A CONSCIOUS LEADERSHIP MODEL TO ACHIEVE SUSTAINABLE BUSINESS PRACTICES

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A CONSCIOUS LEADERSHIP MODEL TO ACHIEVE SUSTAINABLE BUSINESS PRACTICES

by

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DECLARATION

I, Beverley Amanda Faith Sukhdeo (Student number 211256013), hereby declare that the thesis for Doctor in Business Administration to be awarded is my own work and that it has not previously been submitted for assessment or completion of any postgraduate qualification to another University or for another qualification.

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ABSTRACT

Business sustainability is a fundamental concern amongst business leaders and it is imperative that business defines an environmentally and socially sustainable path to financial prosperity. This focus on sustainable business practices has been caused by the perceived contribution of businesses to undesirable conditions such as environmental and social degradation including global warming and the global financial crises.

This study suggests that a leadership style that differs from leadership that is currently causing business unsustainability is needed in order to achieve the goal of sustainable business practices. This study therefore proposes a new kind of leadership, called conscious leadership. The main contribution of the study is to increase the achievement of sustainable business practices by investigating the importance of conscious leadership in achieving this objective.

Convenience sampling was used to select senior managers and directors from mainly JSE listed companies. This resulted in a total of 371 usable questionnaires (317 from listed companies and 54 from unlisted companies) being received.

A quantitative approach was adopted to investigate whether conscious leadership would be related to increased sustainability competencies and more effective sustainability-related corporate governance and whether these in turn would increase sustainability behaviours which would generate sustainable business practices as measured by financial, social and environmental performance. Regression analyses were conducted to investigate the hypothesised relationships among these variables. Pearson correlations and descriptive statistics were also calculated.

The empirical results showed that respondents in this study regarded conscious leadership, not as a separate construct, but as a way they governed their businesses. The empirical results showed that corporate governance and systems-thinking competency had a strong interactive relationship and should therefore be

cultivated within business firms. Corporate governance (including conscious leadership) and systems-thinking competency were positive influencers of employee relations, equal opportunities and workforce diversity.

The empirical results however showed that corporate governance (including conscious leadership) had a negative influence on profitability. The present study cannot argue for the discouragement of corporate governance (including conscious leadership), as measured in this study, because reduced corporate governance would decrease healthy employee relations and the latter would decrease the achievement of equal opportunities and workforce diversity in these firms. A decrease in healthy employee relations would decrease profitability.

The most important finding of this study is that senior managers and directors of big business firms, mostly JSE-listed companies, regarded conscious leadership as an important part of corporate governance. Corporate governance that includes conscious leadership must be developed to higher levels in business firms, so that the negative and not-significant relationships to profitability as viewed by lower and high conscious leaders respectively can be changed to positive relationships.

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CHAPTER 1

SCOPE OF THE STUDY

1.1   INTRODUCTION AND PROBLEM STATEMENT

Business sustainability has become an important concept among executive managers in recent times and it is imperative that business finds an environmentally and socially sustainable path into the 21st century (Fyke & Buzzanell 2013; Gibson 2012). This focus on sustainable business practices has been caused by the perceived contribution of business to undesirable conditions such as environmental degradation including global warming and the global financial crises (Renesch 2010; Carter 2009; Scharmer 2009). The environment has to define the operating window for efficiency and abundance (Gibson 2012). Businesses, among many other institutions, are also perceived to have failed to eliminate or reduce poverty, political instability, violence, HIV-AIDs and food shortages due to their "single-minded pursuit of economic competitiveness and development at any price" (Hargreaves 2007). Hargreaves (2007:232) further argued that the "Anglo-Saxon strategies of soulless standardisation, measurement-driven improvement and forceful intervention" that underpin this economic thinking have resulted in widespread poverty and inequity. There has therefore been an increase in the realisation that economic benefits, more specifically financial performances, alone do not determine sustainability of businesses. The environmental and social impact of businesses is also important in order to achieve the sustainability of businesses (Wiek *et al.* 2011; Fry & Slocum 2008); hence the required triple-bottom line reporting expected from businesses. The triple bottom line refers to the financial output (profit), the environmental (planet) impact and the social (people) impact of businesses.

Leadership, in pursuing the triple bottom line in business firms, continues to grow in relevance given the corporate scandals, organisational crises and accounting irregularities, e.g. Citigroup, BP oil spill, Enron and Arthur Andersen (Fyke &

Buzzanell 2013). With instantaneous connectivity through social media like Twitter, Facebook, YouTube, stakeholders have immediate access to information resulting in severe consequences for the business firms' reputation and competitiveness in the event of negative environmental, social or ethical events, e.g. Nike's labour practices (Fyke & Buzzanell 2013). Lee Scott, the Chief Executive Officer of Wal-Mart, believed that good environmental stewardship and profitable business are not mutually exclusive concepts but in fact one and the same (Closs, Speier & Meacham 2011). Sustainability strategies by businesses through the improvement of efficiencies, enhancement of people (and communities) and the judicious use of environmental resources will result in increased profitability (Closs *et al.* 2011). The problem however is that business does not get this balance between profit, people and planet right (Wiek *et al.* 2011).

According to Hargreaves (2007:223) the International Panel on Climate Change for instance, suggested that the world has "less than a decade, to address the destructive effects of economically self-interested activity that is creating massive global climate change". Secondly, the BP oil spills and Enron scandal are examples of where profits are chosen over the welfare of people and the environment.

The lethal April 2010 BP oil spill from the Deepwater Horizon rig into the Gulf Coast was one of the worst environmental disasters in the United States history, costing forty billion dollars; clearly pointing to a choice of profits over planet and people. The EMI Consulting Company that investigated the oil spillage found that BP was involved in excessive cost cutting, excessive risk taking and contradicting public relations messages and actions (Sulphey 2014).

The Global Financial Crisis in 2008 was testament to leadership that focused on short term profits rather than long term ethical strategies (Metcalf & Benn 2013). The bankruptcy of Enron highlighted the need for transparency and ethical standards (Fyke & Buzzanell 2013) and is an example of the choice of profits over people. Professors of management at the University of Illinois who studied the Enron demise concluded, among the factors that caused this implosion, were a lack of ethical leadership, withholding of information by Enron management from the board and the public, the assistance of large banks that assisted Enron in structuring a variety of

questionable transactions and the auditing company Andersen who signed off Enron's financial statements. Underlying these causes are some of the managerial decisions to make money at all costs, even to the extent of withholding information and presenting questionable financial statements. The negative social impact of this scandal was significant, with employees losing their jobs, their retirement packages and investors lost all share value. The CEO and other Enron executives on the other hand had sold their shares just before they declared the company bankrupt. The above-mentioned examples point to the impact of leadership decisions on the organisations' sustainability - in other words on how their business firms achieve the balance between profit, planet and people.

Business is increasingly seen as a lever for change in the world (Fyke & Buzzanell 2013). The discussion therefore, appears not to be whether companies should employ sustainable business practices but what is required to execute this. Business leaders are required to migrate from a position of general or theoretical sustainability discussions to a tangible process of broad stakeholder engagement that addresses the demands that economic activity places on limited shared resources. Gibson (2012) stated that leaders must acknowledge a minimal moral principle of avoiding unnecessary harm. Appropriate leadership is essential in ensuring that the issue of sustainability is the underlying principle of business practice (Gibson 2012).

The problem statement of the present study is therefore that the non-achievement of sustainable business practices is caused by leadership inadequacy. This study, therefore suggests that a leadership style that differs from leadership that is currently causing business unsustainability is needed in order to achieve the goal of sustainable business practices. It therefore proposes a new kind of leadership, called conscious leadership. Literature indicates that very little research has been carried out on the relationship between leadership and sustainable business practices. In the case where studies have been carried out the sample sizes were so small that the results require validation (Brown 2011).

1.2   CONSCIOUS LEADERSHIP/ CONCEPTUAL DEVELOPMENT

Both the EMI and University of Illinois reports on the BP oil spill disaster and Enron scandal, respectively, point to a lack of ethics and morals that drove the governance process at these companies. There also prevails the notion in respect of these business disasters that the leaders were expected to do whatever was necessary to achieve monetary targets. This is a central element of the traditional leadership practice that is found in many companies today. According to Carter (2009) traditional leadership practice favours structure and tasks over relationship and process; power and control over shared leadership; top-down decision making over shared meaning and consensus; competition over collaboration and community; self-mastery over collective mastery and leveraging diversity; linear thinking over systems-thinking; one right answer over many right answers and fragmentation over holism. Conscious leaders are driven mainly by the desire to serve the business firm's purpose in a manner that benefits all stakeholders (Legault 2012). Conscious leaders define business as part of a complex, interdependent and evolving system with multiple stakeholders (Scharmer 2010).

Students of leadership tend to suggest that some, if not all the above, traditional leadership practices are the reasons why sustainable business practices are not achieved. For example, Pillay and Sisodia (2011) suggested that traditional leadership practices often do not possess the ethical and transformational foundations needed to achieve sustainable business practices. Fyke and Buzzanell (2013) believed that ethical business issues are best solved through increased consciousness, beginning with leaders, and is key to unlocking the moral rule of following guidelines and internalised codes of ethics.

Secondly, Isaksson *et al.* (2015) and Scharmer (2010) considered the world to be a closed system.   A closed system does not get inputs from outside of the system nor can outputs be released from the system, therefore, for a closed system to operate effectively it must employ regenerative processes. If the world is a closed system then decisions and actions of individuals, companies and countries affect each other because of their interconnectedness. This interconnectedness demands responsible leadership that demonstrates a high degree of awareness and moral consciousness

(Renesch 2010; Carter 2009). Leaders are required to balance the competing needs of all stakeholder groups: customers, employees, government, owners, communities and other organisations in a way that is ethical and accountable (Renesch 2010; Carter 2009). Traditional leadership practices often ignore this interconnectedness and the requisite responsible leadership. Research by Wiek *et al.* (2011) indicated that to build sustainability there must be a "Consciousness of the oneness of humankind"

In the third place, Scharmer (2009) suggested that the foundations of the world's social, economic, ecological and spiritual wellbeing are in peril. Scharmer (2009) agreed with Albert Einstein that problems cannot be solved using the same consciousness that created them. Scharmer (2009) therefore suggested that the consciousness that informs current leadership practice is not sufficient or effective in achieving sustainable business practices. A new leadership consciousness is needed; that leadership is conscious leadership.

The Oxford dictionary defines "conscious" as to be aware of and responding to one's surroundings. Further expansion of this definition indicates that people should be aware of themselves as well as others and the world around them and they should determine their response in ways that are aligned to their values, beliefs and feelings (Carter 2009). It is essential to be able to link this human thinking into action and to acquire skills that are able to fulfil life purposes (Sherman & DiGuilio 2010).

New consciousness assumes that people are all interconnected like leaves on the same branch rather than separate entities competing for the same resources (Renesch 2010). Conscious leadership is advocated as the solution to transcend the traditional means of resolving conflict in the world and dealing with elitism. It has the ability to create a better future for all rather than a better future for some because separateness will be replaced by interconnectedness. Therefore "better future" is not limited to a select group of people but it is a future that respects all people (Renesch 2010).

Key differences between conscious leadership and traditional leadership lie in the ability to lead from within and the leaders' capacity to understand and be

accountable for the impact of their decisions on the whole system. Renesch (2010) summarised some of the attributes of conscious leadership compared to traditional leadership as a form of leadership that:

- Inspires, evokes greatness rather than intimidates or manipulates;
- Trusts in self and others rather than being reliant on form and structure;
- Inner-directed rather than outer-directed;
- Continues to grow and learn rather than becoming incompetent eventually;
- Wiser, mature rather than more adolescent (even if highly functional;)
- Authentic rather than a strong persona that maintains image;
- Truth-telling rather than political;
- Leads with presence rather than by force;
- Possesses dominion, mastery rather than tending to be dominating, and
- Serves those who follow rather than focusing on protecting own image.

Conscious leadership is not something new. Instead, it is a theory that encompasses the best of various other types of leadership, namely principle-centred leadership, authentic leadership, value-centred leadership, transformational leadership, ethical leadership and spiritual leadership.

At conceptual level, the present study suggests a model driven by conscious leadership in order to achieve sustainable business practices (Figure 1.1). The present study also suggests that the much desired goal of sustainable business practices will not be achieved if conscious leadership is not practised throughout business. This model suggests that this type of leadership generates sustainability competencies, such as systems-thinking and interpersonal competencies. These sustainability competencies are believed to have a direct impact on corporate governance. The criteria for the Johannesburg Stock Exchange's (JSE's) Social Responsibility Investment (SRI) Index indicate that each pillar of the Triple Bottom Line, namely the economic, social and environmental pillars is underpinned by corporate governance (JSE 2014). The sustainability competencies together with corporate governance are expected to influence the behaviour of leaders positively in respect of sustainable business practices.

Against the above-mentioned background, the following research questions were formulated:

(1)   Does conscious leadership lead to increased sustainability competencies?
(2)   Does conscious leadership lead to more effective sustainability-related corporate governance?
(3)   Do increased sustainability competencies lead to more effective sustainability-related corporate governance?
(4)   Does more effective sustainability-related corporate governance lead to increased sustainability behaviours?
(5)   Do sustainability competencies lead to increased sustainability behaviours?
(6)   Do sustainability behaviours lead to sustainable business practices, as measured by profitability, social performance and environmental performance?

These research questions are graphically depicted in Figure 1.1.

Figure 1.1: Conceptual model to achieve sustainable business practices
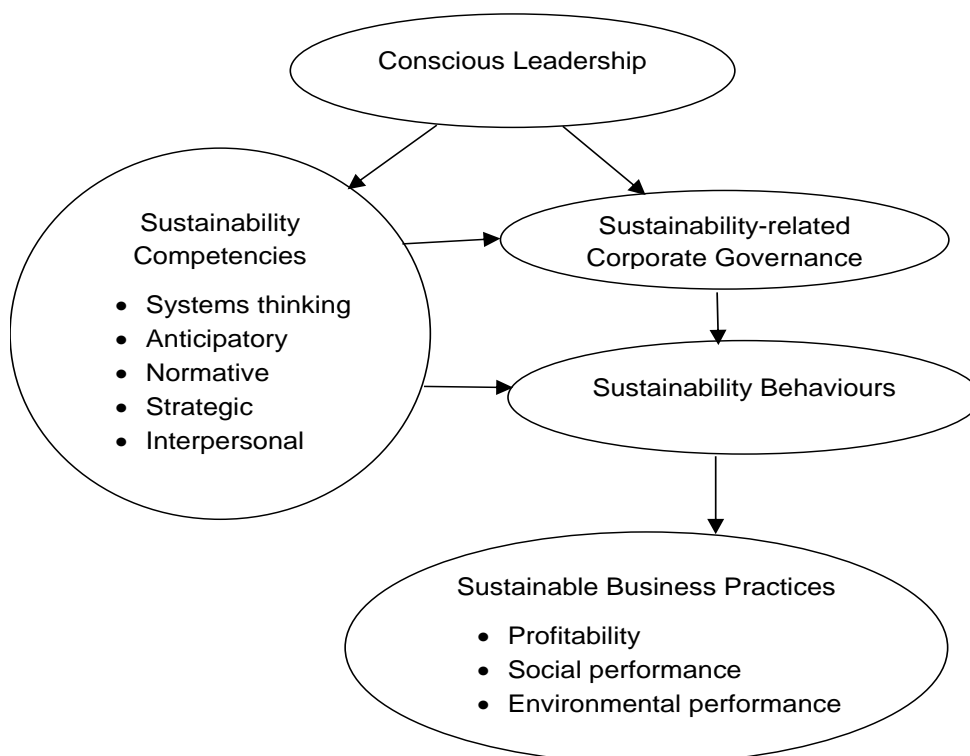
Source: Author's own construct

1.3   RESEARCH OBJECTIVES

The primary objective of the study is to increase the achievement of sustainable business practices by investigating the importance of conscious leadership in achieving this objective.

In order to achieve the above-mentioned objective, the following secondary objectives were formulated:

(1)   To investigate whether conscious leadership leads to increased sustainability competencies.

(2)   To investigate whether conscious leadership leads to more effective sustainability-related corporate governance.

(3)   To investigate whether increased sustainability competencies lead to more effective sustainability-related corporate governance.

(4)   To investigate whether more effective sustainability-related corporate governance leads to increased sustainability behaviours.

(5)   To investigate whether sustainability competencies lead to increased sustainability behaviours.

(6)   To investigate whether sustainability behaviours lead to sustainable business practices, as measured by profitability, social performance and environmental performance?

In order to achieve the following primary and secondary research objectives, the following research design objectives were formulated:

- To conduct a secondary literature review to determine why business firms are not achieving their business sustainability goals;
- To conduct a secondary literature review to evaluate what role leadership plays in achieving the sustainability goals of businesses;
- To find support in the literature to establish whether conscious leadership is the missing ingredient in efforts to achieve business sustainability goals;

- To develop a theoretical model of the relationship between conscious leadership and the achievement of sustainable business practices and to formulate the hypotheses in this regard;
- To develop the instruments to measure the variables in the hypothesised model;
- To conduct a mail survey on a sample of at least 300 senior managers or directors who belong to South African business firms or multinational business firms with a South African presence. These companies should include, as far as possible, those listed on the Johannesburg Stock Exchange;
- To capture the data in Excel and analyse it using appropriate statistical methods such as multiple regression analysis or structural equation modelling;
- To record and interpret the empirical results, and
- To discuss the managerial implications of the empirical findings and provide recommendations in this regard.

In pursuit of the primary and secondary research objectives, the following null hypotheses were formulated:

H01: There is no relationship between conscious leadership and corporate governance.

H02: There is no relationship between conscious leadership and sustainability competencies (as measured by interpersonal competency).

H03: There is no relationship between conscious leadership and sustainability competencies (as measured by normative competency).

H04: There is no relationship between conscious leadership and sustainability competencies (as measured by strategic thinking competency).

H05: There is no relationship between conscious leadership and sustainability competencies (as measured by system thinking competency).

H06: There is no relationship between conscious leadership and sustainability competencies (as measured by anticipatory competency).

H07: There is no relationship between anticipatory competency and corporate governance.

H08: There is no relationship between systems-thinking competency and corporate governance.

H09: There is no relationship between strategic thinking competency and corporate governance.

H010: There is no relationship between normative competency and corporate governance.

H011: There is no relationship between interpersonal competency and corporate governance.

H012: There is no relationship between corporate governance and sustainability behaviours.

H013: There is no relationship between anticipatory competency and sustainability behaviours.

H014: There is no relationship between system thinking competency and sustainability behaviours.

H015: There is no relationship between strategic thinking competency and sustainability behaviours.

H016: There is no relationship between normative competency and sustainability behaviours.

H017: There is no relationship between interpersonal competency and sustainability behaviours.

H018: There is no relationship between sustainable business behaviours and sustainable business practices (as measured by profitability).

H019: There is no relationship between sustainable business behaviours and sustainable business practices (as measured by human resource development).

H020: There is no relationship between sustainable business behaviours and sustainable business practices, as measured by equal opportunities and workforce diversity).

H021: There is no relationship between sustainable business behaviours and sustainable business practices (as measured by employee relations).

H022: There is no relationship between sustainable business behaviours and sustainable business practices (as measured by environmental performance).

The above null hypotheses are graphically depicted in Figure 1.2. These hypothesised relationships are discussed in more depth in Chapter 2.

Figure 1.2: The hypothesised model to achieve sustainable business practices through conscious leadership
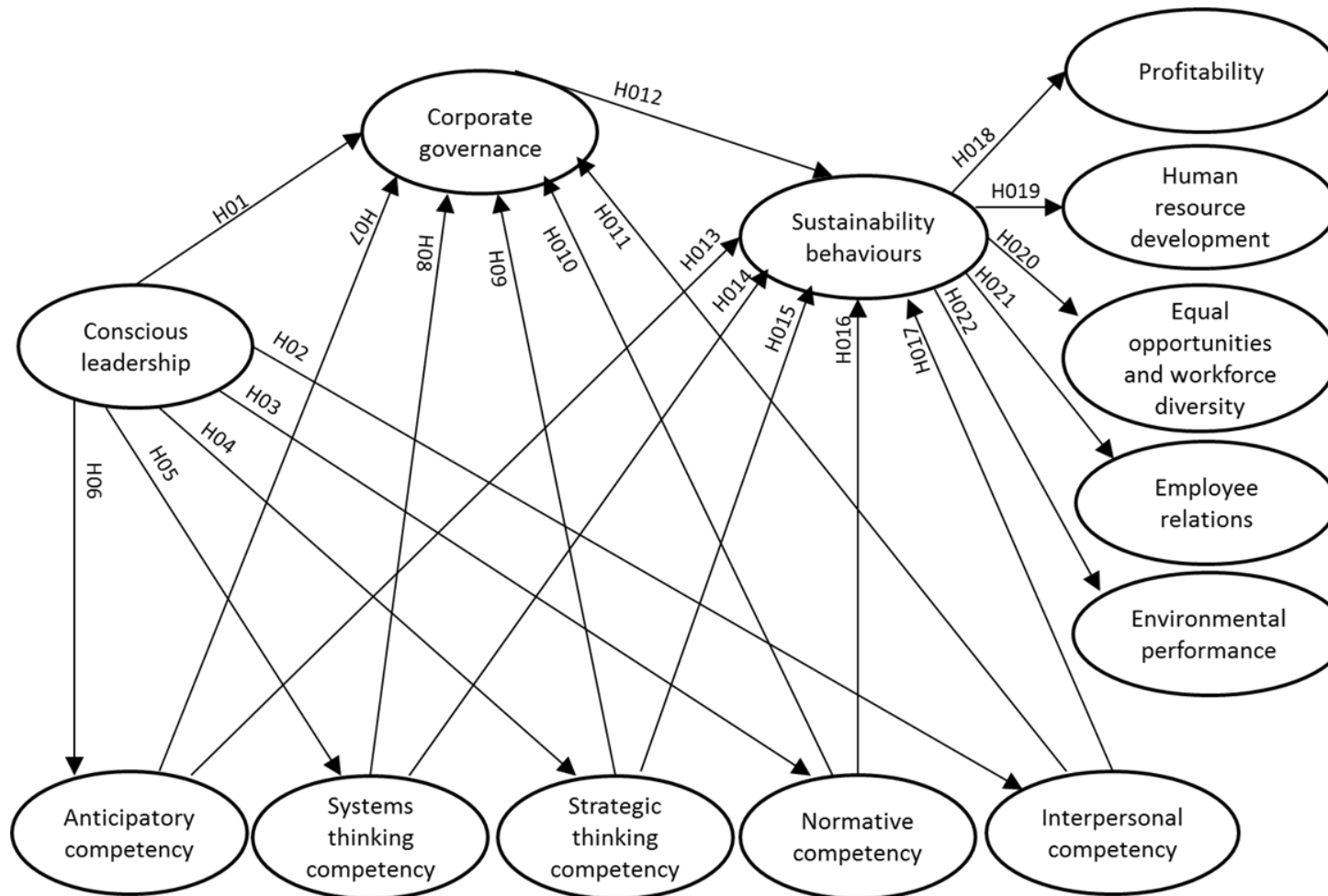
1.4   METHODOLOGY OF THE STUDY

The study followed a quantitative approach to investigating the relationships among the variables in the hypothesised model (Figure 1.2).   It was decided to use structural equation modelling or multiple regression analysis to test those relationships.

Convenience sampling was used to draw a sample of at least 300 senior managers or directors from JSE-listed and unlisted companies. The most important criterion for selection of these respondents was that they would be qualified to provide valid answers to the questions on the questionnaire that referred to sustainability behaviours and business practices in their businesses.

Existing measuring instruments were sought to measure the variables in the hypothesised models. Where no existing ones were found, new instruments were constructed along the lines of the variable descriptions in the hypothesised model (Figure 1.2).   Ethics clearance for the study was obtained through the normal university processes (see Annexure 4).

1.5   TERMINOLOGY

It is important to clarify the following concepts used in this current study. In terms of how they were measured in this study, the concepts mean the following:

Corporate governance: An evaluation of how a firm manages its code of ethics, audit function, compliance with acceptable governance standards, and channels for advice or complaints.

- *Code of ethics* refers to whether the firm has a code of ethics policy; ensures ethics management is a senior responsibility; ensures training and/or effective communication of the code of ethics to employees (for example, making it part of employee induction programmes); and having compliance monitoring and regular reviews of the implementation of the code of ethics.

- *Audit function* refers to whether the firm has an internal audit function in place; whether the firm has procedures to review all internal and external audit findings.

- *Compliance with acceptable governance standards* entails whether the firm exhibits a public commitment in respect of complying with internationally accepted governance standards (for example King III) and whether the firm's Board ensures that there is a segregation of duties, e.g. separate committees for audits and remuneration.

- *Channels for advice or complaints* refer to whether the firm ensures a secure communication channel for employees to seek advice or voice concerns (for example, a confidential fraud hotline).

Sustainability competencies: The extent to which a firm's managers exhibit the following competencies: Systems-thinking competency (ability to analyse sustainability concerns holistically); Normative competency (the ability to assess concerns with respect to sustainability); Anticipatory competency (ability to construct non-intervention scenarios with possible outcomes); Strategic thinking competency (create intervention strategies to avoid undesirable scenarios), and interpersonal competency (ability to collaborate closely with various stakeholders).

Conscious leadership: The extent to which leaders inspire and evoke greatness in their followers in order to motivate them to work well, trust themselves and others to get the best out of their followers, listen to their life calling and have a holistic awareness of themselves as leaders, believe in being authentic and truthful in their dealings with their followers, believe in collective mastery and leveraging diversity in the pursuit of proper employee job performance, exhibit an attitude of collaboration and community, always approach a situation with an open mind and with their voice of judgement suspended, prefer to serve those who follow rather than focusing on protecting their own image, are concerned not only about their own needs but the needs of all stakeholders and future generations.

Profitability: A quantitative measurement of a firm's:
- Basic earning power (profit before interest and taxes as a percentage of total assets;

- Rate of return on total assests (net profit after taxes as a percentage of total assets);
- Net profit margin (net profit after taxes as a percentage of net sales income);
- Turnover speed of assets (net sales income divided by total assets);
- Return on equity (net profit after taxes as a percentage of equity capital), and
- Average growth of the firm's share price over the past five years.

Human resource development (HRD): The extent to which a firm's policies express commitment to HRD; the firm effectively spends money on HRD; the firm exerts considerable effort to do HRD; the firm continuously improve its HRD practices; the firm integrates sustainability issues into HRD, and the firm regularly monitors its progress in HRD, enabling it to provide quantitative and qualitative data on its HRD performance.

Equal opportunity and workforce diversity: Actions that firms perform to create an environment that fosters equal opportunities that would improve workforce diversity.

Employee relations: The extent to which firms have clearly assigned managerial responsibilities and policies that govern negotaitions with both unionised and non-unionised employees; whether the firms implement sound disciplinary and grievance policies and procedures; whether the firms have clear codes of conduct for all employees, and whether the firms use rewards to foster healthy employee relations.

Environmental performance: The extent to which a firm safeguards biodiversity; reduces greenhouse gas emissions; increases the use of renewable energy; commits to independant environmental certification systems, and conforms to the best environmental practice and legislation and beneficiates waste streams.

1.6   OUTLINE OF THE STUDY

The chapters in this study are divided as follows:

Chapter 1: The scope of the study

This chapter introduces and explains the background to the study; clarifies the research problem and objectives, and discusses the research methodology.

Chapter 2: Literature review

This chapter extensively explores prior research findings on the state of sustainable business practices in business firms; investigates the reasons for successes and failures of efforts to sustainable business practices, and explores the role of leadership in achieving sustainable business practices. The theoretical foundation for the hypothesised relationships is also provided.

Chapter 3: Methodology of the study

This chapter explains the research paradigm that underpins the study, the sampling design, measuring instruments and data analysis processes. The descriptive statistics on the questionnaire responses are reported. The discussion of these statistics provides an assessment of the levels of achievement and perceptions about sustainable business practices in business firms.

Chapter 4: The empirical results

In this chapter, the results on the reliability and validity of the measuring instruments are discussed, and the empirical results are reported and interpreted.

Chapter 5: Conclusion and recommendations

In this chapter, the managerial implications of the empirical results are discussed. Recommendations for leadership development and future research are also presented.

CHAPTER 2

SUSTAINABLE BUSINESS PRACTICES

2.1   INTRODUCTION

The aim of this study is to contribute to the attainment of sustainable business practices in business firms by investigating the role that leadership, more especially conscious leadership, plays in achieving this objective. In this chapter the various definitions, conceptualisations and measurements of sustainability are explored. The concept of sustainable business practices as an outcome of the pursuit of sustainability in business is also explained.

2.2   DEFINITIONS AND CONCEPTUALISATIONS OF SUSTAINABILITY

Sunny Misser, a global leader of sustainable business solutions emphasised that "sustainability has moved from the fringes of the business world to the top of the agenda for shareholders, employees, regulators, and customers …" (Russell & Lipsky 2008:95). The authors further stated that "any miscalculation of issues related to sustainability can have serious repercussions on how the world judges a company and values its shares".

2.2.1   Defining and conceptualising sustainability

The most frequently quoted definition of sustainability sourced from the World Commission on Environment and Development involves meeting "the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development 1987:37). Dyllick and Hockerts (2002:131) extended this definition of sustainability to business, as "meeting the needs of the firm's direct and indirect stakeholders (such as shareholders, employees, clients, pressure groups, communities, etc.), without compromising its ability to meet future stakeholder needs as well."   There is

however no consistent definition for sustainability resulting in a wide range of concepts falling within the sustainability framework (Closs, Speier & Meacham 2011; Brown 2011; Scott 2011).

Sustainability is a complex and ambiguous issue because of the large number of interacting elements and the absence of an established theoretical approach for the solution (Metcalf & Benn 2013).

Despite the complexity of, and ambiguity around the concept of sustainability, it appears that there is consensus that the concept includes at least three elements: the pursuit of profit or economic growth while caring for the environment and people. In this regard, the World Summit United Nations General Assembly (2005) stated that there is a requirement for the reconciliation of environmental, social and economic demands as the three pillars of sustainability that are not mutually exclusive but can be mutually reinforcing. This is referred to as Triple Bottom Line Sustainability, also known as People Planet Profit Sustainability. Sustainable business practices (SBPs) should therefore be grounded in the three principles of environmental integrity, economic prosperity and social equity and are therefore measures of the organisational success and responsibility (Hahn & Figge 2011; Sherman & DiGuilio 2010). The concept of Triple Bottom Line (TBL) is based on the principle that the success and wellbeing of a business firm reside not only in the financial performance but are reliant also on the social performance and the environmental performance. It is for this reason that Triple Bottom Line and People (Social) Planet (Environment) Profit (Financial) are synonymous concepts.

The assertion that Triple Bottom Line sustainability has become the minimum definition of sustainability in business is further supported by how an important institution such as the Johannesburg Stock Exchange (JSE) measures socially responsible investment in companies. In response to the growing interest in responsible investment around the world, the JSE launched the Socially Responsible Investment (SRI) Index in 2004 with the following key objectives (a) to identify those companies on the JSE that integrate the principles of triple bottom line and good governance into their business activities, (b) to provide a tool for broad holistic assessment of company policies and practices against globally aligned and locally

relevant corporate social responsibility standards, (c) to serve as a facilitation vehicle for responsible investment by investors looking for non-financial risks when making investment decisions, as such risks usually have high financial risks, and (d) to contribute to the development of responsible business practices in South Africa and beyond (JSE 2014).

The criteria for measuring sustainable business practices are determined by the JSE in consultation with the JSE SRI Index Advisory Committee. The appointment of the members to this Advisory Committee is the responsibility of the JSE. This committee comprises an independent panel of experts from across the spectrum including investment managers, listed companies, sustainability experts and academics. The responsibilities of the SRI Advisory Committee include ensuring that the best practice is used in constructing and managing the JSE SRI Index and overseeing annual reviews (JSE 2014). In order to become an SRI constituent, the JSE listed company must meet the minimum core and desirable indicators as set out in the criteria. The JSE uses an international data provider, Ethical Investment Research Services (EIRIS), for the collection and analysis of most recent publicly available material that forms the primary source of information in determining whether the company has met the SRI criteria (JSE 2014).

Companies are assessed across the Triple Bottom Line (economy, environment and society) as well as good corporate governance principles underpinning each of the triple bottom line pillars, illustrated in Figure 2.1. Since the JSE has comprehensive measurements in place to establish economic performance, the SRI criteria were introduced to measure sustainable business practice across environment, society and governance (ESG) in keeping with the framework promoted by the UN Principles for Responsible Investment.

The SRI criteria continue to evolve, reflecting the continuous development of concepts and sustainable business practices. The Index's developmental approach has resulted in more detailed criteria being introduced in focus areas, e.g. climate change. Company policies, management systems, performance and reporting are reviewed on an annual basis for effectiveness (JSE 2014).

2.2.2 Defining and conceptualising sustainable business practices in this study

In the present study, the JSE Triple Bottom Line conceptualisation of sustainable business practices guides the definition and measurement of the concept. In other words, sustainable business practices are defined in this study as the extent to which a business firm achieves its economic goals (profitability) whilst implementing sound environmental and human resource development policies and practices. These elements of sustainable business practices are discussed individually in the following sections.

Figure 2.1: The JSE pillars of the Triple Bottom Line

ECONOMIC PILLAR	ENVIRONMENTAL PILLAR	SOCIAL PILLAR
Examples: Return on Capital Employed (ROCE)	Addressing all key issues Working towards environmental sustainability	Training & Development Employee Relations Health & Safety Equal Opportunities Community Relations Stakeholder Engagement Black Economic Empowerment HIV/Aids

CORPORATE GOVERNANCE

Ethics & Values
Board Practice
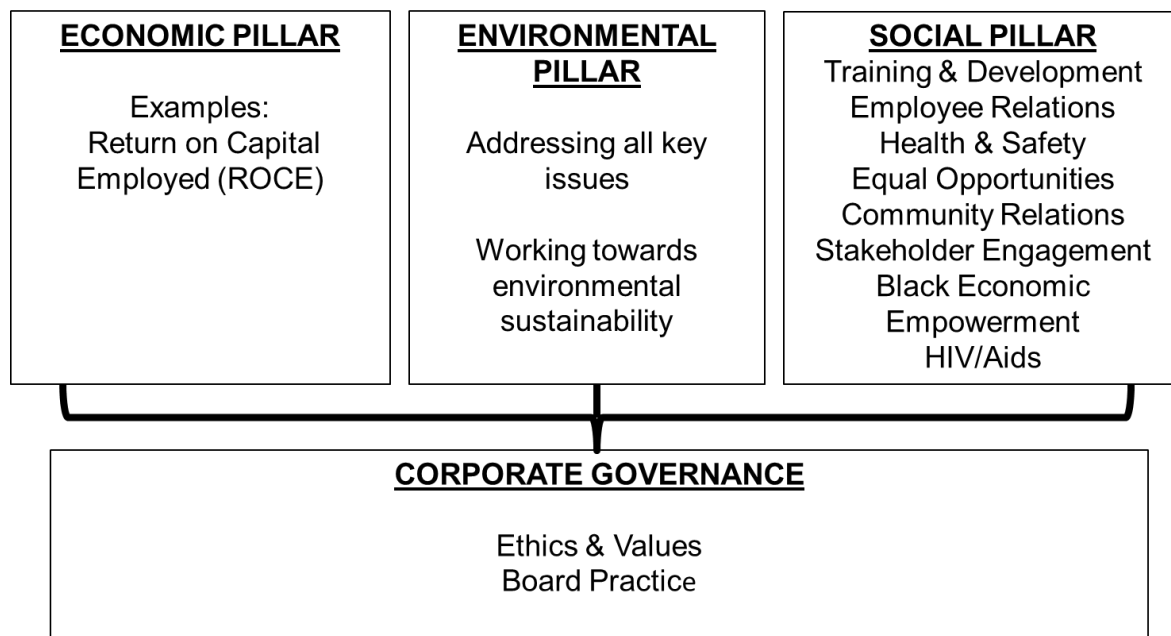
Source: Adapted from JSE (2014) information

2.2.2.1 Economic goals (profitability)

Sustainability researchers wield much criticism at business practices that tend to be focused primarily on generating profit at the expense of the environment and society (Chandler 2014; Maldonado 2014; Fry & Slocum Jr 2008). The problem is that businesses do not seem to get the balance between profit, people and planet right (Wiek *et al.* 2011). The International Panel on Climate Change (Hargreaves 2007: 223) suggested that the world has "less than a decade, to address the destructive

effects of economically self-interested activity that is creating massive global climate change". A business exists to generate profit. It is therefore undeniable that a business must maintain economic viability. There are comprehensive measures to establish economic performance. Measures of business economic viability include earning power, the rate of return on assets, net profit margin and return on equity. The argument is not whether businesses should be economically viable but that whether they should be allowed to achieve economic success without ensuring the sustainability of the environment and society.

