha: 0.93		

Table 5.19 below indicates the summary of scores in question two of this study. The scores on each factor are divided into three equal-length intervals as follows:

High score 1.00 - 2.33
Medium score: 2.33 - 3.67
Low score: 3.67 - 5.00

Please take note that the small values are labelled "High" since the scale of the questionnaire is from 1 (Strongly agree) to 5 (Strongly disagree). A small value therefore means "in agreement" and that is why it is labelled "High". Table 5.18 shows that most of the participants (59%) agreed that the integrated sustainability reports of the JSE listed companies reflect some of the components of GRI and CSR guidelines, as well as the King Report on Corporate Governance principles that support green economy.

Table 5.18: Frequency table: Factor_Q2_catagory

	Count	Per cent
High	110	59
Medium	76	41
Total	186	100

5.3.2 Questions associated with environmental management system and corporate sustainability reporting tools to drive green business

It is vital to note that the specific questions that follow are related to the impact of integrated sustainability reporting on the achievement of ecological and socio-economic green business status. They are specifically associated with environmental management system and corporate sustainability reporting tools to drive green business.

Table 5.19 highlights that 119 (64%) of the respondents agree with statement 3.1 that their companies' reports support environmental management system and corporate sustainability reporting guidelines in driving the process of going green within and outside their organisations. As opposed to this, 67 (36%) of the respondents disagree with statement 3.1 that their reports support the EMS and CSR processes that drive green business status in their organisations.

Table 5.19: One report supports EMS and CSR processes in driving green business

Q.3.1 The report supports the EMS and CSR in driving the process of going green within and outside the organisation.			
		Frequency	**Per cent**
Valid	Agree	119	64.0
	Disagree	67	36.0
	Total	**186**	**100.0**

According to Table 5.20, approximately 86% of the respondents agree that their companies' integrated reports have positive impacts towards integrating EMS, CSR and sustainable development issues. It is also noted that 14% of the respondents neither agree nor disagree with statement 3.2 of the questionnaire.

It means that some organisations are either positive towards the triple bottom line strategy or negative towards the triple bottom line strategy as a driving tool towards green economy. One (0.5%) out of 186 respondents disagrees with statement 3.2.

Table 5.20: IRS's triple-bottom line has a positive impact towards EMS, CSR and SD

Q.3.2 The triple bottom line strategy (Environment, Economy and Social pillars) in the one report has a positive impact of integrating EMS, CSR and sustainability activities of green business.			
		Frequency	**Per cent**
Valid	Strongly agree	20	10.8
	Agree	139	74.7
	Neutral	26	14.0
	Disagree	1	0.5
	Total	**186**	**100.0**

Table 5.21 indicates that the majority of respondents (75%) agree with statement 3.3 that their organisations' reports incorporate EMS and CSR in their socio-economic aspects and programmes that promote green business status. Twenty-five per cent of respondents are not sure whether their ISRs incorporate EMS and CSR aspects towards promoting green economy. It means that some JSE listed companies' ISRs incorporate EMS and CSR aspects towards green business status, while other reports do not include the aspects of EMS and CSR.

Table 5.21: ISR incorporates EMS, CSR and socio-economic benefits of green business

Q.3.3 The integrated sustainability reporting incorporates EMS and CSR of ecological aspects, economic benefits and social issues that promote green business programmes.			
		Frequency	**Per cent**
Valid	Agree	139	74.7
	Neutral	46	24.7
	Disagree	1	0.5
	Total	**186**	**100.0**

It is indicated in Table 5.22 that 75% of the respondents agree that their ISRs indicate the EMS and CSR frameworks as tools to assist the implementation of environmental and socio-economic programmes. It is noted that 15% of the respondents are impartial in rating the statement as positive or negative concerning their organisations. Only 11% of the respondents disagree with statement 3.4 that their organisations' reports do not reflect the EMS and CSR frameworks as tools to implement environment and socio-economic programmes.

It means some JSE listed corporations consider EMS and CSR frameworks as driving tools towards the implementation of environmental and socio-economic programmes, while other organisations' reports do not reflect EMS and CSR frameworks as driving tools towards green economy. Some organisations are not sure whether their integrated reports reveal or not that the EMS and CSR frameworks are considered as driving tools towards green business.

Table 5.22: The report has EMS and CSR frameworks for different education programmes

Q.3.4 The EMS and CSR frameworks in the one report assist to implement environmental programmes, social welfare projects and economic education programs.			
		Frequency	**Per cent**
Valid	Strongly agree	139	74.7
	Neutral	27	14.5
	Strongly disagree	20	10.8
	Total	**186**	**100.0**

5.3.2.1 Summary of descriptive analysis associated with question three

Table 5.23 depicts the summary of descriptive analysis of question three. It shows that most of the scores are near the mean which indicates that most of the participants answered the questions in this category. The table also indicates that standard deviation from the mean is relatively lower, which shows that the data collected measures the required purpose.

Table 5.23: The summary of the descriptive analysis of question three

Factor	Valid N	Mean	Median	Minimum	Maximum	Std.Dev.
Q3.1	186	2.72	2	2	4	0.96
Q3.2	186	2.04	2	1	4	0.52
Q3.3	186	2.26	2	2	4	0.45
Q3.4	186	1.72	1	1	5	1.34

To further corroborate the above results, Table 5.24 shows the Cronbach alpha value of question two. The Cronbach alpha value was calculated for the variables in each factor greater than 0.5, which conveys that the combination is good and acceptable. To further strengthen the results, Cronbach alpha value for all four variables was also recalculated. It is also noted in this table that Q3.4 has a figure that is less than 0.25 items for total correlation which means it does not measure the same thing as the other items and it was therefore excluded in calculating the overall score.

Table 5.24: Combined factors with Cronbach alpha value for question three

Average inter-item Corr.: 0.5	Item-total Correlations	Alpha Value
Q3.1	0.54	0.31
Q3.2	0.52	0.34
Q3.3	0.27	0.62
Q3.4	0.22	0.57
Cronbach alpha: 0.57		

Table 5.25 indicates the summary of scores in question three. The scores on each factor are divided into three equal-length intervals as follows:

High score 1.00 - 2.33
Medium score: 2.33 - 3.67
Low score: 3.67 - 5.00

Please take note that the small values are labelled "High" since the scale of the questionnaire is from 1 (Strongly agree) to 5 (Strongly disagree). A small value therefore means "in agreement" and that is why it is labelled "High". Table 5.25 shows that most of the participants (64%) agreed that the EMS ISO 14001 standard and CSR ISO 26000 standard are tools that can be utilised by the JSE listed companies to drive the process of sustainable green business and should form part of the ISR strategies. Thirty five per cent of participants are agreed on a medium scale that the voluntary standards can drive the process of green economy in the JSE listed companies and only 1% of the participants do not think that these standards can drive green sustainable business.

Table 5.25: Frequency table: Factor_Q3_catagory

	Count	Per cent
High	119	64
Medium	66	35
Low	1	1
Total	186	100

5.3.3 Questions associated with the National Environmental Management Act as a framework to promote green business status

Table 5.26 specifies that 128 (69%) out of 186 participants indicate that most of the IRSs of the JSE listed companies integrate environmental guidelines and regulations that control air pollution, water contamination and land degradation when disclosing their green status. Only 31% of the replies disagree with statement 4.1.

It means that some companies' reports integrate environmental guidelines and bylaws that control air pollution, water contamination and land degradation when disclosing their green economic status, and only a few of the JSE listed companies' reports do not integrate these guidelines and by-laws.

Table 5.26: ISR integrates environmental guidelines and bylaws when disclosing status

Q.4.1 Integrated sustainability report integrates environmental guidelines and other bylaws that control air pollution, water contamination and land degradation when disclosing its green status.			
		Frequency	**Per cent**
Valid	Agree	128	68.8
	Disagree	58	31.2
	Total	**186**	**100.0**

It is indicated by Table 5.27 that 54% of the respondents agree that their companies' integrated reports reveal environmental programmes that promote green business status beyond the voluntary regulations. Forty-two per cent of the people who answered the questionnaires disagree with statement 4.2. It means that some of the organisations' reports do not reveal environmental programmes that promote green business status beyond the voluntary regulations, whilst integrated reports from other corporations do reveal environmental programmes. Table 5.27 also shows that some respondents (4%) are neutral about statement 4.2. They are unsure whether their IRSs reveal or conceal environmental programmes that promote green business status beyond the voluntary regulations.

Table 5.27: Report reveals environmental programmes in promoting green business status

Q.4.2 One report reveals environmental programmes that promote green business status beyond the voluntary regulations.			
		Frequency	**Per cent**
Valid	Strongly agree	69	37.0
	Agree	31	16.7
	Neutral	8	4.3
	Disagree	58	31.2
	Strongly disagree	20	10.8
	Total	**186**	**100.0**

It is clearly shown in Table 5.28 that 58% of respondents agree that the environmental guidelines and other acts form the foundation for assessing environmental impacts and socio-economic activities in their organisations' reports. It also highlights that 31% of the respondents disagree with statement 4.3. Only 11% of the respondents are neutral in terms of assessing statement 4.3. It means that some of the JSE listed corporations' reports reflect the environmental guidelines and acts that form the basis for evaluating ecological impacts and socio-economic activities, while other organisations do not reflect environmental guidelines and acts that form the foundation for assessing environmental impacts and socio-economic activities. It shows that there is no consistency in the integrated sustainability reports of the JSE listed corporations. Some organisations comply with the basic requirements for listing in terms of their integrated sustainability reports, but that does not mean that their reports have positive impacts in terms of complying with sustainable development pillars that drive green economy.

Table 5.28: ISR guidelines and acts form foundation for assessing EMS activities

Q.4.3 The environmental guidelines and other acts form the foundation for assessing environmental impacts and socio-economic activities in the report.			
		Frequency	**Per cent**
Valid	Strongly agree	29	15.6
	Agree	79	42.5
	Neutral	20	10.7
	Disagree	58	31.2
	Total	**186**	**100**

It is shown by Table 5.29 that 58% of the respondents agree with statement 4.4. It means that above 50% of the respondents' reports specify that their sustainable organisations are controlled by the "polluter-pays" and prevention principles of averting environmental degradation. Table 5.29 also displays that 31% of the respondents are impartial about statement 4.4. It implies that some respondents are not sure whether their reports indicate or do not indicate the "polluter-pays" and prevention principles as a controlling measure towards preventing environmental degradation.

Table 5.29: ISR reflects polluter-pays and prevention principles of sustainability

Q.4.4 The sustainable organisation is controlled by the polluter-pays and prevention principles and these are indicated in the report.			
		Frequency	**Per cent**
Valid	Strongly agree	29	15.6
	Agree	100	53.8
	Neutral	57	30.6
	Total	**186**	**100.0**

It is indicated in Table 5.30 that 38% of the respondents agree that their ISRs show that women and youth advance ecological projects and socio-economic development programmes. It is also presented by the table that 34% of the respondents rate the statement 4.5 as neutral, and 28% of the respondents totally disagree with statement 4.5.

It means that some JSE listed corporations' reports reflect that women and youth advance the ecological projects and socio-economic development programmes, while other ISRs do not indicate these ecological and socio-economic development programmes. It is also shown that some of the respondents are unsure whether their companies' ISRs reflect socio-economic development programmes or not.

Table 5.30: Report indicates women and youth as drivers of socio-economic programmes

Q.4.5 Our report indicates that women and youth drive ecological projects and socio-economic development programmes.			
		Frequency	**Per cent**
Valid	Strongly agree	29	15.6
	Agree	41	22.0
	Neutral	64	34.4
	Disagree	52	28.0
	Total	**186**	**100.0**

5.3.3.1 Summary of descriptive analysis associated with question four

Table 5.31 depicts the summary of the descriptive analysis of question four. It shows that most of the scores are near the mean, which indicates that most of the participants answered the questions in this category. The table also indicates that standard deviation from the mean is relatively lower, which shows that the data collected measure the required purpose.

Table 5.31: The summary of descriptive analysis of question three

Factor	Valid N	Mean	Median	Minimum	Maximum	Std. Dev.
Q4.1	186	2.62	2	2	4	0.93
Q4.2	186	2.62	2	1	5	1.50
Q4.3	186	2.58	2	1	4	1.09
Q4.4	186	2.15	2	1	3	0.66
Q4.5	186	2.75	3	1	4	1.03

To further substantiate the above results, Table 5.32 shows the Cronbach alpha value of question four. The Cronbach alpha value was calculated for the variables in each factor greater than 0.5, which conveys that the combination is good and acceptable. To further support the results, Cronbach alpha value was calculated for the variables in each factor greater than 0.5 and ranging from 0.81 to 0.91, which conveys that the combination is good and acceptable. To further strengthen the results, Cronbach alpha value for all 5 variables was also calculated, resulting in value of 0.9 which is more than 0.5 and proves that the combination is excellent and acceptable in this category.

Table 5.32: Final combined study factors with Cronbach alpha value for question four

Average inter-item corr.: 0.73	Item-total Correlations	Alpha Value
Q4.1	0.69	0.87
Q4.2	0.83	0.85
Q4.3	0.94	0.81
Q4.4	0.87	0.86
Q4.5	0.52	0.91
Cronbach alpha: 0.89		

Table 5.33 indicates the summary of scores in question four. The scores on each factor are divided into three equal-length intervals as follows:

High score 1.00 - 2.33

Medium score: 2.33 - 3.67

Low score: 3.67 - 5.00

Please take note that the small values are labelled "High" since the scale of the questionnaire is from 1 (Strongly agree) to 5 (Strongly disagree). A small value therefore means "in agreement" and that is why it is labelled "High". Table 5.33 shows that most of the participants (63%) scored a medium value which suggests that the NEMA framework is not treated as a priority by the JSE listed organisations to promote green sustainable business. Few participants (37%) agreed that the NEMA framework can promote green economy in JSE listed organisations if it is integrated with sustainable development pillars.

Table 5.33: Frequency table: Factor_Q3_catagory

	Count	Per cent
High	69	37
Medium	117	63
Total	186	100

5.3.4 Questions associated with the impact of ecological sustainability towards achieving green business status

Table 5.34 indicates that all the respondents (100%) agree their ISRs support the limit consumption rate of non-renewable natural resources. It means that most of the JSE organisations' reports support the limit use of non-renewable natural resources.

Table 5.34: ISR supports the limit consumption rate of non-renewable resources

Q.5.1 One report of sustainable organisation supports the limit consumption rate of non-renewable natural resources.			
		Frequency	**Per cent**
Valid	Strongly agree	27	14.5
	Agree	159	85.5
	Total	**186**	**100.0**

Table 5.35 shows that at least 43% of the participants of this survey agree that their reports indicate a budget for environmental projects that decrease the discharge of atmospheric contaminants, water pollutants and toxic waste. It is also noted that most of the respondents (57%) disagree with statement 5.2. It clearly indicates that some of the organisations' reports indicate a budget for environmental projects that decrease the discharge of atmospheric contaminants, water pollutants and toxic waste, while other reports do not indicate these budgets.