There are business leaders that still have divergent views on the value of growing the triple bottom line (Hardman 2010). There is a belief amongst some leaders that the focus on environmental and social issues will add costs with no benefit because consumers will not pay more for the additional cost incurred in creating green products (Crews 2010). It is also argued that countries that have a more relaxed approach to environmental and social issues have a competitive advantage over business operations in countries with tight legislation in respect of environmental and social issues (Gibson 2012). Hardman (2010) stated that this limited perspective on sustainability is often seen in blue-chip companies where company leaders are accountable to shareholders for quarterly profits and hence the focus is on short term profitability.

Lubin and Esty (2010) indicated that their studies showed that as SBPs improved, the benefits experienced increased. Studies on the sustainability initiatives within thirty large corporations by Nidumolu *et al.* (2009) showed that leaders do not have to choose between the benefits of developing sustainable products and processes and the financial costs of doing so. In developing SBPs, business firms are forced to challenge existing business models, technologies, processes and products which result in waste reduction and increased competitive advantage (Nidumolu *et al.* 2009). Sustainability initiatives include, amongst others, strategic sourcing, continuous improvement, transport optimisation and supplier management (Closs, Speier & Meacham 2011).

Examples of companies in which sustainable approaches improved business performances include Dow, Adiddas and Walmart. Kepler (2011), for instance,

reported that Dow's investment of over $2 billion in energy efficiency programmes had resulted in savings of over $9 billion. Hansen *et al.* (2013) reported that Adidas implemented a triple bottom line approach whereby the company significantly reduced its carbon footprint, increased the use of recycled polyester and sustainably farmed cotton in their products. In addition, Adidas implemented its Dry Dye sustainable innovation which eliminated the use of water in its dyeing process (Hansen *et al.* 2010). Futhermore, Lubin and Esty (2010) cited the case of Walmart's sustainability projects which resulted in a 38% efficiency improvement in transport optimisation, a cost reduction of $200 million and a greenhouse gas emission reduction of two hundred thousand tons per year. These examples demonstrate that it is possible to meet both the financial needs of the business firm and stakeholder requirements.

Whilst there have been many arguments and examples that financial performance benefits from good social and environmental performance, this however, is not evident in the research by Hansen *et al.* (2013). According to these researchers, there are many reasons why this relationship is not evident. These reasons include, (a) the fact that sustainability may have longer term financial impacts which may not be immediately obvious, (b) the measurements relating to environmental and social performance may not be consistent, making comparisons between companies difficult, and (c) the financial performance of different industries are affected by a variety of factors including sustainability so that the actual impact of the sustainability intiatives on company profits cannot easily be compared (Hansen *et al.* 2013).

Given the debate above, and through rigorous statistical analyses, the present study aims to empirically investigate whether the exhibition of sustainability competencies by leaders and the implementation of sustainable behaviours would increase the profitability of business firms. This is one of the important contributions this study envisages to make. In this study, profitability will be measured by an assessment of a firm's:

- Basic earning power (profit before interest and taxes as a percentage of total assets);

- Rate of return on total assests (net profit after taxes as a percentage of total assets);

- Net profit margin (net profit after taxes as a percentage of net sales income);

- Turnover rate of assets (net sales income divided by total assets);

- Return on equity (net profit after taxes as a percentage of equity capital), and

- Average growth of the firm's share price over the past five years.

2.2.2.2 Social or people goals

The SRI index for social criteria (Table 2.1) is aligned with the Global Reporting Initiative (GRI) standards, while at the same time accommodating issues peculiar to South Africa, such as Black Economic Empowerment (BEE) and HIV/AIDS (JSE 2014). This index guides the conceptualisation and measurement of the social (people) element of sustainable business practices in the present study. The index measures a firm's social performance in terms of its successes in the training and development of its human resources, employee relations and the facilitation of equal opportunities as well as workforce diversity in the firm.

– *Human resource development (HRD)*

Rooke and Tobert (2005:1) stated that "leaders are made, not born, and how they develop is critical for organisational change." Human resource development (HRD) must transition from training that will address only the day-to-day problems to training that will unlock future possibilities (Legault 2012; Closs, Speier & Meacham 2011).

Organisational learning is a prerequisite for the transformation to sustainability (Hardman 2010). The development of an organisational learning culture is necessary in creating a culture of sustainability (Hardman 2010). This can be achieved through talent management, for example, integrating sustainability objectives into the recruiting and selections processes (Maldonado 2014). Talent management improves the fit of new employees and allows the acquisition of talent with the knowledge and skills to support the business firm's sustainability initiatives (Maldonado 2014). Training and development is required to support sustainability

initiatives at all levels within the organisation. It is important that sustainability intent permeates all mentoring, coaching and career development programmes (Crews 2010). The business firm must create opportunities for sustainability dialogues amongst all leadership levels within the organisation (Crews 2010).

Against the above background, HRD is, amongst others, measured in the present study by the extent to which a firm's policies express commitment to HRD; the firm effectively spends money on HRD; the firm exerts considerable effort to do HRD; the firm continuously improves its HRD practices; the firm integrates sustainability issues into HRD; and the firm regularly monitors its progress in HRD, enabling it to provide quantitative and qualitative data on its HRD performance.

‒ *Employee relations*

A new frontier of competitive advantage for firms is to cultivate a robust and resilient organisational culture that embraces human values. Effective employee relations should be aligned to the need for employees to be fulfilled and valued at work, and for them to feel a personal connection to the organisation's vision, mission and values (Mackey & Sisodia 2013; Carter 2009).

The benefits of sustainable business practice include becoming an employer of choice by improving the attractiveness of the business to prospective employees and reducing its staff turnover of current personnel (Anderson & Ackerman Anderson 2011; Collins *et al.* 2007). Organisations that will excel in the future must understand how to engage employees at every level within the organisation (Crews 2010). Good employee relations are supported by a clear code of conduct that is designed to assist employers, employees and their representatives, deal with disciplinary and grievance procedures in a manner that is substantively and procedurally fair. Disciplinary and grievance procedures should be readily available and communicated to all employees to affirm the transparency and credibility of these processes. It is important that whilst performance that is not acceptable is penalised, good performance should be recognised and rewarded. Recognition systems and performance management should promote the use of rewards to encourage the desired behaviour and outcomes. When disputes do occur, e.g. wage negotiations, it is important that the firm does everything in its power to avert industrial action.

Table 2.1: Social indicators according to the SRI Index

	Core Indicators	Desirable Indicators
∗ ALL COMPANIES MUST MEET THE MAJORITY OF ALL INDICATORS, OF WHICH ONE THIRD MUST BE CORE ∗ IN ADDITION TO THE ABOVE MINIMUM REQUIREMENT, COMPANIES OPERATING IN SOUTH AFRICA MUST MEET AT LEAST ONE CORE INDICATOR IN EACH OF BEE AND HIV/AIDS		
TRAINING and DEVELOPMENT		
Policy	∗ Public commitment to training and development ∗ Senior responsibility for training and development	
Management	∗ Documented objectives and targets ∗ Any supporting data on employee training and development (e.g. overall budgets, time and money spent on training, improvements, industry comparisons, nature of training e.g. business-related essential skills, etc.)	∗ Performance against targets ∗ FOR COMPANIES OPERATING IN SOUTH AFRICA: Any supporting data on external skills development (e.g. overall budgets, time and money spent on training, bursaries / learner-ships (not limited to black persons), nature of training, e.g. business-related essential skills etc.) ∗ Proportion of staff having training and development, reviewed annually
Reporting	∗ Public commitment to training and development ∗ Quantitative data on employee training and development	∗ Senior responsibility ∗ Objectives and targets and performance against these ∗ Quantitative data on external skills development
EMPLOYEE RELATIONS		
Policy	∗ Senior responsibility for one of the following as appropriate: (a) union negotiations where applicable **or** (b) employee relations / workforce consultation ∗ Disciplinary and grievance policy / procedures in place ∗ Disciplinary and grievance policy / procedures communicated to all employees	
Management	• One of the following two indicators as may be appropriate: − Data on percentage of global workforce covered by collective agreements, union recognition or equivalent consultative arrangements (including works councils or workplace forums) where applicable, **or** − Procedures in place for employee relations / workforce consultation in non-unionised settings	• Quantitative data on business impact of employee relations issues (e.g. number of strike days or financial impact of industrial action)
Reporting		∗ Coverage of consultative arrangements or workforce consultation procedures as appropriate ∗ Senior responsibility ∗ Disciplinary and grievance policy / procedures and communication ∗ Quantitative data and financial dimensions
EQUAL OPPORTUNITIES		
Policy	∗ Demonstrated commitment to equal opportunities or diversity	∗ Public statement specifying forms of discrimination covered by equal opportunities / diversity policy ∗ Global applicability
Management	∗ Any supporting data (e.g. workforce and management composition, covering race, gender and disability, etc.) ∗ Any documented targets for promoting equal opportunities	∗ Existence of flexible working arrangements and family benefits (includes e.g. flexible working hours; child care facilities / subsidy; job sharing; career breaks; paternity and/or maternity leave period and/or payment exceeding statutory requirement) ∗ Performance against targets
Reporting	∗ Quantitative data ∗ Any documented targets	∗ Public statement specifying forms of discrimination covered ∗ Global applicability ∗ Flexible working arrangements and family benefits ∗ Performance against targets

Source: Adapted from JSE (2014) information

In this present study, the measuring items of employee relations include, amongst others, whether the firm has clearly assigned managerial responsibilities and policies that govern negotiations with both unionised and non-unionised employees; whether the firm implements sound disciplinary and grievance policies and procedures; whether the firm has a clear code of conduct for all employees, and whether the firm uses rewards to foster healthy employee relations.

– *Equal opportunities and workforce diversity*

Leaders have to be able to leverage diversity to enable a firm to maximise its effectiveness (Carter 2009). South African legislation requires firms to actively pursue the employment of people that were previous disadvantaged, i.e. prior to the inclusive democracy ushered in by the elections in 1994. To this end, many firms publicly declare their commitment to promoting equal opportunities for all employees in the pursuit of workforce diversity. This public commitment is usually accompanied by targets which should be reported on, and forms part of the information of the firm that is available in the public domain. The objective of providing equal opprtunties for all is facilitated by extensive training and development of employees that may not have had access to resources to develop the required skills and experience for the job.

This study regards equal opportunity and workforce diversity (EQWD) as one of the sustainable business practice variables, meaning that, in the South African context, creating an environment that fosters equal opportunities would improve workforce diversity. During Apartheid, Blacks were excluded from many jobs by the imposition of racial laws. Equal opportunities in the workplace were therefore not afforded to everyone. Managerial job levels were mostly populated by Whites, while lower-level jobs were manned by Blacks. Workforce diversity was therefore not a feature of job levels in business firms in South Africa. Against this background, the achievement of equal opportunities and workforce diversity in firms are viewed as a sustainable business practice.

Furthermore, the measuring items for equal opportunities and workforce diversity, amongst others, include the extent to which a firm displays public commitment to equal opportunities and workforce diversity (EQWD); the firm pursues clear targets

to achieve EQWD; and the firm monitors and reports quantitatively and qualitatively on the attainment of these targets.

2.2.2.3 Environmental performance

Sustainable business practice is required to manage the limited and dwindling natural resources. Hawkens (1993:12) stated that business has three basic issues to face: what it takes, what it makes and what it wastes and the three are intimately connected. Hawkens (1993) believed that business takes too much from the environment in a harmful way. Secondly, the manufacture of these products are associated with excessive amounts of energy, toxins and pollutants; and finally the method of manufacture and the products themselves are responsible for extraordinary waste and harm to present and future generations.

In a report commissioned by the United Nations, a consulting company, Trucost estimated that the world's largest 3 000 companies cause $2.2 trillion in environmental damage per year (Blaga 2013). The challenges associated with the increasing global population (US Census Bureau) and limited natural resources have caused many sustainability practioners and business leaders to consider green technologies in order to match sustainable demand with sustainable supply (Blaga 2013; Joule 2011). Energy and raw material conservation and efficiency are ways to reduce consumption and preserve resources (Blaga 2013). Whilst reducing environmental impact benefits all; it is in the company's interest to protect the natural resources that go into its products so that its profits are protected (Joule 2011). Leaders have to address the environmental challenges by rethinking activities, redesigning technological processes and investigating alternative materials (Blaga 2013).

Information relating to environmental issues like water use and carbon emissions is considered by investors as fundamental to a company's performance and stakeholders expect this information to be shared. There is an increasing government and public concern regarding climate change, industrial pollution, food safety and natural resource depletion (JSE 2014).

Table 2.2: Environmental indicators according to the SRI Index

IMPACT CLASSIFICATION			
High Impact	**Medium Impact**	**Low Impact**	*** Remarks**
Air transport Airports Building materials Chemicals and pharmaceuticals Construction Fast food chains Food, beverages and tobacco Forestry and paper Major systems engineering Mining and metals Oil and gas Pest control Power generation Road distribution and shipping Supermarkets Vehicle manufacture Waste and Water	Banks* DIY and building supplies Electronic and electrical Energy and fuel distribution Engineering and machinery Hotels, catering and facilities management Manufacturers not elsewhere classified Ports Printing and newspaper publishing Property developers Public transport Retailers not elsewhere classified Vehicle hire	Consumer / mortgage finance Financials not elsewhere classified* Information technology Leisure not elsewhere classified (gymnasiums and gaming) Media Property investors Research and development Support services Telecoms Wholesale distribution	* The sector 'Financials not elsewhere classified' includes banks, insurance and other financial companies such as asset managers. In terms of the EIRIS classification, this sector's classification is medium, where activities involve equity investment and commercial lending. The sector is currently separated to allow companies other than banks, a low impact classification as part of the developmental nature of the Index. This may move to a medium impact in future reviews.

	High Impact Companies	Medium Impact Companies	Low Impact Companies
Policy	Policy must cover the whole group and either meet: o all five core indicators plus at least one desirable indicator; or o four core plus two desirable indicators.	Policy must cover the whole group and meet at least four indicators, at least three of which must be core.	Policy statement must include at least one core or desirable indicator, OR meet either the management or reporting requirement.

Core Indicators	**Desirable indicators**
• Policy refers to all key issues • Responsibility for policy at board or department level • Commitment to use of targets • Commitment to monitoring and audit • Commitment to public reporting	• Globally applicable corporate standards • Commitment to stakeholder involvement • Policy addresses product or service impact • Strategic moves towards sustainability

	High Impact Companies	Medium Impact Companies	Low Impact Companies
Management	If environmental management system (EMS) is applied to between one- and two-thirds of company activities, six indicators must be met, and targets must be quantified. If EMS is applied to more than two-thirds of company activities, the company must meet at least five indicators, one of which must be documented objectives and targets in all key areas. ISO certification or EMAS registrations are considered to meet all indicators.	EMS must cover at least one-third of the company and meet four indicators. If the EMS covers less than one-third of the company's operations, the company must meet six indicators, including documented quantitative objectives and targets. ISO certification or EMAS registrations are considered to meet all indicators.	Companies must have completed an initial / baseline review to identify significant impacts, OR meet either the policy or reporting requirement.

Indicators	
• Presence of environmental policy • Identification of significant impacts • Documented objectives and targets in key areas • Outline of processes and responsibilities, manuals, action plans, procedures	• Internal audits against the requirements of the system (not limited to legal compliance) • Internal reporting and management review • Internal communication of policy • Training for relevant employees

	High Impact Companies	Medium Impact Companies	Low Impact Companies
Reporting	The report must cover the whole group, and meet at least two core indicators (including text of environmental policy) and one desirable indicator.	The report must cover the whole group, and include text of environmental policy plus one other reporting indicator.	The report must cover the whole group5, and include text of environmental policy OR meet either the policy or management requirement.

Core Indicators	**Desirable indicators**
• Text of environmental policy • Description of main impacts • Quantitative data • Performance measured against targets	• Outline of an EMS • Non-compliance, prosecution, fines, accidents • Financial dimensions • Independent assurance / verification • Stakeholder dialogue • Coverage of sustainability issues

Source: Adapted from JSE (2014)

Whilst all business activities have an impact on the environment, the extent of this impact varies. It is for this reason that the SRI index classifies companies' environmental criteria as being high, medium or low impact based on their activities.

As an example, the telecommunications industry is classified as a low impact industry whilst the mining industry is considered a high impact industry (Table 2.2). The environmental criteria across policy, management and reporting issues differ depending on the impact classification. The fundamental principle is that the sector's overall environmental impact should be lower than the economic contribution of the relevant activities within the sector (JSE 2014).

In the present study, the measuring items for environmental practices, amongst others, include the extent to which a firm safeguards biodiversity, reduces greenhouse gas emissions, increases the use of renewable energy, commits to independant environmental certification systems, conforms to the best environmental practice and legislation, and beneficiates waste streams.

2.2.2.4   Corporate governance

Corporate governance is a critical requirement for ensuring sustainable business practice because it not only underpins SBP performance in the areas of finance, environment and society but it directly impacts sustainable behaviour which results in SBPs (JSE 2014; Blaga 2013; Davidson & Stevens 2013; Boţa-Avram 2013).

In the Report to the Nations on Occupational Fraud and Abuse (Association of Certified Fraud Examiners 2012) it was indicated that organisations lose an estimated 5 per cent in annual revenues to fraud, which translates into a potential global fraud loss of more than $3.5 trillion per year. Occupational fraud is not just the main type of fraud, it is also the most costly form of fraud committed by executives and upper management (Legault 2012).

The entrenchment of corporate governance within an organisation requires it to be driven from the Board level. Rethinking and reforming of the structure and compositions of the board of directors and subcommittees are required. The

directors must possess the skills, knowledge and abilities to guide the organisation toward SBPs. The responsibility of the board is no longer limited to just create immediate shareholder value. It is the boards responsibility to create long term SBPs by ensuring strategic scanning capabilities and adaptability within the business. The Board, together with management are required to monitor economic, environmental, social and governance performance indicators in order to improve the business firm's market value and to instil investor confidence (Blaga 2013).

2.3   THE CONCEPTUAL MODEL TO ACHIEVE SUSTAINABLE BUSINESS PRACTICES

Having reviewed the conceptualisations and measurement of sustainable business practices (SBPs), the present study now pursues a conceptual model to achieve SBPs in firms. As explained in Chapter One, the study basically argues that SBPs can be achieved if:

(1)   certain sustainability behaviours are implemented;

(2)   these sustainable behaviours are driven by sustainability related corporate governance and sustainability competencies of company leaders;

(3)   sustainability related corporate governance is driven by the sustainability competencies of company leaders, and

(4)   sustainability related corporate governance and sustainability competencies of leaders are driven by a conscious leadership predisposition.

In the following sections, starting from argument four (4) above, and working towards arguments (3), (2) and (1), the hypothesised relationships in these arguments are reviewed.

2.3.1 Conscious leadership style as driver of sustainability-related corporate governance and sustainability competencies of leaders

Tichy (2009:10) indicated that the "scarcest resource in the world today is leadership talent capable of continually transforming organisations to win tomorrow's world".

With increasing economic, social and environmental pressures, there is an increasing requirement for leadership to evolve in order for sustainable business practices to become a priority (Mackey & Sisodia 2013). Leadership is always more challenging in difficult times but the increased pressures on business throughout the world demands leadership that is genuine (Nazari & Emami 2012). Warrick (2011) possited that the magnitude of the challenges faced by business requires revolutionary change rather than incremental change.

Businesses are operating in constant uncertainty, increased competition and frequent downsizing. For businesses to thrive and not just survive the unpredictable economic, social, environmental and political environs, leaders with the desire, courage and skills to bring the required change in organisations are required. Nazari and Emami (2012) concluded that leaders are required to lead with purpose, value and integrity and build enduring organisations that generate long term value not just for shareholders but for all stakeholders. The question is however what type of leadership is required to achieve sustainable business practices.

2.3.1.1 The link between leadership and sustainable business practices

According to Kellerman (2012), there are at least 1 400 definitions of leadership and 44 theories of leadership. The broad definitions and the expansive theories present many challenges in clearly defining the leadership construct (Volckmann 2012; Rosch & Kusel 2010).

The following definitions capture some of the conceptualisations of leadership:

Enstrom (1978:24)
The concept of leader …means one who guides activities of others and who acts and performs to bring those activities about. He/she is capable of performing acts which will guide a group in achieving objectives. He/she takes the capacities of vision and faith, has the ability to be concerned and to comprehend, exercises action through effective and personal influence in the direction of the enterprise and the development of the potential into the practical and/or profitable means.

Wright (2000:8)

Leadership is a relationship – a relationship in which one person seeks to influence the thoughts, behaviours, beliefs or values of another person.

Banks and Ledbetter (2004:16)

Leadership involves a person, group or organisation who shows the way in an area of life – whether in the short or the long term – and in doing so both influences and empowers enough people to bring about change in that area.

Hunter (2004:32)

[Leadership is] the skills of influencing people to enthusiastically work towards goals identified as being for the common good, with character that inspires confidence.

Munroe (2005:52)

Leadership is the capacity to influence others through inspiration motivated by a passion, generated by a vision, produced by a conviction, ignited by a purpose.

Kofman (2006:i)

[Leadership is] being rather than doing.

Everist and Nessan (2008:40)

Leadership [is] the art of mobilising people to make progress on the hardest problems.

Maxwell (2010:1)

Leadership is influence, nothing more, nothing less. Leaders are not in leadership for personal gain but to serve others. Leaders must perform on the highest level of which they are capable and they empower others by sharing the power that they have rather than saving it for themselves.

This current study concurs with Scarborough (2010), that the above-mentioned definitions contain the most important components of leadership which are the exertion of or having influence, the development and execution of strategy, the pursuit of shared goals, the exhibition of character and the demonstration of the

ability to create a shared vision. None of the definitions above however clearly explains the skills directly required to achieve the goals of sustainability in firms. In fact, Warrick (2011) stated that the actual leadership skills required to transform organistions are not clearly understood. This study attempts to investigate and define the type of leadership that will drive sustainability. Such leadership is critical for the radical transformation of man-made systems, which will allow for a prosperous, socially just and environmentally sustainable world for present and future generations (Hardman 2010). Leadership must be able to engage in uncertainty and the unknown (Brown 2011) and must place greater emphasis on holism, intuition, creativity and systems conception of the world (Skaržauskienė 2009). Moreover, such leadership should be able to create and implement systems that encourage innovation, be continuously self-developing, encourage participation in decision making and ensure good knowledge and information sharing (Blaga 2013).

To date there is limited research on the connection between sustainability and leadership. Research to better define the relationship between leadership and sustainability such as the research of Brown (2011), leads to the findings being propositions that require validation before broad generalisation because of the limited sample size of the study.

2.3.1.2 Consciousness as the proposed link between leadership and sustainable business practices

Brown (2011) suggested that traditional leadership originated out of an industrial paradigm and focused on delivering individual and corporate goals and economic performance whilst neglecting global challenges, and environmental and social performance. The traditional leader derives his/her influence from the source of his/her power, the authority given to him/her by the firm (Prewitt, Weil & McClure 2011). Traditional leadership models view organisations as mechanistic systems that can be controlled and directed rather than complex organic systems (Crews 2010). On the other hand, conscious leadership is believed to better achieve the objectives of holism, creativity and inspiration that are required to transform firms into sustainable entities (Chandler 2014; Fry & Slocum Jr 2008).

Jim Collins (2001) stated that greatness is not a function of circumstance but rather a matter of conscious choice. Kofman (2006) concurred that consciousness is the greatest source of organisational greatness. It creates sustainability by assuming unconditional responsibility, displays unwavering integrity, communication with all stakeholders is authentic and where leaders must be, rather than just do. When one becomes conscious one must assume responsibility. Awareness is the unique characteristic of consciousness. The greater the awareness the greater the responsibility. One is unable to respond to things one is not aware of. To remain conscious requires constant attention and an ongoing commitment. It is no longer adequate to act just on the opinions of others but it is a requirement for the leader to filter all information that is available so that the leader is able to act responsibly (Kofman 2006).

Although awareness is classified as either "inside-out" or "outside-in" which is central to conscious leadership, they are both interdependant and interactive. Inside-out leadership encompasses the holistic awareness of who we are and shapes who we are in mind, body, spirit and action. Outside-in leadership is based on situational leadership where the awareness and response is informed by the challenges and opportunities presented by the external environment. The approach to conscious leadership is underpinned by this constant interaction which integrates inside-out and outside-in responses (Carter 2009).

Development has been defined by Cooke-Greuter (1999:29) as "gradual unfolding of people's capacity to embrace ever-vaster mental horizons and to plumb ever-greater depths of the heart." There are two types of human development, viz. horizontal and vertical development. Horizontal development refers to the accumulation of new skills and knowledge without a change in worldview. Vertical development is rare and refers to the transformation of a person's view of reality, i.e. one is able to see the world through new eyes. This increase in consciousness allows a helicopter view changing our understanding of level of influence and interaction. Any vertical development is far more valuable than horizontal development because it provides a more accurate perspective of the problems that need to be solved. Human consciousness is a dynamic process. Leaders with a higher level of consciousness have access to new capacities that other leaders do not have (Brown 2011).

Sharmer (2008) indicates that the leadership capacity to be able to better listen to the whole involves the engaging of every aspect of human intelligence, mind, heart and spirit so that reality can be viewed accurately and not through our perceptions and previous experiences. Consciousness begins with self and self awareness and this flows into every part of work life and is principle to leadership effectiveness. Multiple levels of consciousness are required to deal with the challenges presented by the 21st century (Carter 2009).

2.3.1.3 Leadership models in support of a conscious leadership

Figure 2.2 provides a schematic illustration of leadership models that supported the development of the conscious leadership theory. These models include Collins's Level 5 leader, Kegan's leader with 5th order of consciousness, Torbert's Strategist/Alchemist leader and the innovator leader of Closs *et al.* (2011). Figure 2.2 shows how the evolution of leadership to higher levels become less traditional but exhibit higher levels of consciousness instead.

Collins (2001) defined Five levels of leadership in the following manner: Level 1: A leader that is a highly capable individual that makes production contributions through talent, knowledge, skills and good work habits. Level 2: This leader is a contributing team member that contributes to the achievement of the group objectives and works effectively in group settings. Level 3: A leader that is a competent manager that organises people and resources towards the effective and efficient pursuit of predetermined objectives. Level 4: An effective leader that catalyses commitment to vigorous pursuit of a clear and compelling vision and stimulates the group to high performance standards. Level 5: A leader that builds enduring greatness through a paradoxical combination of personal humility and professional will. Research has shown that leaders do not have to develop sequentially from one level to another but to be a Level 5 Leader one needs to possess the capabilities of all the levels below as well as the specific capabilities of Level 5 (Collins 2001).

– *Collins's five levels of leadership*
One of the significant characteristics of Level 5 leaders is that they have an interest in the long term sustainability of the business. It is not important to them that they are

recognised for their individual contribution but they take pleasure in the continued success of the business. Level 4 leaders in contrast do not build the business for enduring success and when they leave they are happy if on their departure the poor performance of the business is a reflection of their previous contribution to the success. A movement from level 1 to level 5 is also characterised by increased levels of personal humility.

Figure 2.2: Comparison of leadership models
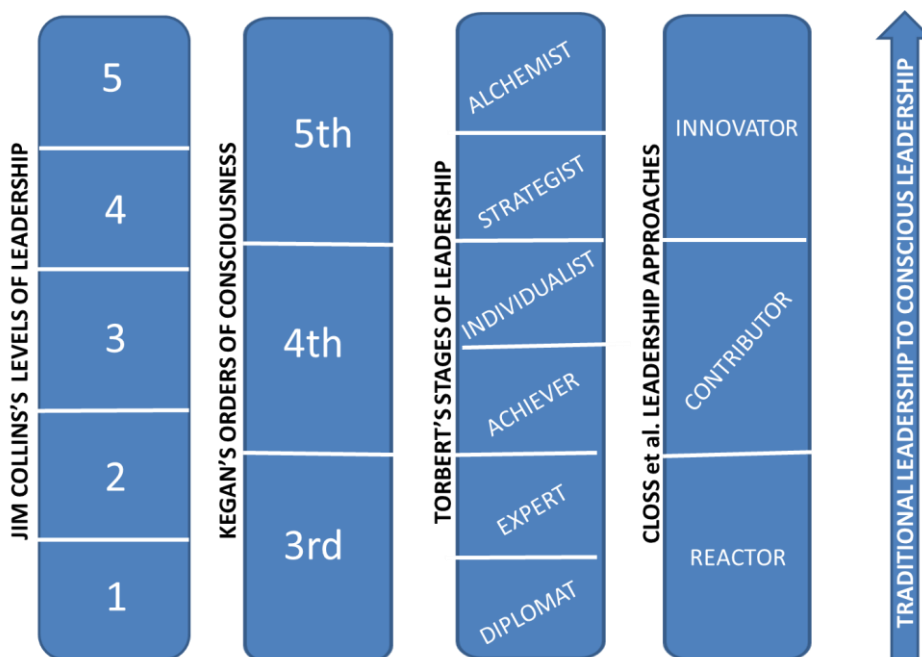
Source: Author's own construct

- *Kegan's orders of consciousness*

Kegan's (1982) leadership development model describes five levels of development referred to as orders of consciousness. Children and infants operate at Kegan's first order of consciousness whilst most adults operate between orders two and four. The third order of consciousness introduces interconnectedness, which makes mutual support and expectations important. At the fourth level the personal value system is the key driver, at which level leaders are able to transcend their own needs and those of others to ensure that personal values are met. At the fifth level, the personal values are replaced by a broader value system with few personal values and more values that will promote the wellbeing of larger entities. This level of consciousness has the greatest capacity for transformation because it is least

defensive and invites engagement and learning. The best leaders occupy the fifth level. The three development characteristics relating to order of consciousness are summarised as intrapersonal (knowing oneself), interpersonal (knowing others) and cognitive (knowing the world) (Brown 2011).

–   *Torbert's stages of leadership*

Rooke and Torbert (2005) are convinced that leaders are not differentiated by their philosophy of leading, their management style or their personality, but by their internal action logic. Internal action logic can be described as the way leaders interpret their surroundings and how they react when their power or safety is challenged. The various types of internal actions employed have led to Torbert's (2005) classification of a leader as being an Opportunist, Diplomat, Expert, Achiever, Individualist, Strategist or Alchemist. An Opportunist is self-orientated, manipulative and focused on winning at any cost, whilst a Diplomat avoids conflict and obeys the group norms. The Expert is a good individual contributor because his/her *modus operandi* is logic and expertise. The Achiever is action orientated and makes a good manager that is able to achieve strategic goals through effective team management. Individualists are effective in ventures and consulting roles because they can interweave personal and company action logics, resulting in the creation of unique structures to resolve performance gaps between strategy and performance.

The Strategists are good change agents because they are effective in generating organisational transformations that result in improvement in the business' profitability, market share and reputation. The Alchemist is good at leading society wide transforming and is able to integrate material, spiritual and societal transformation. They are different to Strategists in that they are able to renew or reinvent themselves and their organisations in significant ways. Whilst Strategists move from one engagement to another, Alchemists have the uncommon ability to deal with many situations at multiple levels simultaneously. Immediate priorities are engaged without loss of the long-term view. Research indicated that leaders can transform from one action logic to another and these transformations have been fortified by personal changes (depression, burnout), external events (promotions), and changes to work practices and environments, as well as planned and structured developmental interventions. Strategists and Alchemists have already mastered

personal skills that make them effective within organisations. The path for development toward being a Strategist or an Alchemist involves the discipline and commitment to work across organisations, networks and strategic alliances.

The Opportunist and Diplomat have lower levels of consciousness and may be considered traditional leaders. They are less effective in building SBPs whilst the Strategist and Alchemist operate from higher levels of consciousness and are therefore the most effective leaders (Rooke & Torbert 2005).

- *Closs, Speier and Meacham's leadership approaches*

Evidence indicates that strategic commitment and leadership associated with a firm's sustainability varies significantly (Aßländer, Filos & Kaldis 2011; Hansen, Ibarra & Peyer 2013). These commitment levels can be characterised by three leadership categories, namely, Reactor, Contributor and Innovator (Closs, Speier & Meacham 2011). Leaders that view SBPs through an economic lens usually adopt a Reactor approach where sustainability investments outside of economics will only be to achieve the minimum legal compliance. A Contributor approach involves proactive initiatives since sustainability is considered to be of strategic importance. Usually industry or cross-industry sustainability benchmarking provides input in determining the company's sustainability initiatives. The focus however is still within the business and these businesses are less likely to initiate new ways of building sustainability.

An Innovator approach views sustainability as a strategic priority and will ensure that best practice is implemented at each dimension of sustainability. In applying sustainability initiatives all stakeholders, including communities benefit and not just the organisation. No more emphasis is put on the economic component than on ethical, education or environmental component, and sustainability initiatives are viewed as long-term investments (Closs , Speier & Meacham 2011).

An example of the different leadership approaches to the economic dimension, e.g. continuous improvement, would be, (a) the Reactor approach that undertakes initiatives for cost reduction in response to problems, (b) a Contributor approach will continually create initiatives for cost savings with a continuous supply of cost-saving projects in the pipeline and (c) an Innovator approach that focuses not only on cost

reduction but also revenue creation and process improvement across the entire supply chain (Closs *et al.* 2011).

Examples of different leadership approaches to the environmental dimension, e.g. energy conservation, would be, (a) the Reactor approach, which would advocate the cheapest source of energy that fulfils the need, (b) a Contributor approach that will encourage the experiments with initiatives for renewable energy and energy conservation when financially beneficial, and (c) an Innovator approach will seek to use renewable sources as a strategic imperative (Closs *et al.* 2011)

An example of different leadership approaches to the social dimension, e.g. training, would be, (a) the Reactor approach would establish training programmes in response to challenges, (b) a Contributor approach may encourage country-wide training programmes to anticipate issues and enhance working experience that are periodically reviewed to evaluate effectiveness, and (c) an Innovator approach that would proactively work to establish new industry standards (Closs *et al.* 2011)

As the degree of consciousness increases, i.e. as one moves from a traditional leadership to conscious leadership, there is change in the following areas (Ellinor & Gerard 1998; Carter 2009):

- from focus on structure and tasks to focus on relationships and process;
- from top down decision making to shared meaning and consensus;
- from competition to community and collaboration;
- from self mastery to collective mastery and leveraging diversity;
- from linear thinking to systems-thinking;
- from one right answer to many right answers;
- from fragmentation to holistic; and
- from power and control to shared leadership.

Crews (2010) stated that distributed leadership is the foundation of sustainable leadership. Sustainability is not supported by a Napoleonic syndrome where leadership is believed to be the result of only the top leader. This transition is only possible in an environment of relationships, dialogue and collective leadership

(Carter 2009). There must be congruence with head, heart and hand as an organising principle, i.e. seamlessness between what I think, how I feel and what I do (Sipos *et al.* 2008).

The migration to conscious leadership is characterised by the following behaviours (Bozesan 2009): (a) creating an ethical climate by adopting values that are aligned with being of service to the world; namely, integrity, authenticity, truth, truthfulness, honesty, humility and unity consciousness. This high level of ethics and moral standards allows conscious leaders to do the right thing irrespective of whether it is supported or not, (b) increasing self-confidence by moving from being ego driven to a point of being comfortable with their increased awareness and consciousness and are therefore being able to declare more fully what they believe is required, (c) achieving more with less effort and hard work by not trying to control people and situations. Their change in focus allows the generation of new solutions, (d) openness and creativity demonstrated in entrepreneurial spirits that can identify synergies and opportunities that they were previously unaware of, (e) cultivating presence allows the conscious leader to inspire and evoke greatness in followers, and (f) have a sense of interconnectedness with an understanding that success is a collective effort and there are no "hero" leaders.

To reverse the culture of unlimited consumption, instant gratification and promotion of self-interest, leaders must display new skills, tools and values. The society operating on a free market model that is based on the illusion of unlimited expansion, accelerates the depletion of natural resources and negatively impacts sustainability. Our behaviours are an expression of our level of consciousness which evolves from our individual and collective experiences over time (Hardman 2010).