Table 5.35: Report indicates budget for environmental projects that decrease pollutants

Q.5.2 One report highlights budget for environmental projects that decrease the discharge of atmospheric contaminants, water pollutants and toxic waste.			
		Frequency	**Per cent**
Valid	Strongly agree	20	10.8
	Agree	60	32.3
	Disagree	40	21.5
	Strongly disagree	66	35.5
	Total	**186**	**100.0**

Table 5.36 indicates that 46% of the participants of this study agree that their reports support the promotion of effective projects that prevent the accumulation of toxic and artificial substances in the natural environment. It is also noted by most of the

participants (54%) that their organisations' reports do not support the promotion of effective projects that prevent the accumulation of toxic and artificial substances in the natural environment. It means that most of the organisations' reports do not show support of effective projects that prevent toxic and artificial substances in the natural environment, while some reports indicate the support of such projects.

Table 5.36: Report supports effective projects that prevent toxic and artificial substances

Q.5.4 One report supports the promotion of effective projects that prevent the accumulation of toxic and artificial substances in the natural environment.			
		Frequency	**Per cent**
Valid	Strongly agree	25	13.4
	Agree	60	32.3
	Disagree	60	32.3
	Strongly disagree	41	22.0
	Total	**186**	**100.0**

The Table 5.37 states that 33% of the respondents agree that their companies' reports support projects that keep and promote the natural composition of the atmosphere and water within the required levels. The table also states that most of the respondents (68%) disagree with statement 5.5. It means that some of the organisations' reports support projects that keep the composition of atmosphere and water natural levels, while other reports do not support these projects.

Table 5.37: Report supports projects that promote natural resources composition

Q.5.5 One report supports projects that keep and promote the chemical and physical composition of the atmosphere and water within the natural levels.			
		Frequency	**Per cent**
Valid	Strongly agree	5	2.7
	Agree	57	30.6
	Disagree	40	21.5
	Strongly disagree	84	45.2
	Total	**186**	**100.0**

It is quantified by Table 5.38 that 79% of the respondents agree that their ISRs support programmes that adopt a closed-cycle economy in which virtually all waste is recycled. It is also indicated by the table that 21% of the respondents disagree with statement 5.6. It means that the integrated sustainability reports of some organisations support the green economy of recycling all waste, and other organisations' reports do not embrace this principle of recycling all waste.

Table 5.38: ISR supports programmes of closed-cycle economy of waste material

Q.5.6 It supports programmes that adopt a closed-cycle economy in which virtually all waste is recycled.			
		Frequency	**Per cent**
Valid	Strongly agree	89	47.8
	Disagree	58	31.2
	Strongly disagree	39	21.0
	Total	**186**	**100.0**

Table 5.39 stipulates that 75% of the people who answered the questionnaire agree that most of their organisations' reports support ecological sustainability with all corporations that do not pollute the natural environment.

In some cases, the respondents (11%) disagree with statement 5.7 and state that some of their organisations' reports do not support ecological sustainability with all corporations that do not pollute the natural environment. Only 15% of the respondents are neutral about their reports supporting ecological sustainability with all corporations that do not pollute the natural environment.

It means that the majority of the organisations' reports support the sustainable development pillar towards ecology, whilst other reports do not support this pillar of sustainable development.

Table 5.39: ISR supports ecological sustainability programmes that prevent pollution

Q.5.7 It supports ecological sustainability with all corporations that do not pollute the natural environment.			
		Frequency	**Per cent**
Valid	Strongly agree	138	74.2
	Agree	1	0.5
	Neutral	27	14.5
	Strongly disagree	20	10.8
	Total	**186**	**100.0**

It is indicated by Table 5.40 that (74%) of the respondents agree with statement 5.8. It is also clear that 11% of the respondents disagree with statement 5.8, whilst 15% of the participants are impartial about statement 5.8. It means that the majority of the respondents' integrated sustainability reports endorse the implementation of ISO standards and go beyond compliance of certified corporations, whilst other reports do not promote this implementation.

Table 5.40: One report endorses ISO standards compliance and beyond

Q.5.8 It endorses the implementation of ISO standards and goes beyond compliance of certified corporations.			
		Frequency	**Per cent**
Valid	Strongly agree	137	73.7
	Agree	1	0.5
	Neutral	27	14.5
	Disagree	21	11.3
	Total	**186**	**100.0**

5.3.4.1 Summary of descriptive analysis associated with question five

Table 5.41 depicts the summary of the descriptive analysis of question five. It shows that the average scores are near the mean which indicates that most of the participants answered the questions in this category. The table also indicates that standard deviation from the mean is relatively lower, which shows that the data collected measures the required purpose.

Table 5.41: The summary of the descriptive analysis of question five

Factor	Valid N	Mean	Median	Minimum	Maximum	Std. Dev.
Q5.1	186	1.85	2	1	2	0.35
Q5.2	186	3.39	4	1	5	1.50
Q5.4	186	3.17	4	1	5	1.43
Q5.5	186	3.76	4	1	5	1.37
Q5.6	186	2.77	4	1	5	1.74
Q5.7	186	1.73	1	1	5	1.34
Q5.8	186	1.63	1	1	4	1.10

To further substantiate the above results, the Cronbach alpha value was calculated for the variables in each factor which was greater than 0.5, conveying that the combination is good and acceptable. To further support the results, Cronbach alpha value was calculated for the variables in each factor which was greater than 0.5 and was acceptable. To further strengthen the results, Cronbach alpha value for all 8 variables was also recalculated, showing a value of 0.87 which is more than 0.5 and proves that the combination is excellent and acceptable in this category. The Q5.1, Q5.2, Q5.7 and Q5.8 factors were excluded in the calculation of the final score because they did not measure the same thing as the other items.

Table 5.42 indicates the summary of scores in question five. The scores of each factor are divided into three equal-length intervals as follows:

High score 1.00 - 2.33
Medium score: 2.33 - 3.67
Low score: 3.67 - 5.00

The table below shows that most of the participants (52%) do not agree that ISR of JSE listed companies has a positive impact towards an ecological sustainable green economy. Sixteen per cent of the participants are impartial about this category and 32% agreed that some of integrated sustainability reports of JSE listed companies have positive impact towards ecological sustainability.

Table 5.42: Frequency table: Factor_Q5_catagory

	Count	Per cent
High	60	32
Medium	29	16
Low	97	52
Total	186	100

5.3.5 Questions associated with the impact of social sustainability towards achieving green business status

Table 5.43 states that 68% of the respondents agree with statement 6.1, whilst other respondents disagree with statement 6.1. Twenty per cent of the respondents are impartial about statement 6.1. It means that the majority of companies’ reports fully support the distribution of equity from top management level to operational level. The minority of the organisations' reports do not support distribution of equity from top management level to operational level. Some employees of JSE listed companies state that they are uncertain whether their reports support the distribution of equity.

Table 5.43: ISR supports distribution of equity from management to operational level

Q.6.1 The company fully supports distribution of equity from top management level to operational level.			
		Frequency	**Per cent**
Valid	Strongly agree	88	47.3
	Agree	38	20.4
	Neutral	20	10.8
	Disagree	40	21.5
	Total	**186**	**100.0**

Table 5.44 indicates that a combination of 58% of the respondents agrees with statement 6.2. It is also shown by the table that 32% of the respondents are neutral regarding statement 6.2, whilst 11% of the respondents disagree with the statement. It means that some of the organisations' reports support all programmes and projects of gender equity and health education, and some of the organisations' ISRs do not support programmes and projects of gender equity and health education.

Table 5.44: Report supports programmes and projects of gender equity and health

Q.6.2 It supports all programmes and projects of gender equity and health education within the organisation and outside.			
		Frequency	**Per cent**
Valid	Strongly agree	69	37.1
	Agree	38	20.4
	Neutral	59	31.7
	Disagree	20	10.8
	Total	**186**	**100.0**

It is described in Table 5.45 that the majority (86%) of respondents agree with statement 6.3. It is also demonstrated in the table that at least 15% of the respondents disagree with statement 6.3. It means that many of the organisations' reports indicate opportunities for women, youth and formerly disadvantaged communities and that they participate in the organisation's development activities and fewer of the organisations' reports indicate that their companies do not indicate any opportunities for women, youth and formerly disadvantaged communities.

Table 5.45: Report supports opportunities for women, youth and disadvantaged communities

6.3 It generates opportunities for women, youth and formerly disadvantaged communities to participate in the organisation's development activities.			
		Frequency	**Per cent**
Valid	Strongly agree	99	53.2
	Agree	60	32.3
	Disagree	27	14.5
	Total	**186**	**100.0**

It is indicated in Table 5.46 that 42 out of 186 respondents (23%) agree with statement 6.4. It is also showed by the table below that 87 out of 186 respondents (47%) are impartial about statement 6.4, while 57 out of 186 (31%) respondents disagree with the statement.

It means that some organisations' reports reflect social sustainability training programmes that are supported by the organisation through its employees and the local communities. It is also noted that some of the JSE listed corporations' reports do not reflect social sustainability training programmes for employees and local communities.

Table 5.46: Report reflects social sustainability programmes

6.4 It reflects social sustainability training programmes that are supported by the organisation through its employees and the local communities.			
		Frequency	**Per cent**
Valid	Strongly agree	2	1.1
	Agree	40	21.5
	Neutral	87	46.7
	Disagree	28	15.1
	Strongly disagree	29	15.6
	Total	**186**	**100.0**

Table 5.47 specifies that 49 out of 186 respondents (26%) agree with statement 6.5. It is illustrated in the table that 106 out of 186 respondents (57%) are neutral towards statement 6.5. Only 31 out of 186 respondents (17%) disagree with statement 6.5. It means that the majority of the respondents (57%) are unsure whether their companies' reports indicate the cultural differences and social ethics of people.

Some respondents indicate that their reports reflect the cultural differences and social ethics of people within and outside their companies, while other reports do not indicate these cultural differences and ethics.

Table 5.47: One report reflects cultural differences and social ethics activities

Q.6.5 It indicates the cultural differences and social ethics of human beings within and outside the company.			
		Frequency	**Per cent**
Valid	Strongly agree	2	1.1
	Agree	47	25.3
	Neutral	106	57.0
	Disagree	30	16.1
	Strongly disagree	1	0.5
	Total	**186**	**100.0**

It is recorded in Table 5.48 that 39 out of 186 respondents (21%) agree with statement 6.6. It is also documented in the table that 58 out of 186 respondents (31%) are impartial about statement 6.6, whilst 89 respondents (48%) disagree with the statement.

Therefore, it means that some organisations' reports integrate social aspects with the voluntary standards and beyond, while other reports do not integrate these voluntary standards such as environmental management systems, quality, and health and safety standards. It is also noted that some respondents were impartial in terms of their organisations' reports when it comes to social aspects that involve voluntary standards. They are not sure whether these voluntary standards are integrated in their reports or not.

Table 5.48: One report reflects integration between voluntary standards and beyond

Q.6.6 It integrates social aspects with the voluntary standards and beyond.			
		Frequency	**Per cent**
Valid	Strongly agree	2	1.1
	Agree	37	19.9
	Neutral	58	31.2
	Disagree	70	37.6
	Strongly disagree	19	10.2
	Total	**186**	**100.0**

Table 5.49 specifies that 31 out of 186 respondents (17%) agree with statement 6.7, and 60 out of 186 respondents (32%) are neutral about the same statement. The table is also displays that 95 out of 186 respondents (51%) disagree with statement 6.7.

It means that some of the corporations' integrated sustainability reports reflect transitional training programmes and bursaries for future employees especially for green jobs, and some reports do not reflect these transitional training programmes. It is also highlighted by the table that the respondents are unsure whether or not their integrated sustainability reports support transitional training programmes and bursaries for future employees especially for green jobs.

Table 5.49: ISR supports transitional training programmes and bursaries for employees

Q.6.7 It supports transitional training programmes and bursaries for future employees especially for green jobs.			
		Frequency	**Per cent**
Valid	Strongly agree	2	1.1
	Agree	29	15.6
	Neutral	60	32.3
	Disagree	41	22.0
	Strongly disagree	54	29.0
	Total	**186**	**100.0**

It is recorded by Table 5.50 that 69 out of 186 of the respondents (37%) agree with statement 6.8. It is also displayed by the table that 50 out of 186 respondents (27%) are impartial about the statement, while 67 of the respondents (36%) disagree with the statement. Therefore, it is clear from the views and perceptions of the respondents that some of the JSE listed corporations' reports reflect resources and time committed to social upliftment projects within and beyond its borders. Some of the organisations' reports, however, do not show resources and time dedicated to social upliftment projects. In some instances, the respondents are not sure whether their companies' reports reflect resources and time dedicated to social upliftment projects.

Table 5.50: One report reflects resources and time to social upliftment projects

Q.6.8 It donates resources and time to social upliftment projects within and beyond its borders.			
		Frequency	**Per cent**
Valid	Agree	69	37.1
	Neutral	50	26.9
	Disagree	59	31.7
	Strongly disagree	8	4.3
	Total	186	100.0

5.3.5.1 Summary of descriptive analysis associated with question six

Table 5.51 below depicts the summary of descriptive analysis of question six. It shows that most of the scores are near the mean which indicates that most of the participants answered the questions in this category. The table also indicates that standard deviation from the mean is relatively lower, which shows that the data collected measure the required purpose.

Table 5.51: The summary of the descriptive analysis of question six

Factor	Valid N	Mean	Median	Minimum	Maximum	Std. Dev.
Q6.1	186	2.06	2	1	4	1.20
Q6.2	186	2.16	2	1	4	1.05
Q6.3	186	1.76	1	1	4	1.03
Q6.4	186	3.23	3	1	5	0.99
Q6.5	186	2.90	3	1	5	0.69
Q6.6	186	3.36	3	1	5	0.95
Q6.7	186	3.62	4	1	5	1.09
Q6.8	186	3.03	3	2	5	0.93

Table 5.52 shows the Cronbach alpha value of question six. The Cronbach alpha value was calculated for the variables in each factor which was greater than 0.5, conveying that the combination is good and acceptable. In support of the results, Cronbach alpha value was calculated for the variables in each factor which was greater than 0.5 and was acceptable. The Cronbach alpha value for all 8 variables was also recalculated, showing a value of 0.64, which is more than 0.5 and proves that the combination is excellent and acceptable in this category. The Q6.1, Q6.4, Q6.5 and Q6.8 factors were excluded in the calculation of the total score because they did not measure the same thing as other items.

Table 5.52: Final combined study factors with Cronbach alpha value for question six

Average inter-item corr.: 0.27	Item-total Correlations	Alpha Value
Q6.1	-0.13	0.49
Q6.2	0.29	0.24
Q6.3	0.50	0.11
Q6.4	0.03	0.38
Q6.5	-0.23	0.45
Q6.6	0.39	0.20
Q6.7	0.46	0.13
Q6.8	-0.08	0.43
Cronbach alpha: 0.64		

Table 5.53 indicates the summary of scores in question six. The scores of each factor are divided into three equal-length intervals as follows:

High score 1.00 - 2.33
Medium score: 2.33 - 3.67
Low score: 3.67 - 5.00

The table shows that most of the participants (52%) slightly agree that ISR of JSE listed companies has a positive impact towards a social sustainable green economy. Thirty nine per cent of the participants fully agree with the category of a social pillar's positive impact towards sustainable green business. Only 9% rated this category low in terms of positive impact towards green economy.