Bozesan (2009) clearly stated that higher levels of consciousness are required to derive sustainable solutions that consider all life forms. These conscious leaders transcend current socio-economic, geo-political and environmental challenges to create sustainable business practices. Conscious leaders have evolved beyond conventional levels of human development. Conscious leadership in business represents a paradigm shift in leadership, business and sustainability. They indicate that they promote business sustainability by promoting long term thinking focused on

the greater good rather than short term thinking. This creates different social and funding mechanisms, greater spiritual focus, dismantling the culture of rampant consumerism, creates social justice and seeks appropriate political leadership (Bozesan 2009).

In the present study, conscious leadership is measured as the extent to which leaders inspire and evoke greatness in their followers in order to motivate them to do a proper job, trust themselves and others to get the best out of their followers, listen to their life calling and have an holistic awareness of themselves as leaders. Furthermore they believe in being authentic and truthful in their dealings with their followers, believe in collective mastery and leveraging diversity in the pursuit of proper employee work performance, and exhibit an attitude of collaboration and community. A conscious leader always approaches a situation with an open mind and with their voice of judgement suspended, prefer to serve those who follow rather than focusing on protecting their own image, are concerned not only about their own needs but the needs of all stakeholders and future generations.

Against the background of the preceding literature review, the present study posits that conscious leadership will be a key driver of the model to achieve sustainable business practices. The study proposes that sustainable business practices will best be achieved within a conscious leadership than in a non-conscious (or traditional) leadership environment. Conscious leadership should be associated with better sustainability-related corporate governance and sustainability competencies. The following hypotheses were consequently formulated:

H1: There is a positive relationship between conscious leadership and sustainability-related corporate governance.

H2: There is a positive relationship between conscious leadership and sustainability competencies (as measured by interpersonal competency).

H3: There is a positive relationship between conscious leadership and sustainability competencies (as measured by normative competency).

H4: There is a positive relationship between conscious leadership and sustainability competencies (as measured by strategic thinking competency).

H5: There is a positive relationship between conscious leadership and sustainability competencies (as measured by system thinking competency).

H6: There is a positive relationship between conscious leadership and sustainability competencies (as measured by anticipatory competency).

2.3.2 Sustainability competencies as drivers of sustainability-related corporate governance and sustainability behaviours

Building sustainable business practices require the capacity to identify and solve complex problems (e.g. climate change) that present huge risk and need to be resolved urgently. Wiek, Withycombe and Redman (2011) maintained that building sustainability requires a holistic approach to multifaceted and dynamic problems. Sustainability problems and solutions are often unique and require the development of unique approaches (Wiek *et al.* 2011).

Competence and competency are similar in meaning and are often used interchangeably. Boyatzis (2011) defined a competency as a capability or ability that enables individuals to perform their jobs. Maximum performance is achieved when the individual's capability is consistent with the job demands and the organisational environment (Boyatzis 2011). Wiek *et al.* (2011) defined competency in a similar manner, namely, a functionally linked complex of knowledge, skills and attitudes that enable successful task performance and problem solving. Hence competencies in sustainability are complexes of knowledge, skills and attitudes that are required for successful task performance and problem solving in respect of sustainability problems, challenges and opportunities (Wiek *et al.* 2011; Barth *et al.* 2007). A key competency for sustainability is differentiated from regular competency because the former is critically important for sustainability. Wiek *et al.* (2011) postulated that this does not mean that regular competencies like critical thinking and communication skills are not important, but simply that competencies that are required for sustainability have traditionally not been the focus area and must therefore be afforded special attention.

Skaržauskienė (2009) summarised the studies of various researchers showing that abilities of outstanding leaders can be separated into three clusters, namely (a) cognitive intelligence competencies, e.g. systems-thinking, pattern recognition influencing organisational or strategic leadership, (b) emotional intelligence competencies, such as self-awareness and self-management influencing personal leadership, and (c) social intelligence competencies, for example social awareness and relationship management.

Brown (2011) referred to a study of 24 leaders of European multinational companies, in which the required competencies for responsible leadership were researched. The researchers summarised the five competencies that would integrate social and environmental performance with economic performance as: Systemic thinking; Embracing diversity and managing risk; Balance local and global perspectives; Create meaningful dialogue, and Demonstrate emotional awareness.

Research by Wiek *et al.* (2011) involved a literature review of peer reviewed contributions on the key competencies in sustainability which was then expressed in a framework based on the identified competencies. The framework used to identify sustainability competencies was based on the concept of sustainability research and problem solving and resulted resulted in the identification of five interlinked and interdependent key competencies, namely systems-thinking competency, anticipatory competency, normative competency, strategic competency and interpersonal competency as shown in Figure 2.3. These key competencies in sustainability are linked to the basic competencies with interpersonal competencies operating across all sustainability competencies. Whilst each of the above five sustainability competencies mentioned were compiled from an extensive list of competencies, to improve understanding of the skills, attitudes and behaviour that will proactively drive sustainability, it is important to note that there is insufficient empirical evidence that these competencies in fact achieve successful sustainable research and problem solving in practice (Wiek *et al.* 2011).

These competencies must be integrated in order to create the required knowledge on which to act in building SBPs (Wiek *et al.* 2011). The following capabilities are required to successfully build sustainabililty:

- to analyse sustainability concerns holistically (systems-thinking competency);
- to assess concerns with respect to sustainability (normative competency);
- to construct non-intervening scenarios with possible outcomes (anticipatory competency);
- to envision sustainable future states in contrast to the non-intervention scenarios (anticipatory and normative competency); and
- to create intervention strategies to avoid undesirable scenarios (strategic competency).

This requires close collaboration with various stakeholders (interpersonal competency). The research and recommendations by Wiek *et al.* (2011) regarding these competencies are based on solving general or world sustainability problems including business related sustainability problems.

Figure 2.3: Key competencies in sustainability
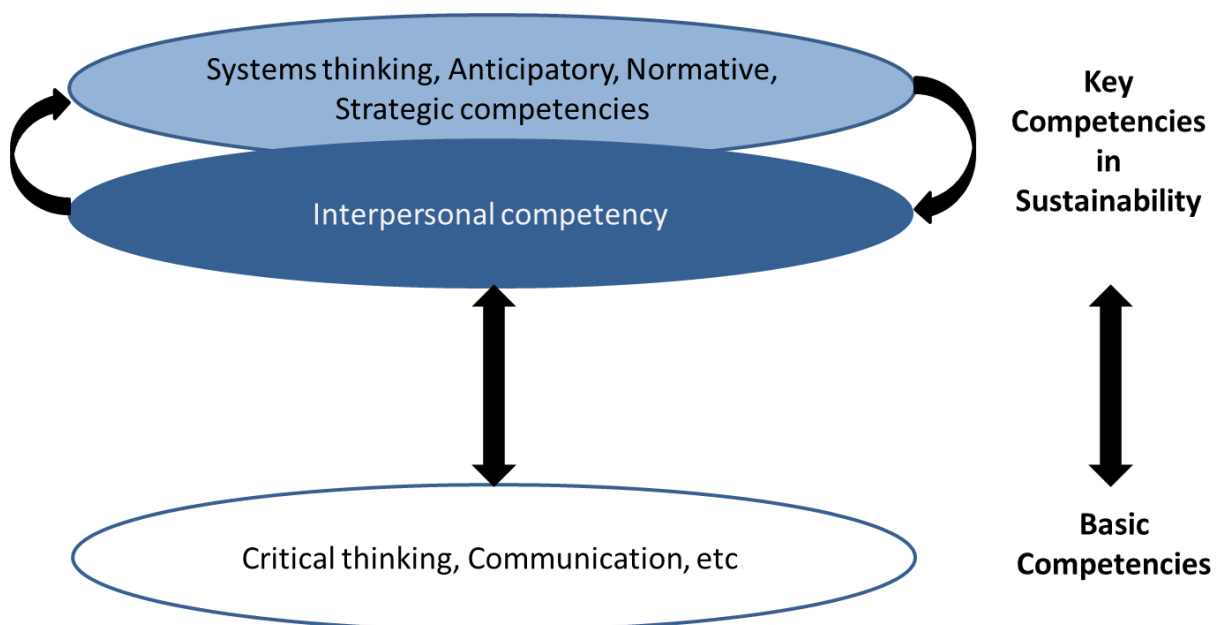
Source: Wiek *et al.* (2011)

2.3.2.1 Anticipatory competency

Wiek *et al.* (2011) defined anticipatory competency as the ability to collectively analyse, evaluate, and craft rich "pictures" of the future related to sustainability issues and sustainability problem-solving frameworks. In order to demonstrate an anticipatory competency it is necessary to have the ability to (a) think systemically about future and future generations, (b) discern time scales that are relevant and possible solutions, (c) understand how future end states could emerge due to familiarity with different theories whether determined, accidental or intentional, (d) understand different types of possible futures based on its likelihood to occur or desirability to occur; this takes into consideration the long term effects of present action and (e) use methods like scenario construction, forecasting from statistical or simulation models and sustainability visioning (Wiek *et al.* 2011). As an example the anticipatory competency is important for city planning where it is necessary to understand how the city will function in both the short term and the long term and where scenario building can create plans that take into consideration different futures from plausible to desirable. If plans are based only on a single future it will be associated with a significant reduction in preparedness and responsiveness (Wiek *et al.* 2011).

Whilst imprecise, inconsistently used tools may be accommodated for discrete projects, building SBPs in a business firm requires the ability to conduct a professional business analysis using specialised tools, (e.g. Scenario planning and risk modelling) and new certifications and standards (Lubin & Esty 2010).

The anticipatory competency allows leaders to understand the different types of possible futures which consequently will influence behaviour to achieve sustainable business practices in the firm. Unless a leader is able to think systemically about the future and future generations it is unlikely that there is adequate understanding to ensure that decisions that are made are ethical and comply with the relevant corporate governance standards.

In the present study, the measuring items of anticipatory competency include, amongst others, whether leaders have the capacity to think systemically about the

future of the business firm, whether they have the ability to analyse, evaluate and craft future sustainability solutions for the firm, and whether they are able to discern which time scales are relevant to a problem and its possible solutions when building sustainable business practices.

Based on the above, the following hypotheses were formulated:

H7: There is a positive relationship between anticipatory competency and sustainability-related corporate governance.

H13: There is a positive relationship between anticipatory competency and sustainability behaviours.

2.3.2.2 Systems-thinking competency

A fragmented approach regarding sustainability is unlikely to be successful due to the integrated and complex nature of sustainability and the involvement of a large number of stakeholders. If there is no transition to a world-centric view of the problem the focus will continue to be on the symptoms and the root cause will not be addressed (Legault 2012). Global warming is an example of a global systemic sustainability problem where individual actions may be financially beneficial to organisations but the impact of collective action may have significant consequences (Smith 2011).

There are many contributors to the systems-thinking methodology, including Von Bertalanffy (1969), Scharmer (2008), Tencati and Zsolnai (2012) and Senge (2014). Systems-thinking is relevant in the current business environment where information is generated in large volumes and interrelations are constantly created, making it a challenge to forecast or manage (Skaržauskienė 2009). Systems-thinking competency makes it easier to operate in this dynamic, unstable environment (Wiek *et al.* 2011; Skaržauskienė 2009). Thinking is fundamental to the manipulation of information, problem solving and decision making (Skaržauskienė 2009). Haines (1998) concluded that how one thinks determines how one will act and how one will be. If this view is extended to systems-thinking, i.e. a change in thinking from an

isolated perspective to a systems perspective it would influence decision making and actions (Mackey & Sisodia 2013).

Wiek *et al.* (2011:207) defined systems-thinking competency as "the ability to collectively analyse complex systems across different domains (society, environment, economy etc.) and across different scales (local to global), thereby considering cascading effects, inertia, feedback loops and other systemic features related to sustainability issues and sustainability problem-solving frameworks." This competency requires one to analyse complex systems based on systems knowledge including structure, function, perceptions, motives, decisions, and regulations, amongst others. Systems-thinking is important for transition strategies because a thorough understanding of the complex socio-ecological system will assist in identifying intervention points, anticipating future trajectories and staging transition processes. Systems-thinking competency may also be referred to as a holistic thinking competency or an interconnectedness competency (Wiek *et al.* 2011).

In order to demonstrate a systems-thinking competency it is necessary to understand (a) the intermediate and root causes of complex sustainability problems, (b) how causes and effects relate to each other directly and indirectly, (c) the actions, needs, motives, intentions and mandates of the key stakeholders, (d) the impact that technology is able to play, and (e) the dynamics, cascading effects, feedback loops and inertia (Wiek *et al.* 2011). In order to effectively utilise the systemsthinking competency, methodological skills on how best to analyse systems and complex problems are needed. These methods include, but are not limited to, qualitative and quantitative modelling; institutional, decision, governance analysis and combinations thereof. The systems-thinking competency is particularly important in large companies that may operate in silos, e.g. operations, environment, finance and public relations. As an example in an energy company the competency involves the knowledge and skills required to understand the complex relations and trade-offs between meeting energy demand, generating revenues, preserving the natural environment, fostering technological innovation and creating social benefits whilst identifying opportunities as well as unintended consequences pertaining to new technologies, e.g. species and habitat lost (Wiek *et al.* 2011).

The International Society for Ecological Economics stated that scientific specialisation is responsible for the lack of understanding of the interactions with the world and contributes to an inability to consider all elements within the system (Birkin & Polesie 2011). As a result of specialisation, a broader perspective is recommended, in which both multidisciplinary and multilevel teams are employed so that both vertical and horizontal interactions relating to building sustainability are understood. As an example, a one dimensional view of economics considers only supply, demand and market forces whereas a three dimensonal view with take into account the ethical, social and environmental interactions (Birkin & Polesie 2011). Without effective systems-thinking one can resolve one problem but create another. There are more than a billion people that are poverty stricken and are under-nourished. The Green Revolution advocated intensive crop production so that more food could be produced to deal with the hunger pandemic. Yet, whilst food production increased almost threefold there was a concomitant degradation of land and water resources. Sixty per cent of ecosystem services have been degraded or used unsustainably including fresh water, capture fisheries, air and water purification and soil erosion regulatory (Tencati & Zsolnai 2012).

The systems-thinking competency allows leaders to understand the interconnectedness of the natural, social and economic systems which subsequently influence behaviours to achieve sustainable business practices in the firm. Unless the leader has a holistic view, it is unlikely that there is sufficient understanding to ensure that the decisions made are ethical and comply with the relevant corporate governance standards.

In the present study, the measuring items of systems-thinking competency include, amongst others, whether leaders were involved in analysing the economic, environmental and social issues and whether an effort was made to understand the actions, needs, motives and mandates of all stakeholders when building sustainable business practices. Against the backgrond of the preceding literature review, it is hypothesised that:

H8: There is a positive relationship between system-thinking competency and corporate governance.

H14: There is a positive relationship between system thinking competency and sustainability behaviours.

2.3.2.3   Strategic competency

Wiek *et al.* (2011) defined strategic competency as the ability to collectively design and implement interventions, transitions, and transformative governance strategies toward sustainability. In order to demonstrate a strategic competency one must have the ability to (a) collaboratively design and execute strategies that will address sustainability challenges, (b) translate the knowledge and skills associated with the other competencies into action that will result in the desired change, (c) accommodate varying perspectives and act despite inconclusive or incomplete evidence, (d) understand concepts and methods for strategy building in real-world situations including the intentionality, systemic inertia, path dependencies, barriers, carriers and alliances, (e) understand viability, feasibility, efficiency and efficacy of systemic interventions, (f) understand the potential of interventions to produce unintended consequences, (g) use methods for designing, testing, implementing and evaluating and (g) adapt policies, programs, and action plans in collaboration with different stakeholders.

As an example the strategic competency is required by training and education providers to transform facilities, curriculum, and practices whilst managing constraints relating to a lack of funding, local politics, teacher competency. Strategic competency is important to build critical alliances, enhance accountability and create synergies (Wiek *et al.* 2011). Strategic competency allows leaders to design and implement interventions and governance strategies to drive behaviour that will achieve sustainable business practices in the firm.

In the present study, the measuring items of strategic competency include, amongst others, whether leaders have the capacity to design and execute strategies that will address sustainability challenges within the firm, whether they have the ability to accommodate varying perspectives on issues despite inconclusive or incomplete evidence, whether they understand the concepts and methods for strategy building

and whether they adapt company policies, programmes and action plans in accordance with desired changes.

The above-mentioned background underpinned the following hypotheses:

H9: There is a positive relationship between strategic competency and corporate governance.

H15: There is a positive relationship between strategic competency and sustainability behaviours.

2.3.2.4 Normative competency

Wiek *et al.* (2011) define normative competency as the ability to collectively map, specify, apply, reconcile, and negotiate sustainability values, principles, goals, and targets. In order to demonstrate a normative competency it is necessary to understand (a) concepts of justice, equity, social-ecological integrity and ethics, how these concepts vary across and within cultures and how integrating these concepts contributes to improving sustainability, (b) how methods such as visioning, multi-criteria assessment, how risk assessment will facilitate collaboration with stakeholders to specify, negotiate and apply sustainability values, principles, objectives, and goals and (c) sustainable and unsustainable current and future states and how to craft sustainable visions for these social-ecological systems (Wiek *et al.* 2011).

The normative competency goes beyond just the expertise of technical advisors and consultants who perform and understand the life cycle assessment and environmental impact of products and services. The broader normative competency also requires leaders to look at sustainability principles like intergenerational equity (how decisions will impact future generations) as well as developing sustainable products and service, e.g. sustainable food systems (Wiek *et al.* 2011).

Normative competency allows leaders to understand how to integrate concepts of justice, social-ecologocal integrity and ethics, which will subsequently influence behaviour to achieve sustainable business practices in the firm. Unless a leader is

familiar with how decisions will impact future generations it is unlikely that there is adequate understanding to ensure that the decisions made are ethical and comply with the relevant corporate governance standards.

In the present study, the measuring items of normative competency include, amongst others, whether leaders develop norms to assess the impact of the firm's operations on sustainability, whether they understand the life cycle assessment of products and services and whether they understand how their decisions will impact future generations.

Against the background of the above-mentioned literature review, the following hypotheses were formulated:

H10: There is a positive relationship between normative competency and corporate governance.

H16: There is a positive relationship between normative competency and sustainability behaviours

2.3.2.5 Interpersonal competency

Wiek *et al.* (2011) defined interpersonal competency as the ability to collectively design and implement interventions, transitions, and transformative governance strategies toward sustainability. To demonstrate interpersonal competency requires the ability to (a) motivate and facilitate sustainability problem solving, (b) communicate effectively and have good negotiation skills, (c) be an expert in participatory methods for collaborating with stakeholders and (d) work in teams and embrace diversity of knowledge and values amongst cultures and social groups (Wiek *et al.* 2011). Interpersonal competency is a fundamental component in each of the other competencies.

Interpersonal competency allows leaders to communicate effectively and to collaborate with all stakeholders so that the behaviour required to achieve sustainable business practices will be encouraged.

In this current study, the measuring items of interpersonal competency include, amongst others, whether leaders have the ability to facilitate collaboration amongst stakeholders of the firm to understand the system's complexity, explore future alternatives, cultivate compelling visions and develop robust strategies to achieve sustainable business practices by embracing diversity of knowledge and values.

The above discussion on interpersonal competency led to the following hypotheses:

H11: There is a positive relationship between interpersonal competency and corporate governance.

H17: There is a positive relationship between interpersonal competency and sustainability behaviours.

2.3.3 Sustainability-related corporate governance as driver of sustainability behaviours

In the absence of ethics, as a key ingredient of corporate governance, self-interest would be the top priority which is directly opposed to the building of SBP, which requires one to care for others and consider the needs of all stakeholders (Chekwa *et al.* 2014). The Global Financial Crisis (GFC), which started in the United States, was a consequence of poor corporate governance, i.e. misleading accounting practices and reckless behaviour of the leaders of business and financial institutions (Blaga 2013). In cases of the collapse of high profile business firms, such as Enron, WorldCom, Tyco, etc. the media played a significant role in exposing the inner workings of the organisations that caused the public and investors to question their organisational values and ethical practices (Chekwa *et al.* 2014).

Regulators have introduced interventions in an attempt to restore credibility to company reported information relating to the wellbeing of the organisation, e.g. the introduction of the Sarbanes-Oxley Act (SOX) in the United States and the King III in South Africa. Corporate governance requirements are designed to monitor business firms with a view to ensuring that these entities operate within the ethical realm and with moral responsibility (Chekwa *et al.* 2014; Willits & Nicholls 2014). The SOX was initiated in response to the Enron bankruptcy and other governance scandals, for

instance Tyco. The governance requirements associated with these new acts were designed to reduce fraudulent financial reporting by requiring executives to certify financial reports and internal controls which include the segregation of duties, prohibiting the misleading of auditors, protecting whistle-blowers, ensuring a code of ethics and implementing penalties for non compliance (Willits & Nicholls 2014).

Ethical behaviour within the business firm is required to build good corporate governance that has a direct impact on decision making. Chekwa *et al.* (2014) defined business ethics as the study and evaluation of decision-making by businesses according to moral concepts and judgments. Policy-makers promote a code of ethics as an effective tool in driving ethical behaviour (Davidson & Stevens 2013; Boţa-Avram 2013). The code of ethics should be understood, executed and audited by all within each business firm. Even employees who know what is right may err in the absence of ethical leadership. To ensure the entrenchment of ethics within the business firm it is important that employees learn the theory, principles and concepts of ethics. Practical exercises must be included to train people to observe moral and ethical issues and to discuss their response to them in an engaging, non-threatening manner (Chekwa *et al.* 2014).

The code of ethics is not just an internal instrument since it also influences behaviour toward external stakeholders. It is intended to activate social norms that will discourage opportunistic behaviour (Davidson & Stevens 2013), e.g. corruption, pilfering, collusion, misrepresenting information, putting the business firm at risk for personal gain and sexual harrassment (Chekwa *et al.* 2014; Boţa-Avram 2013).

The ethical quality of a business firm is directly related to how thoroughly and successfully the ethics programme is implemented. Internal and external audits may be used to monitor compliance to the code of ethics and other policies that promote good corporate governance.

The code of ethics is applicable to all levels within the business. Leadership is responsible for establishing a culture of good corporate governance and setting the standard of ethical behaviour in the company (Chekwa *et al.* 2014). The CEO communicates and exhibits values that directly influences the ethical orientation in

the business firm. This is accompanied by the organisational structure, policies and procedures that will facilitate good corporate governance and hold both management and employees accountable for unethical behaviour (Chekwa *et al.* 2014).

It is important that the CEO, other executives and senior management demonstrate their commitment to ethics through both words and actions (Chekwa *et al.* 2014). Leadership must provide a safe mechanism for reporting violations, e.g. a dedicated hotline where the caller has the option of remaining anonymous and the telephone line is manned by an organisation that is independant of the business firm's operations. Leaders must not only demonstrate their commitment to ethical behaviour by ensuring that unethical behaviour is punished and that it is rewarded, they should also motivate followers by appealing to their higher ideals and moral values (Chekwa *et al.* 2014).

Incorporating many of the aspects above, the measuring items of corporate governance in the present study include the following:

- Code of ethics: Whether the firm has a code of ethics policy; ensures ethics management is a senior responsibility; whether it ensures training and/or effective communication of the code of ethics to employees (for example, making it part of employee induction programmes); and having compliance monitoring and regular reviews of the implementation of the code of ethics.
- Audit function: Whether the firm has an internal audit function in place; and whether the firm has procedures to review all internal and external audit findings.
- Compliance with acceptable governance standards: Whether the firm exhibits a public commitment to complying with internationally accepted governance standards (for example King III), and whether the firm's Board of executives ensures that there is a segregation of duties, e.g. separate committees for audits and remuneration.
- Channels for advice or complaints: Whether the firm ensures a secure communication channel for employees to seek advice or voice concerns (for example, a confidential fraud hotline).

Against the above-mentioned explanation that good corporate governance may lead to sustainable business behaviours and practices, the following hypothesis was formulated:

H12: There is a positive relationship between corporate governance and sustainability behaviours.

2.3.4 Sustainability behaviours as drivers of sustainable business practices

In addition to corporate governance affecting the SBPs associated with the Triple Bottom Line directly, corporate governance also has a direct influence on sustainability behaviours required to generate a healthy TBL. Sustainability behaviours include creating an ethical climate.

Sustainability is becoming a critical strategic goal of many global business firms and should be viewed as a core strategy (Legault 2012; Lubin & Esty 2010). However many leaders choose to drive sustainability as a peripheral strategy rather than applying these principles to the core of their business to derive the desired economic value, environmental and societal change. Porter and Kramer (2006) stated that "Each organisation should adopt particular sustainable development strategies that fit its unique context of challenges, opportunities, and stakeholder expectations." Leaders need to continuously communicate the need, vision and strategies for achieving sustainability whilst aligning systems, structures, policies and procedures to achieve SBPs (Brown 2011; Crews 2010). Business firms that excel in SBPs move from a tactical, adhoc, silo approach to a strategic, systemic, integrated approach where there is shared accountability through integrated objectives and performance evaluation. Sustainability scorecards should be developed that support benchmarking, best practice comparisons and consistent internal and external communications (Lubin & Esty 2010).

Since change in organisational culture is imperative to ensure entrenchment of sustainability initiatives there should be a greater focus on how to increase awareness and to change thought processes, assumptions and behaviours rather than there being too much emphasis on policy and sustainability tools (Roxas &

Coetzer 2012; Brown 2011). Senge (2014) agreed that the outer shift in processes, strategies and practices must be accompanied by an inner shift in people's values, aspirations and behaviours. When a business firm drives SBPs there must be clear and consistent communication at all levels within the business regarding the reasons for this greater focus (Chandler 2014; Crews 2010).

Lubin and Esty (2010) pointed out that integrating sustainability seamlessly into business requires a change in perspective and renewed commitment. Since sustainability is evolutionary; it must be continually refined and therefore requires a culture of continuous improvement (Joule 2011; Crews 2010). This culture is driven by an insatiable competitiveness for creativity, innovation and efficiency in an environment where collaboration is encouraged (Joule 2011).

Leaders have different views on what sustainability means to the business firm. Each view has implications for stakeholder engagement. Some leaders believe that the Triple Bottom Line (TBL) approach represents three discrete and mutually exclusive risks that need to be managed and mitigated. An alternative view is that whilst there is always conflicting demands and interests from stakeholders it is beneficial for the business firm engaging continuously with a wide range of stakeholders in developing and executing shared goals with regard to sustainability (Crews 2010).

The above-mentioned literature review asserts that sustainability behaviours would be related to the achievement of sustainable business practices. Concuring with this assertion, the present study hypothesises that:

H18: There is a positive relationship between sustainability behaviours and sustainable business practices (as measured by profitability).

H19: There is a positive relationship between sustainability behaviours and sustainable business practices (measured by human resource development).

H20: There is a positive relationship between sustainability behaviours and sustainable business practices (as measured by equal opportunities and workforce diversity).

H21: There is a positive relationship between sustainability behaviours and sustainable business practices (as measured by employee relations).

H22: There is a positive relationship between sustainability behaviours and sustainable business practices (as measured by environmental performance).

The above-mentioned hypotheses are graphically illustrated in Figure 2.4.

Figure 2.4: The hypothesised model to achieve sustainable business practices through conscious leadership
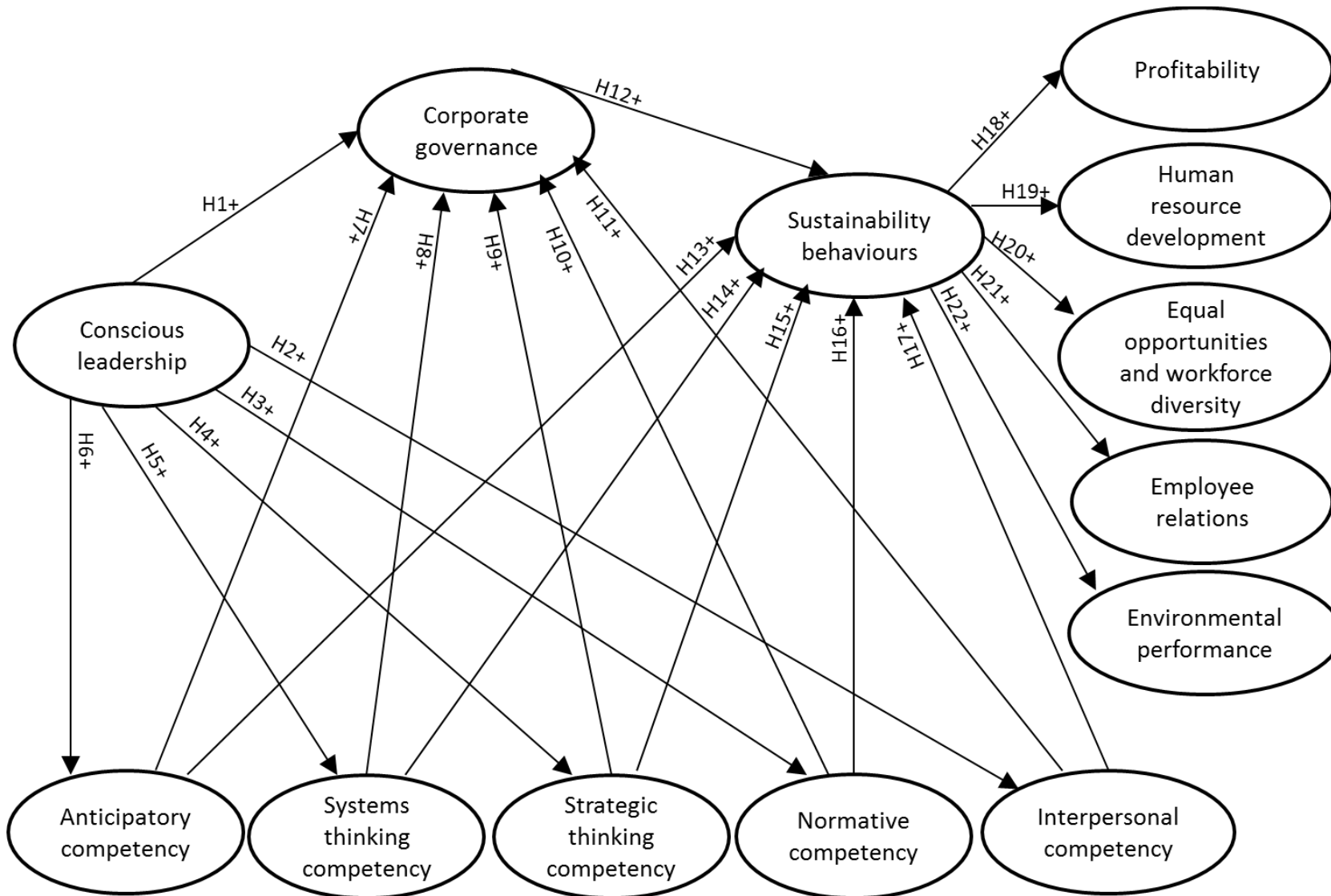
2.4   CHAPTER SUMMARY

The various definitions of sustainability were reviewed to contextualise sustainable business practices within firms. The three pillars of the Triple Bottom Line, viz. environment integrity, economic prosperity and social equity are foundational to sustainable business practices in firms. The JSE uses various indicators to assess social and environmental performance of business firms according to the principles of TBL.

The basic premise of the present study is that sustainable business practices in business firms can be enhanced by focusing on corporate governance, sustainability behaviours, sustainability competencies and conscious leadership. Literature reviews were conducted to establish the possible relationships between these independent variables and sustainable business practices. Based on these reviews, certain hypotheses were constructed. The following chapter will discuss the methodology used to test the hypotheses.

CHAPTER 3

METHODOLOGY AND DESCRIPTIVE STATISTICS RESULTS

3.1 INTRODUCTION

In Chapter Two a theoretical model to increase sustainable business practices within firms was proposed. The methodology used to research this model will now be discussed. This includes the research paradigm, sample, measuring instruments and preliminary results on the descriptive statistics.

3.2 THE RESEARCH PARADIGM

Research methods generally adopt one of two approaches, the quantitative or the qualitative approach (Collis & Hussey 2013). Each of these methods differs in the manner in which data is collected and information is interpreted. Depending on the nature of the research being done, the appropriate research approach has to be selected (Zikmund *et al. 2013*).

The quantitative or positivistic research approach follows a confirmatory scientific method where the main objective is theory or hypothesis testing (Collis & Hussey 2013). The positivistic approach relies on the collection of quantitative data and the testing of hypotheses based on empirical examination of dependent and independent variables, using statistical techniques. Since quantitative research assumes that cognition and behaviour are predictable and events are fully determined by one or more causes (Salmon 2007). This research methodology can be applied to quantify opinions, attitudes, behaviours, and other defined variables (Cooper & Schindler 2014). The use of a larger sample population allows results to be generalised. The positivistic approach uses measurable data to formulate facts and uncover patterns in research. Numeric values that are

assigned to observed phenomena and counting the frequency of those phenomena, conclusions about the characteristics of these populations may be inferred (Collis & Hussey 2013). Clearly constructed hypotheses are generated about the relationship between two or more variables. Statistical methods such as multiple regression analysis, structural equation analysis and the Pearson product moment correlational analysis are used to measure the relationships between the variables (Zikmund *et al.* 2013).

The qualitative or phenomenological paradigm involves the collection of non-numerical data that is relatively rich in information about a few subjects. This approach usually involves in depth interviews, focus groups, participant observations or case studies. Qualitative research is seen as primarily exploratory research that usually employs a small sample size to identify new trends and new areas to research (Raoprasert & Islam 2010). Researchers applying the qualitative approach focus on meaning rather than measurement (Collis & Hussey 2013). The phenomenological approach is used to gain an understanding of reasons, opinions and motivations related to a problem and helps develop hypotheses for quantitative research. Qualitative research therefore involves inductive hypothesis generating rather than hypothesis testing as is the case in quantitative research (Cooper & Schindler 2014).

In the previous chapter, the literature review considered variables that were identified through qualitative research to improve sustainable business practices. The research gap of these qualitative studies was that the sample size was too small to generalise the results (Brown 2011). Since the research objective of this study is to improve sustainable business practices in firms by investigating the relationship between the many variables that were identified, the quantitative approach was adopted. This positivistic approach allowed the significance of the relationships and the influence among stated variables to be quantified and generalised.

In the following section the sampling procedure and the questionnaire design, which included a pilot study, are described.

3.3   THE POPULATION AND SAMPLE

The population consisted of all senior managers and directors of JSE listed companies.   Convenience sampling was used to select these senior managers and directors. The questionnaire was sent out to more than 200 business firms both electronically and in paper format with the indication that only directors and senior managers were required to respond. The electronic survey was designed using an online questionnaire and survey software called Survey-Monkey and provided the link (https://www.surveymonkey.com/s/TMMVHMX) to senior managers or directors of JSE listed and unlisted companies whose email addresses were made available through their respective administrators. A total of 371 usable questionnaires were received. Thirteen questionnaires were discarded because more than 20% of the questions within the questionnaire were not answered and 11 questionnaires were discarded because the job title did not reflect a senior management position, e.g. technician. The covering letter (see Annexure 1) that accompanied the questionnaire was addressed to the Chief Executive Officers (CEOs), Managing Directors (MDs) or Senior Managers of these business firms with the request that this may be forwarded to no more than ten other senior managers or directors within their firm. Based on this it is difficult to calculate an actual response rate. Table 3.1 shows the demographic composition of the sample.

Table 3.1 below shows that the sample consisted of four times as many males than females, namely 80.1% males and 19.9% females. This is a true reflection of gender occupancy in middle and top management positions in South African firms. Males are still in the majority in these managerial positions.

Table 3.1: Demographic composition of the sample

VARIABLE	N	%
Gender		
Male	297	80.1
Female	74	19.9
Total	**371**	**100.0**
Age in years		
20-29	0	0.0
30-39	36	9.7
40-49	173	46.6
50-59	160	43.1
60+	2	0.6
Total	**371**	**100.0**
Level of education		
Secondary/matriculation	3	0.8
Graduate	251	67.7
Masters/Doctorate	117	31.5
Total	**371**	**100.0**
Tenure in years		
Less than 5	14	3.8
5-9	60	16.2
10-14	99	26.7
15-19	55	14.8
20+	143	38.5
Total	**371**	**100.0**
Job experience in years		
Less than 5	111	29.9
5-9	108	29.1
10-14	72	19.4
15-19	34	9.2
20+	46	12.4
Total	**371**	**100.0**
JSE listing		
Listed	317	85.4
Unlisted	54	14.6
Total	**371**	**100.0**

A large majority of the respondents (89.7%) were aged between 40 and 49 years (46.6%) and 50 and 59 years (43.1%). Again this is a true reflection of the situation in these medium to large firms, with middle and top managers usually being above 40 years old.