Table 5.53: Frequency table: Factor_Q6_catagory

	Count	Per cent
High	72	39
Medium	96	52
Low	18	9
Total	186	100

5.3.6 Questions associated with the impact of ISR in terms of economic sustainability towards achieving green business status

Table 5.54 indicates that 107 respondents (55%) agree with statement 7.1, and 84 of the respondents (45%) totally disagree with the statement. It means that the majority of the JSE companies' integrated sustainability reports reflect that their organisations are partnering with suppliers or clients who keep registers of depletion and degradation of natural resources. It is also clear that some organisations' reports do not reflect the partnering with suppliers or clients who keep registers of depletion and degradation of natural resources.

Table 5.54: Report reveals working with suppliers or clients who keep track of resources

Q.7.1 The organisation is partnering with suppliers or clients who keep registers of depletion and degradation of natural resources.			
		Frequency	**Per cent**
Valid	Strongly agree	32	17.2
	Agree	70	37.6
	Disagree	84	45.2
	Total	186	100.0

It is recorded by Table 5.55 that 33 out of 186 respondents (18%) agree with statement 7.2, while 40 out of 186 respondents (22%) are impartial regarding the statement. It is also noted that 113 out of 186 respondents (61%) disagree with statement 7.2. It means that some of the JSE listed companies' reports reveal that some corporations are partners with green organisations that promote sustainable economic activities that diversify the country's economic base, whilst other organisations do not partner with these organisations. Some views of the respondents suggest that they are uncertain whether or not their ISRs reveal that their organisations are partners with organisations that promote sustainable economic activities.

Table 5.55: Report shows partnership with green organisations that promote sustainable activities

Q.7.2 It is a partnership with green organisations that promote sustainable economic activities that diversify the country's economic base.			
		Frequency	**Per cent**
Valid	Strongly agree	1	0.5
	Agree	32	17.2
	Neutral	40	21.5
	Disagree	113	60.8
	Total	**186**	**100.0**

Table 5.56 highlights that 83 out of 186 respondents (45%) agree with statement 7.3. It is also indicated by the table that 102 out of 186 respondents are neutral to statement 7.3, while one out of 183 respondents (0.5%) disagrees with the statement.

It means that the majority of the respondents are unsure whether or not their organisations' reports disclose the strategic vision of green economy that supports policies that integrate social, economic and environmental sustainability. Some respondents agree that their companies' reports reveal the strategic vision of green economy that supports policies that integrate social, economic and environmental sustainability.

Table 5.56: Report shows policies of strategic vision that integrate pillars of sustainability

Q.7.3 The strategic vision of the green company supports policies that integrate social, economic and environmental sustainability.			
		Frequency	**Per cent**
Valid	Strongly agree	12	6.5
	Agree	71	38.2
	Neutral	102	54.8
	Disagree	1	0.5
	Total	**186**	**100.0**

Table 5.57 reveals that 81 out of 186 respondents (44%) agree with statement 7.4, whereas 78 of the respondents (42%) are neutral about the same statement. It is also recorded in the same table that 27 respondents (15%) disagree with statement 7.4.

It means that some of the JSE listed organisations' reports reveal the maximising of the economic growth and well-being of today's generations, while keeping in mind the future generations in their sustainability activities. Other organisations' reports, however, do not reflect the sustainability agenda. It is noted that some of the respondents are not sure whether such sustainability agendas are reflected in their organisations' reports or not.

Table 5.57: Report reflects economic growth and well-being of today's and future generations

Q.7.4 It maximises the economic growth and well-being of today's generations, while keeping in mind the future generations.			
		Frequency	**Per cent**
Valid	Strongly agree	37	19.9
	Agree	44	23.7
	Neutral	78	41.9
	Disagree	27	14.5
	Total	**186**	**100.0**

In Table 5.58, it is clear that 79 of the respondents (43%) agree with statement 7.5. The majority of the respondents (58%) are neutral about statement 7.5. It means that some of the respondents are unsure whether their integrated sustainability reports integrate GRI, CSR and King III guidelines to promote energy programmes to protect the environment. It is also noted that some organisations' reports integrate GRI, CSR and King III guidelines to promote energy programmes to protect the environment.

Table 5.58: ISR integrates GRI, CSR and King III guidelines to promote energy programmes

Q.7.5 It integrates GRI, CSR and King III guidelines to promote energy programmes to protect the environment.			
		Frequency	**Per cent**
Valid	Strongly agree	4	2.2
	Agree	75	40.3
	Neutral	107	57.5
	Total	**186**	**100.0**

Table 5.59 documents that 77 of the respondents (41%) agree with statement 7.6, whilst 28 respondents are neutral about the statement. It is also displayed by the same table that 81 respondents (44%) disagree with statement 7.6.

It means that some of the organisations' reports budget for environmental, social and economic costs that will promote the green economy and sustainable development activities. In some instances the reports do not show budgets for environmental, social and economic costs that will promote the green economy and sustainable development activities.

Table 5.59: Report indicates budgets for sustainability costs that promote green economy

Q.7.6 It budgets for environmental, social and economic costs that will promote the green economy and sustainable development activities.			
		Frequency	**Per cent**
Valid	Strongly agree	19	10.2
	Agree	58	31.2
	Neutral	28	15.1
	Disagree	81	43.5
	Total	**186**	**100.0**

Table 5.60 indicates that a total of 89 respondents (48%) agree with statement 7.7, and 90 of them (48%) disagree with the same statement. It is also shown by the table that seven of the respondents (4%) are not sure whether their companies' reports reflect statement 7.7 or not.

It means that some corporations' reports reflect that their companies improve the rate of green employment and new business partnership within the community in which it operates, whilst other reports do not indicate any improvement of the rate of green employment and new business partnership.

Table 5.60: Report shows improvement rate of green employment and business partners

Q.7.7 It improves the rate of green employment and new business partnership within the community in which it operates.			
		Frequency	**Per cent**
Valid	Strongly agree	24	12.9
	Agree	65	34.9
	Neutral	7	3.8
	Disagree	90	48.4
	Total	**186**	**100.0**

It is illustrated in Table 5.61 that 80 respondents (48%) agree with statement 7.8, while 88 respondents (47%) disagree with statement 7.8. It is also demonstrated by the table below that 18 respondents (10%) are neutral about statement 7.8.

It means that some of the JSE listed corporations' reports support the development of human skills to sustain economic growth and green economic management systems, whereas other reports do not support this development of resources to sustain socio-economic systems. It is also noted that some respondents are not sure whether their ISRs support these development of human skills or not.

Table 5.61: Report supports development of human skills to sustain growth and systems

Q.7.8 It supports the development of human skills to sustain economic growth and green economic management systems.			
		Frequency	**Per cent**
Valid	Strongly agree	33	17.7
	Agree	47	25.3
	Neutral	18	9.7
	Disagree	42	22.6
	Strongly disagree	46	24.7
	Total	**186**	**100.0**

5.3.6.1 Summary of descriptive analysis associated with question seven

Table 5.62 depicts the summary of the descriptive analysis of question seven. The table indicates that standard deviation from the mean is relatively lower, which shows that the data collected measures the required purpose.

Table 5.62: The summary of descriptive analysis of question seven

Factor	Valid N	Mean	Median	Minimum	Maximum	Std. Dev.
Q7.1	186	2.73	2	1	4	1.20
Q7.2	186	3.42	4	1	4	0.79
Q7.3	186	2.49	3	1	4	0.63
Q7.4	186	2.51	3	1	4	0.97
Q7.5	186	2.55	3	1	3	0.54
Q7.6	186	2.92	3	1	4	1.07
Q7.7	186	2.88	3	1	4	1.16
Q7.8	186	3.11	3	1	5	1.48

To further substantiate the above results, Table 5.63 shows the Cronbach alpha value of question seven. The Cronbach alpha value was calculated for the variables in each factor which was greater than 0.5, conveying that the combination is good and acceptable.

In support of the results, the Cronbach alpha value was calculated for the variables in each factor which was greater than 0.5 and was acceptable. To further strengthen the results, the Cronbach alpha value for all 8 variables was also recalculated showing a value of 0.79, which is more than 0.5 and proves that the combination is excellent and acceptable in this category.

The Q7.8 factor was excluded in the calculation of the total score because it did not measure the same thing as the other items.

Table 5.63: Combined study factors with Cronbach alpha value for question seven

Average inter-item corr.: 0.43	Item-total Correlations	Alpha Value
Q7.1	0.56	0.61
Q7.2	0.72	0.60
Q7.3	0.57	0.64
Q7.4	0.57	0.62
Q7.5	0.61	0.65
Q7.6	0.31	0.68
Q7.7	0.32	0.68
Q7.8	0.00	0.79
Cronbach alpha: 0.79		

Table 5.64 indicates the summary of scores in question six. The scores on each factor are divided into three equal-length intervals as follows:

High score 1.00 - 2.33
Medium score: 2.33 - 3.67
Low score: 3.67 - 5.00

The table shows that most of the participants (75%) slightly agree that the ISR of JSE listed companies has a positive impact towards an economic sustainability pillar. Twenty five per cent of the participants fully agree with the category of economic pillar’s positive impact towards sustainable green business. Only 9% rated this category low in terms of a positive impact towards green economy.

Table 5.64: Frequency table: Factor_Q6_catagory

	Count	Per cent
High	46	25
Medium	140	75
Total	186	100

5.4 Semi-structured interview salient general information

The explanation of this part will cover the position of the interviewees, the number of years in the organisation, the gender, the number of years the company uses an integrated sustainability report, the age group and the highest qualification of the interviewee. Table 5.65 depicts the summary of the salient general information.

The information displayed by the table corresponds with the data collected from the questionnaires, which stated that most of the respondents are people who are knowledgeable regarding integrated sustainability reports and are part of management in their respective JSE listed organisations.

Table 5.65: Summary of salient general and demographic information

INFORMATION	ACTIVITY	Per cent
Position in the organisation	CEO/MD	60
	CFO	20
	ISR Manager	10
	ISR/SHEQ Coordinator	10
Total		100
No of years in corporation	03-09	70
	09-12	20
	13-18	10
Total		100
Gender	Female	80
	Male	20
Total		100
Number of years using ISR	00-01	30
	02-03	60
	04-05	10
Total		100

It also noted that the JSE listed organisations in South Africa that participated in this research have been involved in the field of integrated sustainability reporting approximately three years (60%). It is highlighted that most of the officials who are involved in the implementation of integrated sustainability reporting are senior managers. The gender figures indicate that more males (80%) than females (20%) participated in the interviews. Therefore, it is safe to state that the perceptions and views, regarding the impact of ISRs towards achieving green business status, come from senior management who are well invested in terms of integrated sustainability reporting.

5.4.1 Semi-structured interview specific questions

The following section will explain the specific questions used during the interviews. All the responses of the interviewees were also grouped under the headings of the specific questions. The specific questions were related to the impact of integrated sustainability reporting towards achieving green business status. The questions were designed around the following categories:

- Questions associated with components of ISR, GRI, CSR and the King Report on Governance.
- Questions associated with Environmental Management System and Corporate Sustainability Reporting tools to drive green business.
- Questions associated with the National Environmental Management Act as a framework to promote green business status.
- Questions associated with the impact of ecological sustainability towards achieving green business status.
- Questions associated with the impact of social sustainability towards achieving green business status.
- Questions associated with the impact of Integrated Sustainability Reporting (ISR) in terms of economic sustainability towards achieving green business status.

Table 5.66 indicates the questions under each category and the answers received during the interviews. It is important to note that the answered-questions of the interviews were discussed with the supervisor of this study.

Table 5.66: Key components of GRI, CSR and King III - questions and responses

Categorising Questions	**Recorded and Written Responses**
Questions Associated with Components of ISR, GRI, CSR and the King Report on Governance	
Are you presently using an integrated sustainability report in your company?	All ten selected JSE listed companies are using integrated sustainability reporting procedures at different levels of implementation.
Are financial and non-financial matters addressed in this one report?	All the representatives of different organisations indicated that their reports reflect financial and non-financial matters. It was noted that this was a JSE listing requirement.
What can you say about green business issues addressed in this report?	Many respondents indicated that their reports address the green business issues as a JSE listing requirement, not as a tool for achieving green business status.
Do you have any sustainability programmes in this organisation that support ecological and socio-economic activities?	Most of the respondents showed that their JSE listed organisations do have sustainability programmes at different implementation stages.
Do you share ideas with other organisations that support similar programmes?	Most of the interviewees indicated that they do not share ideas with competitors, but they support programmes of similar interests.
Does your ISR indicate alignment between strategy, remuneration, governance and Key Performance Indicators?	All respondents were very positive about aligning strategy, remuneration, governance and performance indicators. It was clear that some organisations were doing this to attract investors rather than to support stakeholders at the operational level.
How transparent is your report to multi-stakeholders in terms of non-financial matters like environmental protection, social warfare	In most organisations the reports were transparent to shareholders rather than stakeholders. Some key investment

programmes and economic issues?	information was reflected in their reports, whilst non-financial matters were limited.
Can you describe the guidelines you are using in compiling your ISR in terms of GRI, CSR and King III?	Most respondents indicated that their reports follow the guidelines as stated by the King III Code of Governance. Only few are integrating with GRI, CSR and King III Code of Governance.
Are these reporting guidelines assisting your organisation to move towards green business status?	The interviewees indicated that their reports reflect the guidelines, but in a practical sense the theory is not practised at the operational level.
Any benefits of using one holistic reporting system in your organisation?	Most responses indicated that the one report enables their companies to measure, manage, and disclose their economic, environmental, governance, and social performance at different levels.

Table 5.67 depicts the specific questions and responses regarding EMS ISO 14001 and CSR ISO 26000 as tools to drive sustainability in green business.

Table 5.67: EMS ISO 14001 and CSR ISO 26000 as tools to drive green business - specific questions and responses

Categorising Questions	Recorded and Written Responses
EMS ISO 14001 and CSR ISO 26000 as tools to Drive Sustainability in green business	
What is your view about the EMS and CSR tools in driving the process of going green in JSE listed organisations?	All the respondents answered yes, the EMS and CSR can be used by JSE listed organisations as tools to drive green economy. Most candidates admitted that their organisations are not using an EMS and CSR towards sustainable business. In some organisations, EMS and CSR tools are not used to drive sustainability because they are not requirements for listing.
Does your ISR cover the triple bottom line strategy (environment, social and economic)?	Most respondents do not understand the TBL strategy of using environmental, economic and social pillars for integrated sustainability

	reporting. Few respondents reported that their organisations are using different pillars of integrated sustainability reporting. Some of these pillars are environmental, social, economic, political and ethics.
Name ecological aspects, economic benefits and social issues that are covered by your ISR?	Most of the interviewees mentioned socio-economic programmes like health, labour, and community development projects.
In other listed companies, they report financial performances and sustainability issues separately in their annual report. What is the set-up in your organisation?	Most organisations are reporting integrated matters like EMS and SHEQ's activities annually without stating any of these pillars of sustainability that drive green business. Few organisations report SHEQ activities separately from sustainability related issues.

Table 5.68 depicts the specific questions and responses regarding the integration of the National Environmental Management Act (NEMA) as a framework with an effective EMS that leads towards green business status.

Table 5.68: The integration of the NEMA as a framework for effective ems towards green business - specific questions and responses

Categorising Questions	Recorded and Written Responses
The Integration of the NEMA as a Framework for Effective EMS towards achieving Green Business	
What can you say about the NEMA as a framework that can be used towards green business?	All the participants agreed that the NEMA is a good framework and is a government system that can enhance the implementation of green business in JSE organisations. The interviewees also stated that the Green Scorpions can be used by the government to force companies to move towards green business approaches through the NEMA framework. They further stated that the government should force companies to report even their pollutants that affect the environment over and above the requirements of the NEMA

	framework.
Does the NEMA promote any part of ISR in your company?	The participants agreed that the NEMA promote the integration of sustainability pillars.
Do you report about women and youth programmes in your integrated reporting?	The interviewees agreed that their reports reflect programmes of women and youth at different implementation levels. It was also alluded to by the interviewees that few women are indirectly involved in programmes of EMS outside their organisations. Interviewees reported that, in some organisations, there are no programmes that involve youth and women. Some youth and women are participating in the EMS clubs inside and outside the organisations.
Briefly explain any relationship that exists between EMS and CSR activities of green business in your corporation?	It was indicated by interviewees that the EMS and CSR activities assist to drive the process of green business. It was also revealed by participants that the relationship between the two concepts is to complement each other's systems when the organisation moves towards green business.
Does your report indicate any promotion of the NEMA principles like the polluter-pays and environmental protection?	Most of the interviewees indicated that their reports do not even reflect the "polluter-pays" principles of the NEMA. Some participants, however, agree that the environmental principles are covered by the environmental policy and are not reported by their ISRs.

The Table 5.69 shows the specific questions and responses regarding the impact of ISR in terms of ecological sustainability towards achieving green business status.

Table 5.69: The impact of ISR in terms of ecological sustainability towards green business - specific questions and responses

Categorising Questions	Recorded and Written Responses
The impact of ISR in terms of ecological sustainability towards achieving Green Business	
According to your understanding, does your company have less impact on air pollution, water pollution and land pollution? Is it	Interviewees stated that most organisations have less water pollution because they recycle water. A few interviewees stated that their organisations have polluted water because of the old system used. It was

highlighted in your integrated report? If yes, please explain your answer? If no, do you support such organisations?	also noted during the discussion that most corporations' plants recorded higher air than water and land pollution, because they have no system control of other pollutants in place. It was also noted that, in some organisations, shareholders do not want to spend money on expensive air pollution system controls that are not benefiting their investments. Some organisations support recycling companies.
How does your company support environmental sustainability in the area of its operations?	It was noted that most companies fully support ecological sustainability by conforming to the voluntary standards' requirements. In some firms, they implement sustainability pillars over and above the voluntary standards' requirements. In most organisations, all contractors and suppliers are required to conform to the voluntary standards' requirements.
According to your ISR, how do you support the prevention of accumulation of toxic and artificial substances in the natural environment?	It was highlighted by participants that some of their reports do not reflect the prevention of toxic and artificial substances in the environment, but their EMS policies do reflect the prevention measures. In some reports the prevention measures are highlighted briefly.

Table 5.70 indicates the specific questions and responses regarding the impact of ISR in terms of social sustainability towards achieving green economy.

Table 5.70: The impact of ISR in terms of social sustainability towards achieving green economy - specific questions and responses

Categorising Questions	Recorded and Written Responses
Impact of ISR in terms of Social Sustainability towards achieving Green Economy	
Can you briefly explain the support your company is giving to distribution of equity from top management to operations? Are these addressed in your report?	Most candidates indicated that their JSE listed companies support the distribution of employment equity, especially in management positions. Other organisations, however, are having programmes to empower formerly disadvantaged people for higher

	positions. It was also noted that gender imbalances are still an issue to be addressed; most companies are still dominated by males. It was also noted that females, in most organisations, are occupying junior management positions. These responses by participants were also addressed in their integrated reports.
Do you have programmes or projects in this company that support health education or any other social programmes? Are these addressed in your report?	A "yes" was recorded by all participants. Programmes like HIV-Aids, staff wellness, clinical issues, school building projects and health education programmes were highlighted and were addressed in their integrated reports.
Do you have any other social investment projects that support community activities? Are these addressed in your report?	The recorded answer was "yes" by all the interviewees. The projects and programmes of socio-economic upliftment were also addressed in their reports.

Table 5.71 depicts the specific questions and responses regarding the impact of ISR in terms of economic sustainability towards achieving green economy.

Table 5.71: The impact of ISR in terms of economic sustainability towards achieving green economy - specific questions and responses

Categorising Questions	**Recorded and Written Responses**
The Impact of ISR in terms of Economic Sustainability towards achieving Green Economy	
Do you report about depletion and degradation of natural resources that hinder the process towards green economy?	The interviewees stated that some of their organisations do keep a register of depletion of natural resources, whilst other companies do not keep any register. The manufacturing organisations keep these registers at their operational plants. Some companies do not have any idea of what a depletion register of natural resources is.
Does your corporation partner with green organisations that promote sustainable economic activities that diversify the country's economic base? Is this reflected in	The participants agreed that some of their organisations partner with green companies in promoting sustainable economic activities. Some companies, however, do not partner with other organisations that promote sustainable economic

your one report?	activities because they are competitors. These partnerships are not reflected in their reports.
Does your corporation integrate GRI, CSR and the King III guidelines to promote energy programmes that protect the environment? Is it recorded in your report?	The interviewees agreed that some of their reports integrate GRI, CSR and the King III guidelines, whilst other respondents stated that their reports do not incorporate integrated GRI, CSR and the King III guidelines.
Do you have any budget allocated for green economic activities? Is it explained in your report?	Many corporations have budgets allocated for green economic activities. These budgets are sometimes used for other activities and are not explained in detail in their integrated reports.
Is your report assisting your organisation to move towards green business?	All the participants were neutral about this question. Some stated that, to some degree, it does promote sustainability, whilst other responses indicated that some organisations are still behind with clear reporting towards green business.

Table 5.72 indicates the summary of some integrated sustainability reports of the 10 JSE listed organisations analysed by the researcher during the desk top survey. These integrated reports complete the triangulation method of research in this study.

Table 5.72: Summary of some of the integrated sustainability reports

Company Name	Integrated Sustainability Report (ISR)
PEREGRINE HOLDINGS LIMITED	The two major pillars of sustainability - economic and social responsibility - are highlighted in their integrated report (ISR, 2014: 47). The environmental pillar is not clearly defined. It was also noted that the integrated report does not show any activities of green business status.
KUMBA IRON ORE LIMITED	It was noted that the integrated report (Kumba, 2013: 16), sustainable development report and financial statement report are separated. The integrated and sustainability reports do not clearly support the green business status. The pillars of sustainability are covered in their sustainability reports. The reports are not integrating sustainability, GRI and King III towards achieving green business status, but are treated as

	separate entities.
ABSA BANK LIMITED	The integrated report of ABSA (ABSA, 2013: 8) is integrating socio-economic activities without paying much attention to environmental activities. It is also clear that this organisation's integrated report deals more with financial matters than non-financial issues that drive green business status.
REBOSIS PROPERTY FUND LIMITED	The integrated report of Rebosis (Rebosis, 2013: 46) indicates that the organisation integrates all three pillars of sustainability. The impact of these sustainability pillars on achieving sustainable business is not highlighted in their report.
THE FOSCHINI GROUP LIMITED	This integrated report provides a consolidated review of the group's financial, social, economic and environmental performance (Foschini 2013: 56). It does not integrate these pillars towards green economy in their products and services.
BIOSCIENCE BRANDS LIMITED	The report is not clearly integrated (Bioscience, 2012: 14). It shows more financial issues than socio-economic matters. It does not indicate any green business issues.
JD GROUP LIMITED	The integrated group report (JD Group, 2012: 5) of JD reflects the financial and non-financial matters. It does not indicate any achievements towards green business status.
REDEFINE PROPERTY INTERNATIONAL LTD	The integrated group report (Redefine, 2013: 15) of Redefine Prop Ltd reflects the financial and non-financial matters. It does not indicate any achievements towards green business status.
NICTUS HOLDINGS LTD	The integrated report (Nictus, 2014: 6) of Nictus Ltd covers the financial and non-financial matters (corporate governance). It does not indicate any sustainability issues that drive green business status.
ELLIES HOLDINGS LIMITED	It is noted that the Ellies Limited integrated report (Ellies, 2014: 39) does integrate sustainability, governance and financial matters. These activities move this company towards green economy. It is noted that this company is still in their initial phase of green business.

Source: Integrated sustainability reports of different JSE listed organisations.

5.5 Exploring the relationship between variables

According to Venkatesh, Brown and Bala (2013: 21), there are different combinations possible when one is comparing the relationships between variables. In this section, the quantitative and qualitative data will be explored.

This idea of exploring the relationship between quantitative and qualitative variables, which make the results more reliable and valid, was supported by the arguments presented in chapter four, where it was stated that the analysis of the relationship between variables will be done by means of the methodological triangulation, in which the relationship between questionnaire and the interview responses will be explored.

Table 5.73 illustrates the format of the relationship between variables which will be followed in this research.

Table 5.73: Relationship between variables – format which was followed

Categories of Questionnaires and Interviews	Cross Tabulation Tables
Questions associated with components of ISR, GRI, CSR and the King Report on Governance.	Tables: 5.1; 5.7-5.16 & 5.66
Questions associated with Environmental Management System and Corporate Sustainability Reporting tools to drive green business.	Tables: 5.2; 5.20 – 5.23 & 5.67
Questions associated with the National Environmental Management Act as a framework to promote green business status.	Tables: 5.3; 5.27 – 5.31 & 5.68
Questions associated with the impact of ecological sustainability towards achieving green business status.	Tables: 5.4; 5.35 – Q.5.41 & 5.69

Questions associated with the impact of social sustainability towards achieving green business status.	Tables: 5.5; 5.44 – 5.51 & 5.70
Questions associated with the impact of Integrated Sustainability Reporting (ISR) in terms of economic sustainability towards achieving green business status.	Tables: 5.6; 5.55 – 5.62 & 5.71

5.5.1 Relationship between position and components of GRI, CSR and King Report

It was noted from Table 5.1 (the position of the respondents), Tables 5.7 to 5.16 (the specific questions related to the components of GRI, CSR and the King Report on Corporate Governance) and Table 5.66 (the interviewees' responses), that most of the people who participated in this research are senior managers. Their perceptions and views were considered as most relevant in assessing the extent to which their integrated sustainability reports have positive or negative impacts towards achieving green business status.

Tables 5.7 to 5.16 and 5.66 indicated that most of the JSE listed organisations have integrated reports that are not flexible enough to accommodate an integrated approach towards achieving green business status. Most of the respondents and the interviewees further stated that their integrated reports are mostly done to comply with the JSE listing requirements. It was also noted from these responses as well as the annual integrated sustainability reports that few JSE listed organisations treat financial and non-financial matters exactly the same when reporting. The financial matters are reported far more extensively than the non-financial issues.

To summarise the relationship between variables and the recalculation of final scores, Table 5.74 depicts the summary of position of participants and factor Q2 of the specific questions. The position variable was recategorised as follows:

CEO/MD stays the same: n=151, and the last 4 positions of participants are combined as "Other", where n=35.

The following results were obtained by using the Statistical Package for the Social Sciences (SPSS) software application:

- Chi-square : 12.60
- P-value : 0.00039
- x^2/df ratio : 1.0 (norm < 3)
- Cramer's V : 0.26 Small practical significance

The value of the Chi-square test is 12.6. The associated p-value of 0.00039 is smaller than 0.01, and therefore the above criterion was rejected at the 0.01% significance level. The alternative criterion was accepted, which implies that the reported data did not meet the requirement of normality. The relationship between the position of participants and the key components of ISR in Q2 is positive towards the impact of green sustainable business.

Table 5.74: Two-way summary table: observed frequencies Q2

Factor_Q2_cat	**Pos_new CEO/MD**	**Pos_new Other**	**Row Totals**
High	80	30	**110**
Column %	52.98%	85.71%	
Medium	71	5	**76**
Column %	47.02%	14.29%	
Totals	**151**	**35**	**186**

5.5.2 Relationship between number of years in organisation and EMS and CSR tools to drive green business

Tables 5.2, 5.20 – 5.23 and 5.67 indicated that respondents and interviewees who have been with the organisations for more than two years view their integrated sustainable reports as not reflecting EMS and CSR tools as drivers towards green business.

In a nutshell, most of the JSE listed organisations in South Africa are aware of sustainability tools like the triple bottom strategy, EMS voluntary standards, CSR guidelines and others. These tools are not utilised to drive the process of green business status, but are used for listing requirements.

To summarise the relationship between variables and the recalculation of final scores, Table 5.75 depicts the summary of position of participants and factor Q2 of the specific questions. The position variable was recategorised as follows:

CEO/MD stays the same: n=151, and the last 4 positions of participants are combined as "Other", where n=35. The following results were obtained by using the Statistical Package for the Social Sciences (SPSS) software application:

- Chi-square : 8.88
- P-value : 0.01182
- x^2/df ratio : 2 (norm < 3)
- Cramer's V : 0.22 small practical significance

The value of the Chi-square test is 8.88. The associated p-value of 0.01182 is bigger than 0.01, and therefore the above criterion was accepted at the 0.01% significance level. It implies that the reported data did meet the requirement of normality. The relationship between the position of participants and the EMS and CSR standards as driving tools is positive towards green business status in category Q3.

Table 5.75: Two-way summary table: observed frequencies Q3

Factor_Q3_cat	**Pos_new**	**Pos_new**	**Row**
	CEO/MD	**Other**	**Totals**
High	89	30	**119**
Column %	58.94%	85.71%	
Medium	61	5	**66**
Column %	40.40%	14.29%	
Low	1	0	**1**
Column %	0.66%	0.00%	
Totals	**151**	**35**	**186**

5.5.3 Relationship between gender and general view of EMS and sustainability

It was confirmed by Tables 5.3, 5.27 – 5.31 and 5.68 that most of the perceptions and views of this survey are from males (89%) rather than females (11%). It also indicated that their integrated reports incorporate environmental laws, bylaws and acts associated with programmes that promote green business status. It was also noted that women and youth drive the process of green business status even outside the organisations.

In short, male and female participants of this study agreed that the integration of different regulations can be used to drive JSE listed companies towards green business status. The biggest challenge is to report about these regulations and implement them on different levels of the organisations.

To conclude the relationship between variables and the recalculation of final scores, Table 5.76 depicts the summary of position of participants and factor Q4 of the specific questions.