Most of the respondents (98.2%) had at least a first degree qualification with 31.5% having a masters or doctoral qualification. This is to be expected of these levels of management. The basic qualification required at middle and top management levels is a bachelor's degree.

About twenty-seven per cent (26.7%) of the respondents had job tenures at their current employer ranging between 10 and 14 years. Fifteen per cent (14.8%) of the respondents had job tenure of between 15 and 19 years, whilst thirty-nine per cent (38.5%) had job tenure of more than twenty years. The long tenure of senior managers within the firm are typical for many South African firms.

About forty-one per cent (41.0%) of the respondents had job experience in their current job of 10 years and more whilst thirty per cent (29.9%) of respondents had less than 5 years' experience in their current job. Twenty-nine per cent (29.1%) of respondents have between 5 and 9 years of experience in their current job. The pressure for South African firms to increase the level of diversity as defined in this study, particularly in respect of senior management could possibly contribute to the fewer years of job experience in current positions.

The sample is a fair reflection of the executive management profile in South Africa which is largely male, middle aged, well qualified, with many years of service within the business firm but with shorter years of experience in current position.

3.4 THE MEASURING INSTRUMENTS

Instruments (see Annexure 2) were designed to measure the variables in the hypothesised models to improve sustainable business practices within firms. The questionnaire statements of all instruments were self-constructed based on the literature review. Advice was sought from eight sustainability experts during the construction of the measuring instrument. These experts represented either manufacturing or service related businesses that belonged to the JSE and who subscribed to the Social Responsible Investment (SRI) Index. All instruments were anchored to a five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree.

The leadership instrument was designed to capture seven basic elements of conscious leadership that directly opposed the characteristics of traditional leadership, such as inspiring greatness in followers, having a holistic self-awareness, concerned about the needs of all stakeholders, understanding that success is a collective effort, realising that there are many solutions to a problem, being authentic and truthful in all dealings (Brown 2011; Renesch 2010; Carter 2009; Scharmer 2009).

The sustainable development behaviour instrument was designed to research those behaviours that were identified in the literature review as directly contributing to sustainable business practices such as creating an ethical environment, viewing sustainability as a core strategy, aligning structures and procedures with sustainable business practices, encouraging shared accountability for sustainability through integrated objectives and performance management, promoting a culture of continuous improvement and engaging employees in sustainability development programmes (Legault 2012; Lubin a& Esty 2010; Bozesan 2009).

The human resource development, employee relations and equal opportunities/ workforce diversity measuring instruments were designed to measure the social performance of the business firm. The questionnaire statements of all three instruments were aligned to the JSE SRI Index social indicators (JSE 2014) as well as the learnings from businesses that demonstrated excellent social practices, e.g. in the case of HRD providing sustainability training at all levels within the organisation, creating opportunities for sustainability dialogues at all leadership levels within the firm. The statements were anchored to a five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree.

The environmental practices measuring instrument was designed to measure the environmental performance of the business firm. The questionnaire statements of this instrument was aligned to the JSE SRI Index environmental indicators (JSE 2014) as well as the learnings from businesses that demonstrated excellent environmental practices, e.g. beneficiating waste streams and safeguarding bio-diversity. These statements were anchored to a five-point scale ranging from (1) strongly disagree to (5) strongly agree.

The corporate governance measuring instrument was designed to measure the level of governance within the business firm. The nine questionnaire statements of this instrument was aligned to the JSE SRI Index governance indicators (JSE 2014) and anchored to a five-point scale ranging from (1) strongly disagree to (5) strongly agree. These statements comprise the implementation of the code of ethics, compliance with acceptable governance standards such as King III, the effectiveness of the internal audit findings and the provision of a secure channel for complaints or advice.

The five sustainability competencies measuring instruments, namely systems-thinking, anticipatory, normative, strategic and interpersonal competencies were derived directly from the research by Wiek *et al.* (2011). There were many other researchers like Brown (2011) who concurred with the sustainability competency

framework that was proposed by Wiek *et al.* (2011). Each of the five sustainability competency measuring instruments was anchored to a five-point scale ranging from (1) strongly disagree to (5) strongly agree.

The systems-thinking competency measuring instrument was designed to assess understanding of the interconnectedness of the economic, social and environmental platforms which is expected to influence behaviour in building sustainable business practices.

The anticipatory competency questionnaire statements include, amongst others, to what extent leaders have the capacity to think systemically about the future of the business firm, have the ability to analyse, evaluate and define future sustainability solutions for the firm, are able to discern which time scales are relevant to a problem and its possible solutions when building sustainable business practices.

The normative competency questionnaire statements include, amongst others, to what extent leaders have the capacity to develop norms to assess the impact of the firm's operations on sustainability, understand the life cycle assessment of products and services and understand how decisions will impact future generations.

The strategic competency questionnaire statements include, amongst others, to what extent leaders have the capacity to design and execute strategies that will address sustainability challenges within the firm, have the ability to accommodate varying perspectives on issues despite inconclusive or incomplete evidence, and understand the concepts and methods for strategy building.

The interpersonal competency questionnaire statements include, amongst others, to what extent leaders have the ability to facilitate collaboration among

stakeholders, develop robust strategies in achieving sustainable business practices by embracing diversity of knowledge and values.

3.5   DESCRIPTIVE STATISTICS OF THE RAW DATA

The descriptive statistics results on the raw data are reported here to maintain the logical flow in reporting the results. Another reason for reporting the descriptive statistics here, is that the latent variables often change in structure and content after exploratory factor analysis and the calculation of Cronbach alpha coefficients.

The raw data was analysed to assess the general responses to the questionnaire statements on the variables as they were defined for the original study. This analysis was necessary to assess to what extent the selected determinants of sustainable business practices (profitability, social performance and environmental performance) as identified in the literature review, were prevalent within JSE listed firms in South Africa. The results, which include the mean scores on a 5-point scale, standard deviations (SD) and the average percentage disagree versus agree responses, of these analyses are reported next. The results are interpreted as follows: a mean score of more than 4.00 was regarded as a good to very good rating of a latent variable; a score between 3.00 and 3.99 an average rating; and a score of below 3.00 reflects a low rating and is thus an area of concern.

The Cohen's *d* effect size (1988) is also indicated in the descriptive statistics tables. Cohen's *d* is defined as the difference between two means divided by the standard deviation (SD) for the data. The Cohen's *d* indicates how significant the differences between the mean responses of the two conscious leadership (CLEAD) sub-samples are. Cohen (1988) suggested that a *d* of 0.20 indicates a small effect size; a *d* of 0.50 constitutes a medium effect size and a *d* of 0.80 and more, a large effect size. Splitting the sample into high and low CLEAD sub-

samples was necessary in order to determine whether these two sub-samples approach sustainability issues differently. The importance of this split becomes evident in statistical analyses later in this and the following chapter.

3.5.1 Perceived prevailing conscious leadership style

Since the objective of the study was to establish whether conscious leaders were better able to achieve sustainable business practices than leaders that were less conscious, the sample was divided into high conscious leadership sub-samples and lower conscious leadership sub-samples. High CLEAD participants were defined as those who have obtained a mean score of 4.00 and more on the 5-point disagree-to-agree scale used to measure the CLEAD items in the questionnaire. The data set indicated that 255 participants had CLEAD mean scores of more than 4.00, while 116 had mean scores of less than 4.00.

Table 3.2 shows that the high CLEAD respondents rated themselves higher on the conscious leadership statements than the lower CLEAD respondents. About 95.1% of the high CLEAD respondents agreed with conscious leadership statements, while only 36.9% of the lower CLEAD respondents agreed with these statements. The average mean score on the statements for the high CLEAD sub-sample was 4.44, while the average mean score on the statements for the lower CLEAD sub-sample was 3.07. These results validate the division of the total sample into high and lower CLEAD sub-samples.

The Cohen's *d* effect sizes (see Table 3.2) indicate that the mean responses on the questionnaire statements on conscious leadership are significantly different and higher for the high CLEAD sub-sample than for the lower CLEAD sub-sample. This finding further supports the present study's identification of high versus lower CLEAD respondents. The Cohen's *d* scores were all above 0.80 which is indicative of a large effect size.

Table 3.2: Descriptive statistics on perceived conscious leadership style

QUESTIONNAIRE STATEMENT	TOTAL SAMPLE		HIGH CLEAD SUB-SAMPLE		LOWER CLEAD SUB-SAMPLE		COHEN'S *d* EFFECT SIZE
	MEAN	SD	MEAN	SD	MEAN	SD	
CLEAD 1. As a leader, I inspire and evoke greatness in my followers in order to motivate them to do a proper job.	3.79	1.01	4.22	0.67	2.84	0.98	1.67
CLEAD 2. I have a holistic awareness of who I am as a leader	3.94	1.08	4.47	0.54	2.77	1.07	2.12
CLEAD 3. As a leader, I believe in being authentic and truthful in my dealings with my followers.	4.44	0.77	4.76	0.47	3.72	0.81	1.62
CLEAD 4. As a leader, I believe there are always many right answers to a problem.	3.82	1.12	4.28	0.78	2.81	1.09	1.57
CLEAD 5. As a leader, I always approach a situation with an open mind and with my voice of judgement suspended.	3.92	0.85	4.25	0.65	3.19	0.77	1.49
CLEAD 6. As a leader, I believe that to be effective there must be integration between head, heart and hand, i.e. seamlessness between what I think, how I feel and what I do.	4.05	0.95	4.53	0.55	3.02	0.82	2.19
CLEAD 7. As a leader, I am concerned not only about my own needs but the needs of all stakeholders.	4.18	0.85	4.61	0.49	3.22	0.68	2.38
CLEAD 8. As a leader, I acknowledge that success is a result of collective effort and is not isolated to my contribution.	4.37	0.88	4.78	0.41	3.48	0.97	1.87
CLEAD 9. As a leader, I am concerned about how current decision making and actions will affect future generations.	3.62	1.19	4.07	1.00	2.62	0.94	1.50
AVERAGE	**4.01**	**0.97**	**4.44**	**0.62**	**3.07**	**0.90**	
PERCENTAGE OF RESPONDENTS DISAGREEING/ AGREEING WITH THE ABOVE QUESTIONNAIRE STATEMENTS Disagree 18.3% Neutral 18.1% Agree 63.6%			0.8% 4.1% 95.1%		31.1% 32.0% 36.9%		

Although Cohen's *d* scores of more than 0.80 is an indication of a significant difference of the means of the two sub-samples, which is the case with all the CLEAD measuring items, the scores of more than 2.00 stand out. The Cohen's *d*

scores for CLEAD2, 6 and 7 were 2.12, 2.19 and 2.38 respectively. This means that high CLEAD managers have a much stronger holistic awareness of who they are as leaders than lower CLEAD managers; high CLEAD managers have a much stronger believe that for a leader to be effective there must be integration between head, heart and hand, i.e. seamlessness between what they think, how they feel and what they do than lower CLEAD managers. High CLEAD managers are much more concerned about the needs of all stakeholders than about their own.

3.5.2   Perceived prevailing sustainability behaviours

The total sample resulted in a mean sustainability behaviours questionnaire score of 3.88 and 70.9% of the respondents agreeing with the sustainability questionnaire statements as seen in Table 3.3. The high CLEAD sub-sample had a mean score of 4.30 and 87.5% of the respondents agreeing with the sustainability questionnaire statements whilst the lower CLEAD sub-sample had a mean score of 2.98 with 34.3% of the respondents agreeing with the sustainability questionnaire statements.

Table 3.3 reveals that all the managers rate themselves highly (mean score = 4.37) on the active promotion of an organisational culture of continuous improvement in their firms, especially the high CLEAD respondents (mean score = 4.65).

Table 3.3 however also reveals an average rating of the extent to which managers ensure that there is engagement with a wide range of stakeholders on developing and executing shared goals as far as sustainability is concerned. This below average rating is caused by the low rating (mean score = 2.30) lower CLEAD respondents gave themselves on this issue. This result suggests that lower CLEAD managers do not exhibit this susustainability behaviour at the level

expected, that is, at least at the level exhibited by high CLEAD managers (mean score = 4.05).

Table 3.3 further shows that high CLEAD managers generally rate themselves higher on all the sustainability behaviours than their lower CLEAD counterparts. This result supports the assertion in the literature that high conscious leadership is associated with higher sustainability behaviours than low conscious leadership (Divecha & Brown 2013; Brown 2011; Bozesan 2009). It is therefore important to foster conscious leadership in firms in order to achieve sustainable business practices.

The Cohen's *d* effect sizes in Table 3.3 indicate that the mean responses on the questionnaire statements on sustainability behaviours are significantly different and higher for the high CLEAD sub-sample than for the lower CLEAD sub-sample. This finding further supports the present study's identification of high versus lower CLEAD respondents. The Cohen's *d* scores were all above 0.80 which is indicative of a large effect size.

Although Cohen's *d* scores of more than 0.80 is an indication of a significant difference of the means of the two sub-samples, which is the case with all the SBEHS measuring items, there are no scores of more than 2.00. The highest Cohen's *d* scores were 1.79 for SBEHS5 which means that high CLEAD managers have a stronger engagement with a wide range of stakeholders on developing and executing shared goals as far as sustainability is concerned than lower CLEAD managers.

Table 3.3: Descriptive statistics on perceived sustainability behaviours

QUESTIONNAIRE STATEMENTS	TOTAL SAMPLE		HIGH CLEAD SUB-SAMPLE		LOWER CLEAD SUB-SAMPLE		COHEN'S d EFFECT SIZE
	MEAN	SD	MEAN	SD	MEAN	SD	
SBEHS 1. As a manager, I actively create an ethical environment in my firm by using my own transformational influence.	3.95	1.05	4.41	0.61	2.96	1.12	1.68
SBEHS 2. As a manager, I view sustainability as a core strategy of my firm rather than a peripheral one.	3.94	1.10	4.40	0.72	2.94	1.12	1.58
SBEHS 3. As a manager, I align relevant systems, structures, policies and procedures under my control so that we can achieve sustainable business practices in my firm.	3.98	0.88	4.36	0.65	3.15	0.74	1.74
SBEHS 4. As a manager, I encourage shared accountability for sustainability through integrated objectives and performance management rather than silo responsibility.	4.05	0.87	4.38	0.70	3.34	0.79	1.40
SBEHS 5. As a manager, I ensure that there is engagement with a wide range of stakeholders on developing and executing shared goals as far sustainability is concerned.	3.50	1.22	4.05	0.76	2.30	1.19	1.79
SBEHS6 As a manager, I actively promote an organisational culture of continuous improvement	4.37	0.72	4.65	0.51	3.74	0.74	1.46
SBEHS 7. As a manager, I exert considerable efforts to align our employees' thought processes, assumptions and behaviours with our sustainability development programme(s).	3.59	1.00	4.01	0.81	2.66	0.72	1.76
SBEHS 8. As a manager, I actively communicate my firm's environmental and social performance to stakeholders	3.69	1.04	4.13	0.74	2.74	0.99	1.60
AVERAGE	**3.88**	**0.99**	**4.30**	**0.69**	**2.98**	**0.93**	
PERCENTAGE OF RESPONDENTS DISAGREEING / AGREEING WITH THE ABOVE-MENTIONED QUESTION-NAIRE STATEMENTS Disagree Neutral Agree	11.9% 17.2% 70.9%		1.5% 11.0% 87.5%		34.6% 31.1% 34.3%		

3.5.3 Perceived prevailing human resource development

The total sample resulted in a mean human resource development questionnaire score of 3.42 and 50.3% of the respondents agreeing with the questionnaire statements as seen in Table 3.4. The high CLEAD sub-sample had a mean score of 3.87 and 67.1% of the respondents agreeing with the human resource development statements whilst the lower CLEAD sub-sample had a mean score of 2.43 with 13.2% of the respondents agreeing with the questionnaire statements. These results support previous studies (Maldonado 2014; Mackey & Sisodia 2013; Metcalf & Benn 2013; Hardman 2010) which suggest that the higher level of consciousness will result in more effective human resource development within the business firm.

Table 3.4 however also reveals average ratings for the firm's training and development performance relative to competitors (mean score = 3.37), consideration of knowledge and skills that support the firm's sustainability objectives when recruiting and selecting staff (mean score = 3.34), the extent to which the firm provides sustainability training at all levels within the business (mean score = 3.21), the integration of sustainability in mentoring, coaching and career development processes (mean score = 3.10) and the extent to which opportunities are created for sustainability dialogues amongst all leadership levels (mean score = 3.27). This below average rating is caused by the low rating (mean score = 2.43) lower CLEAD respondents gave their firms (and therefore themselves) on this issue. These results suggest that lower CLEAD managers do not rate the human resource development in their firms at the level expected, that is, at least at the level exhibited by high CLEAD managers (mean score = 3.87). Table 3.4 shows that high CLEAD managers rate themselves higher on all human resource development criteria than their lower CLEAD counterparts. This result supports the assertion in the literature (JSE 2014; Crews 2010) that high conscious leadership is associated with a stronger focus on human resource

development than low conscious leadership. It is therefore important to foster conscious leadership in firms in order to achieve sustainable business practices.

Table 3.4: Descriptive statistics on perceived human resource development

QUESTIONNAIRE STATEMENTS	TOTAL SAMPLE		HIGH CLEAD SUB-SAMPLE		LOWER CLEAD SUB-SAMPLE		COHEN'S d EFFECT SIZE
	MEAN	SD	MEAN	SD	MEAN	SD	
HRD 1. My firm has documented objectives and targets for the training and development of our human resources that our managers must achieve.	3.75	0.94	4.09	0.84	3.03	0.72	1.36
HRD 2. Compared to our competitors, my firm is performing very well with regard to the training and development of our human resources.	3.37	1.11	3.72	1.03	2.62	0.90	1.14
HRD 3. My firm effectively monitors and records the type of skills and competencies that we focus on in our training and development programme(s).	3.67	1.03	4.05	0.88	2.82	0.80	1.47
HRD 4. My firm regularly provides quantitative and qualitative data to relevant stakeholders on how we perform on the training and development of our human resources.	3.64	1.10	4.13	0.85	2.57	0.78	1.92
HRD 5. My firm strongly considers knowledge and skills that support our sustainability objectives when recruiting and selecting staff.	3.34	1.26	3.87	0.92	2.17	1.11	1.67
HRD 6. My firm provides sustainability training at all levels within our organisation.	3.21	1.29	3.74	1.01	2.06	1.08	1.60
HRD 7. My firm infuses our sustainability focus in all our mentoring, coaching and/or career development processes.	3.10	1.14	3.62	0.77	1.97	0.99	1.88
HRD 8. My firm regularly creates opportunities for sustainability dialogues amongst all leadership levels in the firm.	3.27	1.16	3.76	0.88	2.18	0.94	1.74
AVERAGE	**3.42**	**1.13**	**3.87**	**0.90**	**2.43**	**0.91**	

PERCENTAGE OF RESPONDENTS DISAGREEING / AGREEING WITH THE ABOVE-MENTIONED QUESTIONNAIRE STATEMENTS			
Disagree	20.9%	7.3%	50.8%
Neutral	28.8%	25.6%	16.0%
Agree	50.3%	67.1%	13.2%

The Cohen's *d* effect sizes in Table 3.4 indicate that the mean responses on the questionnaire statements in respect of human resource development are significantly different and higher for the high CLEAD sub-sample than for the lower CLEAD sub-sample. This finding further supports the present study's identification of high versus lower CLEAD respondents. The Cohen's *d* scores were all above 0.80 which is indicative of a large effect size.

Although Cohen's *d* scores of more than 0.80 is an indication of a significant difference of the means of the two sub-samples, which is the case with all the HRD measuring items, there are no scores of more than 2.00. The highest Cohen's *d* scores was 1.92 for HRD4 which means that high CLEAD managers reported more regularly on the quantitative and qualitative training and development data to the relevant stakeholders than lower CLEAD managers. This suggests that there is a greater transparency and there is more training and development that is being undertaken by the high CLEAD managers as supported by the results of other questions within the human resource development questionnaire.

3.5.4 Perceived prevailing employee relations

The total sample resulted in a mean employee relations questionnaire score of 3.86 and 69.2% of the respondents agreeing with the questionnaire statements as seen in Table 3.5. The high CLEAD sub-sample had a mean score of 4.17 and 82.5% of the respondents agreeing with the employee relations statements whilst the lower CLEAD sub-sample had a mean score of 3.18 with 39.9% of the respondents agreeing with the questionnaire statements.

Table 3.5 reveals that all the managers rate their firms (therefore themselves) highly (mean score = 4.23) on the clear communication of the firms disciplinary and grievance procedures to all employees, especially the high CLEAD respondents (mean score = 4.51). Table 3.5 however also reveals a below average rating of the extent to which managers ensure that employees are rewarded effectively in order to achieve healthy employee relations. This below average rating is caused by the low rating (mean score = 2.41) lower CLEAD respondents gave themselves on this issue. This result suggests that lower CLEAD managers do not exhibit the effective use of rewards to achieve healthy employee relations at the level expected, that is, at least at the level exhibited by high CLEAD managers (mean score = 3.68).

Table 3.5 further shows that high CLEAD managers generally rate themselves higher on all the employee relation questions than their lower CLEAD counterparts. This result supports the assertion in the literature (Crews 2010; Scharmer 2008) that high conscious leadership is associated with better employee relations than low conscious leadership. It is therefore important to foster conscious leadership in firms in order to achieve sustainable business practices.

The Cohen's *d* effect sizes in Table 3.5 indicate that the mean responses on the questionnaire statements on employee relations are significantly different and higher for the high CLEAD sub-sample than for the lower CLEAD sub-sample. This finding further supports the present study's identification of high versus lower CLEAD respondents. The Cohen's *d* scores were all above 0.80 which is indicative of a large effect size.

Table 3.5: Descriptive statistics on perceived employee relations

QUESTIONNAIRE STATEMENTS	TOTAL SAMPLE		HIGH CLEAD SUB-SAMPLE		LOWER CLEAD SUB-SAMPLE		COHEN'S *d* EFFECT SIZE
	MEAN	SD	MEAN	SD	MEAN	SD	
EMPRE 1. My firm's employee relations are reasonably healthy.	3.82	0.74	4.07	0.65	3.28	0.61	1.25
EMPRE 2. In my firm, disciplinary and grievance processes and procedures are clearly communicated to all employees.	4.23	0.88	4.51	0.67	3.61	0.98	1.09
EMPRE 3. My firm does everything in its power to avert industrial action (labour strikes).	4.06	0.65	4.21	0.58	3.73	0.69	0.75
EMPRE 4. My firm effectively implements a clear code of conduct for all employees.	4.15	1.12	4.64	0.58	3.06	1.26	1.72
EMPRE 5. My firm does everything in its power to use rewards effectively in order to achieve healthy employee relations.	3.28	1.08	3.68	0.92	2.41	0.88	1.41
EMPRE 6. In general, the relevant managers in my firm manage employee relations effectively.	3.63	0.80	3.94	0.69	2.97	0.60	1.50
AVERAGE	**3.86**	**0.88**	**4.17**	**0.68**	**3.18**	**0.84**	
PERCENTAGE OF RESPONDENTS DISAGREEING / AGREEING WITH THE ABOVE-MENTIONED QUESTIONNAIRE STATEMENTS Disagree Neutral Agree	8.7% 22.1% 69.2%		1.8% 15.7% 82.5%		23.9% 36.2% 39.9%		

Although Cohen's *d* scores of more than 0.80 is an indication of significant differences of the means of the two sub-samples, which is the case with all the EMPRE measuring items, there are no scores of more than 2.00. The highest Cohen's *d* score was 1.72 for EMPRE4 which means that high CLEAD managers are more effective in implementing a clear code of conduct for all employees than lower CLEAD managers. This focus on defining and communicating acceptable and unacceptable behaviour helps set the platform for the culture within the firm.

3.5.5 Perceived prevailing equal opportunities and workforce diversity

The total sample resulted in a mean equal opportunities and workforce diversity questionnaire score of 3.68 and 65.5% of the respondents agreeing with the questionnaire statements as seen in Table 3.6. The high CLEAD sub-sample had a mean score of 4.10 and 79.5% of the respondents agreeing with the equal opportunities and workforce diversity statements whilst the lower CLEAD sub-sample had a mean score of 2.76 with 34.8% of the respondents agreeing with the questionnaire statements. These results are congruent with previous studies (Brown 2011; Carter 2009) which suggested that higher levels of consciousness will result in the creation of equal opportunities and will leverage workforce diversity within the business firm.

Table 3.6 however also reveals average ratings for the extent to which managers clearly specify forms of discrimination that might occur in pursuit of equal opportunities and diversity (score = 3.26), how successful managers are with regard to providing equal opportunities for all employees (score = 3.14) and the extent to which managers achieve targets in respect of promoting workforce diversity (score = 3.13). This average rating is caused by the low rating (mean score = 2.78) lower CLEAD respondents rated themselves on this issue. This result suggests that lower CLEAD managers do not exhibit the promotion of equal opportunities and workforce diversity at the level expected, that is, at least at the level exhibited by high CLEAD managers (mean score = 3.93).

Table 3.6 further shows that high CLEAD managers rate themselves higher on all the equal opportunities and workforce diversity than their lower CLEAD counterparts. This result supports the assertion in the literature (Crews 2010; Carter 2009) that high conscious leadership is associated with the promotion of equal opportunities and leveraging workforce diversity than lower conscious leadership. It is therefore important to foster conscious leadership in firms in order to achieve sustainable business practices.

Table 3.6: Descriptive statistics on perceived equal opportunities and workforce diversity

QUESTIONNAIRE STATEMENTS	TOTAL SAMPLE		HIGH CLEAD SUB-SAMPLE		LOWER CLEAD SUB-SAMPLE		COHEN'S d EFFECT SIZE
	MEAN	SD	MEAN	SD	MEAN	SD	
EQWD 1. In its policies, my firm publicly demonstrates its commitment to equal opportunities.	3.84	0.98	4.15	0.87	3.16	0.84	1.15
EQWD 2. In its policies, my firm publicly demonstrates its commitment to workforce diversity.	3.82	0.93	4.16	0.76	3.08	0.85	1.35
EQWD 3. My firm has clearly stated targets for promoting equal opportunities for all employees.	3.88	0.88	4.16	0.81	3.24	0.65	1.26
EQWD 4. My firm has clearly stated targets for promoting workforce diversity.	3.92	0.88	4.23	0.79	3.22	0.63	1.41
EQWD 5. In my firm, managers regularly report quantitative data on achieving equal opportunity targets.	3.56	0.96	3.87	0.83	2.88	0.87	1.17
EQWD 6. In my firm, managers regularly report quantitative data on achieving workforce diversity targets.	3.71	0.92	3.99	0.86	3.08	0.72	1.16
EQWD 7. In its policies, my firm clearly specifies forms of discrimination that might occur in pursuit of equal opportunities and diversity.	3.26	1.28	3.80	0.89	2.09	1.23	1.62
EQWD 8. My firm effectively implements its policy of providing equal opportunities for all employees.	3.47	1.18	3.95	0.91	2.43	1.02	1.57
EQWD 9. My firm effectively implements its policy of pursuing workforce diversity.	3.54	1.00	3.92	0.79	2.69	0.88	1.47
EQWD 10. My firm has been achieving its targets in respect of providing equal opportunities for all employees.	3.14	1.11	3.56	0.91	2.22	0.94	1.45
EQWD 11. My firm has been achieving its targets with regard to promoting workforce diversity.	3.13	0.97	3.42	0.91	2.52	0.81	1.05
AVERAGE	**3.57**	**1.01**	**3.93**	**0.85**	**2.78**	**0.86**	

PERCENTAGE OF RESPONDENTS DISAGREEING / AGREEING WITH THE ABOVE-MENTIONED QUESTIONNAIRE STATEMENTS				
		4.9%	34.4%	
Disagree	14.1%	27.2%	43.7%	
Neutral	32.4%	67.9%	21.9%	
Agree	53.5%			

The Cohen's *d* effect sizes in Table 3.6 indicate that the mean responses on the questionnaire statements on equal opportunities and workforce diversity are significantly different and higher for the high CLEAD sub-sample than for the lower CLEAD sub-sample. This finding further supports the present study's identification of high versus lower CLEAD respondents. The Cohen's *d* scores were all above 0.80 which is indicative of a large effect size.

Although Cohen's *d* scores of more than 0.80 is an indication of a significant difference of the means of the two sub-samples, which is the case with all the EQWD measuring items, there are no scores of more than 2.00. The highest Cohen's *d* score was 1.62 for EQWD7 which means that high CLEAD managers are better at specifying forms of discrimination that may occur in pursuit of equal opportunities and diversity than lower CLEAD managers.

3.5.6 Perceived environmental practices

The total sample resulted in a mean enviromental practices questionnaire score of 3.86 and 69.2% of the respondents agreeing with the questionnaire statements as seen in Table 3.7. The high CLEAD sub-sample had a mean score of 4.17 and 82.5% of the respondents agreeing with the environmental practices statements whilst the lower CLEAD sub-sample had a mean score of 3.18 with 39.9% of the respondents agreeing with the questionnaire statements. These results are consistent with previous studies (Hardman 2010; Bozesan 2009) that suggested that higher levels of consciousness leadsrship are associated with better environmental performance of the business firm.

Table 3.7 reveals that all the managers (mean score = 4.41); especially the high CLEAD respondents (mean score = 4.57) rate themselves highly on their commitment to independent environmental certification systems (e.g. wood and fibre certification systems, ISO 140001).

Table 3.7 however also reveals a below average rating of the extent to which managers are increasing the use of renewable energy. This below average rating is caused by the low rating (mean score = 2.22) lower CLEAD respondents gave their firms (and therefore themselves) on this issue. This result suggests that lower CLEAD managers do not promote environmental practices at the level expected, that is, at least at the level exhibited by high CLEAD managers (mean score = 3.54).

Table 3.7 further shows that high CLEAD managers generally rate themselves higher on all environmental practices than their lower CLEAD counterparts. This result supports the assertion in the literature (Boiral, Baron & Gunnlaugson 2014; Blaga 2013) that high conscious leadership is associated with better environmental practices than low conscious leadership. It is therefore important to foster conscious leadership in firms in order to achieve sustainable business practices.

The Cohen's *d* effect sizes in Table 3.7 indicate that the mean responses on the questionnaire statements on environmental practices are significantly different and higher for the high CLEAD sub-sample than for the lower CLEAD sub-sample. This finding further supports the present study's identification of high versus lower CLEAD respondents. The Cohen's *d* scores were all above 0.80 which is indicative of a large effect size.

Although Cohen's *d* scores of more than 0.80 is an indication of a significant difference of the means of the two sub-samples, which is the case with all the ENVIP measuring items, there are no scores of more than 2.00. The highest

Cohen's *d* score was 1.97 for ENVIP7 which means that high CLEAD managers are better at preventing resource depletion than lower CLEAD managers.

Table 3.7:   Descriptive statistics on perceived environmental practices

QUESTIONNAIRE STATEMENTS	TOTAL SAMPLE		HIGH CLEAD SUB-SAMPLE		LOWER CLEAD SUB-SAMPLE		COHEN'S *d* EFFECT SIZE
	MEAN	SD	MEAN	SD	MEAN	SD	
ENVIP 1. My firm has practices in place to safeguard biodiversity.	3.71	1.06	4.12	0.71	2.82	1.14	1.40
ENVIP 2. My firm has practices in place to reducing greenhouse gas emissions.	3.54	1.27	4.02	0.87	2.49	1.38	1.36
ENVIP 3. My firm has been steadily increasing our use of renewable energy.	3.13	1.32	3.54	1.15	2.22	1.22	1.12
ENVIP 4. My firm continues our commitment to independent environmental certification systems (e.g. wood and fibre certification systems, ISO 140001).	4.41	0.68	4.57	0.61	4.04	0.68	0.82
ENVIP 5. My firm is successful in reducing waste.	3.66	1.00	4.01	0.74	2.89	1.06	1.24
ENVIP 6. My firm conforms to best environmental practice and legislation.	3.63	1.25	4.16	0.83	2.47	1.23	1.64
ENVIP 7. My firm plays its part in preventing resource depletion.	3.59	1.13	4.12	0.66	2.41	1.07	1.97
ENVIP 8. My firm plays it part in looking at ways to beneficiate waste streams (creating new income streams from waste).	3.78	1.20	4.25	0.70	2.74	1.41	1.42
AVERAGE	**3.68**	**1.11**	**4.10**	**0.78**	**2.76**	**1.15**	
PERCENTAGE OF RESPONDENTS DISAGREEING / AGREEING WITH THE ABOVE-MENTIONED QUESTIONNAIRE STATEMENTS							
Disagree	17.5%		4.3%		46.6%		
Neutral	17.0%		16.2%		18.6%		
Agree	65.5%		79.5%		34.8%		

3.5.7 Perceived prevailing corporate governance

The total sample resulted in a mean equal corporate governance questionnaire score of 4.29 and 81.4% of the respondents agreeing with the questionnaire statements as seen in Table 3.8. The high CLEAD sub-sample had a mean score of 4.67 and 96.9% of the respondents agreeing with the corporate governance statements whilst the lower CLEAD sub-sample had a mean score of 3.43 with 47.3% of the respondents agreeing with the questionnaire statements. These results support findings in previous studies (Chekwa *et al.* 2014; Willits & Nicholls 2014) that higher levels of conscious leadership result in a more mature level of corporate governance within the business firm.

Table 3.8 reveals that all the managers rate themselves highly (mean score = 4.20) on their public commitment to complying with internationally accepted governance standards such as King III, especially the high CLEAD respondents (mean score = 4.62).   All the managers rate themselves highly (mean score = 4.30) on supporting procedures to review both internal and external audit findings, especially the high CLEAD respondents (mean score = 4.67). All the managers rate themselves highly (mean score = 4.58) on actively supporting the firm's code of ethics policy, especially the high CLEAD respondents (mean score = 4.92). All the managers rate themselves highly (mean score = 4.42) on ensuring senior responsibility for ethics management, especially the high CLEAD respondents (mean score = 4.79). All the managers rate themselves highly (mean score = 4.26) on ensuring training and communication on the code of ethics and associated conduct of employees, especially the high CLEAD respondents (mean score = 4.60). All the managers rate themselves highly (mean score = 4.26) on actively supporting the compliance monitoring and the regular reviews of the implementation of the code of ethics, especially the high CLEAD respondents (mean score = 4.67). These results indicate a strong focus on corporate governance in firms. This is to be expected as corporate governance involves a high level of legal and professional compliance. How this

type of corporate governance manifests in the achievement of sustainability behaviours is discussed in Chapter Four.

Table 3.8 further shows that high CLEAD managers generally rate themselves higher on all corporate governance questions than their lower CLEAD counterparts. This result supports the assertion in the literature (Sharma & Khanna 2014) that high conscious leadership is associated with better corporate governance than low conscious leadership. It is therefore important to foster conscious leadership in firms in order to achieve sustainable business practice.

The Cohen's *d* effect sizes in Table 3.8 indicate that the mean responses on the questionnaire statements on corporate governance are significantly different and higher for the high CLEAD sub-sample than for the lower CLEAD sub-sample. This finding further supports the present study's identification of high versus lower CLEAD respondents. The Cohen's *d* scores were all above 0.80 which is indicative of a large effect size.

Although Cohen's *d* scores of more than 0.80 is an indication of a significant difference of the means of the two sub-samples, which is the case with all the ENVIP measuring items, there are no scores of more than 2.00. The highest Cohen's *d* score was 1.86 for COGOV5 which means that high CLEAD managers are more focused on ensuring senior responsibility for ethics management than lower CLEAD managers implying that this issue is viewed as more important by high CLEAD managers than lower CLEAD managers.

Table 3.8: Descriptive statistics on perceived corporate governance

QUESTIONNAIRE STATEMENTS	TOTAL SAMPLE		HIGH CLEAD SUB-SAMPLE		LOWER CLEAD SUB-SAMPLE		COHEN'S *d* EFFECT SIZE
	MEAN	SD	MEAN	SD	MEAN	SD	
COGOV 1. As a manager, I actively support my firm's public commitment to comply-ing with internationally accepted governance standards, e.g. King III.	4.20	0.95	4.62	0.57	3.26	0.93	1.82
COGOV 2. As a manager, I actively support my firm's Board having separate committees for audits and remuneration.	4.07	0.87	4.42	0.70	3.31	0.68	1.60
COGOV 3. As a manager, I actively support my firm having procedures to review both internal and external audit findings.	4.30	0.89	4.67	0.54	3.48	0.96	1.59
COGOV 4. As a manager, I actively support my firm's code of ethics policy.	4.58	0.79	4.92	0.28	3.85	1.02	1.65
COGOV 5. As a manager, I actively support my firm ensuring senior responsibility for ethics management.	4.42	0.81	4.79	0.41	3.59	0.87	1.86
COGOV 6. As a manager, I actively support my firm ensuring training and/or communication on the code of ethics and the associated conduct of employees, e.g. Part of employee induction programme.	4.26	0.86	4.60	0.57	3.51	0.92	1.46
COGOV 7. As a manager, I actively support my firm ensuring a secure communication channel for employees to seek advice or voice concerns, e.g. Confidential fraud hotline.	4.19	1.16	4.68	0.52	3.10	1.42	1.62
COGOV 8. As a manager, I actively support my firm having compliance monitor-ing and regular reviews of the implementation of the code of ethics.	4.26	0.92	4.67	0.52	3.36	0.95	1.77
AVERAGE	**4.29**	**0.91**	**4.67**	**0.51**	**3.43**	**0.97**	
PERCENTAGE OF RESPONDENTS DISAGREEING / AGREEING WITH THE ABOVE-MENTIONED QUESTIONNAIRE STATEMENTS Disagree Neutral Agree	5.2% 13.4% 81.4%		0.2% 2.9% 96.9%		15.8% 36.9% 47.3%		

3.5.8 Perceived prevailing systems-thinking competency

The total sample resulted in a mean systems-thinking competency questionnaire score of 3.69 and 63.4% of the respondents agreeing with the questionnaire statements as seen in Table 3.9. The high CLEAD sub-sample had a mean score of 4.09 and 82.0% of the respondents agreeing with the systems-thinking competency statements whilst the lower CLEAD sub-sample had a mean score of 2.81 with 22.6% of the respondents agreeing with the questionnaire statements. The literature review (Senge 2014; Skaržauskienė 2008) suggested that the higher level of consciousness will result in a higher level of systems-thinking.

Table 3.9 however also reveals an average rating of the extent to which managers participate in analysing the social issues that are external and internal to the firm and that contribute to sustainable business practices. This average rating is caused by the low rating (mean score = 2.49) lower CLEAD respondents gave themselves on this issue. This result suggests that lower CLEAD managers do not exhibit systems-thinking competency at the level expected, that is, at least at the level exhibited by high CLEAD managers (mean score = 3.67).

Table 3.9 further shows that high CLEAD managers generally rate themselves higher on all systems-thinking competencies than their lower CLEAD counter-parts. This result supports the assertion in the literature (Mackey & Sisodia 2013; Carter 2009) that high conscious leadership is associated with better systems-thinking competency than low conscious leadership. It is therefore important to foster conscious leadership in firms in order to achieve sustainable business practices.

The Cohen's d effect sizes in Table 3.9 indicate that the mean responses on the questionnaire statements on systems-thinking competency are significantly different and higher for the high CLEAD sub-sample than for the lower CLEAD

sub-sample. This finding further supports the present study's identification of high versus lower CLEAD respondents. The Cohen's *d* scores were all above 0.80 which is indicative of a large effect size

Table 3.9: Descriptive statistics on perceived systems-thinking competency

QUESTIONNAIRE STATEMENTS	TOTAL SAMPLE		HIGH CLEAD SUB-SAMPLE		LOWER CLEAD SUB-SAMPLE		COHEN'S *d* EFFECT SIZE
	MEAN	SD	MEAN	SD	MEAN	SD	
SYSTC 1. As part of the management team, I partici-pate in the analysing of eco-nomic issues (external and internal to the firm) related to sustainability in order to achieve sustainable business practices in the firm.	3.92	0.85	4.20	0.73	3.30	0.76	1.20
SYSTC 2. As part of the management team, I partici-pate in the analysing of environmental issues (external and internal to the firm) related to sustainability in order to achieve sustain-able business practices in the firm.	3.60	0.99	3.92	0.89	2.90	0.82	1.19
SYSTC 3. As part of the management team, I participate in the analysing of social issues (external and internal to the firm) related to sustainability in order to achieve sustainable business practices in the firm.	3.30	0.99	3.67	0.83	2.49	0.82	1.43
SYSTC 4. Our managers consider all factors related to sustainability in order to achieve sustainable business practices in the firm.	3.53	0.93	3.94	0.64	2.63	0.83	1.78
SYSTC 5. As part of the management team, I under-stand the interconnectedness of natural, social and eco-nomic systems in efforts to achieve sustainability objectives.	3.77	0.94	4.23	0.64	2.74	0.63	2.33
SYSTC 6. As part of the management team, I understand that a fragmen-ted approach to sustainability is unlikely to be successful because of its integrated and complex nature.	4.06	0.92	4.41	0.77	3.28	0.72	1.51

SYSTC 7. As part of the management team, I understand the intermediate and root causes of sustainability concerns.	3.74	1.00	4.21	0.56	2.72	0.98	1.92
SYSTC 8. As part of the management team, we make all the effort to understand the actions, needs, motives, intentions and mandates of all stakeholders when building sustainable business practices.	3.61	1.12	4.14	0.64	2.44	1.06	2.00
AVERAGE	**3.69**	**0.97**	**4.09**	**0.71**	**2.81**	**0.83**	
PER CENTAGE OF RESPONDENTS DISAGREEING /AGREEING WITH THE ABOVE-MENTIONED QUESTIONNAIRE STATEMENTS Disagree 13.1% Neutral 23.5% Agree 63.4%			2.7% 15.3% 82.0%		35.9% 41.5% 22.6%		

Although Cohen's *d* scores of more than 0.80 is an indication of a significant difference of the means of the two sub-samples, which is the case with all the SYSTC measuring items, the scores of 2.00 and more stand out. The Cohen's *d* scores for SYSTC5 and 8 were 2.33 and 2.00 respectively. This means that high CLEAD managers have a much better understanding of the interconnectedness of the natural, social and economic systems in order to achieve sustainability objectives than lower CLEAD managers. High CLEAD managers make a greater effort to understand the actions, needs, motives, intentions of all stakeholders when building sustainable business practices than lower CLEAD managers.

3.5.9 Perceived prevailing anticipatory competency

The total sample resulted in a mean anticipatory competency questionnaire score of 3.59 and 76.1% of the respondents agreeing with the questionnaire statements as seen in Table 3.10. The high CLEAD sub-sample had a mean score of 4.05 and 79.9% of the respondents agreeing with the anticipatory competency statements whilst the lower CLEAD sub-sample had a mean score

of 2.57 with 20.7% of the respondents agreeing with the questionnaire statements. These results are consistent with the literature (Wiek *et al.* 2011; Closs *et al.* 2011) that suggested that higher levels of consciousness result in higher levels of the anticipatory competency.

Table 3.10 however also reveals average ratings for the extent to which managers are familiar with different theories of how the future emerges, whether by accident or by intention (mean score = 3.44) and the extent to which managers understand ways of building different futures using methods like scenario construction, forecasting from statistical or simulation models and sustainability visioning (mean score = 3.23). This average rating is caused by the low rating (mean score = 2.57) lower CLEAD respondents gave themselves on this issue. This result suggests that lower CLEAD managers do not exhibit this anticipatory competency at the level expected, that is, at least at the level exhibited by high CLEAD managers (mean score = 4.05).

Table 3.10 further shows that high CLEAD managers generally rate themselves higher on all anticipatory competencies than their lower CLEAD counterparts. This result supports the assertion in the literature (Brown 2011; Wiek *et al.* 2011) that high conscious leadership is associated with better anticipatory competency than low conscious leadership. It is therefore important to foster conscious leadership in firms in order to achieve sustainable business practices.

The Cohen's *d* effect sizes in Table 3.10 indicate that the mean responses on the questionnaire statements on corporate governance are significantly different and higher for the high CLEAD sub-sample than for the lower CLEAD sub-sample. This finding further supports the present study's identification of high versus lower CLEAD respondents. The Cohen's *d* scores were all above 0.80 which is indicative of a large effect size.

Table 3.10:   Descriptive statistics on perceived anticipatory competency

QUESTIONNAIRE STATEMENTS	TOTAL SAMPLE		HIGH CLEAD SUB-SAMPLE		LOWER CLEAD SUB-SAMPLE		COHEN'S *d* EFFECT SIZE
	MEAN	SD	MEAN	SD	MEAN	SD	
ANTIC 1. As part of the management team, I have the capacity to think systemically about the future of the firm.	3.95	1.09	4.38	0.68	2.98	1.20	1.49
ANTIC 2. As part of the management team, I have the ability to analyse, evaluate and craft future sustainability solutions for the firm.	3.71	1.06	4.11	0.72	2.84	1.17	1.34
ANTIC 3. As part of the management team, I have the ability to discern which time scales are relevant to a problem and its possible solutions.	3.67	0.96	4.06	0.66	2.82	0.96	1.54
ANTIC 4. As part of the management team, I am familiar with different theories of how the future emerges, whether accidentally or intentional determined.	3.44	1.12	3.90	0.79	2.42	1.06	1.59
ANTIC 5. As part of the management team, I under-stand that different types of futures exist, i.e. possible futures (based on notions of plausibility), probable futures (those determined "likely" to occur), and desirable futures (value-laden; based on sustainability principles).	3.52	1.24	4.10	0.64	2.23	1.25	1.97
ANTIC 6. As part of the management team, I under-stand the corresponding ways to build these different futures using methods like scenario construction, forecasting from statistical or simulation models and sustainability visioning.	3.23	1.25	3.73	0.87	2.12	1.24	1.52
AVERAGE	**3.59**	**1.12**	**4.05**	**0.73**	**2.57**	**1.15**	
PER CENTAGE OF RESPONDENTS DISAGREEING / AGREEING WITH THE ABOVE-MENTIONED QUESTIONNAIRE STATEMENTS							
Disagree	11.1%		2.8%		39.1%		
Neutral	12.8%		17.3%		15.2%		
Agree	76.1%		79.9%		20.7%		

Although Cohen's *d* scores of more than 0.80 is an indication of a significant difference of the means of the two sub-samples, which is the case with all the ANTIC measuring items, there are no scores of more than 2.00. The highest Cohen's *d* score was 1.97 for ANTIC5 which means that high CLEAD managers have a better understanding than lower CLEAD managers of the different kinds of futures that can exist including possible futures (how plausible), probable futures (how likely) and desirable futures (how sustainable).

3.5.10   Perceived prevailing normative competency

The total sample resulted in a mean normative competency questionnaire score of 3.45 and 57.0% of the respondents agreeing with the questionnaire statements as seen in Table 3.11. The high CLEAD sub-sample had a mean score of 3.99 and 74.9% of the respondents agreeing with the normative competency statements whilst the lower CLEAD sub-sample had a mean score of 2.25 with 17.8% of the respondents agreeing with the questionnaire statements. These results support previous research findings (Wiek *et al*. 2011; Bozesan 2009) that higher levels of consciousness are associated with higher levels of the normative competency.

Table 3.11 however also reveals average ratings for the extent of management participation in the life cycle assessment of products and services in relation to sustainability (mean score = 3.15), management participation in assessing how decisions will affect future generations (mean score = 3.46) and the understanding of methods like visioning, multi-criteria assessment and risk assessment to collaborate with stakeholders in pursuit of sustainability values, principles, objectives and goals (mean score = 3.37). This below average rating is caused by the low rating (mean score = 2.25) lower CLEAD respondents gave them-selves on this issue. This result suggests that lower CLEAD managers do not exhibit this normative competency at the level expected, that is, at least at the level exhibited by high CLEAD managers (mean score = 3.99).

Table 3.11: Descriptive statistics on perceived normative competency

QUESTIONNAIRE STATEMENTS	TOTAL SAMPLE		HIGH CLEAD SUB-SAMPLE		LOWER CLEAD SUB-SAMPLE		COHEN'S *d* EFFECT SIZE
	MEAN	SD	MEAN	SD	MEAN	SD	
NORMC 1. As part of the management team, I participate in the develop-ment of norms to assess the impact of our operations on sustainability.	3.58	1.26	4.16	0.73	2.31	1.25	1.87
NORMC 2. As part of the management team, I partici-pate in life cycle assess-ments of products and services and understand their relation to sustainability.	3.15	1.19	3.57	0.94	2.23	1.17	1.27
NORMC 3. As part of the management team, I participate in the assessment of how our decisions will impact future generations.	3.46	1.24	4.04	0.82	2.20	1.06	1.86
NORMC 4. As part of the management team, I under-stand concepts of justice, equity, social–ecological integrity and ethics, how these vary across and within cultures, and how integrating these concepts contribute to solving sustainability problems.	3.67	1.20	4.23	0.71	2.43	1.14	1.84
NORMC 5. As part of the management team, I understand the use of methods such as visioning, multi-criteria assessment and risk assessment to collaborate with stakeholders in our pursuit of sustainability values, principles, objectives and goals.	3.37	1.22	3.95	0.75	2.09	1.09	2.01
AVERAGE	**3.45**	**1.22**	**3.99**	**0.79**	**2.25**	**1.14**	
PER CENTAGE OF RESPONDENTS DISAGREEING / AGREEING WITH THE ABOVE-MENTIONED QUESTIONNAIRE STATEMENTS Disagree Neutral Agree	21.1% 21.9% 57.0%		4.7% 20.4% 74.9%		57.0% 25.2% 17.8%		

Table 3.11 further shows that high CLEAD managers rate themselves higher on all the normative competency questions than their lower CLEAD counterparts. This result supports the assertion in the literature (Wiek *et al*. 2011; Bozesan 2009) that high conscious leadership is associated more with normative competency than with low conscious leadership. It is therefore important to foster conscious leadership in firms in order to achieve sustainable business practices.

The Cohen's *d* effect sizes (see Table 3.11) indicate that the mean responses on the questionnaire statements on corporate governance are significantly different and higher for the high CLEAD sub-sample than for the lower CLEAD sub-sample. This finding further supports the present study's identification of high versus lower CLEAD respondents. The Cohen's *d* scores were all above 0.80 which is indicative of a large effect size.

Although Cohen's *d* scores of more than 0.80 is an indication of a significant difference of the means of the two sub-samples, which is the case with all the NORMC measuring items, there was one score of more than 2.00. The Cohen's *d* scores was 2.01 for NORM5 which means that high CLEAD managers have a significantly better understanding than lower CLEAD managers of the use of methods such as visioning, multi-criteria assessment and risk assessment to collaborate with stakeholders in the pursuit of sustainability values, principles, objectives and goals.

3.5.11 Perceived prevailing strategic competency

The total sample resulted in a mean strategic competency questionnaire score of 3.53 and 58.6% of the respondents agreeing with the questionnaire statements as seen in Table 3.12. The high CLEAD sub-sample had a mean score of 3.98 and 76.3% of the respondents agreeing with the strategic competency statements whilst the lower CLEAD sub-sample had a mean score of 2.52 with 19.7% of the respondents agreeing with the questionnaire statements. According

to the literature (Legault 2012; Brown 2011) higher levels of consciousness are expected to result in higher levels of strategic competency.

Table 3.12 however also reveals average ratings for the extent to which managers accommodate varying perspectives on issues and act despite inconclusive or incomplete evidence (mean score = 3.25), the extent to which managers understand concepts and methods for strategy building in real-world situations (mean score = 3.32) and the extent to which managers focus on assessing the viability, feasibility, efficiency and efficacy of systemic interventions in the firm (mean score = 3.40). These average ratings are caused by the low rating (mean score = 2.52) lower CLEAD respondents rated themselves on this issue. These results suggest that lower CLEAD managers do not exhibit the strategic competency at the level expected, that is, at least at the level exhibited by high CLEAD managers (mean score = 3.98).

Table 3.11 shows that high CLEAD managers rate themselves on all the strategic competency questions higher than their lower CLEAD counterparts. This result supports the literature assessment that high conscious leadership is associated more so with strategic competency than with low conscious leadership (Legault 2012; Nidumolu *et al*. 2009). It is therefore important to foster conscious leadership in firms in order to achieve sustainable business practices.

Although Cohen's *d* scores of more than 0.80 is an indication of a significant difference of the means of the two sub-samples, which is the case with all the STRAT measuring items, the scores of more than 2.00 stand out. The Cohen's *d* scores (see Table 3.12) for STRAT2 and 8 were both 2.12. This means that high CLEAD managers are more capable of translating the knowledge and skills associated with the sustainability competencies into action that will result in the desired sustainable solutions for the firm than the lower CLEAD managers. High CLEAD managers are more proficient at adapting company policies,

programmes and action plans in collaboration with different stakeholders than lower CLEAD managers.

Table 3.12: Descriptive statistics on perceived strategic competency

QUESTIONNAIRE STATEMENTS	TOTAL SAMPLE		HIGH CLEAD SUB-SAMPLE		LOWER CLEAD SUB-SAMPLE		COHEN'S *d* EFFECT SIZE
	MEAN	SD	MEAN	SD	MEAN	SD	
STRAT 1. As part of the management team, I participate in the designing and execution of inter-ventions and governance strategies that will address sustainability challenges in the firm.	3.63	1.08	4.08	0.84	2.62	0.85	1.73
STRAT 2. As part of the management team, I trans-late the knowledge and skills associated with the sustain-ability competencies into action that will result in the desired sustainable solutions for the firm.	3.64	1.06	4.15	0.71	2.52	0.83	2.12
STRAT 3. As part of the management team, I accommodate varying perspectives on issues and act despite inconclusive or incomplete evidence.	3.25	0.97	3.55	0.88	2.58	0.84	1.13
STRAT 4. As part of the management team, I under-stand concepts and methods for strategy building in real-world situations (concepts such as intentionality, systemic inertia, path dependencies, barriers, carriers and alliances).	3.32	1.16	3.84	0.70	2.20	1.18	1.74
STRAT 5. As part of the management team, I partici-pate in the assessing of the viability, feasibility, efficiency and efficacy of systemic interventions in the firm.	3.40	1.14	3.87	0.77	2.39	1.16	1.54
STRAT 6. As part of the management team, I under-stand the potential of inter-ventions to produce unintended consequences.	3.63	1.22	4.14	0.73	2.49	1.32	1.60
STRAT 7. As part of the management team, I participate in the use of methods for designing, testing, implementing and evaluation of strategies and plans of the firm.	3.70	0.96	4.06	0.79	2.91	0.84	1.40

STRAT 8. In collaboration with different stakeholders, our management team adapts company policies, programmes and action plans in accordance with desired changes.	3.65	1.09	4.18	0.60	2.48	1.01	2.12
AVERAGE	**3.53**	**1.09**	**3.98**	**0.75**	**2.52**	**1.00**	
PER CENTAGE OF RESPONDENTS DISAGREEING / AGREEING WITH THE ABOVE-MENTIONED QUESTIONNAIRE STATEMENTS Disagree Neutral Agree	17.9% 23.5% 58.6%		3.0% 20.7% 76.3%		50.8% 29.5% 19.7%		

3.5.12   Perceived prevailing interpersonal competency

The total sample resulted in a mean interpersonal competency questionnaire score of 3.65 and 61.9% of the respondents who agree with the questionnaire statements as seen in Table 3.13. The high CLEAD sub-sample had a mean score of 4.12 and 81.2% of the respondents agreeing with the interpersonal competency statements whilst the lower CLEAD sub-sample had a mean score of 2.62 with 19.3% of the respondents agreeing with the questionnaire statements. These results are congruent with the literature (Brown 2011: Bozesan 2009) that predicted that higher levels of consciousness would result in higher levels of the interpersonal competency.

Table 3.13 reveals an average rating for the extent to which managers effectively facilitate collaboration amongst stakeholders of the firm in order to craft compelling visions for achieving sustainable development (mean score = 3.40). This below average rating is caused by the low rating (mean score = 2.46) that lower CLEAD respondents afforded themselves on this issue. This result suggests that lower CLEAD managers do not exhibit the interpersonal competence at the level expected, that is, at least at the level exhibited by high CLEAD managers (mean score = 3.82).

Table 3.11 further shows that high CLEAD managers rate themselves higher on all the interpersonal competency questions than their lower CLEAD counterparts. This result supports the claims in the literature (Brown 2011; Carter 2009) that high conscious leadership is associated more with interpersonal competency than with low conscious leadership. It is therefore important to foster conscious leadership in firms in order to achieve sustainable business practices.

Table 3.13:   Descriptive statistics on perceived interpersonal competency

QUESTIONNAIRE STATEMENTS	TOTAL SAMPLE		HIGH CLEAD SUB-SAMPLE		LOWER CLEAD SUB-SAMPLE		COHEN'S *d* EFFECT SIZE
	MEAN	SD	MEAN	SD	MEAN	SD	
IPERS 1. As part of the management team, I effectively facilitate collaboration amongst stakeholders of the firm in order to foster understanding of the system complexity in achieving sustainable development.	3.56	1.08	4.06	0.73	2.44	0.86	2.04
IPERS 2. As part of the management team, I effectively facilitate collaboration amongst stakeholders of the firm to explore future alternatives in achieving sustainable development.	3.51	1.01	3.96	0.76	2.52	0.73	1.94
IPERS 3. As part of the management team, I effectively facilitate collaboration amongst stakeholders of the firm in order to craft compelling visions for achieving sustainable development.	3.40	0.97	3.82	0.74	2.46	0.73	1.86
IPERS 4. As part of the management team, I effectively facilitate collaboration amongst stakeholders of the firm in order to develop robust strategies for achieving sustainable development.	3.71	0.98	4.17	0.68	2.71	0.75	2.05
IPERS 5. As part of the management team, I motivate and facilitate sustainability problem solving in the firm.	3.79	1.01	4.27	0.64	2.74	0.87	2.03
IPERS 6. As part of the management team, I effectively communicate and negotiate sustainability solutions wherever necessary in the firm.	3.72	1.01	4.18	0.65	2.72	0.95	1.83

IPERS 7. As part of the management team, I have developed expertise in participatory methods for collaborating with stakeholders.	3.54	1.07	3.99	0.79	2.57	0.96	1.62
IPERS 8. As part of the management team, I embrace diversity of knowledge and values amongst all cultures and social groups.	3.97	1.10	4.49	0.65	2.84	1.04	1.95
AVERAGE	**3.65**	**1.03**	**4.12**	**0.71**	**2.62**	**0.86**	
PER CENTAGE OF RESPONDENTS DISAGREEING / AGREEING WITH THE ABOVE-MENTIONED QUESTIONNAIRE STATEMENTS Disagree Neutral Agree	17.2% 20.9% 61.9%		1.4 % 17.4% 81.2%		52.2% 28.6% 19.3%		

Although Cohen's *d* scores (see Table 3.13) of more than 0.80 is an indication of a significant difference of the means of the two sub-samples, which is the case with all the IPERS measuring items, the scores of more than 2.00 stand out. The Cohen's *d* scores for IPERS1, 4 and 5 were 2.04, 2.05 and 2.03 respectively. This means that high CLEAD managers are better than lower CLEAD managers at facilitating collaboration amongst stakeholders of the firm to improve the understanding of the systems complexity and to develop robust strategies. High CLEAD managers are better at motivating and facilitating sustainability problem solving than lower CLEAD managers.

3.5.13 Differences between the conscious leadership sub-samples – summary of the Cohen's *d* statistics

Against the background of the differences found between the high and lower CLEAD sub-samples in sections 3.4.1 to 3.4.12 above, it was important to investigate the significance of these differences. Conscious leadership is a key focus in the present study; consequently significant differences between these sub-samples will have a bearing on the interpretations of further analyses in this study. Cohen's *d* (1988) was calculated to investigate the significance of these

differences. The relevant means and standard deviations were inserted into Table 3.14 to calculate Cohen's *d* for each of these variables. The results of this analysis are shown in Table 3.14.

Table 3.14: Differences between conscious leadership sub-samples

VARIABLE	MEAN HIGH CLEAD	SD	MEAN LOWER CLEAD	SD	DIFF. IN MEANS	AVE. SD	COHEN'S *d*
Conscious leadership style	4.44	0.62	3.07	0.90	1.37	0.76	1.80
Sustainability behaviours	4.30	0.69	2.98	0.93	1.32	0.81	1.63
Human resource development	3.87	0.90	2.43	0.91	1.44	0.905	1.59
Employee relations	4.17	0.68	3.18	0.84	0.99	0.76	1.30
Equal opportunities and workforce diversity	3.93	0.85	2.78	0.86	1.15	0.855	1.34
Environmental performance	4.10	0.78	2.76	1.15	1.34	0.965	1.39
Corporate governance	4.67	0.51	3.43	0.97	1.24	0.74	1.67
Systems-thinking competency	4.09	0.71	2.81	0.83	1.28	0.77	1.66
Anticipatory competency	4.05	0.73	2.57	1.15	1.48	0.94	1.57
Normative competency	3.99	0.79	2.25	1.14	1.74	0.965	1.80
Strategic thinking competency	3.98	0.75	2.52	1.00	1.46	0.875	1.67
Interpersonal competency	4.12	0.71	2.62	0.86	1.50	0.785	1.91

Table 3.14 reveals large effect sizes for all the variables on which high and lower CLEAD respondents were compared. This means that the differences between the two sub-samples were significant. In other words, high CLEAD managers differ significantly from their lower CLEAD counterparts in their responses to the variables investigated in this study. Table 3.14 also reveals that high CLEAD managers exhibit significantly higher levels of these variables than lower CLEAD managers. The impact of these differences, in terms of the influence of these variables on the measures of sustainable business practices (profitability, employee relations, equal opportunities and workforce diversity) is discussed later in this study in section 4.2.11.

3.6 CHAPTER SUMMARY

The methodology used to execute the study was discussed in this chapter. This included the research paradigm in which the study is located, the sample and measuring instruments.

The descriptive statistics of the raw data were reported, as they provided an important overview of the respondents' views on how sustainable business practices manifest in their forms. The descriptive statistics also revealed how managers rate themselves on conscious leadership, corporate governance, sustainability competencies and sustainability behaviours. Important findings emerged from these results, for example, high CLEAD managers rated themselves higher on almost all the variables investigated in the study. It appears that the results from the descriptive statistics supported the literature on conscious leadership and sustainable business practices in its prediction that the former should be highly related to the latter in the analyses to be conducted in Chapter 4. The following chapter therefore focuses on bivariate and multivariate analyses to investigate the hypothesised relationships of sustainable business practices and their determinants.

CHAPTER 4

THE EMPIRICAL RESULTS

4.1   INTRODUCTION

In this chapter, the psychometric properties of the measuring instruments are investigated in preparation for the bivariate and multivariate analyses that will be conducted with them. Firstly, the reliability and then the validity of instruments were assessed. Two relevant multivariate data analysis techniques were considered, namely structural equation modelling (SEM) and regression analysis. Due to reasons explained in this chapter, SEM was abandoned and regression analyses were conducted in most cases to investigate the hypothesised relationships in the proposed model to improve sustainable business practices through conscious leadership. Some additional analyses were required as a result of research questions that emerged from the initially planned analysis. In these additional analyses, Pearson correlations were calculated.

4.2   THE RELIABILITY OF THE MEASURING INSTRUMENTS

The most important aspect of data analysis is to ensure that the data that were collected from the sample were reliable and valid. In order to achieve the objectives of reliability and validity, a researcher needs to ascertain whether the instruments used in the data collection, measure the constructs which they are supposed to measure (validity) and whether such instruments will consistently do so (reliability) (Collis & Hussey 2014). Using the STATISTICA Version 10.0 (2010) statistical software package, the data were investigated for reliability and validity.

The analyses comprised the following phases:

- A reliability analysis to assess the internal consistency of the measuring instruments and therefore the reliability of the data;

- an exploratory factor analysis to test for discriminant validity of the data, and

- structural equation modelling or regression analysis to measure the relationships among the variables included in the hypothesised model.

4.2.1 Reliability of the measuring instruments

Joppe (2000) defined reliability as "the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable". Kirk and Miller (1986) identified three types of reliability referred to in quantitative research which relates to: (a) the degree to which a measurement, given repeatedly, remains the same, (b) the stability of a measurement over time, and (c) the similarity of measurements within a given time period. Reliability may therefore be described as the extent to which measures yield consistent results. An instrument is only considered reliable if the measuring instrument is free of errors and the results are repeatable (Joppe 2000). By determining the association between the scores obtained from different administrations the reliability of the measuring instrument is established (Joppe 2000). The measuring instrument is considered reliable when the degree of association is high. Methods like test-retest, split-half, equivalent-form and the Cronbach alpha are regularly used to test reliability (Bezzina & Saunders 2014).

The Cronbach alpha is an internal consistency index that is designed for use with tests containing items that have no right answer and where instruments require respondents to rate the extent to which they agree or disagree with a particular statement. For this reason it was deemed appropriate to use the Cronbach alpha coefficient to calculate the internal consistency (reliability) of the measuring scales in the present study.

The Cronbach alpha is an indicator of the extent to which a set of test items can be treated as measuring a single latent variable (Bezzina & Saunders 2014) and is a more effective method of establishing the reliability of a measuring instrument than the Spearman-Brown and Kuder-Richardson reliability measures (Parasuraman, Berry & Zeithaml 1991). The Cronbach alpha is able to produce a reliability estimate with a single administration (Bryman & Bell 2011). This coefficient is interpreted as the mean of all possible split-half coefficients.

The Cronbach alpha reliability coefficient normally ranges from 0 to 1. The closer the alpha coefficient is to 1.0, the greater the internal consistency of the items in the scale (Bezzina & Saunders 2014; Tharenou *et al.* 2007). There are differing views of what is an acceptable Cronbach alpha coefficient. George and Mallery (2003) suggested a Cronbach alpha coefficient of 0.70 or more is considered ideal whilst Tharenou *et al.* (2007) regarded a Cronbach alpha coefficient of 0.50 as acceptable for basic research.

A Cronbach alpha of 0.70 is interpreted as 70 percent of the variance in observed scores (the actual scores obtained on the measure) is due to the variance in the true scores, namely the true amount of the trait the respondent possesses. This means that the score obtained from the measuring instrument is a 70 percent true reflection of the underlying trait measured.

A pilot study was conducted to identify errors in the questionnaire. Twenty (20) prospective participants were issued with a questionnaire to complete and the reliability scores for their responses were calculated. The reliability scores of the pilot study are reported in Table 4.1, which shows that all measuring instruments, except conscious leadership (0.53) produced Cronbach alphas of above 0.70, which according to Nunnally (1978) and Zikmund, Babin, Carr and Griffin (2013) indicates good reliability. According to Nunnally (1978) a Cronbach alpha of 0.50 and more is acceptable for exploratory research. It was decided to retain all the conscious leadership measuring items for further analyses.

Table 4.1: Empirical results – reliability of instruments in pilot study

Variables	Initial Cronbach alpha in pilot study	Items deleted	Final number of items
Conscious leadership (14)	0.53	CLEAD 2, 3, 6 and 7	10
Corporate governance (15)	0.94	COGOV 1, 2, 3, 6, 7, 9 and 10	8
Sustainability behaviours (17)	0.85	SBEHS 3, 4 6, 9, 10, 11, 14, 15 and 17	8
Anticipatory competency (6)	0.72	None	6
Interpersonal competency (8)	0.93	None	8
Normative competency (5)	0.71	None	5
Strategic thinking competency (8)	0.83	None	8
Systems-thinking competency (8)	0.87	None	8
Employee relations (11)	0.83	EMPRE 1, 2 10 and 11	7
Equal opportunities and workforce diversity (11)	0.88	None	11
Human resource development (13)	0.90	HRD 1, 2, 4, 5 and 6	8
Environmental performance (10)	0.77	ENVIP 6 and 7	8

Note: The numbers in brackets in the first column indicate the original number of items used to measure that particular variable. Column 3 shows the items deleted due to their low item-to-total correlations in the Cronbach alpha analyses.

At this stage of the preliminary analysis, the total number of statements on the questionnaire was 126, excluding the six profitability items and six demographics related measuring items. Fearing questionnaire fatigue and therefore a low response rate from very busy managers in JSE-listed companies, it was decided to further reduce the questionnaire items. In order to achieve this, the researcher consulted with members of the pilot sample and decided on items that must be retained versus those that were not critical to retain. Based on this action, the 126 questionnaire items were reduced to 95.

4.3   THE VALIDITY OF MEASURING INSTRUMENTS

Validity is an indication of how truthful the research results are (Joppe 2000). In other words, did the instrument measure what it was supposed to measure? In the case of quantitative research, validity of data allows the researcher to generalise his/her findings from the sample to wider groups and circumstances (Cooper & Schindler 2014; Golafshani 2003).

If the measuring instrument is to be regarded as valid it must be both reliable and measure what it is intended to measure (Cooper & Schindler 2014; Bryman & Bell 2011; George & Mallery 2003). To determine validity, the researcher must establish whether the means of measurement (questionnaire statements) are accurate and whether they actually capture the variables that are supposed to be measured (Zikmund *et al.* 2013; Tharenou *et al.* 2007); for example, a minute is an invalid measure of distance. Whilst the measuring instrument may be reliable without being valid it is not possible for an instrument to be valid without being reliable. A valid measuring instrument implies an absence of measurement error.

The construct is the initial concept or hypothesis that determines which data must be collected and how it should be gathered. In order to test construct validity, inferences would have to be derived from the scale based on the theory that is foundational to the preparation of that scale (Zikmund *et al.* 2013; Golafshani 2003). Types of validity measures include content, face, criteria related and construct related. Whilst all these types of validity are relevant, construct validity is considered to be the most effective type of validity to establish and use in social research. Since convergent and discriminant validity are sub-types of construct validity it is important to demonstrate evidence for both convergent and discriminant validity in order to prove construct validity (Bezzina & Saunders 2014).

Convergent validity exists when an operation is similar to other operations that it is theoretically similar to. The assessment shows that this variable is in fact related to what it should theoretically be related to. High correlations between the variables would be evidence of a convergent validity (Zikmund *et al*. 2013; Tharenou *et al.* 2007).

Conversely, discriminant validity indicates the extent to which the operations are not similar to other operations it theoretically should not be similar to (Zikmund *et al.* 2013; Trochim & Donnelly 2008). The concept of discriminant validity was introduced by Campbell and Fiske (1959) who suggested that a successful evaluation of discriminant validity shows that a test of a concept is not highly correlated with other tests designed to measure theoretically different concepts. Factor analysis is used to calculate discriminant validity by facilitating the identification of measuring items (referred to as factors) that exhibit a high correlation among themselves. These factors help establish the structure of the construct being measured.

In the present study, proof of content validity was established in the pilot study, as practitioners in the field of sustainability participated in this initial phase. According to Diamantopoulos and Schlegelmilch (2000:34), it is important to provide proof of construct validity in social research as the true nature of variables that are measured must be established. One way of establishing construct validity is to test for discriminant validity in the data by conducting exploratory factor analyses on them. In the present study, two sets of exploratory factor analyses were conducted; one for the independent variables and one for the dependent variables.

The STATISTICA Version 10.0 (2010) statistical software package was used to perform the exploratory factor analyses. Principal Component Analysis was specified as the method of factor extraction and Varimax Raw rotation of the original factor matrix was used in all instances.

In the present study, there was supposed to be eight (8) independent variables, namely conscious leadership, corporate governance, sustainability behaviours and the sustainability competencies (strategic thinking, systems-thinking, anticipatory, normative and interpersonal). To provide for variables splitting up, the extraction of ten (10) factors was specified. It was postulated that each of the ten variables was a separate and distinct construct. The empirical results, reported in Table 4.2, did not however support this expectation. The most interpretable factor structure that emerged from this analysis indicates the existence of two variables, namely corporate governance and systems-thinking competency; It therefore had to be concluded that the original eight independent variables did not demonstrate sufficient evidence of discriminant validity to be regarded as distinct and separate constructs.

Table 4.2 shows that five items that were originally regarded as measures of conscious leadership (CLEAD 1, 3, 6, 8 and 9), loaded on factor 1. One anticipatory competency (ANTIC1), one sustainable behaviour (SBEHS1), two strategic thinking competency (STRAT3 and 6) and one systems-thinking (SYSTC6) competency items also loaded on factor 1. Explaining the core nature of this factor, seven corporate governance items (COGOV 1 and 3 to 8) also loaded on factor 1. All the aforementioned items were regarded as measures of corporate governance and the construct was therefore labelled as such.