The position variable was recategorised as follows:

CEO/MD stays the same: n=151, and the last 4 positions of participants are combined as "Other", where n=35. The following results were obtained by using the Statistical Package for the Social Sciences (SPSS) software application:

- Chi-square : 21.66
- P-value : 0.0000
- x^2/df ratio : 1 (norm < 3)
- Cramer's V : 0.34 medium practical significance

The value of the Chi-square test is 21.66. The associated p-value of 0.0000 is less than 0.01, and therefore the above criterion was rejected at the 0.01% significance level. The alternative criterion was accepted, which implies that the reported data did not meet the requirement of normality. The relationship between the position of participants and the NEMA framework as a driving tool is viewed as negative towards green business status in category Q4.

Table 5.76: Two-way summary table: observed frequencies Q4

Factor_Q4_cat	Pos_new	Pos_new	Row
	CEO/MD	**Other**	**Totals**
High	68	1	**69**
Column %	45.03%	2.86%	
Medium	83	34	**117**
Column %	54.97%	97.14%	
Totals	**151**	**35**	**186**

5.5.4 Relationship between number of years using ISR and impact of ecological sustainability towards achieving green business status

It was depicted by Tables 5.4, 5.35 - 5.41 and 5.69 that the perceptions and views were expressed by people who have more than two years' experience of using integrated sustainability reporting. These people are knowledgeable senior managers of ISRs in their different JSE listed organisations. They understood the benefits and challenges facing the integration of financial and non-financial matters in terms of green sustainable business. In general, these managers agreed that some of their organisations' reports reflect budgets for decreasing poisonous substances in the environment. These reports also embrace the principle of recycling all waste.

It means that most of the JSE listed organisations support the principle of green economy in their reports. Although the implementation of green economy is still a big challenge to most of the JSE listed organisations. In conclusion, the relationship between variables and the recalculation of final scores in this category is depicted by Table 5.77, and the summary of position of participants, and factor Q5 of the specific questions.

The position variable was recategorised as follows: CEO/MD stays the same: n=151, and the last 4 positions of participants are combined as "Other", where n=35. The following results were obtained by using the Statistical Package for the Social Sciences (SPSS) software application:

- Chi-square : 35.94
- P-value : 0.0000
- x^2/df ratio : 2 (norm < 3)
- Cramer's V : 0.44 medium practical significance

The value of the Chi-square test is 35.94. The associated p-value of 0.0000 is less than 0.01, and therefore the above criterion was rejected at the 0.01% significance level. The alternative criterion was accepted, which implies that the reported data did not meet the requirement of normality. The relationship between the position of participants and the ecological sustainability as a driving tool is viewed as positive towards green business status in category Q5.

Table 5.77: Two-way summary table: observed frequencies Q5

Factor_Q5_cat	Pos_new	Pos_new	Row
	CEO/MD	Other	Totals
High	34	26	**60**
Column %	22.52%	74.29%	
Medium	25	4	**29**
Column %	16.56%	11.43%	
Low	92	5	**97**
Column %	60.93%	14.29%	
Totals	**151**	**35**	**186**

5.5.5 Relationship between age group and impact of social sustainability towards achieving green business status

It was displayed by Tables 5.5, 5.44 – 5.51 and 5.70 that the respondents were mostly older than 30 years of age. Their responses showed that some organisations support programmes and projects of employment equity, health, education and cultural differences. In short, some integrated reports indicate support of staff in terms of health, educational activities and programmes that develop the socio-economic aspects of human beings. There are, however, companies that are still behind in assisting their employees in terms of social development.

In conclusion, the relationship between variables and the recalculation of final scores in this category is depicted by Table 5.78, and the summary of position of participants, and factor Q6 of the specific questions.

The position variable was recategorised as follows:

CEO/MD stays the same: n=151, and the last 4 positions of participants are combined as "Other", where n=35. The following results were obtained by using the Statistical Package for the Social Sciences (SPSS) software application:

- Chi-square : 14.07
- P-value : 0.0088
- x^2/df ratio : 2 (norm < 3)
- Cramer's V : 0.28 small practical significance

The value of the Chi-square test is 14.07. The associated p-value of 0.0088 is less than 0.01, and therefore the above criterion was rejected at the 0.01% significance level. The alternative criterion was accepted, which implies that the reported data did not meet the requirement of normality. The relationship between the position of participants and the social sustainability pillar has positive impact towards green business status in category Q6.

Table 5.78: Two-way summary table: observed frequencies Q6

Factor_Q6_cat	**Pos_new CEO/MD**	**Pos_new Other**	**Row Totals**
High	67	5	**72**
Column %	44.37%	14.29%	
Medium	68	28	**96**
Column %	45.03%	80.00%	
Low	16	2	**18**
Column %	10.60%	5.71%	
Totals	**151**	**35**	**186**

5.5.6 Relationship between qualification and impact of economic sustainability towards achieving green business status

It was noted by Tables 5.6, 5.55 – 5.62 and 5.71 that most participants had post-matric qualifications and were knowledgeable in terms of sustainability issues. Their responses disclosed that most organisations partner with other corporations that promote integration of social, economic and environmental activities. The concept of green business status is still new in most JSE listed organisations.

To summarise, the relationship between variables and the recalculation of final scores in this category Table 5.79 below depicts the summary of position of participants and factor Q7 of the specific questions.
The position variable was recategorised as follows:

CEO/MD stays the same: n=151, and the last 4 positions of participants are combined as "Other", where n=35. The following results were obtained by using the Statistical Package for the Social Sciences (SPSS) software application:

- Chi-square : 14.17
- P-value : 0.0017
- x^2/df ratio : 1 (norm < 3)
- Cramer's V : 0.28 small practical significance

The value of the Chi-square test is 14.17. The associated p-value of 0.0017 is less than 0.01, and therefore the above criterion was rejected at the 0.01% significance level. The alternative criterion was accepted, which implies that the reported data did not meet the requirement of normality. The relationship between the position of participants and the economic sustainability has positive impact towards green sustainable business in category Q7.

Table 5.79: Two-way summary table: observed frequencies Q7

Factor_Q7_cat	Pos_new	Pos_new	Row
	CEO/MD	Other	Totals
High	46	0	**46**
Column %	30.46%	0.00%	
Medium	105	35	**140**
Column %	69.54%	100.00%	
Totals	**151**	**35**	**186**

5.6 Summary of evaluation of results

The information gained from the literature review, responses from questionnaires, interviews, integrated reports and the pilot study is utilised in this section for the evaluation of results. This section of the research further addresses each proposition and attempts to reflect on how the results substantiate or deviate from the theoretical framework propounded.

5.6.1 The impact of integrated sustainability reporting in relation to components of ISR, GRI, CSR and the King Report on Governance

It was noted in Chapter Two of this study that the fundamental proposition of integrated sustainability reporting is the progress towards a green economy. It was also indicated that sustainable development cannot be achieved unless information is disclosed on the economic, social and environmental impacts and performance of businesses (Smith, et al., 2012: 2089).

It was also stressed that the financial and sustainability information is essential for regulators, investors and the wider multi-stakeholders to measure and understand an organisation's contributions towards achieving the green fundamental criteria of integrated sustainability reporting (Calabrese, et al., 2013: 37).

Ligteringen (2013: 3) states that when you attend any world economic forum event, or look at issues on the agenda of stock exchanges and regulators, it is clear that integrated sustainability reporting is definitely no longer a peripheral pursuit. He further states that 95% of the 250 largest companies in the world now produce an integrated sustainability report towards achieving green business status, of which four out of five are choosing to use GRI guidelines.

This study agrees with Smith (2011: 17) who states that CSR policy functions as a built-in, whereby a business monitors and confirms its active compliance with the essence of the law, ethical standards and universal norms. CSR is a process with the aim of embracing responsibility for the company's actions and encouraging a positive impact through its activities on the environment, social responsibility, consumers, employees, communities and multi-stakeholders.

The King III report places critical emphasis on leadership, sustainability towards green business and corporate citizenship (Stamper, 2012: 69). Reporting on sustainability towards achieving green business is aligned with good corporate governance in King III (King III, 2009: 9).

Summary of findings under question one is as follows:

Tables 5.7 - 5.16 and 5.66 indicate that most (64%) of the JSE listed organisations have integrated reporting compiled at different development levels of implementation. Some of these reports treat financial matters separate from non-financial issues. Some of these reports treat financial matters separate from non-financial issues. These reports mention sustainability pillars towards achieving green business status. The sustainable development issues are addressed by these reports as a JSE listing requirement, not as a priority towards achieving green business status.

All the respondents (100%) indicated that their reports are transparent to shareholders on green and financial matters. It means that the all benefits of investment are clearly shown in their integrated sustainability reports to entice the investors, without paying much attention to the environment and socio-economic activities that drive green business.

Most respondents indicated that their reports follow the guidelines as stated by the King III Code of Governance. Only a few are integrating GRI, CSR and the King III

Code of Governance. Most responses indicated that the one report enables their companies to measure, manage and disclose their economic, environmental, governance, and social performance at different levels. It is clear that the integrated sustainability reports are still treated by most organisations as a requirement by investors, not as clear framework to achieve green business status.

5.6.2 The impact of environmental management system and corporate sustainability reporting tools to drive green business

Slob and Oonk (2010: 22) support the argument that the three pillars of sustainability offer organisations opportunity to redefine their concept of environment, to go beyond compliance and to challenge traditional thinking to improve performance in key sustainability areas across their business. They further stated that most organisations have successfully revised their definition of “environment” and achieved impressive results.

Cagnazzo, Raggi and Carbone (2013: 172) viewed the ISO 26000 standard as a good drive towards green economy. They are supported by Lee and Farzipoor Saen (2012:220) who mention that the ISO 26000 standard is generic and can fit all organisations’ strategic management approaches. Lee and Farzipoor Saen further stated that the ISO 26000 standard can also inform an organisation about the impacts of its decisions and activities on society and the environment, through transparent and ethical behaviour.

5.6.3 The National Environmental Management Act as a framework to promote green business status

The National Environmental Management Act (107 of 1998) and all other related Acts have the following principles which apply throughout the Republic of South Africa, and all the JSE listed organisations are also affected by some of these principles:

- Sustainable development requires the consideration of all relevant factors including the disturbance of ecosystems and the loss of biological diversity which should be avoided or minimised and remedied.
- Development must be socially, environmentally and economically sustainable.
- Environmental management must be integrated and acknowledge that all elements of the environment are linked and interrelated.

Tables 5.27 – 5.31 and 5.68 show that the integrated reports of some organisations incorporate environmental laws, bylaws and acts associated with programmes that promote green business status. The green sustainable organisations must place emphasis on providing services for youth and women business opportunities to address the equity imbalances. These JSE listed corporations should also promote green programmes and projects.

It was further noted that the integration of different regulations can be used to drive JSE listed companies towards achieving green business status. The biggest challenge is to report about these regulations and implement them on different levels of the organisations. The reports alone cannot implement the processes of green economy without committed people from these listed organisations at grassroots level.

5.6.4 The impact of integrated sustainability reporting in terms of ecological sustainability towards achieving green business status

Pratt (2003: 441) records that most of the green organisations that support positive environmental sustainability should have green programmes to reduce carbon dioxide emissions. Such green organisations fully support and subsidise projects and programmes that stop the accrual of poisonous substances in the natural environment.

Tables 5.35 – 5.41 and 5.69 show that some of the JSE listed organisations' reports reflect budgets for decreasing poisonous substances in the environment.
These reports also embrace the principle of recycling all waste. It means that most of the JSE listed organisations support the principle of green business status in their

reports. The implementation, however, of green economy is still a challenge to most of them. The ISR idea is good for business and can benefit the listed organisations in terms of investments and competitive advantage. The report does not benefit the multi-stakeholders in terms of sustainability issues.

5.6.5 The impact of integrated sustainability reporting in terms of social sustainability towards achieving green business status

It was noted by Hanley and Atkinson (2012: 108) that the socially sustainable corporation should attain equal rights to workers, give provision to social services like health and education to encourage dynamic citizenship.

Tables 5.44 – 5.51 and 5.70 show that the JSE listed organisations support programmes and projects of employment equity, health, education and cultural differences. The reports also support the well-being of staff in terms of health, educational activities and programmes that develop the socio-economic aspects of people. There are companies that are still behind in assisting their employees in terms of social development.

5.6.6 The impact of integrated sustainability reporting in terms of economic sustainability towards achieving green business status

Davidson and Winkler (2012: 97) state that the JSE listed organisation that supports economic growth will always partner with green sustainable corporations that promote green economic activities throughout South Africa. In such cases, the government subsidies should be made available to organisations which move towards green status.

Tables 5.55 – 5.62 and 5.71 show that most organisations partner with other corporations that promote integration of social, economic and environmental activities. The concept of green business status is still new in most JSE listed organisations. It is not seen as the drive to green economy by most organisations.

It was also noted that the manufacturing organisations keep registers of depletion of natural resources at their operational plants. Some listed companies do not have any idea of what a depletion register of natural resources is.

5.7 Summary of Chapter Five

Chapter Five has tabulated the collected data. It started by providing the general information on the respondents who answered the questionnaires. The general information indicated that some of the respondents who responded to the questionnaires are participants who are part of the implementation of integrated sustainability reporting. All the interviewees are senior managers that are working in the JSE listed organisations. These people are knowledgeable and well educated. Some of them have worked more than three years in their organisations.

The responses and interviewees' views on the specific questions are also recorded in this chapter. It is noted from the interviews, integrated sustainability reports and tables of respondents that integrated sustainability reporting is implemented by different JSE listed organisations at different development levels.

According to the results from the questionnaires and semi-structured interviews, the NEMA framework and other legislation are used by some of the JSE listed organisations to reduce air pollution and water contamination as a requirement for JSE listing. CSR and EMS activities are considered by some listed organisations as tools to drive green business approaches. Most respondents and interviewees considered the social training programmes as applicable to their JSE listed organisations.

Finally, some of the respondents and interviewees agreed that their organisations' reports support programmes and projects that move towards integrating social, economic and ecological sustainability. The evaluation of results in this chapter indicated that the NEMA, CSR, GRI, King III guidelines and EMS are important tools to achieve green socio-economic status in different listed organisations. It was also noted that the social sustainability was honoured by many organisations towards achieving green economy.

Chapter Six will summarise and draw final conclusions on the basis of the results of Chapter Five. Chapter Six will further address the recommendations and future research drawn from this study.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

Chapter Five discussed the research results and the interpretation of the data. According to Palinkas, Horwitz, Green, Wisdom, Duan and Hoagwood (2013: 10), the research study should be concluded with an interpretation of the findings against the background of the original research problem. The research report should be as conclusive as possible to give the reader a clear picture of the results. A valid conclusion is one in which the empirical data or evidence provide both sufficient and relevant grounds for the conclusion.

In order to expose the reader to the final outcome of this study, firstly, an overview of the research is given. Secondly, the interpretation of the findings against the background of the original research problem and research objectives to provide a valid conclusion is offered. Thirdly, the different research criteria used in this research are presented.

Fourthly, the implications of the study on theory and body of knowledge are highlighted, and the limitations of this research study are discussed in this chapter. Finally, the findings, conclusions and recommendations to address the impact of integrated sustainability reporting on achieving green economy or sustainable business, and some recommendations for future research, are offered towards the end of this chapter.

6.2 An overview of the research study

The research was concerned with the impact of integrated sustainability reporting (ISR) towards achieving green business status within the JSE listed companies in South Africa. In this study, the combination of sustainability and integrated reports was considered as an integrated sustainability report. According to this study, most of the JSE listed companies have reported green sustainability status in their integrated annual reports without any research audits to assess the “holistic integrated approach” towards achieving a sustainable green business standing. According to King III on integrated sustainability reporting and the Global Reporting Initiative guidelines, the JSE listed companies should be assessed internally to evaluate their ethics, values and governance, and externally to improve the trust and confidence of multi-stakeholders that these corporations are moving towards green business status.

The main research problem was formulated and presented in Chapter One of this study. In order to address the research problem, specific areas of interest were identified, which include the concepts of integrated sustainability reporting, the King Report on Corporate Governance, the Global Reporting Initiative, corporate social responsibility, sustainable business or green economy, the triple bottom line approach, pillars of sustainable development that drive the green business, the ISO 14001 standards and the ISO 26000 standard guidelines.

The literature review comprised the following chapters:

Chapter Two outlined the concept of integrated sustainability reporting where one report provides a collected and realistic representation of the financial standing and sustainability performance of an organisation that includes both positive and negative impacts towards a broader green economy. This literature study revealed that the incorporated sustainability reports, based on the Global Reporting Initiative (GRI) framework and the King III reporting guidelines, disclose outcomes and results regarding the JSE listed organisations’ obligations, strategy and management approach towards green sustainable business. It was also explained in Chapter Two that corporate social responsibility (CSR) policy functions as a built-in, whereby a sustainable green business monitors and confirms its active compliance with the essence of the law, ethical standards and universal norms.

Therefore, it was confirmed by the literature that CSR aims to embrace responsibility for the JSE listed companies’ actions and encourages a positive impact through its activities on the environment, society, consumers, employees, communities and multi-stakeholders. It was also established in Chapter Two that a sustainable green business that is using triple bottom line strategy, participates in environmentally friendly or green activities to ensure that all processes, services, products and manufacturing activities are adequately addressing current environmental concerns, social activities and economic growth, while maintaining a reasonable profit. Chapter Three revealed that the King Report on Corporate Governance's guidelines of implementation form the backbone of driving the process of going green.

From the above literature study the impact of integrated sustainability reporting was identified as an important approach that has the ability to effectively assist the JSE listed corporations to move towards green sustainable businesses. The criteria to assess the impact of integrated sustainability reporting from the listed companies were subsequently identified from the literature, and then tested through the application of the questionnaire, semi-structured interviews and assessment of different integrated reports. The different criteria or factors influencing the impact of an integrated sustainability report on achieving green sustainable business were subsequently identified from the literature, and then tested through the application of a triangulation method which was presented in Chapter Four.

Given the different assumptions of the impact of Integrated Sustainability Reporting (ISR) towards green business status and the interrelated factors that can influence the impact of green economy when using ISR, the main research question was:

The impact of integrated sustainability reporting on business practice within the JSE listed companies is unknown.

The primary objectives of this research were presented in Chapter One as follows:

- Establishment of the impact of ISR on achieving green business status that respects the environmental impact beyond ISO 14001 standards;
- Investigation of the impact of ISR on achieving green business that respects social responsibility of ISO 26000 and beyond;
- Investigation of the impact of ISR towards achieving green business that respects economic responsibility programmes and projects;

- Investigation of the impact of one reporting approach (financial and non-financial issues) in terms of benefiting green businesses that are listed on the JSE;
- Determination of the views and perceptions of senior managers regarding the impact of ISR on achieving green business status;
- Identification for any future research necessary to achieve effective, integrated sustainability reporting which targets green business; and
- Development of a classical questionnaire that JSE listed companies and other institutions can use to assess the impact of ISR on achieving green sustainable business.

All the above primary and secondary objectives of the study were empirically tested and were thus achieved. The table below summarises all the categories of all the questions that were tested and achieved based on the above objectives.

Table 6.1: Research summary of categories of questions tested

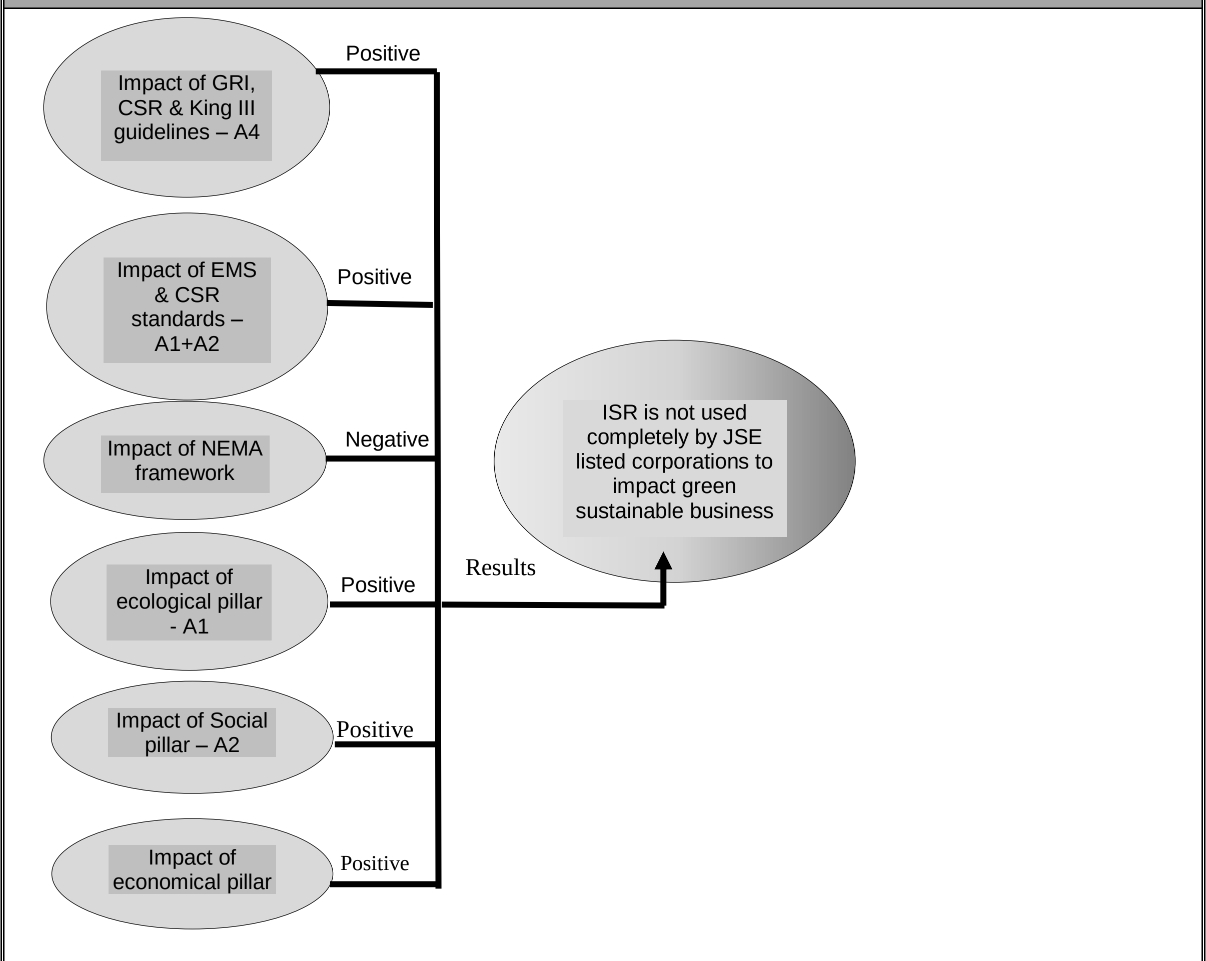
QUESTIONS	CATEGORIES
Q.2.1 – 10 Objective (v)	The key components of integrated sustainability reporting (GRI, CSR and King Report on Governance) towards green sustainable business were assessed using the questionnaire, interviews and integrated reports. It was found that few JSE listed companies (25%) were integrating GRI, CSR and King III Code of Governance. Most JSE listed organisations used the guidelines of the King III report to measure, manage and disclose their economic, environmental, governance and social performance at different levels. It was clear that the integrated sustainability reports were treated by most organisations as a requirement tool for investors, not as a clear framework to achieve green business status.
Q.3.1 – 4 Objectives (i, ii & v)	The environmental management system and corporate sustainability reporting tools to drive green business status were tested. The JSE listed organisations in South Africa were aware of sustainability tools like the triple bottom strategy, EMS 14001 voluntary standards, CSR 26000 guidelines and others. These tools were not utilised to drive the process of green business status, but were used to comply with JSE listing and auditing requirements.
Q.4.1 – 5 Objective (v)	The National Environmental Management Act as a framework to promote green business status was evaluated. The integrated reports of some JSE listed organisations (68%) incorporated environmental laws, bylaws and acts associated with programmes that promote green business status. Whilst 32% of their reports were not promoting green sustainable business.
Q.5.1 – 7 Objective (v)	The impact of the ecological sustainability dimension towards achieving green business status was questioned. It was noted that most JSE listed companies (74%) fully support ecological sustainability by conforming to the voluntary standards' requirements. In some firms (26%), they implemented sustainability pillars over and above the voluntary standards' requirements.
Q.6.1 – 8 Objective (iii)	The impact of social sustainability towards achieving green sustainable business was investigated. Some integrated reports indicated support of staff in terms of health, educational activities and programmes that develop the socio-economic aspects of human

	beings. Some JSE listed companies are still lagging behind in assisting their employees in terms of social development activities.
Q.7 – 8 Objectives (iii & iv)	The impact of integrated sustainability reporting (ISR) in terms of economic sustainability towards achieving green sustainable business was examined. It was found that 55% of JSE listed organisations partner with other corporations that promote integration of social, economic and environmental activities, while the mentality of green sustainable business was still a new concept in some organisations (45%). It was not seen as a driver to achieve green economy by most organisations.
Classical questionnaire Objective (vii)	A classical questionnaire based on the outcome of this survey is attached at the end of this research to be used by JSE listed corporations when assessing the impact of ISR towards green sustainable business. This was also the new body of knowledge added in the field of the impact of integrated sustainability reporting on achieving green sustainable business. This instrument was tested and confirmed.

Source: Researcher's own contribution

The significance of the assumed relationships in the revised approach was then tested through the use of the statistical technique of correlation between variables, which is presented in Figure 6.1.

Figure 6.1: Criteria assessing the impact of ISR towards green sustainable business



Source: Researcher's own contribution

Table 6.2 below gives the summary of the assumptions tested in the revised version of this study.

Table 6.2: Summary of the assumptions tested in the revised version

Assumptions	Decision
A1: Effective, integrated sustainability reporting towards achieving green business will respect the environmental impact beyond ISO 14001 voluntary standards. There was a positive relationship between EMS 14001 voluntary standards and ISR towards green sustainable business.	Supported
A2: Effective, integrated sustainability reporting towards achieving green business will respect social responsibility of ISO 26000 and beyond. There was a positive relationship between CSR 2600 voluntary standards and ISR towards green sustainable business.	Supported
A3: Effective, integrated sustainability reporting towards achieving green sustainable business will respect economic responsibility programmes and projects. There was a positive relationship between the economic pillar of sustainability and ISR towards green sustainable business.	Supported
A4: Effective sustainability reporting approach (financial and non-financial issues) in terms of benefiting green businesses that are listed on the JSE. There was a positive relationship between key components (GRI, CSR & King III) and ISR towards green sustainable business. This was positively benefiting the green sustainable business through competitive advantage.	Supported
A5: The NEMA as framework to support green business by ISR. The relationship between the NEMA and ISR was negatively supported by the benefiting green sustainable business.	Rejected

Source: Researcher's own contribution

6.3 Interpretation and conclusions about the research problem and research questions

The identification of the factors that influence the impact of integrated sustainability reporting towards green sustainable business within JSE listed companies forms the basis of the research problem. The limited research on the beneficial role that multi-stakeholders get from the impact of ISR when listed corporations move towards green sustainable business forms the backbone of the research gap in this study. The research addresses this limitation by identifying those factors that may influence the impact of going green when using ISR. The factors which have a significant influence on the dependent variable were identified and reported in Chapter Four, and the relationships were discussed in Chapter Five. A contribution to the body of knowledge is therefore evident in this study. The main research problem was further supported by a number of secondary research questions used during the interviews in Chapter Five, and are summarised and described in Table 6.3.

Table 6.3: Summary of interview questions answered

Questions	Recorded and Written Responses
Q.1.1	The study found that all ten selected JSE listed companies are using ISR procedures at different levels of implementation without any impact towards green sustainable business.
Q.1.2	All ISRs reflected financial and non-financial matters as a JSE listing requirement.
Q.1.3	All integrated reports addressed the green business issues as a JSE listing requirement, not as an impact by the reports towards green business.
Q.1.4	Most integrated reports do have sustainability programmes at different implementation stages.
Q.1.5	Most JSE listed companies' reports indicated that they do not share ideas with competitors in terms of green economy, but they support programmes of similar interests.
Q.1.6	ISRs reflected positive aligning strategy, remuneration, governance and performance indicators without integrating these towards going green. It was done to attract investors rather than support stakeholders at operational level.
Q.1.7	ISRs were transparent to shareholders rather than stakeholders. Some key investment information was reflected in their reports, whilst non-financial matters were scantily represented.
Q.1.8	It was also indicated by this study that most reports follow the guidelines as stated by King III Code of Governance as a listing requirement and not as a green business driving force. Only a few companies are integrating GRI, CSR and the King III Code of Governance.
Q.1.9	This study indicated that their ISRs reflected sustainability guidelines, but the theory is not being practised at the operational level.
Q.1.10	The research indicated that their integrated reports enable their JSE listed companies to assess, manage and disclose their ecological, socio-economic, governance and social accountability at different levels of implementation. Reports have no impact on green business status.

Source: Researcher's own contribution

6.4 Summary of findings and conclusions

According to the integrated sustainability reports, interviews and responses from the questionnaires, it was found that the JSE listed organisations in South Africa are not fully utilising the CSR, GRI guidelines and other voluntary standards as effective tools to drive the process of green sustainable business in their organisations. The main reason is that the JSE listed organisations are treating financial and non-financial matters as separate issues, indicating a narrow approach to commitment towards green sustainable business. This was positively tested and confirmed.

Any JSE listed organisation, which is still focussed on financial reporting without addressing sustainability issues, will have a problem to effectively reflect a positive impact towards achieving green economy in its integrated report. At present, most of the JSE listed organisations' ISRs do not have much positive impact in terms of moving towards achieving green sustainable businesses. The JSE listed organisations are following the guidelines of CSR, GRI and King III integrated reporting as requirement for JSE listing and not as a driving factor to move towards green economy.