Factor 2 attracted four (4) items, original measures of corporate governance (COGOV 2), strategic thinking competency (STAT7) and systems-thinking competency (SYSTC1 and 2). These items seemed to be related to the systems-thinking competency and were therefore regarded as measures of that competency. Collectively, these items were therefore labelled as indicating the systems-thinking competency latent variable.

The above-mentioned exploratory factor analysis revealed an important finding to be noted at this stage, that is, the respondents did not view conscious leadership

as a distinct and separate variable from corporate governance and sustainability competencies and behaviours as was originally hypothesised in this study (see Chapter 1). These respondents regarded the corporate governance that they exhibit on a daily basis as inclusive of conscious leadership and sustainability competencies and behaviours. Conscious leadership and sustainability competencies (except systems-thinking) and behaviours were therefore deleted as separate variables from the hypothesised model in subsequent analyses.

Table 4.2: Factor loadings: independent variables

	Factor – 1 Corporate Governance	Factor – 2 Systems-thinking competency
ANTIC1	*0.73901*	0.355199
CLEAD1	*0.80115*	0.261764
CLEAD3	*0.84646*	0.183332
CLEAD6	*0.78460*	0.357409
CLEAD8	*0.84305*	0.322708
CLEAD9	*0.51740*	0.380095
COGOV1	*0.77516*	0.379161
COGOV2	0.36118	*0.703140*
COGOV3	*0.72990*	0.399458
COGOV4	*0.79578*	0.282625
COGOV5	*0.78573*	0.384549
COGOV6	*0.78703*	0.233951
COGOV7	*0.85304*	0.336930
COGOV8	*0.78166*	0.355177
SBEHS1	*0.78547*	0.317873
STRAT3	*0.57667*	0.179119
STRAT6	*0.80597*	0.255742
STRAT7	0.33944	*0.752132*
SYSTC1	0.39171	*0.752617*
SYSTC2	0.19984	*0.775283*
SYSTC6	*0.67038*	0.129507
Expl.Var	10.32840	3.873051
Prp.Totl	0.49183	0.184431

Note: Loadings > 0.40 in bold and italicised were considered significant

In the second exploratory factor analysis the empirical factor structure of the dependent variables was investigated. The results of this analysis are reported in Table 4.3. Table 4.3 shows that four (4) items measuring the construct equal opportunity and workforce diversity (EQWD 1 to 4) loaded as expected. This latent variable was therefore labelled as equal opportunity and workforce diversity.

Table 4.3 further shows that three (3) of the original six (6) measuring items of profitability loaded as expected. These items included basic earning power (BEARN), rate of return on total assets (RETTO) and net profit margin (NPMAR). This variable was therefore labelled profitability.

Table 4.3: Factor loadings: dependent variables

	Factor – 1 Equal opportunity Workforce diversity	Factor – 2 Profitability	Factor – 3 Employee Relations
EMPRE5	0.304646	-0.077442	*0.818126*
EMPRE6	0.333643	-0.113110	*0.737323*
ENVIP3	0.123069	0.080550	*0.733615*
EQWD1	*0.876791*	0.003632	0.128746
EQWD10	0.383794	-0.022717	*0.704752*
EQWD2	*0.841830*	0.049429	0.281872
EQWD3	*0.852582*	0.063534	0.250950
EQWD4	*0.860699*	0.075891	0.244096
BEARN	-0.027937	*-0.869056*	0.062472
NPMAR	-0.141032	*-0.856667*	-0.014633
RETTO	0.024834	*-0.847442*	0.041976
Expl.Var	3.332996	2.245342	2.472306
Prp.Totl	0.303000	0.204122	0.224755

Note: Loadings > 0.40 in bold and italicised were considered significant

Two (2) employee relations (EMPRE5 and 6), one environmental performance (ENVIP3) and one equal opportunity and workforce diversity (EQWD10) loaded

onto factor 3. As all these items, except ENVIP3, are related to employee relations, this latent variable was labelled as <u>employee relations</u>.

The environmental performance (ENVIP) variable failed the test for construct validity, as it did not emerge as a distinct and separate variable from the other dependent variables. The ENVIP measuring items produced high cross loadings on these other factors (dependent variables). On this basis, all the ENVIP items, except ENVIP3, were deleted during the exploratory factor analysis. The ENVIP variable was therefore excluded in all subsequent analyses.

The Cronbach alpha coefficients of the variables that emerged from the above-mentioned exploratory factor analyses were recalculated in order to confirm their internal consistency. The results are shown in Table 4.4. In order to improve the construct validity of latent variables, especially when structural equation analysis (SEM) for the testing of the hypothesised model is considered, the researchers Lopes, Veiga and Malhotra (2014) and others recommended that manifest variables must correlate with the latent variable at least at r = 0.60. Table 4.4 shows that the CLEAD9 and STRAT3 items in the corporate governance and the ENVIP3 item in the employee relations variable show item-top-total correlations of below 0.60. There is no theoretical basis for the ENVIP3 items to be part of the employee relations variable and deleting this item represented the additional advantage of increasing the Cronbach alpha of the variable to 0.82. The CLEAD9, STRAT3 and ENVIP3 items were therefore omitted from subsequent analyses.

The final empirical factor structure and Cronbach alpha coefficients after the analyses above are summarised in Table 4.5 (see also Annexure 3).

Table 4.4: Recalculated Cronbach alphas

	Mean if - deleted	Var. if – deleted	StDv. if – deleted	Itm-Totl - Correl.	Alpha if - deleted
Variable: Corporate governance **Cronbach alpha: 0.97**					
ANTIC1	65.36388	155.4390	12.46752	0.793706	0.964095
CLEAD1	65.52291	156.5729	12.51291	0.815729	0.963686
CLEAD3	64.87331	161.5446	12.71002	0.826254	0.963992
CLEAD6	65.25607	157.3172	12.54261	0.835702	0.963419
CLEAD8	64.93531	157.8880	12.56535	0.884227	0.962882
CLEAD9	65.69003	159.0602	12.61191	**0.593166**	0.967886
COGOV1	65.11320	157.4966	12.54977	0.836270	0.963422
COGOV3	65.00809	159.4635	12.62789	0.800953	0.964002
COGOV4	64.72507	161.3476	12.70227	0.815347	0.964059
COGOV5	64.89488	160.1372	12.65453	0.848005	0.963571
COGOV6	65.05122	160.3074	12.66125	0.786604	0.964237
COGOV7	65.12129	151.1848	12.29572	0.898411	0.962348
COGOV8	65.04582	158.0869	12.57326	0.835693	0.963471
SBEHS1	65.35580	155.6039	12.47413	0.823742	0.963563
STRAT3	66.06469	163.1656	12.77363	**0.567372**	0.967363
STRAT6	65.68464	151.9140	12.32534	0.822389	0.963873
SYSTC6	65.25337	162.6528	12.75354	0.631314	0.966327
Variable: Systems-thinking competency **Cronbach alpha: 0.97**					
COGOV2	11.21563	5.570753	2.360244	0.642516	0.795010
STRAT7	11.58760	5.094078	2.257006	0.671445	0.782024
SYSTC1	11.37197	5.414201	2.326844	0.715628	0.765197
SYSTC2	11.69003	5.162677	2.272152	0.622069	0.806733
Variable: Equal opportunity and workforce diversity **Cronbach alpha: 0.91**					
EQWD1	11.61186	5.946382	2.438520	0.780193	0.893769
EQWD2	11.63342	6.070474	2.463833	0.802751	0.884371
EQWD3	11.57682	6.308789	2.511730	0.804843	0.884169
EQWD4	11.53639	6.259458	2.501891	0.814947	0.880680
Variable: Profitability **Cronbach alpha: 0.80**					
BEARN	3.908356	4.412086	2.100497	0.691620	0.711581
NPMAR	4.339622	7.011341	2.647894	0.687711	0.750930
RETTO	4.237197	5.291447	2.300314	0.658431	0.725439

Variable: Employee relations **Cronbach alpha: 0.79**					
EMPRE5	9.89757	6.668755	2.582393	0.722915	0.689295
EMPRE6	9.54717	8.247774	2.871894	0.644783	0.749826
EQWD10	10.04313	6.909192	2.628534	0.640368	0.730795
ENVIP3	10.05391	6.654776	2.579685	**0.509098**	0.817465

Table 4.5: The final empirical factor structure

LATENT VARIABLE	MEASUREMENT ITEMS	CRONBACH ALPHA
Corporate governance	COGOV 1, 3, 4,5, 6, 7, 8 CLEAD 1, 3, 6, 8 SBEHS 1 STRAT 6 SYSTC 6	0.97
Systems-thinking competency	COGOV 2 STRAT 7 SYSTC 1, 2	0.83
Equal opportunity and workforce diversity	EQWD 1, 2, 3, 4	0.91
Profitability	BEARN NPMAR RETTO	0.80
Employee relations	EMPRE 5, 6 EQWD 10	0.82

Table 4.5 shows that all the latent variables have Cronbach alpha coefficients of 0.80 and more which is indicative of good reliability. These items were therefore taken forward as the measures of the variables included in the hypothesised model to achieve sustainable business practices in the present study. Given the empirical factor structure in Table 4.5, sustainable business practice is conceptualised as the collective variable com-prising profitability, sound employee relations and the provision of equal opportunity and workforce diversity in a business firm. After the above-mentioned analyses, the variables in Table 4.5 were operationalised as follows:

- **Corporate governance:** The extent to which managers have the capacity to think systemically about the future of the firm; inspire and evoke greatness in their followers in order to motivate them to do a proper job; believe in being authentic and truthful in their dealings with their followers; believe that their effectiveness is dependent on the integration between head, heart and hand (seamlessness between what they think, how they feel and what they do); acknowledge that success is a result of collective effort and not isolated to their contributions; actively support their firms' public commitment to complying with internationally accepted governance standards, such as King

III; actively support their firms review procedures for both internal and external audit findings; actively support their firms' code of ethics policies; actively support their firms' ensuring that senior people are responsible for ethics management; actively support their firms' ensuring that training and/or communication on the code of ethics takes place (e.g. as part of employee induction programmes); actively support their firms' efforts to ensure a secure communication channel for employees to seek advice or voice concerns (e.g. a confidential fraud hotline); actively support their firms' efforts to have compliance monitoring and regular reviews of the implementation of the code of ethics in place; actively creating an ethical environment in their firms by using their own transformational influence; understand the potential of interventions to produce unintended consequences; and understand that a fragmented approach to sustainability is unlikely to be successful because of its integrated and complex nature.

Systems-thinking competency: The extent to which managers actively support their firms' Boards of executives, having separate committees for audits and remuneration; participate in the use of methods for designing, testing, implementing and evaluating of strategies and plans of the firm; and participate in the analysing of economic and environmental issues (external and internal to the firm) related to sustainability in order to achieve sustainable business practices in the firm.

- **Equal opportunity and workforce diversity:** The extent to which firms publicly demonstrate their commitment to equal opportunities and workforce diversity in their policies and have clearly stated targets for promoting equal opportunities for all employees and for achieving workforce diversity.

- **Profitability:** a positive rating of a firm's basic earning power (profit before interest and taxes as a percentage of total assets); rate of return on total assests (net profit after taxes as a percentage of total assets); and net profit

margin (net profit after taxes as a percentage of net sales income) for the last financial year.

- **Healthy employee relations:** The extent to which firms ensure that the relevant managers generally manage employee relations effectively; doing everything in their power to use rewards effectively in order to achieve healthy employee relations; and making sure that their firms achieve their targets in respect of providing equal opportunities for all employees.

Only variables identified in the final empirical factor structure were included in the analysis of the bivariate and multivariate relationships as hypothesised.

4. 4   BIVARIATE AND MULTIVARIATE DATA ANALYSIS TECHNIQUES CONSIDERED

Firstly, structural equation modelling (SEM) was considered as the statistical technique to analyse the hypothesised relationships. SEM is an advanced and powerful statistical technique for simultaneously examining relationships among latent variables in a model representing a theory about a particular issue. The technique estimates modelled parameters by analysing the covariance matrix of relationships among these variables with one administration. This is not possible using other common approaches such as multiple regression analysis. Unlike multiple regression analysis, SEM provides for the controlling of extraneous and confounding variables (Cooper & Schindler 2014).

SEM comprises the following six steps (Hair *et al.* 2006:734-758):

1   Defining individual constructs;
2   developing the overall measurement model;
3   designing a study to produce empirical results;
4   assessing the measurement model validity;
5   specifying the structural model; and

6   assessing structural model validity.

The first step involves the definition of the constructs and their hypothesised relationships based on a sound theoretical justification. This entails constructing latent variables and their indicators (manifest variables). Manifest variables are the individual measurement items purported to collectively measure the latent variable. The model indicating the manifest variables and their respective latent variables and the hypothesised relationships among the latent variables is called the measurement model. In the first step, it is important to test the validity and reliability of the constructs purported to be the latent variables. This involves the pre-testing of the instruments to measure these variables in a pilot study of participants knowledgeable regarding the issue investigated. A pilot study was conducted in the present study and the results were reported in the previous chapter.

In order to define the latent variables, SEM requires that a confirmatory factor analysis (CFA) is conducted to ascertain both discriminant and convergent validity of the constructs (called variables) in the hypothesised model (Hair *et al.* 2006). Two CFAs were therefore conducted in the present study; one for the independent and one for the dependent variables. The CFAs were conducted on the empirical factor structure that emerged from the exploratory factor analysis (see Table 4.5). These CFAs produced RMSEAs (root mean squares of approximation) of 0.097 and 0.083 for the independent and dependent variables respectively. The RMSEA is a goodness-of-fit index indicating how well the measurement model reflects the theorised (hypothesised) model (Hair *et al.* 2006). According to MacCullum, Browne and Sugawara (1996), a RMSEA value of between zero (0) and 0.05 indicates a close fit, between 0.05 to 0.08 a reasonable fit and above 0.08 a poor fit (MacCullum, Browne & Sugawara 1996). With the CFAs of the present study producing RMSEAs exceeding these norms, SEM was no longer considered an appropriate technique for analysing the data further. The LISREL Version 8.8 software (Jöreskog & Sörbom 2004, cited in Scientific Software International 2006) used to conduct this analysis also

indicated high levels of multi-collinearity in the data set, a condition that would make SEM very difficult. According to Grewal, Cote and Baumgartner (2004), extreme levels of multi-collinearity (>80%) cause high levels of Type II measurement error. The multi-collinearity condition detected in the data of the present study was 98.6%. Although it would have been advantageous to measure multiple and interrelated dependence relationships simultaneously and provide for the controlling of extraneous and confounding variables through SEM (Cooper & Schindler 2014), it was decided that in the present study it would suffice to measure single relationships between the independent and dependent variables. Against this background, it was decided to use multiple regression analysis to all subsequent analyses.

Multiple regression analysis is a statistical process used to understand the relationship between several independent variables and a dependent variable. Regression analysis measures the degree of influence of the independent variables on a dependent variable (Cohen *et al.* 2013). Where there is a single independent variable, the dependent variable could be predicted from the independent variable by the simple equation:

$y = a + bx$ (where *a* is constant and *b* is the slope referred to as the regression coefficient).

This could be extended to a multi-variable concept as follows:

$y = a + b_1x_1 + b_2x_2 + b_3x_3 + \ldots + b_nx_n$

For a single variable or for multiple variables, the relationship predicted is always linear (Cohen *et al.* 2013).

According to Cooper and Schindler (2014) multiple regression serves as a descriptive tool in three types of situations: (a) for formulating a self-weighting estimating model to predict values for a criterion (dependent) variable from the values of several predicator (independent) variables, (b) it controls complicated

variables to provide a better assessment of contribution of other variables and (c) it is used to test and explain causal theories.

4.5   THE ASSUMPTIONS OF PARAMETRIC STATISTICS

According to Collis and Hussey (2014), regression analysis is a test used on parametric data. Multiple regression analysis is therefore a parametric test. Parametric tests make assumptions about the normal distribution of the data, while non-parametric tests do not. Results that emanate from parametric tests can be generalised to the wider population from which a sample was drawn, while results from non-parametric tests cannot be generalised. In order to decide whether parametric tests can be used on data, the following assumptions need to be satisfied (Field 2000):

1   Variables under investigation must be measured ratio or interval scales;
2   The data values in the variable are independent, meaning the behaviour of one subject does not influence the behaviour of another;
3   The data collected from the sample must be normally distributed; and
4   There must be homogeneity of variance, meaning the error variances of one variable should be stable against other variables at all levels of a test.

The data of this present study adhered to the first two assumptions above. In the present study, all latent variables were measured with interval scales and the subjects surveyed in the study did not influence each other.

According to Cooper and Schindler (2006), the following diagnostic tools can be used to test for the assumptions of normality (assumptions 3 and 4 above):

- The visual examining of the data, more specifically the residuals;
- The calculation and examining of normal probability plots and statistics, which compare the observed residuals with those expected from a normal distribution; and

- The calculation and examining of homogeneity of variance plots and statistics.

Residual analyses were conducted to answer assumptions 3 and 4 above (Residual analysis, n.d.). Firstly, the data were plotted on histograms in order to make a visual evaluation of the normality of the distribution. This was followed by normal probability plots of residuals and the calculation of the Durbin-Watson statistics in order to look for evidence of serial correlation among residuals. Thirdly, predicted and residual values and Cook's distance statistic were calculated to test for the homogeneity of residuals (errors). The results of these analyses are reported in Figures 4.1 to 4.9 and Tables 4.6 to 4.11.

4.5.1 Normal distribution of the data

The normality of three sets of data was investigated:

Model 1: Profitability as a dependent variable and corporate governance (COGOV), systems-thinking competency (SYSTC), equal opportunities and workforce diversity (EQWD) as well as employee relations (EMPRE) as independent variables.

Model 2: Comprising equal opportunities and workforce diversity as dependent variables with profitability, corporate governance, and systems-thinking competency, and employee relations as independent variables.

Model 3: Consisting of employee relations as dependent variables and corporate governance, systems-thinking competency, equal opportunities and profitability as independent variables.

Figure 4.1 shows little evidence of skewness, but the deviation appears to be acceptable. Figures 4.2 and 4.3 show acceptable evidence of data normality. Based on the results illustrated in these figures, it is safe to conclude that the data meet the assumption of normality required to conduct a parametric test such as multiple regression analysis.

4.5.2 Serial correlation among residuals (errors)

In order to assess the existence of serial correlation among the residuals in the three models explained in section 4.4.1 above, the following analyses were conducted:

- The calculation of normal probability plots of residuals; and
- The calculation of the Durbin-Watson statistics.

The results of these analyses are reported in Figures 4.4 to 4.6. The goal of these analyses was to show that the residuals (errors) are not correlated. Figure 4.4 shows evidence of serial correlation among residuals. In order to assess the extent of this correlation, the Durbin-Watson d-statistic needs to be investigated. The Durbin-Watson d results are reported in Table 4.6.

Figure 4.1: Normal distribution – profitability as dependent variable

Distribution of Raw residuals
—— Expected Normal
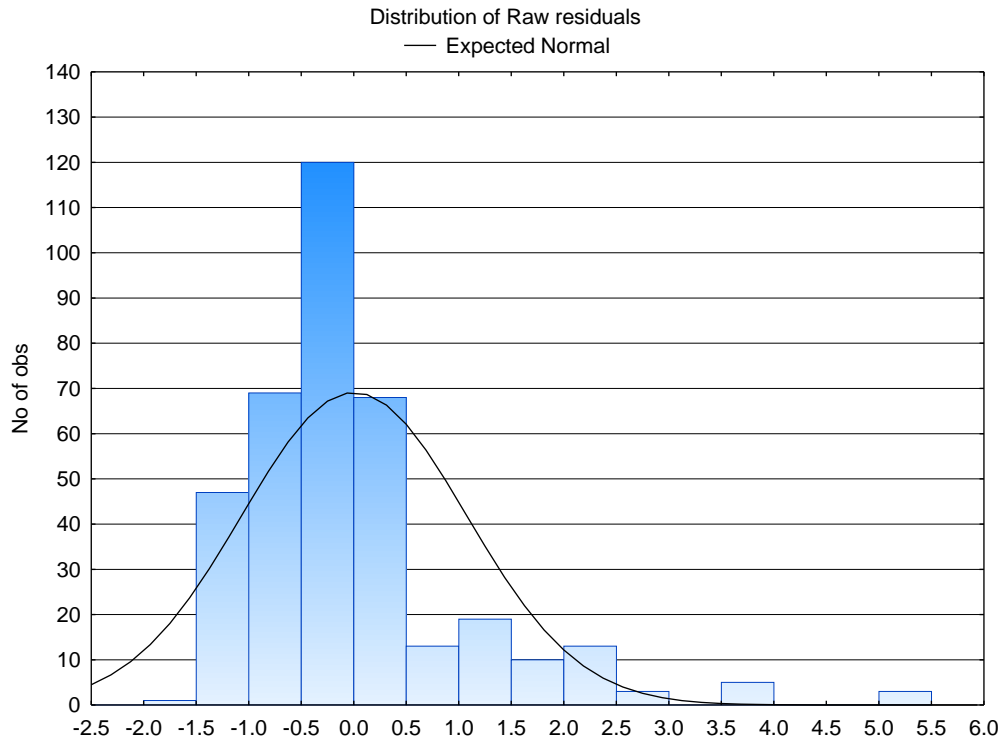
Figure 4.2: Normal distribution – equal opportunity and workforce diversity as dependent variable

Distribution of Raw residuals
—— Expected Normal
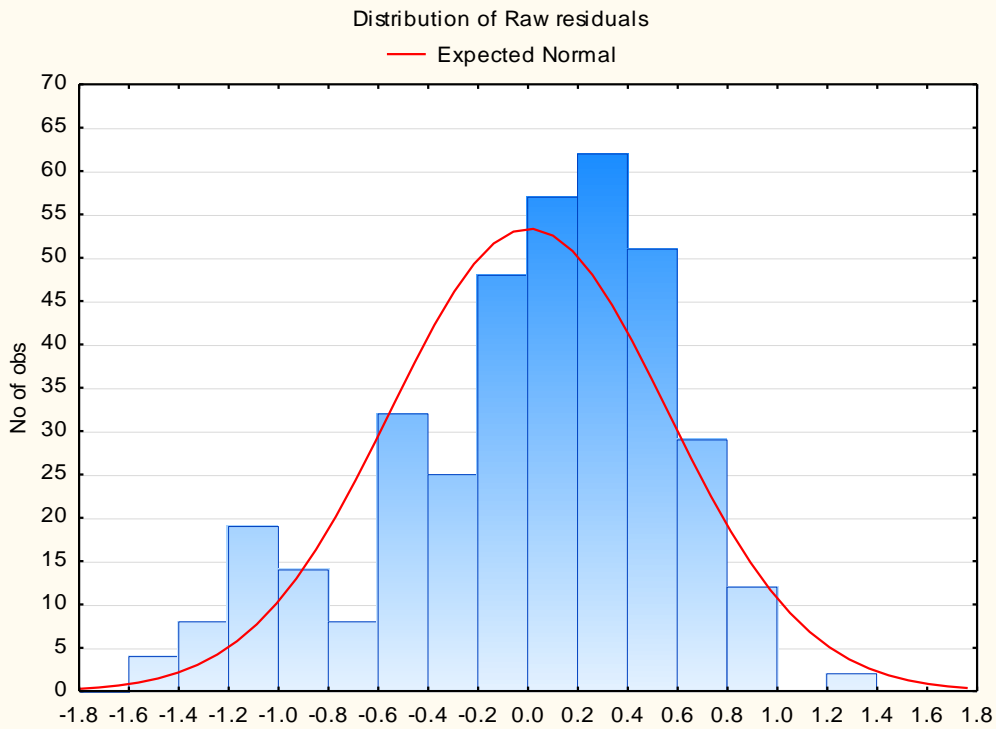
Figure 4.3: Normal distribution – employee relations as dependent variable

Distribution of Raw residuals
— Expected Normal
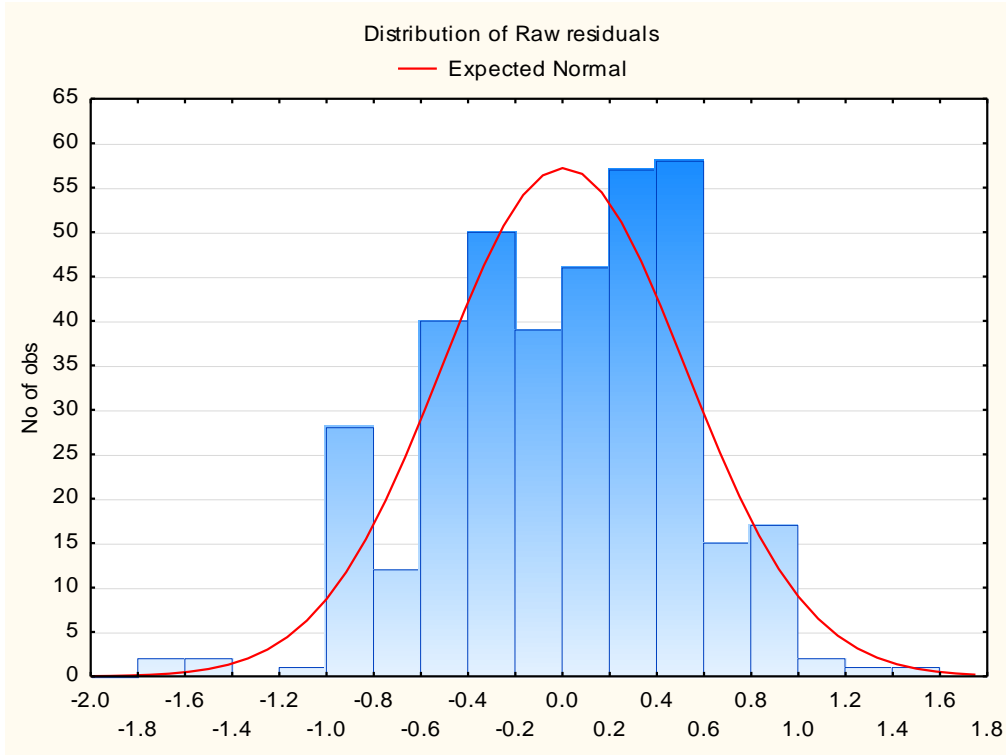
Figure 4.4: Serial correlation among residuals – profitability as dependent variable

Normal Probability Plot of Residuals
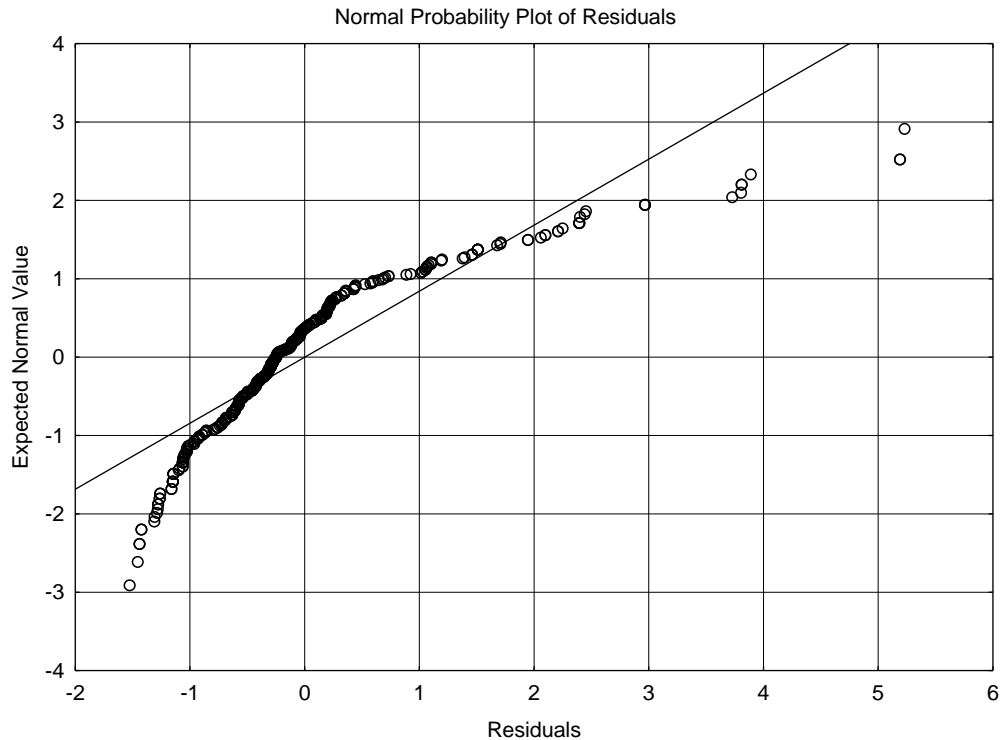
Table 4.6:   **Durbin-Watson *d* and serial correlation of residuals –**
profitability as dependent variable

	Durbin-Watson *d*	Serial Correlation
Estimate	1.672432	0.163691

In order to interpret the Durbin-Watson *d,* the following guidelines must be followed:

- A Durbin-Watson *d* of 2.00 indicates that there is no evidence of serial correlation among residuals;
- A Durbin-Watson *d* approaching 4.00 indicates that there is evidence of a negative serial correlation among residuals; and
- A Durbin-Watson *d* approaching 1.00 indicates that there is evidence of a positive serial correlation among residuals.

Table 4.6 shows a Durbin-Watson *d* of 1.67, which is lower than 2.00 and far off from approaching 1.00. This can be regarded as limited serial correlation among residuals, which is no threat for the conclusion that the data are normally distributed.

Figure 4.5 shows evidence of serial correlation among residuals. The Durbin-Watson *d*-statistic in Table 4.7 however shows a Durbin-Watson *d* of 1.61, which is lower than 2.00 and far off from approaching 1.00. This is an indication of limited serial correlation among residuals, which presents no threat for the conclusion that the data are normally distributed.

Figure 4.6 shows limited evidence of serial correlation among residuals. The Durbin-Watson *d*-statistic in Table 4.8 shows a Durbin-Watson *d* of 2.11, which is higher than 2.00 and a far way off from approaching 4.00. This is an indication of limited negative serial correlation among residuals, but no threat to the conclusion that the data are normally distributed.

Table 4.7: Durbin-Watson *d* and serial correlation of residuals – equal opportunity and workforce diversity as dependent variable

	Durbin- - Watson *d*	Serial Correlation
Estimate	1.612005	0.190103

Table 4.8: Durbin-Watson *d* and serial correlation of residuals – employee relations as dependent variable

	Durbin-Watson *d*	Serial Correlation
Estimate	2.109408	-0.061491

Figure 4.5: Serial correlation among residuals – equal opportunity and workforce diversity as dependent variable
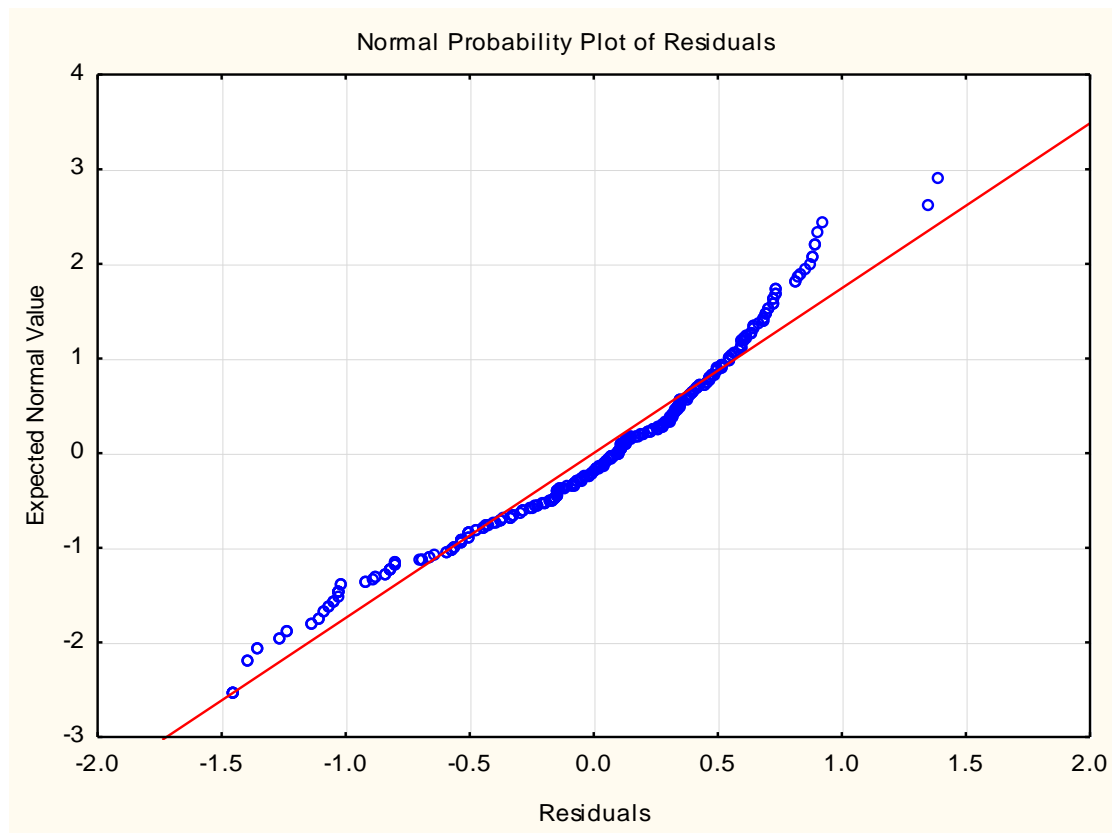
Figure 4.6: Serial correlation among residuals – employee relations as dependent variable

Normal Probability Plot of Residuals

[Chart: Normal Probability Plot of Residuals, with "Expected Normal Value" on the y-axis (ranging from -4 to 4) and "Residuals" on the x-axis (ranging from -2.0 to 2.0). Data points follow an approximately linear trend along the diagonal reference line.]
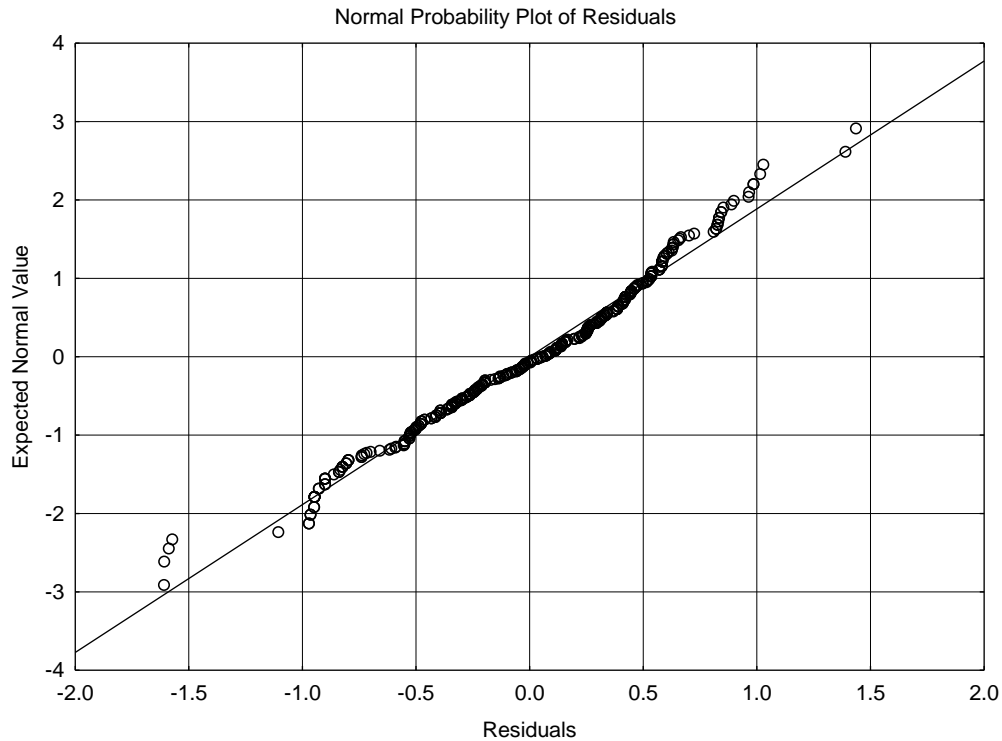
Residuals

4.5.3   Homogeneity of variance among residuals

In order to assess the existence of homogeneity of variance among residuals in the three models explained in section 4.4.1, the following analyses were conducted:

- The calculation of the predicted and residual values; and
- The calculation of Cook's distance statistic.