The study found that some JSE listed organisations are using the voluntary standards such as CSR ISO 26000 and EMS ISO 14001 to drive their own certification status without achieving green business advancement. They are not compelled by the National Environmental Management Act to use their EMS framework to drive the process of green business. There are few JSE listed organisations in South Africa that are using the NEMA framework beyond ISO standards and are only using some of these standards for their products and services to comply with the quality standards of the buyers and shareholders. The JSE listed organisations are not using the voluntary standards as driving tools towards achieving green sustainable businesses or truly reflecting these in their integrated reports. Therefore, JSE listed organisations are not yet using different guidelines and voluntary standards as tools to drive green business status in their integrated sustainability reports.

In conclusion, the survey found that most of the JSE listed organisations have integrated sustainability reporting compiled at different developmental levels of implementation. Some of these integrated reports treat financial matters separate from non-financial issues. These integrated reports state sustainability pillars towards achieving green business status. The sustainable development issues are addressed by these reports as a JSE listing requirement and not as an instrument to achieve green business status.

The study also found that these integrated sustainability reports are transparent to shareholders on green and financial matters to entice the investors, without paying much attention to the environment and socio-economic activities that drive green business. It is important to note that these integrated sustainability reports follow the guidelines as stated by the King III Code of Governance. It was noted that only a few reports are integrating with GRI, the NEMA, EMS and CSR.

The research showed that most of the JSE listed organisations are fully aware of ecological sustainability as a pillar to drive the process of green business. They treat this pillar of sustainable development as a separate entity from socio-economic development issues. Most of the JSE listed corporations adhere to all the bylaws and regulations of ecological sustainability within their required certification of EMS ISO 14001 standards to remain effectively certified by the auditing authority. At this stage it has been found that most of the JSE listed organisations' integrated reports have no impact on achieving the ecological pillar of green business grading.

It was indicated in Tables 5.44 to 5.51, and 5.71 in Chapter Five that the social dimension of green business concur with the requirements of the South African National Labour Relations Act (55 of 1995) and its amendments. All JSE listed organisations are forced by the labour laws to adhere to and implement all the required acts relating to their employees. It was also noted that these listed organisations do not go beyond the labour laws that require them to establish green jobs that are moving their businesses towards green economy.

In short, some integrated reports indicated much support of staff in terms of health, educational activities, labour laws and programmes that advance the socio-economic aspects of human beings. There are, however, listed companies that are still lagging behind in assisting their employees in terms of social development issues.

The JSE SRI index and the International Finance Corporation indicators are forming a major part of green business in general. It was found by the research that the JSE listed companies are mostly assessed according to the sustainability reporting status, as the key requirement for listing, without checking much of their area of operations and advancement towards green business. The JSE SRI (2011:3-4) indicates that the listed companies should state in their reports the level of environmental impacts - whether it is low, medium or high. In the researcher's view, whether the environmental impact is low or high, the truth is, some of those listed corporations are still polluting the environment and are forming part of the climate change dilemma. Even listed companies are supporting these polluters by partnering with projects.

Therefore, the multi-stakeholders are likely to transform integrated sustainability reporting into a calculated numbers game, where money counts instead of impacts towards green economy and reports count instead of values. In the view of the researcher, green business status is about risk, and safeguarding risk carries cost.

Going green beyond numbers and voluntary standards is about opportunity, and investing in the future often comes with a price tag. As consumers and purchasers of goods and services, we are all complicit in making the brown economy what it is today. Many of us have chosen to enjoy the benefits of today's economic wonderland without considering the true costs of destroying natural resources of our children by shunning green business status.

6.5 Recommendations

In order to address the issues of not fully utilising the NEMA framework, CSR strategies, GRI guiding principles and other voluntary standards as effective tools to drive the process of going green in sustainable business, this research effort recommends the following to the JSE listed organisations in South Africa:

- JSE listed organisations should integrate the NEMA principles, CSR strategies and the guiding principles of GRI with the King Code of Governance principles in all divisions of their organisation. These guiding principles will assist the listed organisation to move towards becoming a green business. These principles should be reflected in the integrated sustainability reports of different organisations, and practical application should be practised and supported by multi-stakeholders to prevent any disturbances of the ecosystems, loss of biodiversity and dampened socio-economic growth.

- To be effective, sustainable green organisations should base their assessment and evaluation of environmental impacts and socio-economic activities on integrated policies of sustainable development and beyond. This should not only be based on integrated sustainable reports, but the overall strategic mission of the JSE listed organisation. The social, economic and environmental issues of listed organisations that are moving towards green businesses should form part of the overall organisational management policies.
- In order for the JSE listed organisations to completely achieve social sustainability, it needs to integrate green business regulations and sustainability policies that move beyond the present *status quo* of labour relations legislation.
- They should have an integrated sustainable development policy that encapsulates the set of core business values agreed to by the King III guidelines and policies on social, economic and ecological responsibilities that are integrated beyond any voluntary standards. The senior management of the JSE listed organisations should be fully committed to one integrated sustainability management system that embraces effective financial and non-financial matters in their integrated report.
- All the projects and programmes that the JSE listed organisation supports should be based on the integrated policy of voluntary standards and sustainability pillars or dimensions. JSE listed organisations should not only follow the requirements for accreditation status of some of the voluntary standards, but look beyond that in order to be a green sustainable enterprise.

In order to change the erroneous views of others that tools like CSR, the NEMA, EMS, integrated reports, King III guidelines and other voluntary standards cannot drive green business processes of JSE listed organisations, this study makes the following recommendations:

- All these tools and guidelines should be incorporated into sustainable development pillars of the JSE listed organisation. The TBL strategy of integrating the King Code of Governance Principles and sustainability issues should be implemented in the policy formulation structures of the JSE listed organisation in order to drive the process of going green.

In order to address the issue of economic sustainability, the survey recommends the following effective strategies that would move the JSE listed organisation towards green business:

- Take full advantage of the green economic growth and well-being of current and future generations by looking beyond the standing shareholder principle of JSE listed corporations where the organisation is more interested in profit-making than considering the affected multi-stakeholders;
- Ensure efficient use of all resources, natural and otherwise, by maximising all economic activities;
- Seek to identify and internalise environmental and social costs to all green business divisions of the JSE listed organisation;
- Maintain and enhance the conditions for viable green organisations through effective sustainable business;
- Improve rates of employment and new businesses around the community in which the green business operates;
- Use the national sustainability reporting guidelines for sustainability, green business processes and one integrated reporting procedure that moves towards green economy; and
- Integrate all green projects and programmes of socio-economic sustainability issues that promote a practical green business status.

In order to address government involvement in sustainable green business in South Africa the following points are suggested:

- To provide special grants for all JSE listed corporations that will to promote smart grid growth towards green recycling, green buildings, an environmental workforce and green job training;
- To formulate new laws and regulations that will allow access to energy generated by solar installations on JSE listed companies' buildings; and

- To explore environmental taxes and market-based instruments for ecological fiscal reform, and this should be embedded in the National Development Plan towards green sustainable business.

6.6 Limitations of the study

The study attempted to make a contribution towards the body of knowledge regarding the impact of integrated sustainability reporting towards green sustainable business within the JSE listed organisations in South Africa using different measurement criteria as indicated in appendix four of this study. However, certain limitations were revealed which should be taken into account in drawing conclusions.

The integrated sustainability reports were viewed by some companies as instruments to expose their companies' financial and non-financial matters without any compelling audit or assessment from researchers. This study was conducted when some of these companies were going through transition of going green voluntarily without any requirements from JSE Limited Company. This limited exposure to crucial information from the respondents, interviewees and integrated reports.

The items measuring some of the variables, especially Q.3 and Q.6, returned relatively low Cronbach alpha coefficients of 0.57 and 0.64 respectively. Although 0.7 is generally accepted as the lower limit, the literature indicated that in exploratory research Cronbach alpha coefficients may decrease. These relatively low values are, however, acknowledged as a limitation of the study, especially for EMS and the NEMA framework as drivers of sustainable green business and were removed from calculations due to construct validity concerns.

Although careful attention was given to the descriptive analysis and the selection of qualifying respondents and interviewees, it is acknowledged that the relationships under investigation could be influenced by unaccounted factors such as levels of experience and personal perceptions.

6.7 Future research

Based on the findings and recommendations of this study, the following study topics have been identified for further investigation on sustainable green business:

- To investigate the impact of going green in the construction and electrical industries within the South African context;
- The development of strategies for auditing integrated sustainability reporting towards green sustainable business;
- To assess the impact of voluntary standards that integrate SHEQ, sustainability, MPRDA, NEMA, green economy and bylaws within the mining industries;
- The development of green business's assessment and evaluating tools, models and instruments in the tourism industries; and
- The development of one integrated sustainability report guidelines that will integrate marketing strategies within green economy.

6.8 Concluding remarks

The study has found that the social pillar of sustainability is mostly supported by JSE listed organisations in South Africa - to the level of the requirements of labour relations legislation. It is not integrated with sustainability policies beyond the statutory requirements. It was further noticed in this study that integrated sustainability reports, based on the Global Reporting Initiative (GRI) principles and the King III reporting guidelines, disclose outcomes and results regarding the organisation's obligations, strategy and management approach that occurred within the reporting period. The integrated reports are preaching the gospel of going green without much practical steps of integrating financial and non-financial matters that drive the JSE listed organisations towards green sustainable business.

In order to look beyond the present situation in the JSE listed organisations, the integration of the NEMA, EMS, CSR, GRI and King III guidelines in one sustainability report can produce an effective sustainable green business in South Africa that is ecologically accountable and socio-economically supportive to all multi-stakeholders. South African JSE listed corporations need to use their integrated sustainability reports as vehicles to drive green economy within and outside their points of operations.

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APPENDIX ONE: QUESTIONNAIRE

The purpose of this questionnaire is to gather information about the impact of integrated sustainability reporting (ISR) on achieving green business status within JSE listed corporations. Please answer all the questions honestly and completely. Your answers are completely confidential. The questionnaire will be of no use unless all senior managers of the JSE listed organisations give their honest views and perceptions about the integrated sustainability reporting.

1. General and Demographic Information

Make a cross "X" in the appropriate block for each of the following items:

General and Demographic Information					
Numbers	**1**	**2**	**3**	**4**	**5**
1.1. Position in the organisation	CEO/ MD	CFO	ISR Manager	ISR/SHEQ Coordinator	Other
1.2. Number of years in the corporation	0-3	4-9	9-12	13-18	19>
1.3. Gender	Male	Female			
1.4. Number of years using ISR	0-1	2-3	4-5	5-6	7>
1.5. Age Group	19-20	21-30	31-40	41-50	51>
1.6. Qualification	Matric	Certificate	Diploma	Degree	Higher Degree

2. Questions Associated with Components of ISR, GRI, CSR and King Report on Governance

This set of items deals with components of ISR, Global Report Initiative (GRI), Corporate Sustainability Reporting (CSR) and King Report on corporate governance in the integrated sustainability report of your JSE listed organisation. On a scale of 1 to 5, how would you rate your integrated sustainability reporting, using the statements below, in accomplishing positive impact towards green business status or green economic status? Make a cross "X" in the appropriate block which best describes your rating next to each statement. **Scale: 1 =** Strongly Agree; **2 =** Agree; **3 =** Neutral; **4** = Disagree; **5 =** Strongly Disagree.					
Rating Scale	**1**	**2**	**3**	**4**	**5**
2.1 The report is not integrated or flexible enough to respond to changes in the green business environment.					
2.2 Sustainability is vital to be included in our reporting strategy of green economy.					
2.3 The reporting is too dependent on historical financial issues rather than green issues.					
2.4 Key components of green business status are included in our report.					
2.5 The report clearly shows alignment between strategy, remuneration, governance and Key Performance Indicators that promote green economy.					
2.6 The report institutes a proper internal reporting system to					

monitor and control social accountability and social investment.					
2.7 The report depicts clear environmental protection and sustainability advancement.					
2.8 It incorporates in-house ethical training programmes to help employees to make appropriate ethical decisions.					
2.9 It is transparent to such an extent that a multi-stakeholder can easily analyse the organisation's actions and performance both in green matters and figures.					
2.10 It is prepared with reference to CSR, GRI and King III guidelines that promote green business status.					

3. Questions Associated with Environmental Management System and Corporate Sustainability Reporting Tools to Drive Green business

This set of items deals with the environmental management system (EMS) and corporate sustainability reporting as tools for driving green business status within one holistic report. On a scale of 1 to 5, how would you rate your organisation, using the statements below, in accomplishing the impact of one report that uses or supports Environmental Management System (EMS) and CSR guidelines? Make a cross "X" in the appropriate block which best describes your rating next to each statement. **Scale: 1 =** Strongly Agree; **2 =** Agree; **3 =** Neutral; **4** = Disagree; **5 =** Strongly Disagree.					
Rating Scale	**1**	**2**	**3**	**4**	**5**
3.1 The report supports the EMS and CSR in driving the process of going green within and outside the organisation.					
3.2 The triple bottom line strategy (Environment, Economy and Social pillars) in the one report has a positive impact of integrating EMS, CSR and sustainability activities of green business.					
3.3 The integrated sustainability reporting incorporates EMS and CSR of ecological aspects, economic benefits and social issues that promote green business programmes.					
3.4 The EMS and CSR frameworks in the one report assist to implement environmental programmes, social welfare projects and economic education programs.					

4. Questions Associated with National Environmental Management Act as a Framework to promote Green Business Status

This set of items deals with the environmental matters that are guidelines to promote effective green business status within JSE listed companies. On a scale of 1 to 5, how would you rate your organisation, using the statements below, in accomplishing the effectiveness of environmental programmes towards promoting green business status? Make a cross "X" in the appropriate block which best describes your rating next to each statement. **Scale: 1 =** Strongly Agree; **2 =** Agree; **3 =** Neutral; **4** = Disagree; **5 =** Strongly Disagree.					
Rating Scale	**1**	**2**	**3**	**4**	**5**
4.1 Integrated sustainability report integrates environmental guidelines and other bylaws that control air pollution, water contamination and land degradation when disclosing its green status.					

4.2 One report reveals environmental programmes that promote green business status beyond the voluntary regulations.					
4.3 The environmental guidelines and other acts form the foundation for assessing environmental impacts and socio-economic activities in the report.					
4.4 The sustainable organisation is controlled by the polluter-pays and prevention principles and this is indicated in the report.					
4.5 Our report indicates that women and youth drive ecological projects and socio-economic development programmes.					

5. Questions Associated with Impact of Ecological Sustainability towards achieving Green Business Status.

This set of items deals with the impact of a one report approach towards achieving ecological sustainability within JSE listed organisations. On a scale of 1 to 5, how would you rate your organisation, using the statements below, in accomplishing the effectiveness of environmental sustainability towards promoting green business status? Make a cross "X" in the appropriate block which best describes your rating next to each statement. **Scale: 1 =** Strongly Agree; **2 =** Agree; **3 =** Neutral; **4** = Disagree; **5 =** Strongly Disagree.					
Rating Scale	**1**	**2**	**3**	**4**	**5**
5.1 One report of sustainable organisation supports the limit consumption rate of non-renewable natural resources.					
5.2 One report highlights budget for environmental projects that decrease the discharge of atmospheric contaminants, water pollutants and toxic waste.					
5.4 One report supports the promotion of effective projects that prevent the accumulation of toxic and artificial substances in the natural environment.					
5.5 One report supports projects that keep and promote the chemical and physical composition of the atmosphere and water within the natural levels.					
5.6 It supports programmes that adopt a closed-cycle economy in which virtually all waste is recycled.					
5.7 It supports ecological sustainability with all corporations that do not pollute the natural environment.					
5.8 It endorses the implementation of ISO standards and goes beyond compliance of certified corporations.					

6. Questions Associated with Impact of Social Sustainability towards Achieving Green Business Status.

This set of items deals with an impact of ISR towards achieving social sustainability within JSE listed organisations. On a scale of 1 to 5, how would you rate your organisation, using the statements below, in accomplishing the effectiveness of social sustainability towards promoting green business status? Make a cross "X" in the appropriate block which best describes your rating next to each statement. **Scale: 1 =** Strongly Agree; **2 =** Agree; **3 =** Neutral; **4** = Disagree; **5 =** Strongly Disagree.					
Rating Scale	**1**	**2**	**3**	**4**	**5**
6.1 The company fully supports distribution of equity from top management level to operational level.					
6.2 It supports all programmes and projects of gender equity and health education within the organisation and outside.					
6.3 It generates opportunities for women, youth and formerly disadvantaged communities to participate in the organisation's development activities.					
6.4 It reflects social sustainability training programmes that are supported by the organisation through its employees and the local communities.					
6.5 It indicates the cultural differences and social ethics of human beings within and outside the company.					
6.6 It integrates social aspects with the voluntary standards and beyond.					
6.7 It supports transitional training programmes and bursaries for future employees especially for green jobs.					
6.8 It donates resources and time to social upliftment projects within and beyond its borders.					

7. Questions Associated with Impact of Integrated Sustainability Reporting (ISR) in terms of Economic Sustainability towards Achieving Green business status

This set of items deals with an impact of ISR towards achieving economic sustainability within JSE listed organisations. On a scale of 1 to 5, how would you rate your organisation, using the statements below, in accomplishing the effectiveness of economic sustainability towards promoting green business status? Make a cross "X" in the appropriate block which best describes your rating next to each statement. **Scale: 1 =** Strongly Agree; **2 =** Agree; **3 =** Neutral; **4** = Disagree; **5 =** Strongly Disagree.					
Rating Scale	**1**	**2**	**3**	**4**	**5**
7.1 The organisation is partnering with suppliers or clients who keep registers of depletion and degradation of natural resources.					
7.2 It is a partner to green organisations that promote sustainable economic activities that diversify the country's economic base.					
7.3 The strategic vision of the green company supports policies that integrate social, economic and environmental sustainability.					
7.4 It maximises the economic growth and well-being of today's generations, while keeping in mind the future generations.					

7.5 It integrates GRI, CSR, King III guidelines to promote energy programmes to protect the environment.					
7.6 It budgets for environmental, social and economic costs that will promote the green economy and sustainable development activities.					
7.7 It improves the rate of green employment and new business partnership within the community in which it operates.					
7.8 It supports the development of human skills to sustain economic growth and green economic management systems.					

Thank You for Your Assistance!!!

APPENDIX TWO: SEMI-STRUCTURED INTERVIEW QUESTIONS

The purpose of this semi-structured interview is to gather information about the impact of integrated sustainability reporting on achieving green business status within JSE listed corporations. Please answer all the questions honestly and completely. Your answers are completely confidential. The interview will be of no use unless all senior managers of the listed organisations give their honest views and perceptions about the integrated sustainability reporting.

1. All questions are based on the non-financial components of the integrated sustainability report. These components are used to assess the impact of integrated sustainability reporting towards achieving green business status within the South African context.

1.1 General Information

NB: Specific questions will be based on the following categories:

1.2 Integrated Sustainability Reporting Components: GRI, CSR and King Report on Corporate Governance.

1.3 EMS ISO 14001 and CSR ISO 26000 as tools to Drive Sustainability in green business

1.4 NEMA as Framework for Effective Green Business

1.5 Impact of ISR in terms of Ecological Sustainability

1.6 Impact of ISR in terms of Social Sustainability

1.7 Impact of ISR in terms of Economic Sustainability

General and Demographic Information

General and Demographic Information					
Numbers	**1**	**2**	**3**	**4**	**5**
1.1. Position in the organisation	CEO/ MD	CFO	ISR Manager	ISR/SHEQ Coordinator	Other
1.2. Number of years in the corporation	0-3	4-9	9-12	13-18	19>
1.3. Gender	Male	Female			
1.4. Number of years using ISR	0-1	2-3	4-5	5-6	7>
1.5. Age Group	19-20	21-30	31-40	41-50	51>
1.6. Qualification	Matric	Certificate	Diploma	Degree	Higher Degree

2. Specific Questions:

Integrated Sustainability Reporting Components: GRI, CSR and King Report on Corporate Governance

2.1 Are you presently using an integrated sustainability report in your company?

2.2 Are financial and non-financial matters addressed in this one report?

2.3 What can you say about green business issues addressed in this report?

2.4 Do you have any sustainability programmes in this organisation that support ecological and socio-economic activities?

2.5 Do you share ideas with other organisations that support similar programmes?

2.6 Does your ISR indicate alignment between strategy, remuneration, governance and Key Performance Indicators?

2.7 How transparent is your report to multi-stakeholders in terms of non-financial matters like environmental protection, social warfare programmes and economic issues?

2.8 Can you describe the guidelines you are using in compiling your ISR in terms of GRI, CSR and King III?

2.9 Are these reporting guidelines assisting your organisation to move towards green business status?

2.10 Any benefits of using one holistic reporting system in your organisation?

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3. Specific Questions: EMS ISO 14001 and CSR ISO 26000 as tools to Drive Sustainability in green business

3.1 What is your view about the EMS and CSR tools in driving the process of going green in JSE listed organisations?

3.2 Does your one report cover the triple bottom line strategy (environment, social and economic)?

3.3 Name ecological aspects, economic benefits and social issues that are covered by your ISR?

3.4 In other listed companies, they report financial performances and sustainability issues separately in their annual report. What is the set-up in your organisation?

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4. Questions Associated with the NEMA Framework for Effective Green Business

4.1 What can you say about the NEMA as a framework that can be used towards green business?

4.2 Does the NEMA promote any part of ISR in your company?

4.3 Do you report about women and youth programmes in integrated reporting?

4.4 Briefly explain any relationship that exists between EMS and CSR activities of green business in your corporation?

4.5 Does your report indicate any promotion of NEMA principles like the polluter-pays and environmental protection?

----

5. Specific Questions: Impact of ISR in terms of Ecological Sustainability

5.1 According to your understanding, does your company have less impact on air pollution, water pollution and land pollution? Is it highlighted in your report?

5.2 If yes, please explain your answer? If no, do you support such organisations?

5.3 How does your company support environmental sustainability in the area of its operations?

5.4 According to your one report, how do you support the prevention of accumulation of toxic and artificial substances in the natural environment?

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6. Specific Questions – Impact of ISR in terms of Social Sustainability

6.1 Can you briefly explain the support your company is giving to distribution of equity from top management to operations? Are these addressed in your report?

6.2 Do you have programmes or projects in this company that support health education or any other social programmes? Are these addressed in your report?

6.3 Do you have any other social investment projects that support community activities? Are these addressed in your report?

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7. Specific Questions: Impact of ISR in terms of Economic Sustainability

7.1 Do you report about depletion and degradation of natural resources that hinder the process towards green economy?

7.2 Does your corporation partner with green organisations that promote sustainable economic activities that diversify the country's economic base? Is this reflected in your one report?

7.3 Does your corporation integrate GRI, CSR King III guidelines to promote energy programmes that protect the environment? Is it recorded in your report?

7.4 Do you have any budget allocated for green economic activities? Is it explained in your report?

7.5 Is your report assisting your organisation to move towards green business?

7.5 Any information that you would like to add to this research?

Thank you for your time and support!!!!

APPENDIX THREE: A RESEARCH LETTER TO JSE LISTED CORPORATIONS

Nelson Mandela
METROPOLITAN UNIVERSITY
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Leaders for tomorrow

Bird Street Campus

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16 May 2014

Managing Director
Chief Executive Officer
Chief Financial Officer
Senior Manager
General Manager
JSE Limited listed Organisation

Dear Sir/Madam

RE: AN IMPACT OF INTEGRATED SUSTAINABILITY REPORT TOWARDS GREEN BUSINESS STATUS RESEARCH STUDY QUESTIONNAIRE

I am Jabu Nkosi and I am currently conducting a research study, as a requirement towards a doctoral degree in business administration with Nelson Mandela Metropolitan University in Port Elizabeth. The purpose of the study is to investigate the impact of integrated sustainability reporting towards achieving green business status within JSE listed corporations in South Africa.

The enclosed questionnaire is sent to you to assist the researcher to gather the required information on your JSE listed organisation. The study will assist your organisation in knowing whether the integrated sustainability reporting components have an impact or not on listed companies towards achieving green business status. The results of the study will be confidential to the JSE listed organisations and will be made available to those corporations that participated in this survey as a business report when requested.

Please complete the attached questionnaire and email it back to the sender. The completed questionnaires must reach the sender by the 23rd May 2014.

Your assistance in this study is highly appreciated.

Yours Sincerely

Jabu Nkosi
0834892317

APPENDIX FOUR: INTEGRATED SUSTAINABILITY REPORTING ASSESSMENT INSTRUMENT

N0	Use the statements below to assess the impact of integrated sustainability reporting (ISR) in your organisation.	Make a cross "X" next to the number which best describes your rating. Scale: 1 = Strongly Agree; 2 = Agree; 3 = Neutral; 4 = Disagree; 5 = Strongly Disagree.				
1	It integrates financial and non-financial activities.	1☐	2☐	3☐	4☐	5☐
2	It reflects strategic objectives of green economy.	1☐	2☐	3☐	4☐	5☐
3	It is too dependent on historical financial issues rather than green economic issues.	1☐	2☐	3☐	4☐	5☐
4	It shows key components of green business status.	1☐	2☐	3☐	4☐	5☐
5	The report clearly shows alignment between strategy, remuneration, governance and Key Performance Indicators that promote green economy.	1☐	2☐	3☐	4☐	5☐
6	The report institutes a proper internal reporting system to monitor and control social accountability and social investment.	1☐	2☐	3☐	4☐	5☐
7	The report depicts clear environmental protection and sustainability advancement.	1☐	2☐	3☐	4☐	5☐
8	It incorporates in-house ethical training programmes to help employees to make appropriate ethical decisions.	1☐	2☐	3☐	4☐	5☐
9	It is transparent to such an extent that a multi-stakeholder can easily analyse the organisation's actions and performance both in green matters and figures.	1☐	2☐	3☐	4☐	5☐
10	It is prepared with reference to CSR, GRI and King III guidelines that promote green business status.	1☐	2☐	3☐	4☐	5☐
11	The report supports the EMS and CSR in driving the process of going green within and outside the organisation.	1☐	2☐	3☐	4☐	5☐
12	It integrates the triple bottom line strategy of environment, economy and social pillars.	1☐	2☐	3☐	4☐	5☐
13	ISR incorporates ecological aspects, economic benefits and social issues that promote green business programmes.	1☐	2☐	3☐	4☐	5☐
14	ISR includes EMS and CSR frameworks to implement environmental programmes, social welfare projects and economic education programmes.	1☐	2☐	3☐	4☐	5☐
15	It supports the limit consumption rate of non-renewable natural resources.	1☐	2☐	3☐	4☐	5☐
16	It indicates a budget for environmental projects that decrease the discharge of atmospheric contaminants, water pollutants and toxic waste.	1☐	2☐	3☐	4☐	5☐
17	It supports the promotion of effective projects that prevent the accumulation of toxic and artificial substances in the natural environment.	1☐	2☐	3☐	4☐	5☐
18	ISR supports projects that keep and promote the chemical and physical composition of the atmosphere and water within the natural levels.	1☐	2☐	3☐	4☐	5☐
19	It supports programmes that adopt a closed-cycle economy in which virtually all waste is recycled.	1☐	2☐	3☐	4☐	5☐

N0	Use the statements below to assess the impact of integrated sustainability reporting (ISR) in your organisation.	Make a cross "X" next to the number which best describes your rating. Scale: 1 = Strongly Agree; 2 = Agree; 3 = Neutral; 4 = Disagree; 5 = Strongly Disagree.				
20	It supports ecological sustainability with all corporations that do not pollute the natural environment.	1☐	2☐	3☐	4☐	5☐
21	It endorses the implementation of ISO standards and goes beyond compliance of certified corporations.	1☐	2☐	3☐	4☐	5☐
22	It authorises the distribution of equity from top management level to operational level.	1☐	2☐	3☐	4☐	5☐
23	It supports all programmes and projects of gender equity and health education within the organisation and outside.	1☐	2☐	3☐	4☐	5☐
24	It reflects opportunities for women, youth and formerly disadvantaged communities to participate in the organisation's development activities.	1☐	2☐	3☐	4☐	5☐
25	It reflects social sustainability training programmes that are supported by the organisation through its employees and the local communities.	1☐	2☐	3☐	4☐	5☐
26	It indicates the cultural differences and social ethics of human beings within and outside the company.	1☐	2☐	3☐	4☐	5☐
27	It integrates social aspects with the voluntary standards and beyond.	1☐	2☐	3☐	4☐	5☐
28	It supports transitional training programmes and bursaries for future employees especially for green jobs.	1☐	2☐	3☐	4☐	5☐
29	It endorses resources and time to social upliftment projects within and beyond corporation's borders.	1☐	2☐	3☐	4☐	5☐
30	It indicates partnership between JSE listed corporations and green organisations which keep registers of depletion and degradation of natural resources.	1☐	2☐	3☐	4☐	5☐
31	It reflects sustainable economic activities that promote green business.	1☐	2☐	3☐	4☐	5☐
32	It shows strategic vision that integrate the three pillars of sustainability (ecological, social and economic)	1☐	2☐	3☐	4☐	5☐
33	It exploits the economic growth and well-being of today's generations, while keeping in mind the future generations.	1☐	2☐	3☐	4☐	5☐
34	It integrates GRI, CSR King III guidelines to promote energy programmes to protect the environment.	1☐	2☐	3☐	4☐	5☐
35	It shows budget for environmental, social and economic costs that will promote the green economy activities.	1☐	2☐	3☐	4☐	5☐
36	It has positive impact towards green employment and new business opportunities.	1☐	2☐	3☐	4☐	5☐
37	It supports the development of human skills to sustain economic growth and green economic management systems.	1☐	2☐	3☐	4☐	5☐
38	ISR reflects negative impact towards green energy activities.	1☐	2☐	3☐	4☐	5☐

39	ISR indicates positive support towards green corporate social responsibility programmes.	1☐	2☐	3☐	4☐	5☐
40	It indicates slow integration towards green sustainable business.	1☐	2☐	3☐	4☐	5☐