The results of these analyses are reported in Figures 4.7 to 4.8 and Tables 4.9 to 4.11. The goal of the calculation of the predicted and residual values was to show that the residuals do not deviate far from zero. Residual values on Figures 4.7 to 4.8 should therefore be closely spread around zero. The Cook's distance statistic

is calculated to confirm that residuals do not differ significantly from zero. It does so by showing whether outliers are present.

Figure 4.7 shows that most variances are closely spread around zero and a few that appear to be outliers. To confirm this, Cook's distance statistics are illustrated in Table 4.9. The latter shows no evidence of outliers. A Cook's distance statistic of 2.00 and more indicates the existence of outliers.

Figure 4.8 shows that most variances are closely spread around zero. The Cook's distance statistics in Table 4.10 confirm that there are no outliers.

Figure 4.9 shows that most variances are closely spread around zero and a few that appear to be outliers. To confirm this, Cook's distance statistics are shown in Table 4.11, which shows no evidence of outliers.

Figure 4.7: Homogeneity of variance – profitability as dependent variable
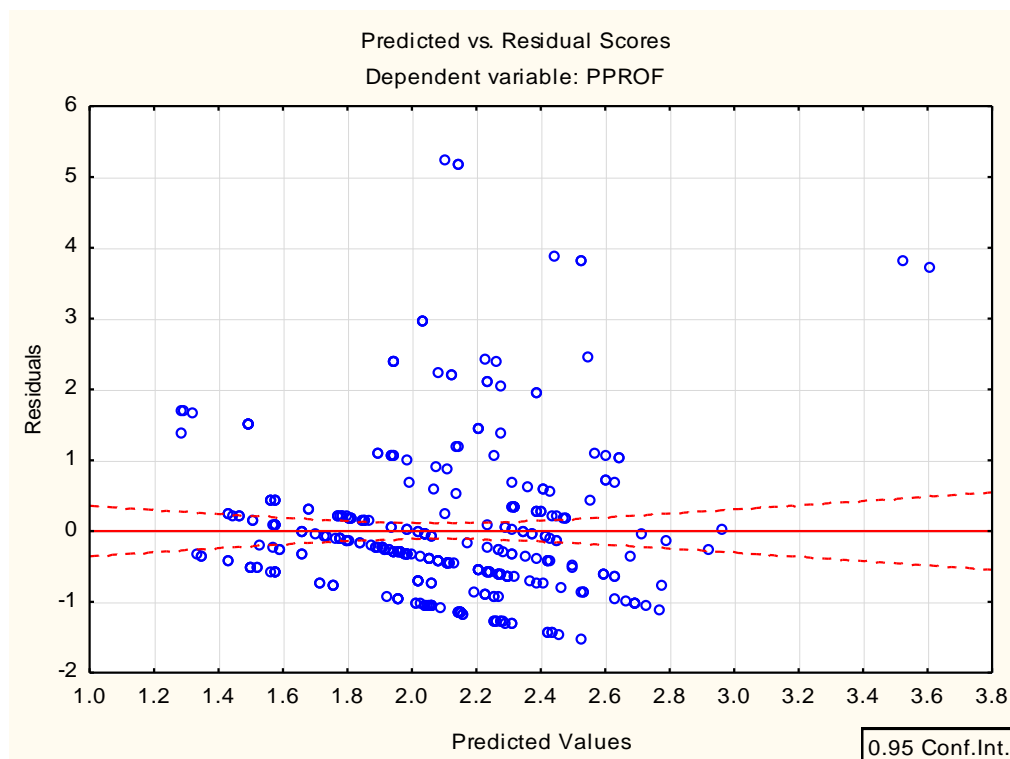
Table 4.9: Cook's distance statistic – profitability as dependent variable

	Observed – Value	Predicted - Value	Residual	Deleted - Residual	Cook's - Distance
Minimum	1.000000	1.287441	-1.52537	-1.56642	0.000000
Maximum	7.333333	3.604988	5.22966	5.29123	0.214530
Mean	2.080863	2.080863	-0.00000	0.00145	0.003776
Median	1.666667	2.061491	-0.24775	-0.24905	0.000583

Figure 4.8: Homogeneity of variance – equal opportunity and workforce diversity as dependent variable

Predicted vs. Residual Scores
Dependent variable: EEQWD

0.95 Conf.Int.
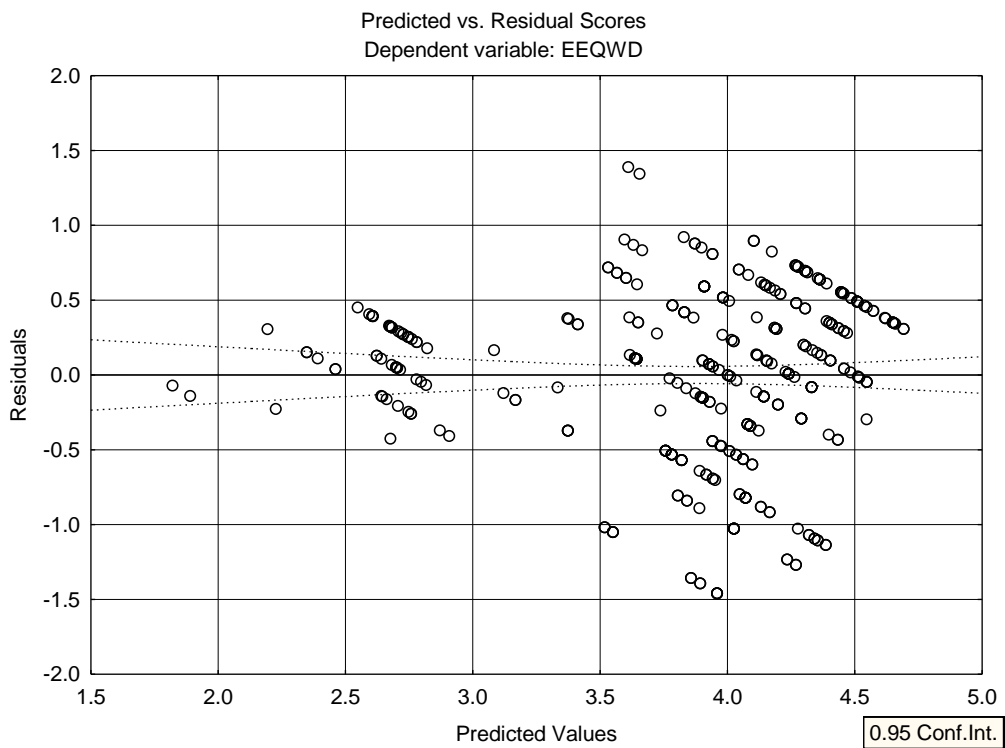
Table 4.10: Cook's distance statistic – equal opportunity and workforce diversity as dependent variable

	Observed - Value	Predicted - Value	Residual	Deleted - Residual	Cook's - Distance
Minimum	1.750000	1.820565	-1.45990	-1.47123	0.000000
Maximum	5.000000	4.692311	1.38882	1.41973	0.028040
Mean	3.863208	3.863208	-0.00000	0.00056	0.002580
Median	4.000000	4.007863	0.09578	0.09636	0.001218

Figure 4.9: Homogeneity of variance – employee relations as dependent variable

Predicted vs. Residual Scores
Dependent variable: EEMPRE
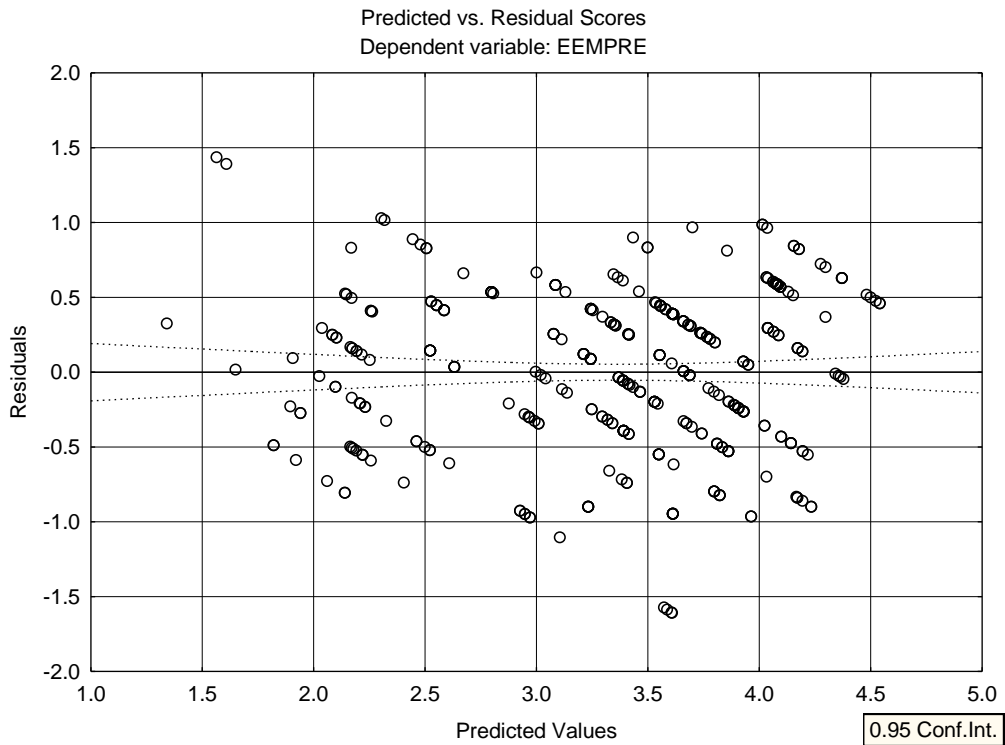
Table 4.11: Cook's distance statistic – employee relations as dependent variable

	Observed - Value	Predicted - Value	Residual	Deleted - Residual	Cook's - Distance
Minimum	1.333333	1.341531	-1.60841	-1.61752	0.000000
Maximum	5.000000	4.540677	1.43602	1.57601	0.159295
Mean	3.351303	3.351303	0.00000	0.00053	0.003320
Median	3.333333	3.530746	0.05858	0.05891	0.001159

Summary of residual analysis: Based on the results reported in Figures 4.1 to 4.9 and Tables 4.6 to 4.11, it can concluded that the data collected in this sample adhere to the assumptions underpinning the use of parametric tests. On this basis, it was proceeded to conduct parametric tests such as simple regression and multiple regression analyses and Pearson correlations.

4.6 THE REVISED HYPOTHESISED MODEL AND RESEARCH QUESTIONS

Due to the changes in the empirical factor structure of variables after the exploratory and confirmatory factor analyses, it was deemed important to revise the hypothesised model and research questions of this study. In this regard, it is important to note the following:

- Conscious leadership, sustainability behaviours, strategic thinking competency, interpersonal competency, anticipatory competency, normative competency and human resource development failed to emerge as distinctly separate variables in the exploratory factor analyses. These variables have therefore been omitted from the final model to achieve sustainable business practices.

- The revised hypothesised model to achieve sustainable business practices now only includes corporate governance and systems-thinking competency, as independent variables, and profitability, employee relations and equal opportunity and workforce diversity, collectively called sustainable business practices, as dependent variables.

- In the revised model, where regression analysis is going to be used, reversed or interactive relationships between independent and dependent variables will also be investigated. This would have been problematic in SEM due to too many parameters that would have been necessary to specify. For example, not only will the relationship between employee relations and profitability be investigated, the reverse relationship would also have needed investigation. Reverse or interactive relationships will be investigated for all the sustainable business practice variables.

Against the background of the above-mentioned changes, new research questions were formulated. These research questions now form the basis for the further statistical analyses reported in this chapter.

The new research questions formulated were as follows:

1   What is the influence of corporate governance on systems-thinking competency and vice versa?

2   What is the influence of corporate governance on (a) profitability, (b) employee relations and (c) the achievement of equal opportunities and workforce diversity in a firm?

3   What is the influence of systems-thinking competency on (a) profitability, (b) employee relations and (c) the achievement of equal opportunities and workforce diversity in a firm?

4   What are the main determinants of profitability in this study?

5   What is the interactive relationship between employee relations and the achievement of equal opportunities and workforce diversity in a firm?

6   What are the main determinants of achieving healthy employee relations in this study?

7   What are the main determinants of achieving equal opportunities and workforce diversity in this study?

8   What are the main determinants of share price growth in the sampled firms study?

Figure 4.10 graphically illustrates the revised hypothesised relationships that emerged from the above-mentioned research questions. It is hypothesised that all these relationships are positive.

Figure 4.10: Revised hypothesised model to achieve sustainable business practices
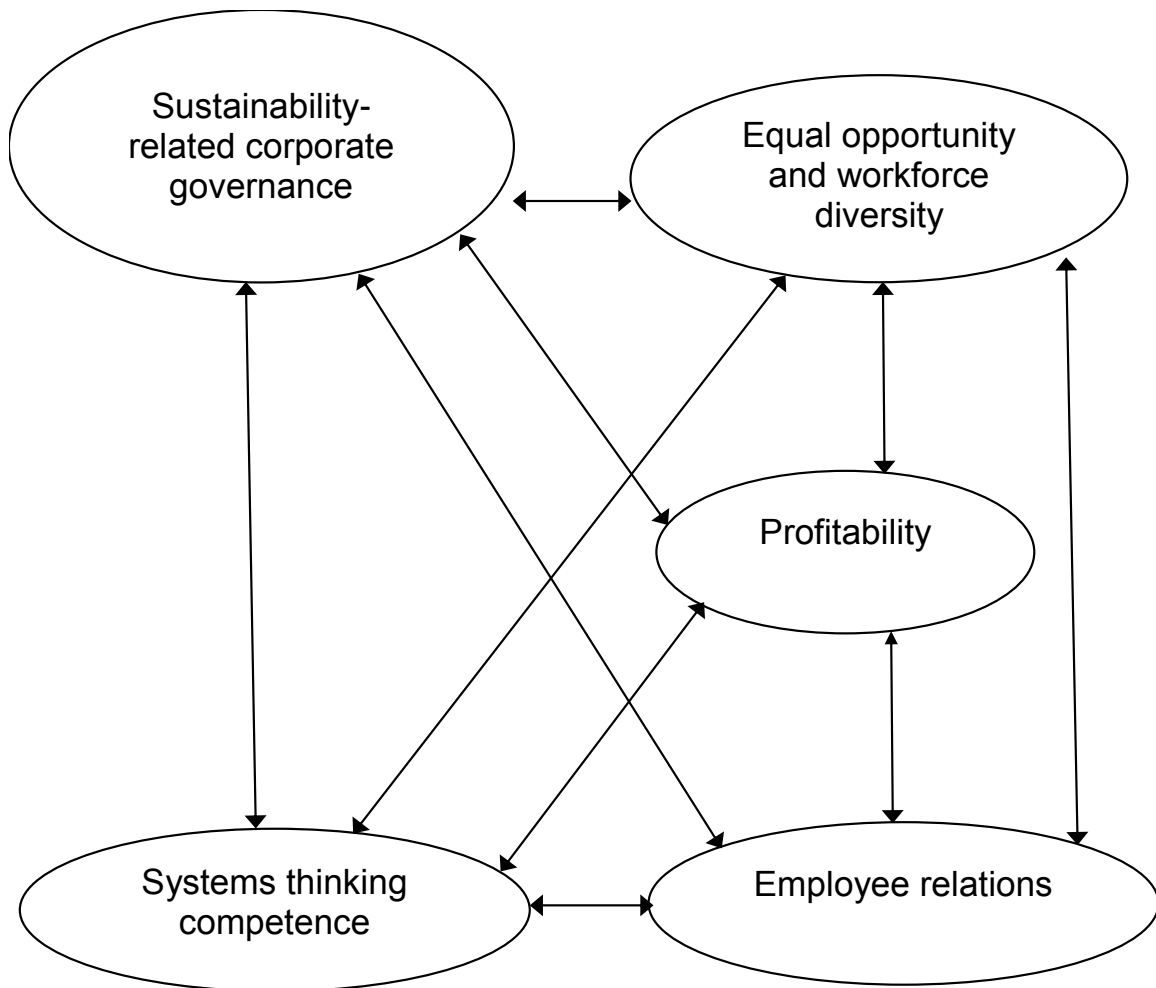
Source: Author's own construct

4.7   EMPIRICAL RESULTS OF THE BIVARIATE AND MULTIVARIATE ANALYSES

Using the STATISTICA Version 10 (2010) software computer programme, the following data analyses were performed to answer the above-mentioned revised research questions:

1   Simple regression analyses were conducted to investigate all the individual relationships on the revised model (see Figure 4.10) to achieve sustainable business practices in firms.

2   Multiple regression analyses were conducted to investigate research questions (4), (6), (7) and (8) in section 4.5 above.

Pearson correlations were calculated to investigate the hypothesised relationships in the high versus lower conscious leadership (CLEAD) sub-samples.

The empirical results of all the analyses above are now reported in the sections below.

4.7.1 The relationship between corporate governance and systems-thinking competency

A simple regression analysis was conducted to investigate the relationship between corporate governance and systems-thinking competency. The empirical results are reported in Tables 4.12 and 4.13.

Table 4.12: Relation between systems-thinking competency and corporate governance – empirical results

Dependent variable: **CORPORATE GOVERNANCE** $r^2 = 0.52159812$ $F(1,369) = 402.32$, $p < 0.001$						
	b*	Std. Err. - of b*	B	Std. Err. - of b	t(369)	p-value
Intercept			1.372567	0.142085	9.66015	0.00000
SYSTC	0.722217	0.036007	0.760510	0.037916	20.05787	0.00000*

Note: * indicates significance at $p < 0.001$

The empirical results (Table 4.6) show that systems-thinking competency is significantly positively ($r = 0.72$, $p < 0.001$) related to corporate governance. The

null hypothesis (H08) is not supported, while the alternative hypothesis (H8) is supported. This means that managers who possess strong systems-thinking competency enhance the corporate governance of their firms.

In order to answer the research question about the interactive relationship between corporate governance on systems-thinking competency (see research question 1 on page 129), a regression analysis was performed to investigate the influence of corporate governance on systems-thinking competency. The empirical results of this investigation are reported in Table 4.13.

Table 4.13 indicates that corporate governance exerts a significantly positive ($r = 0.72$, $p < 0.001$) influence on systems-thinking competency. In other words, managers who exhibit strong corporate governance behaviours also have strong systems-thinking competencies.

Table 4.13:   Relation between corporate governance and systems-thinking competency – empirical results

Dependent variable: **SYSTEMS-THINKING COMPETENCY** $r^2 = 0.52159812$ $F(1,369) = 402.32$, $p < 0.001$						
	b*	**Std. Err. - of b***	**B**	**Std. Err. - of b**	**t(369)**	**p-value**
Intercept			0.813943	0.144967	5.61468	0.00000
COGOV	0.722217	0.036007	0.685853	0.034194	20.05787	0.00000*

Note: * indicates significance at $p < 0.001$

Based on the results of Tables 4.12 and 4.13, it can be concluded that corporate governance and systems-thinking competency have a strong interactive relationship. If the one is cultivated and strengthened, the other one will also be cultivated and strengthened. It is therefore recommended that both these latent variables be promoted in business firms.

The empirical results (Tables 4.12 and 4.13) also show that corporate governance and systems-thinking explain about 52.1% (r^2 = 0.521) of the movement in each other. This result reinforces the fact that these two variables exert a strong interactive influence on each other. Other variables, not measured in this study, therefore explain about 48% of the variance in these variables.

4.7.2 The influence of corporate governance and systems-thinking competency on the profitability of firms

In order to explore the first parts (2a and 3a) of the research questions (2) and (3) on page 129, a simple regression analysis was conducted to explore the influence of corporate governance and systems-thinking competency on the profitability of firms. The results of this investigation are reflected in Table 4.14.

Table 4.14 reveals that corporate governance is negatively related (r = -0.16, p < 0.01) to profitability. In other words, corporate governance, as measured in the present study, has the potential to reduce profitability in the sampled firms. This influence is however very small (less than 29%) according to Gravetter and Wallnau (2009), which means that this influence is almost negligible.

The empirical results further revealed that systems-thinking competency is not significantly related to profitability. In other words, this competency, as measured in the present study, has no significant influence on the profitability in the sampled firms.

It is important to remember at this stage that four conscious leadership items loaded onto the corporate governance variable in the exploratory factor analysis. It would therefore appear that the extent to which managers exhibit these conscious leadership behaviours exerts a negative (although negligible) influence on the profitability of the sampled firms.

Table 4.14: The influence of corporate governance and systems-thinking competency on profitability – empirical results

Dependent variable: **PROFITABILITY** $r^2 = 0.02468223$ $F_{(1,369)} = 9.3382, p < 0.001$						
	b*	**Std. Err. - of b***	**b**	**Std. Err. - of b**	**t(368)**	**p-value**
Intercept			2.999150	0.306030	9.80018	0.000000
COGOV	-0.15710	0.051411	-0.22058	0.072184	-3.05585	0.00240**
Dependent variable: **PROFITABILITY** $r^2 = 0.00003283$ $F_{(1,369)} = 0.01212, p < 0.001$						
	b*	**Std. Err. - of b***	**b**	**Std. Err. - of b**	**t(368)**	**p-value**
Intercept			2.111946	0.288422	7.322423	0.000000
SYSTC	-0.00573	0.052057	-0.00847	0.076966	-0.11006	0.912415

Note: * indicates significance at p < 0.001
       ** indicates significance at p < 0.01

4.7.3 The influence of corporate governance and systems-thinking competency on employee relations in firms

In order to explore the second parts (2b and 3b) of the research questions (2) and (3) on page 129, a simple regression analysis was conducted to explore the influence of corporate governance and systems-thinking competency on employee relations in firms. The results of this investigation are reported in Table 4.15.

The empirical results (Table 4.15) show that corporate governance is significantly positively related to (r = 0.69, p < 0.001) to employee relations. The regression coefficient of 0.69 indicates a strong relationship according to Gravetter and Wallnau (2009), which means that corporate governance, as measured in the present study, is a strong antecedent to the improvement of employee relations in the sampled firms.

Table 4.15: The influence of corporate governance and systems-thinking competency on employee relations – empirical results

Dependent variable: **EMPLOYEE RELATIONS** r^2 = 0.47712858 F(1,369) = 336.72, p < 0.001						
	b*	Std. Err. - of b*	b	Std. Err. - of b	t(368)	p-value
Intercept			0.269027	0.171063	1.57268	0.116650
COGOV	0.690745	0.037643	0.740401	0.040349	18.34989	0.00000*
Dependent variable: **EMPLOYEE RELATIONS** r^2 = 0.56101150 F(1,369) = 336.72, p < 0.001						
	b*	Std. Err. - of b*	b	Std. Err. - of b	t(368)	p-value
Intercept			0.249345	0.145891	1.70911	0.088270
SYSTC	0.749007	0.034492	0.845419	0.038931	21.71563	0.00000*

Note: * indicates significance at p < 0.001

The empirical results further showed that systems-thinking competency is positively related (r = 0.75, p < 0.01) to employee relations. This regression coefficient indicates a strong relationship (Gravetter & Wallnau 2009), which means that systems-thinking is a competency strongly required to achieve healthy employee relations in firms. This competency should therefore be strongly developed in firms in order to foster healthy employee relations in firms.

Remembering that four conscious leadership items loaded onto the corporate governance variable in the exploratory factor analysis, it means that managers who exhibit these conscious leadership behaviours would contribute positively to healthy employee relations in the sampled firms.

The r^2 statistics of 0.477 and 0.561 for the influence of corporate governance and systems-thinking competency, respectively, on employee relations, indicate that corporate governance explain about 47% in the variance of employee relations and systems-thinking competency explains about 56% of it. In other words, corporate governance (including conscious leadership) would play a moderate

role (< 0.49, Gravetter and Wallnau (2009), and systems-thinking competency a big role (> 0.49) in enhancing employee relations in the sampled firms.

4.7.4 The influence of corporate governance and systems-thinking competency on the achievement of equal opportunities and workforce diversity in firms

In order to explore the third parts (2c and 3c) of the research questions (2) and (3) on page 129, a simple regression analysis was conducted to explore the influence of corporate governance and systems-thinking competency on the achievement of equal opportunities and workforce diversity in firms. The results of this investigation are reported in Table 4.16.

Table 4.16: The influence of corporate governance and systems-thinking competency on the achievement of equal opportunities and workforce diversity in firms – empirical results

Dependent variable: ACHIEVING EQUAL OPPORTUNITIES AND WORK-FORCE DIVERSITY RELATIONS $r^2 = 0.50346206$ $F(1,369) = 374.15, p < 0.001$						
	b*	Std. Err. - of b*	B	Std. Err. - of b	t(368)	p-value
Intercept			0.864194	0.157898	5.47313	0.000000
COGOV	0.709551	0.036683	0.720400	0.037244	19.34284	0.00000*
Dependent variable: ACHIEVING EQUAL OPPORTUNITIES AND WORK-FORCE DIVERSITY RELATIONS $r^2 = 0.7925918$ $F(1,369) = 225.45, p < 0.001$						
	b*	Std. Err. - of b*	B	Std. Err. - of b	t(368)	p-value
Intercept			1.447416	0.164323	8.80836	0.000000
SYSTC	0.615840	0.041015	0.658408	0.043850	15.01503	0.00000*

Note: * indicates significance at p < 0.001

The empirical results (Table 4.16) indicate that corporate governance is significantly positively related to (r = 0.71, p < 0.001) achieving equal

opportunities and workforce diversity in firms. This strong relationship indicates that corporate governance plays a big role in achieving equal opportunities and workforce diversity in firms. Given the loadings of conscious leadership items on corporate governance, this result also suggests that this leadership style plays a significant role in the achievement of equal opportunities and workforce diversity in the sampled firms.

The empirical results also revealed that systems-thinking competency is significantly positively related (r = 0.61, p < 0.001) to achieving equal opportunities and workforce diversity in firms. This regression coefficient also shows a strong relationship (Gravetter & Wallnau 2009). This means that systems-thinking competency would play a significant influence in the achievement of equal opportunities and workforce diversity in firms.

The r^2 statistic of 0.503 shows that corporate governance explains about 50% of the movement in achieving equal opportunities and workforce diversity, while systems-thinking competency explains about 79% of such movement. This means that corporate governance (including conscious leadership) and systems-thinking competency, as measured in this study, are very important variables in achieving equal opportunities and workforce diversity in the sampled firms.

To summarise the results with regard to increasing sustainable business practices in firms (sections 4.6.1 to 4.6.4 above and graphically depicted in Figure 4.11 above), it appears that corporate governance (including conscious leadership) and systems-thinking competency are positive influencers of employee relations, equal opportunities and workforce diversity. The empirical results however revealed that corporate governance (including conscious leadership) had a negative influence on profitability, while systems-thinking competency had no significant influence on profitability.

These results (sections 4.6.1 to 4.6.4 and Figure 4.11) suggest that corporate governance (including conscious leadership) and systems-thinking competency

are positive determinants of sustainable business practices as far as employee relations, equal opportunities and workforce diversity are concerned, but a negative and no significant contributor to profitability. The question now arises whether (a) corporate governance, as measured in this study, should be discouraged in order to increase profitability, and whether (b) systems-thinking competency should be strengthened to increase profitability. The next set of analyses should assist in providing the answer to this question.

Figure 4.11: Summary of empirical results on the hypothesised relationships
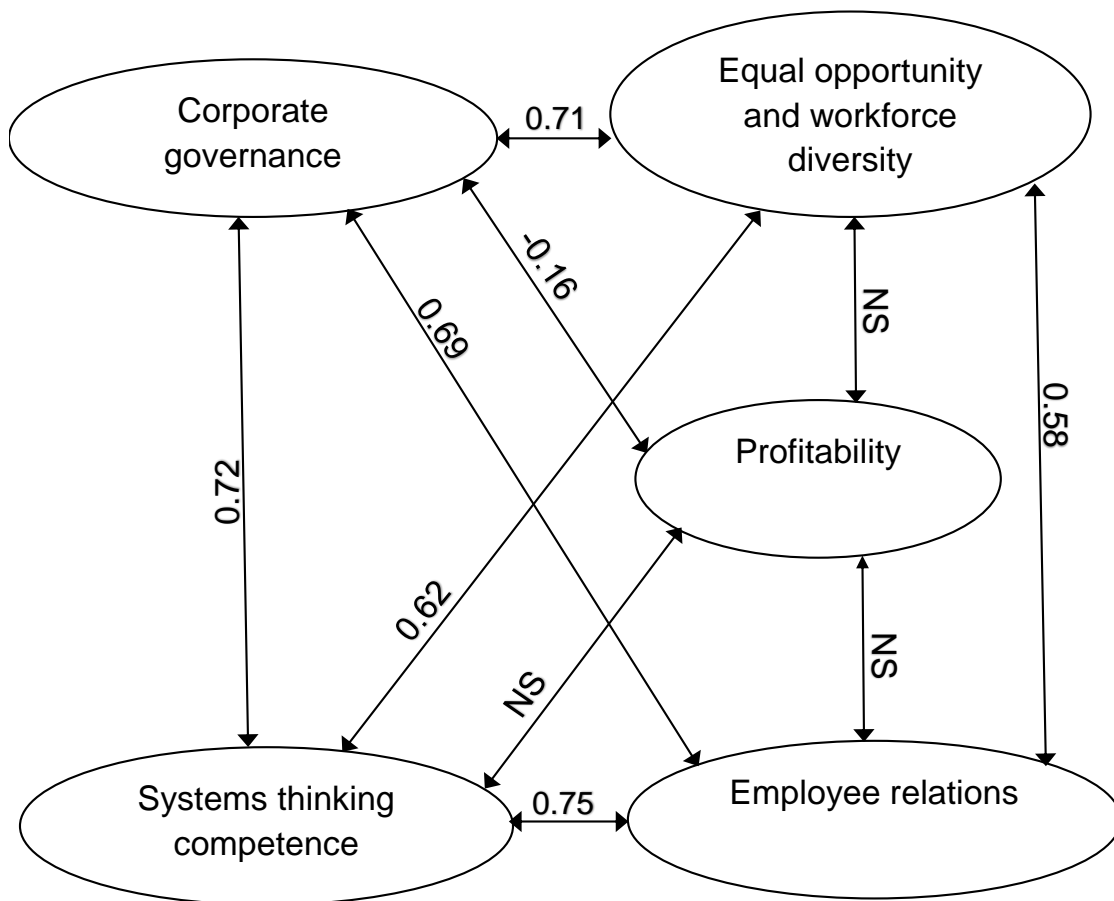
Source: Author's own construct

4.7.5 The main determinants of profitability in this study

In order to answer the research question four (4) on page 129, a multiple regression analysis was conducted to explore the influence of corporate governance, systems-thinking competency, employee relations and the achievement of equal opportunities and workforce diversity on profitability in firms. This investigation was important to explore whether corporate governance and systems-thinking competency interact with healthy employee relations and the achievement of equal opportunities and workforce diversity to increase profitability in firms.   Such an analysis would highlight the importance of corporate governance and systems-thinking competency as antecedents of profitability. The results of this investigation are reported in Table 4.17.

Table 4.17: The main determinants of profitability in firms – empirical results

Dependent variable: **PROFITABILITY** $r^2 = 0.09625174$ $F_{(4,366)} = 9.7450$, $p < 0.001$						
	b*	Std. Err. - of b*	B	Std. Err. - of b	t(366)	p-value
Intercept			2.839026	0.316724	8.96374	0.000000
COGOV	-0.42033	0.084923	-0.59016	0.119236	-4.94958	0.00000*
SYSTC	0.04632	0.083815	0.068489	0.123920	0.55269	0.580816
EQWD	-0.01541	0.072456	-0.02131	0.100200	-0.21275	0.831642
EMPRE	0.34847	0.079683	0.456463	0.104375	4.37329	0.00001*

Note: * indicates significance at $p < 0.001$

Together with healthy employee relations and the achievement of equal opportunities and workforce diversity, corporate governance and systems-thinking competency explain about 10% ($r^2 = 0.096$) of the variance in profitability of the sampled firms.   Corporate governance remains a negative influencer (r = -0.42, p < 0.001) of profitability in these firms, while systems-thinking competency, with employee relations and the achievement of equal opportunities

and workforce diversity in the equation, had no influence on profitability. This result confirms the negative influence corporate governance, as measured in this study, had on profitability.

The empirical results show that healthy employee relations (r = 0.35, p < 0.001) is the only positive influencer of profitability in this study, although the influence is moderate (between 0.30 and 0.49), (Gravetter & Wallnau 2009). This means that healthy employee relations do benefit firms in terms of increasing profitability.

In answering the research question pertaining to which variables in this study were the strongest determinants of profitability in the sample firms, the empirical results revealed that corporate governance was the strongest determinant, although this influence was negative. The next important determinant was employee relations, of which the relationship was positive.

To answer the question whether corporate governance (including conscious leadership), as measured in this study, should be discouraged in pursuit of profitability, it is necessary to consider the following: if corporate governance is discouraged; employee relations will suffer, with the concomitant negative effect on profitability. This is precisely what the sustainability argument is suggesting, i.e., that the profitability should not be pursued at the expense of the other elements of sustainability, which in this case, is the social aspect (employee relations). In fact, the empirical results indicate that healthy employee relations are the mechanisms through which corporate governance (including conscious leadership) would increase profitability in firms. This argument is further pursued in the following analyses: (a) the interactive influence of employee relations and equal opportunities and workforce diversity and (b) the influence of these interactive relationships on profitability. These analyses are important as a core tenet of the sustainability debate is that firms should strive for the correct balance in pursuing the triple bottom line of profit, social (employee relations and equal

opportunities and workforce diversity in this study) and environmental (eliminated in this study) objectives.

4.7.6 The interactive relationship between employee relations and the achievement of equal opportunities and workforce diversity

In order to answer the research question 5 on page 129, a multiple regression analysis was conducted to explore the interactive relationship between employee relations and the achievement of equal opportunities and workforce diversity in firms. The results of this investigation are tabulated in Table 4.18.

The empirical results (Table 4.18) indicate that employee relations and achieving equal opportunities and workforce diversity exert a strong ($r = 0.58$, $p < 0.001$) interactive influence on each other. This interaction is a positive direction, which means that an increase in one will lead to an increase in the other. Managers should therefore be encouraged to foster, maintain and increase all of these relationship aspects in order to achieve sustainability in their firms.

The empirical results also suggest that healthy employee relations exert a positive influence on equal opportunities and workforce diversity. As corporate governance is positively related to employee relations, it means that corporate governance (including conscious leadership) as measured in this study, should not be reduced in order to increase profitability. If this is done, both employee relations and equal opportunities and workforce diversity objectives in firms will suffer. This could be disadvantageous to profitability and therefore sustainability. To empirically test this assertion, the following analyses were conducted; namely (a) the determinants (including profitability) of healthy employee relations, and (b) the determinants (including profitability) of equal opportunities and workforce diversity in the sampled firms. These analyses sought to answer the question "what would happen if corporate governance (including conscious leadership), as measured in this study, is reduced in order to increase profitability". The empirical results suggest that:

- profitability would increase; and

- healthy employee relations would decrease, which in turn would lead to non-achievement of equal opportunities and workforce diversity and profitability.

The question that now arises is 'how decreases in profitability would influence employee relations and equal opportunities and workforce diversity objectives. This question is answered in sections 4.7.7 and 4.7.8 that follows.

Table 4.18: The interactive relationship between employee relations and achieving equal opportunities and workforce diversity – empirical results

Dependent variable: **EMPLOYEE RELATIONS** r^2 = 0.33992725 $F(1,369)$ = 190.03, p < 0.001						
	b*	Std. Err. - of b*	B	Std. Err. - of b	t(366)	p-value
Intercept			0.973369	0.176292	5.52134	0.000000
EQWD	0.583033	0.042294	0.615534	0.044652	13.78511	0.000000*

Dependent variable: **ACHIEVING EQUAL OPPORTUNITIES AND WORKFORCE DIVERSITY** r^2 = 0. 33992725 $F(1,369)$ = 190.03, p < 0.001						
	b*	Std. Err. - of b*	B	Std. Err. - of b	t(366)	p-value
Intercept			2.012457	0.138606	14.51923	0.000000
EMPRE	0.583033	0.042294	0.552248	0.040061	13.78511	0.000000*

Note: * indicates significance at p < 0.001

4.7.7 The determinants of healthy employee relationships in this study

In order to answer research question 6 on page 129, a multiple regression analysis was performed to explore the influence of corporate governance, systems-thinking competency, and the achievement of equal opportunities and workforce diversity on employee relations in the sampled firms. This investigation was important to explore whether corporate governance and systems-thinking

competency interact with profitability and the achievement of equal opportunities and workforce diversity to improve employee relations in firms. The analysis would also shed light on what impact reduced profitability would have on employee relations, as postulated in Section 4.6.6. The results of this investigation are listed in Table 4.19.

Table 4.19: The determinants of healthy employee relations in firms – empirical results

Dependent variable: **EMPLOYEE RELATIONS** $r^2 = 0.63041392$ $F(4,366) = 156.07,\ p < 0.001$						
	b*	Std. Err. - of b*	B	Std. Err. - of b	t(366)	p-value
Intercept			-0.565296	0.168181	-3.36124	0.000858
COGOV	0.314376	0.053634	0.336975	0.057490	5.86145	0.000000*
SYSTC	0.473467	0.047568	0.534412	0.053691	9.95344	0.000000*
EQWD	0.080067	0.046149	0.084531	0.048721	1.73499	0.083585
PROF	0.142508	0.032586	0.108795	0.024877	4.37329	0.000016*

Note: * indicates significance at $p < 0.001$

Together with profitability and the achievement of equal opportunities and workforce diversity, corporate governance and systems-thinking competency explain about 63% (r^2 = 0.630) of the variance in employee relations in the sampled firms. Both corporate governance (r = 0.31, p < 0.001) and systems-thinking competency (r = 0.47, p < 0.001) remain positive determinants of employee relations while profitability also showed a small but significant relationship with employee relations. These results confirmed corporate governance (including conscious leadership) and systems-thinking competency as important determinants of healthy employee relations, but also highlighted profitability as an antecedent of healthy employee relations in firms.

In the context of the argument that corporate governance (including conscious leadership), as measured in this study, should be discouraged in order to increase profitability, the empirical results suggest that:

- reduced profitability would decrease healthy employee relations (see Table 4.8);
- reduced corporate governance would also decrease employee relations (see Table 4.4); and
- reduced employee relations would decrease profitability (see Table 4.6)

The above-mentioned results reveal that, although reduced corporate governance (including conscious leadership), as measured in this study, would increase profitability, reduced corporate governance would decrease healthy employee relations and the latter would decrease the achievement of equal opportunities and workforce diversity in these firms. A decrease in healthy employee relations would decrease profitability. The present study therefore cannot argue for the discouragement of corporate governance (including conscious leadership), as measured in this study.

4.7.8   The determinants of the achievement of equal opportunities and workforce diversity in this study

In order to answer question 7 on page 129, a multiple regression analysis was conducted to explore the influence of corporate governance, systems-thinking competency, employee relations and profitability on the achievement of equal opportunities and workforce diversity in the sampled firms. This investigation was important to explore whether corporate governance and systems-thinking competency interact with profitability and employee relations to increase the achievement of equal opportunities and workforce diversity in the sampled firms. The analysis would also shed light on what influence reduced profitability would

have on employee relations, as suggested in Section 4.6.6. The results of this investigation are shown in Table 4.20.

Together with profitability and healthy employee relations, corporate governance and systems-thinking competency explain about 53% ($r^2 = 0.529$) of the variance of the achievement of equal opportunities and workforce diversity in the sampled firms. Both corporate governance ($r = 0.52$, $p < 0.001$) and systems-thinking competency ($r = 0.16$, $p < 0.001$) remain positive influencing factors in the achievement of equal opportunities and workforce diversity in firms, while profitability and employee relations were not significantly related to the achievement of equal opportunities and workforce diversity in firms. These results confirm that corporate governance (including conscious leadership) and systems-thinking competency are important determinants of the achievement of equal opportunities and workforce diversity in firms.

Table 4.20: The main determinants of the achievement of equal opportunities and workforce diversity in firms – empirical results

Dependent variable: **EQUAL OPPORTUNITIES AND WORKFORCE DIVERSITY** $r^2 = 0.52971508$ $F(4,366) = 103.06$, $p < 0.001$						
	b*	Std. Err. - of b*	B	Std. Err. - of b	t(366)	p-value
Intercept			0.712348	0.178609	3.988302	0.000080
COGOV	0.51900	0.057167	0.526937	0.058041	9.078658	0.000000*
SYSTC	0.16465	0.059871	0.176033	0.064010	2.750105	0.006253**
PROF	-0.00802	0.037704	-0.00580	0.027265	-0.21274	0.831642
EMPRE	0.10188	0.058722	0.096503	0.055622	1.734989	0.083585

Note: * indicates significance at $p < 0.001$
       ** indicates significance at $p < 0.01$

On the question of whether corporate governance (including conscious leadership), as measured in this study, should be discouraged in order to increase profitability, the empirical results suggest that:

- reduced corporate governance, as measured in this study, would increase profitability (see Table 4.3); but

- reduced corporate governance would also decrease the achievement of equal opportunities and workforce diversity objectives in firms (see Table 4.9).

The above-mentioned results show that corporate governance (including conscious leadership), as measured in this study, should not be discouraged in the pursuit of increased profitability, as the achievement of equal opportunities and workforce diversity would suffer as a result thereof. The present study sought further confirmation of this conclusion in the next investigation of the determinants of share price growth in the sampled firms.

4.7.9 The determinants of share price growth in the sampled firms

In order to answer research question 8 on page 129, a multiple regression analysis was conducted between the latent variables and share price growth. Share price growth was measured by one-item measure requesting respondents to indicate the average growth of their firms' share price over the past 5 years on the following 10-point scale rangng from one to ten; (1) designating 0 to 10% and (10) 91 to 100%. The empirical results of this investigation are tabulated in Table 4.21.

The empirical results (Table 4.21) reveal that the strongest determinant of share price growth in this study is systems-thinking competency (r = 0.64, p < 0.001). This means that managers who have this competency make a positive contribution in managing their firms toward a positive share price growth.

The second contributor to share price growth, albeit a negative one (r = -0.38, p < 0.001), is employee relations. This result suggests that employee relations, as measured in this study, exert a negative influence on share price growth of the

sampled firms. The more this type of employee relations is pursued, the less is the reported share price growth.

Table 4.21: the determinants of share price growth- empirical results

Dependent variable: **SHARE PRICE GROWTH** r^2 = 0.15786306 $F_{(5,365)}$ = 13.684, p < 0.001						
	b*	Std. Err. - of b*	B	Std. Err. - of b	t(365)	p-value
Intercept			2.52520	0.815930	3.09487	0.002121
COGOV	-0.16152	0.084792	-0.54731	0.287310	-1.90495	0.057572
SYSTC	0.63472	0.081052	2.26474	0.289199	7.83107	0.00000*
EQWD	-0.08611	0.070043	-0.28740	0.233760	-1.22945	0.219694
PROF	0.10716	0.050527	0.25863	0.121937	2.12102	0.0345***
EMPRE	-0.38244	0.079011	-1.20898	0.249767	-4.84045	0.00000*

Note: * indicates significance at p < 0.001
       ** indicates significance at p < 0.01
       *** indicates significance at p < 0.05

The above-mentioned result appears to be in-line with the negative relationship between corporate governance, as measured in this study, and profitability. It appears that the respondents in this study are too focussed on the monetary (profits and share price) outcomes of their firms. They perceive corporate governance, aligned to conscious leadership, and healthy employee relations, as measured in this study, to be obstacles to the monetary outcomes of their firms. Their perspective would be for the discouragement of corporate governance as measured in this study and for a lesser emphasis on employee relations as defined in this study. The empirical results however suggest that this would be a wrong perspective in the striving for business sustainability (the balanced pursuit of profit, social and environmental objectives). The implications of these findings are discussed in Chapter Five.

The empirical results (Table 4.21) show further that profitability, as measured in this study, exerts a small but significant influence on share price growth. In other words, a firm's basic earning power (profit before interest and taxes as a percentage of total assets), net profit margin (net profit after taxes as a percentage of net sales income) and rate of return on total assests (net profit after taxes as a percentage of total assets) play a small but significant role in achieving share price growth. This result is to be expected as share price growth, a measure of profitability, should be highly correlated with the other measures of profitability.

The r^2 statistic of 0.158 indicates that the five latent variables together explain about 16% of the variance in average share price growth. With systems-thinking competency being most meaningful, it is therefore important to pay attention to these determinants of share price growth.

4.7.10 The descriptive statistics on profitability

The following descriptive statistics are reported, as they are relevant to the discussion of sustainable business practices, especially in respect of profitability. Table 4.22 reveals that the respondents reported basic earning power, net profit margins, rates of return on total assets and return on equity and profitability of between 11 and 20 percent for their past financial years. They also reported an average turnover speed of total assets of between four to five times per annum for the year 2013.

The firms' turnover speed of total assets (TURNA) (net sales income divided by total assets) is an indication of how successful the firm is in respect of utilising its assets to generate revenue, which is often referred to as asset management ratios, asset turnover ratios or asset efficiency ratios. High asset turnover ratios are preferred because this means that the firm is utilising its assets efficiently to produce sales. The higher the asset turnover ratio, the more sales the company

is generating from its assets. It would be fair to conclude that there is no overall concern regarding asset turnover of the samples in this study, considering the best fifty performing firms on the New York Stock Exchange exhibit asset turnover rates ranging from 1.8 to 9.4. The the majority of companies are in the top fifty achieving an asset turnover of between 2-3 times per annum (CSI 2014).

A Firm's basic earning power (BEARN) (profit before interest and taxes as a percentage of total assets) is indicative of the earnings of the firm without the influence of taxes or financial leverage, relative to the assets of the company. In essence it is a business' ability to generate profit from conducting its operations. Investors use long term earning power to assess whether the relevant firm is worthy of investment. The BEARN is compared to the average interest rate in order to determine whether the investment will be acceptable. The average South African interest rate, also referred to as the bank repurchase rate over the last five years, varied from approximately 11% in 2007 to approximately 6% in 2014 (SARB 2014). The average BEARN of 11-20% reported in the present study is therefore acceptable, because the investments in their firms would have yielded better returns than the interest rates they would have received from South African banks.

Table 4.22: Descriptive statistics on profitability indicators

CODE	DESCRIPTION	MEAN	STANDARD DEVIATION
turna	The firms' turnover speed of total assets (net sales income divided by total assets) for 2013.	2.01 (4-5 times p.a)	1.38
bearn	The firms' basic earning power (profit before interest and taxes as a percentage of total assets) for the last financial year.	2.33 (11-20%)	1.57
npmar	The firms' net profit margin (net profit after taxes as a percentage of net sales income) for the last financial year.	1.90 (0-10%)	0.96
retto	The firms' rate of return on total assests (net profit after taxes as a percentage of total assets) for the last financial year.	2.00 (11-20%)	1.39
roequ	The firms' return on equity (net profit after taxes as a percentage of equity capital).	2.09 (11-20%)	1.55

A firm's net profit margin (NPMAR) (net profit after taxes as a percentage of net sales income) is an indication of how much after-tax profit the business makes for every South African Rand it generates in sales revenue. By dividing the net profit (after operating expenses, interest and taxes have been deducted) by the percentage of net sales will show what percentage of the sales income contributed to the bottom line. The net profit margin is one of the key indicators for investors because it shows how effective the firm is at converting revenue into profits for shareholders.

The empirical results demonstrate a mean net profit margin of between 0 - 10% for the firms in this study. The average net profit margin for the various industry sectors on the New York Stock Exchange shows that this varies between 2.46% and 18.12% for the third quarter of 2014 (CSI 2014; see also note 1 of this chapter). The NPMAR performance of the firms in this study is therefore acceptable.

The firms' rate of return on total assests (RETTO) (net profit after taxes as a percentage of total assets) is an indication of how profitable a firm is relative to its total assets and how efficient management is at applying the assets to generate income. The rate of return on total assets may also be referred to as the return on investment. A high return on total assets is indicative of solid financial and operational performance. The information that this financial measure provides is similar to that of a firm's basic earning power except that whilst the rate of return on total assets is calculated using the profit after taxes divided by the total assets, the basic earning power uses profit before tax and interest divided again by the total assets.

The empirical results show that the average return on total assets is 11-20% for the firms in this study. This means that the firm produces 1-2 ZAR (South African Rand) profit per annum for every R10 it invests in assets. The firms' earning power also yielded a result of 11-20% implying that generally the firms in this

research study do not have significant tax and financing commitments at present. In other words, these results are acceptable.

Return on equity (ROEQU) (net profit after taxes as a percentage of equity capital) measures a firm's profitability by indicating how much profit it generates with the money shareholders have invested and is useful for comparing the profitability of a firm to that of other firms in the same industry. Firms that demonstrate high growth rates usually have a higher return on equity. As with most other financial indicators it is important to monitor the returns on equity over a period of time to better understand the profitability of the firm.

The empirical results show that the average return on equity for the sample in this study is 11-20%. The average return on equity for the various industry sectors on the New York Stock Exchange (see note 2 at the end of this chapter) shows that the returns vary between 8.8% and 32.41% for the third quarter of 2014 (CSI 2014).

The information relating to the various financial indicators above suggests that the profitability of the participating respondents appears to be within acceptable levels. This could be interpreted that acceptable levels of profitability are achieved in the sampled firms with the corporate governance and leadership that are currently prevailing in the sampled firms. The empirical results suggest that this profitability will be negatively affected by corporate governance (including conscious leadership), as measured in this study. Corporate governance, as measured in this study, should therefore be avoided.

This finding also appears to suggest that actions of profit-maximisation are not congruent with the following traits and behaviours supported by conscious leadership:

- Inspiring and evoking greatness in followers in order to motivate them to do a proper job;

- Being authentic and truthful in dealings with followers;

- Believing that their leadership effectiveness is dependent on the integration between head, heart and hand (seamlessness between what they think, how they feel and what they do); and

- Acknowledging that success is a result of collective effort rather than isolated leader contributions.

There is a suggestion by these empirical results that the pursuit of optimum profitability is negatively related to:

- Having the capacity to think systemically about the future of a firm;

- actively supporting a firm's public commitment to complying with internationally accepted governance standards, such as King III;

- actively supporting a firm's review procedures for both internal and external audit findings;

- actively supporting the firm's code of ethics policies;

- actively supporting the firm's assurance that senior persons are responsible for ethics management;

- actively supporting the firm's assurance that training and/or communication of the code of ethics takes place (e.g. as part of employee induction programmes);

- actively supporting the firm's efforts to ensure a secure communication channel for employees to seek advice or voice concerns (e.g. a confidential fraud hotline);

- actively supporting efforts to have compliance monitoring and regular reviews of the implementation of the code of ethics;

- actively creating an ethical environment in firms through leaders' transformational influence;

- an understanding that interventions could lead to unintended consequences; and

- an understanding that fragmented approaches to sustainability are unlikely to be successful because of the integrated and complex nature of sustainability.

Although the above-mentioned interpretations of the empirical results point to the avoidance of corporate governance that include the governance and conscious leadership beliefs and actions listed above, the empirical results however also oppose such avoidance, as the other elements of sustainable business practices (employee relations, equal opportunities and workforce diversity) will be jeopardised. This could ultimately decrease profitability. The empirical results therefore seem to suggest that ways should be found to educate managers that corporate governance (including conscious leadership) is important to obtain higher profits and sustainability through healthy employee relations and achieving equal opportunities and workforce diversity in their firms. More research is probably needed on the mechanisms through which conscious leadership increases profitability. The present study endeavoured to establish this, using corporate governance, sustainability development competencies and sustainability development behaviours, but was unsuccessful due to the inadequacy of the instruments used in the study. These findings will be further elaborated upon in Chapter Five.

4.7.11 High versus lower conscious leadership

Conscious leadership (CLEAD) is a core issue in the present study. Although the variable, conscious leadership, did not emerge as a distinct and separate variable during the exploratory factor analyses, it featured strongly in the corporate governance variable. Five of the CLEAD measuring items loaded onto the corporate governance factor with loadings execeeding 0.50. In the subsequent Cronbach alpha calculations, four of these items produced item-to-total correlations of more than 0.80, while the fifth item, which was later deleted,

produced an item-to-total correlation of 0.59 (see Table 3.4 in Chapter 3). It can therefore be argued that conscious leadership style is an important element of corporate governance as measured in the present study. Against this background, it was important to perform an in-depth investigation to determine to what extent the element of conscious leadership impacted the the components of sustainable business practices pursued in this study.

In order the accomplish the above-mentioned objective, the total sample was divided into a high conscious leadership sub-sample and a lower one. The aim was to investigate whether the governance model to achieve sustainable business practices would be different for high versus low conscious leadership participants. High CLEAD participants were defined as those who have obtained a mean score of 4.00 and more on the 5-point disagree-to-agree scale used to measure the CLEAD items in the questionnaire. The data set indicated that 255 participants had CLEAD mean scores higher than 4.00, while 116 had mean scores of less than 4.00. The latter group was labelled lower CLEAD.

Table 4.23: Pearson correlations – comparison of high and lower conscious leadership sub-samples

	AMPLE	COGOV	SYSTC	EQWD	PROF	EMPRE
COGOV	High		*0.414649*	*0.464207*	-0.10607	*0.383631*
	Lower		*0.537291*	*0.763720*	*-0.23526*	*0.534655*
SYSTC	High	*0.414649*		*0.310961*	0.091416	*0.594805*
	Lower	*0.537291*		*0.544952*	-0.00861	*0.484743*
EQWD	High	*0.464207*	*0.310961*		-0.03139	*0.396650*
	Lower	*0.763720*	*0.544952*		-0.10226	*0.221484*
PROF	High	-0.10607	0.091416	-0.03139		*0.156689*
	Lower	*-0.23526*	-0.00861	-0.10226		*0.189103*
EMPRE	High	*0.383631*	*0.594805*	*0.396650*	*0.156689*	
	Lower	*0.534655*	*0.484743*	*0.221484*	*0.189103*	

Note: The correlations in bold are significant at p < 0.05

Pearson correlations were calculated for relationships between corporate governance (COGOV), systems-thinking competency (SYSTC), profitability (PROF), employee relations (EMPRE) and equal opportunities and workforce diversity (EQWD) for both the high and lower CLEAD sub-samples. The empirical results are reported in Table 4.23 and graphically depicted in Figures 4.12 and 4.13.

Figure 4.12: Summary of empirical results on the Pearson correlations among the variables – high clead sub-sample
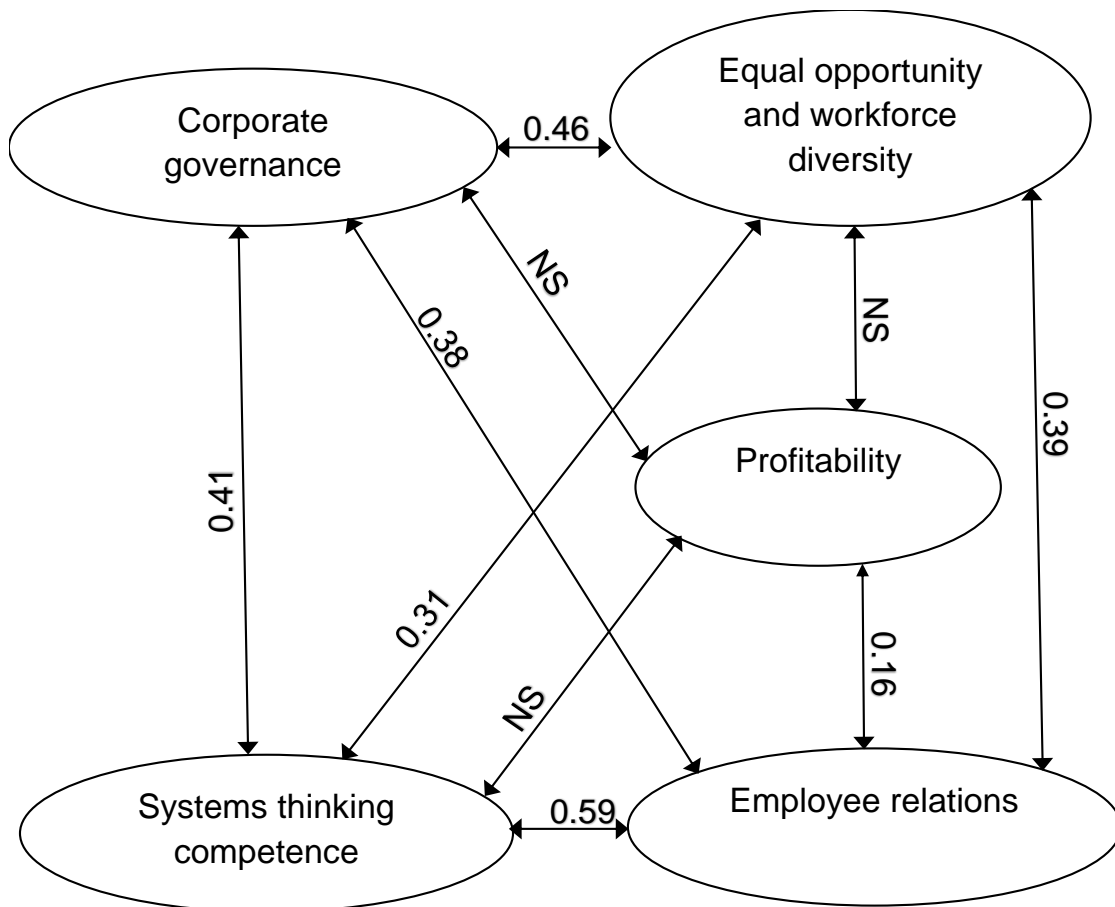
Source: Author's own construct

Table 4.23 and Figures 4.12 and 4.13 show that high and lower CLEAD respondents produced similar correlations between the variables investigated in this study. The only notable difference is the relationship between profitability (PROF) and corporate governance (COGOV). Table 4.23 and Figures 4.12 and 4.13 show that high CLEAD respondents showed a negative, but non-significant relationship between the two variables, whereas lower CLEAD respondents showed a significant negative relationship between the said variables.

This result suggests that corporate governance (including conscious leadership), as measured in this study, could be a growing phenomenon in management circles. Lower CLEAD managers view corporate governance as having a significantly negative influence on profitability, and as they develop into higher CLEAD managers, this view becomes less pronounced. This might indicate that conscious leadership could be cultivated in managers. This proposition will be discussed in Chapter Five.

The CLEAD sub-samples were also compared in terms of their descriptive statistics to further investigate whether this leadership style influences the way in which they rate themselves and their companies in respect of variables evaluated in this study. The empirical results of this analysis are reported in Tables 3.2 to 3.14 in Chapter Three.

Tables 3.2 to 3.14 showed that high CLEAD respondents generally rated themselves and their companies higher on the listed variables than lower CLEAD respondents did. In other words, high CLEAD respondents were more agreeable to the statements than lower CLEAD respondents. This result could be one of the reasons why lower CLEAD respondents reported a significant negative correlation between corporate governance and profitability.

Figure 4.13: Summary of empirical results on the Pearson correlations among the variables – lower clead sub-sample
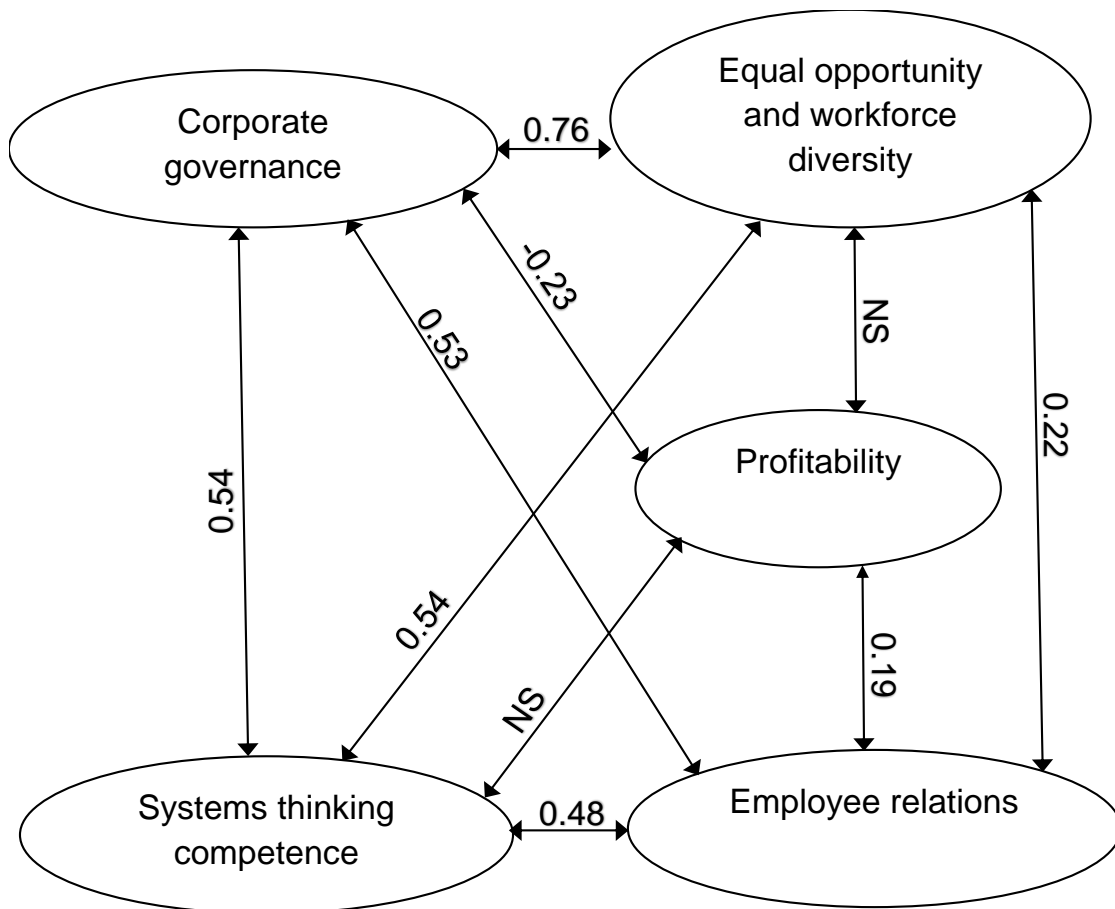
Source: Author's own construct

Although corporate governance (inclusive of CLEAD) is associated with lower profitability, the descriptive statistics in Tables 3.2 to 3.14 indicate that the desired sustainability competencies and behaviours, as well as CLEAD characteristics are prevalent among the managers in the sampled firms. This bodes well for these firms in their efforts to achieve sustainable business practices. These CLEAD characteristics and sustainability competencies and behaviours should be encouraged among managers.

4.8 CHAPTER SUMMARY

The empirical results show that corporate governance and systems-thinking competency have a strong interactive relationship. It is recommended that these latent variables be cultivated within business firms. Due to the interactive relationship it is expected that if one is promoted the other will also be strengthened.

This study supports the view that corporate governance (including conscious leadership) and systems-thinking competency are positive influencers of employee relations, equal opportunities and workforce diversity. However, empirical results showed that corporate governance (including conscious leadership) had a negative influence on profitability, while systems-thinking competency had no significant influence on profitability. The present study cannot argue for the discouragement of corporate governance (including conscious leadership), as measured in this study, because reduced corporate governance would decrease healthy employee relations and the latter would decrease the achievement of equal opportunities and workforce diversity in these firms.   A decrease in healthy employee relations would decrease profitability.

The division of the sample into high and lower CLEAD managers showed that lower CLEAD managers view corporate governance as having a significant negative influence on profitability. Despite this negative relationship, the descriptive statistics revealed that the sampled managers exhibited desirable sustainability competencies and behaviours, as well as conscious leadership-aligned corporate governance. The latter should therefore not be reduced due to its negative association with profitability; it should rather be encouraged, especially as a result of its association with improved employee relations, equal opportunities and workforce diversity.   In Chapter Five, the empirical results reported in this chapter will be discussed in terms of the implications they hold for managers of business firms.

Chapter notes

1 The average net profit margin for the various industry sectors on the New York Stock Exchange during the third quarter of 2014 (CSI 2014).

SECTOR	NET PROFIT MARGIN
Basic Materials	2.46 %
Capital Goods	8.16 %
Conglomerates	9.26 %
Consumer Discretionary	5.16 %
Consumer Non-cyclical	9.47 %
Energy	8.65 %
Financial	11.6 %
Healthcare	9.05 %
Services	11.56 %
Technology	18.12 %
Transportation	8.69 %
Utilities	11.98 %
Retail	2.72 %

Source: Adapted from CSI (2014) information

2 The average return on equity for the various industry sectors within the New York Stock Exchange (CSI, 2014).

SECTOR	RETURN ON EQUITY
Basic Materials	12.65 %
Capital Goods	21.21 %
Conglomerates	11.32 %
Consumer Discretionary	17.64 %
Consumer Non-Cyclical	25.36 %
Energy	13.5 %
Financial	8.8 %
Healthcare	17.97 %
Services	19.06 %
Technology	21.1 %
Transportation	32.41 %
Utilities	9.38 %
Retail	16.91 %

Source: Adapted from CSI (2014) information

CHAPTER 5

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1   INTRODUCTION

In this Chapter the main empirical findings of this study are discussed, the limitations of the study highlighted and the conclusions and recommendations of this research are summarised.

5.2   SUMMARY OF EMPIRICAL RESULTS

The main empirical results of this study are as follows:

- Conscious leadership did not emerge as a distinct and separate variable. Conscious leadership, corporate governance, the sustainable development competencies (systems-thinking, strategic thinking, interpersonal relationship, normative and anticipatory) and the sustainable development collapsed into two independent variables, namely corporate governance and systems-thinking competency. It could therefore be concluded that the respondents in this study saw conscious leadership not as a separate construct, but as a way they govern their businesses.

- Corporate governance is negatively related ($r = -0.32$, $p < 0.001$) to the profitability of the firm. This means that the more managers apply the kind of corporate governance, as measured in this study, the less the profitability will be. This also means that indirectly conscious leadership has a negative influence on profitability.

- Corporate governance is positively related ($r = 0.55$, $p < 0.001$) to the achievement of equal opportunities and workforce diversity. In other words, by applying the kind of corporate governance as measured in this study, the achievement of equal opportunities and workforce diversity will be increased.

Indirectly, conscious leadership increases the achievement of equal opportunities and workforce diversity in firms.

- Corporate governance is positively related (r = 0.31, p < 0.001) to the achievement of healthy employee relations. Thus, by applying the kind of corporate governance as measured in this study, the achievement of healthy employee relations will be increased. Indirectly, conscious leadership increases the achievement of healthy employee relations.

- Systems-thinking competency is positively related to achieving profitability (r = 0.22, p < 0.01), equal opportunities and workforce diversity (r = 0.22, p < 0.001) and healthy employee relations (r = 0.52, p < 0.001). By fostering and reinforcing systems-thinking competencies among managers, firms will succeed in firstly achieving healthy employee relations, then profitability and then equal opportunities and workforce diversity in their organisations.

- Corporate governance and systems-thinking competency are highly interactively related (r = 0.72, p < 0.001). In other words, corporate governance exerts a positive influence on systems-thinking competency and that the latter exerts a positive influence on corporate governance. In order to foster and enhance the one, firms must foster and enhance the other.

- The achievement of healthy employee relations is highly interactively related (r = 0.58, p < 0.001) to the achievement of equal opportunities and workforce diversity. Therefore, to achieve and increase the one, firms must achieve and increase the other one as well.

- The interactive relationship between profitability and achieving healthy employee relations is not significant. In other words, achieving the one does not influence the other.

- The interactive relationship between profitability and achieving equal opportunities and workforce diversity is not significant. This means, achieving the one does not influence the other.

Based on the empirical findings, the refined definition of corporate governance, systems-thinking competency, equal opportunity and workforce diversity, profitability and healthy employee relations are summarised below.

Corporate governance: The extent to which managers have the capacity to think systemically about the future of the firm; inspire and evoke greatness in their followers in order to motivate them to do a proper job; believe in being authentic and truthful in their dealings with their followers; believe that their effectiveness is dependent on the integration between head, heart and hand (seamlessness between what they think, how they feel and what they do); acknowledge that success is a result of collective effort and not isolated to their contributions; actively support their firms' public commitment to complying with internationally accepted governance standards, such as King III; actively support their firms' review procedures for both internal and external audit findings; actively support their firms' code of ethics policies; actively support their firms' ensuring that senior people are responsible for ethics management; actively support their firms' ensuring that training and/or communication on the code of ethics takes place (e.g. as part of employee induction programmes); actively support the efforts of their firms to ensure a secure communication channel for employees to seek advice or voice concerns (e.g. a confidential fraud hotline); actively support their firms' efforts to have compliance monitoring and regular reviews of the implementation of the code of ethics; actively creating an ethical environment in their firms by using their own transformational influence; understand the potential of interventions to produce unintended consequences; and understand that a fragmented approach to sustainability is unlikely to be successful because of its integrated and complex nature.

Systems-thinking competency: The extent to which managers actively support their firms' Boards of executives having separate committees for audits and remuneration; participate in the implementation of methods for designing, testing, implementing and evaluating of strategies and plans of the firm; and participate in the analysing of economic and environmental issues (external and internal to the firm) related to sustainability in order to achieve sustainable business practices in the firm.

Equal opportunity and workforce diversity: The extent to which firms publicly demonstrate their commitment to equal opportunities and workforce diversity in

their policies and have clearly stated targets for promoting equal opportunities for all employees and for achieving workforce diversity.

Profitability: A positive rating of a firm's basic earning power (profit before interest and taxes as a percentage of total assets); rate of return on total assests (net profit after taxes as a percentage of total assets); and net profit margin (net profit after taxes as a percentage of net sales income) for the last financial year.

Healthy employee relations: The extent to which firms ensure that the relevant managers in general manage employee relations effectively; doing everything in their power to use rewards effectively in order to achieve healthy employee relations; and making sure that their firms achieve their targets in respect of providing equal opportunities for all employees.

5.2.1 Conscious leadership as an integral part of corporate governance

The respondents in this study did not view conscious leadership as a distinct and separate variable but rather saw conscious leadership as a way of governing businesses. Bozesan's (2009) description of conscious leadership concurs with this connectivity to governance, by suggesting that the creation of ethical climate in businesses through corporate governance is aligned to the values of integrity and authenticity embraced by conscious leadership. The empirical results also lend support to Klettner, Clarke and Boersma's (2014) suggestion that conscious leadership is the ingredient needed in the governance structures and processes of firms that would enable the latter to establish a climate to direct and control their fims' sustainability strategy. Furthermore, each of the eight questions of the measuring instrument for corporate governance in the present study were theoretically supported in the conceptualisation of conscious leadership in the studies of Warrick (2011), Brown (2011) and Carter (2009). In other words, the empirical finding of the present study that conscious leadership is a form of corporate governance is not out of sinc with previous studies.

Closs *et al.* (2011) divided leadership approaches to sustainability into three categories, namely Reactors, Contributors and Innovators. Closs *et al.* (2011)

suggested that as the degree of consciousness increases, leaders move from a reactive approach to an innovative approach. Whilst the present study showed that current business leaders viewed conscious leadership as a way of governance, this type of governance (inclusive of conscious leadership) should be encouraged and promoted in businesses, as it could encourage innovation in businesses.

5.2.2 The relationship between corporate governance and profitability

The empirical finding, based on the total sample as well as the lower conscious leadership sub-sample, was that corporate governance (inclusive of conscious leadership) has a negative influence on profitability. The relationship between this type of corporate governance and profitability in the high conscious leadership sub-sample was also negative, but non-significant. This means that indirectly conscious leadership has a negative influence on profitability. Thus, by using their ability to inspire and evoke greatness, being authentic and truthful in one's dealings, demonstrating a seamlessness between how one thinks, how one feels and what one does, and understanding that success is a collective effort and not isolated to one's contribution, managers will decrease profitability according to the respondents.

The empirical results of the present study seem to support the view of Xiao et al. (2013) that current business leadership is pursuing profit-maximisation at all cost and that conscious leadership is incongruent with this pursuit. Xiao et al. (2013) believed that firms' drive for sustainability is more concerned with the long-term economic benefit than with moral and ethical considerations.

The empirical results are however out of sync with Ameer and Othman's (2012) findings that there is a strong correlation between companies where leadership was more focused on driving sustainability practices and the higher financial performance of those companies. The empirical results of the present study suggest that corporate governance that is directed at achieving sustainable business practices tends to decrease the profitability of companies.

The empirical results of the present study support the view of Friedman (1970), that a business had a responsibility only to stakeholders who owned the business (shareholders). Friedman (1970) believed that investments in socially responsible activities cost the company and generated a negative return with minimal benefit. According to Friedman's (1970) perspective, the "soft" issues of conscious leadership are not what are required to achieve profitability. Conversely, Friedman maintained that it is the "hard stuff" that drives profitability (for instance, authoritarianism and making sure the job is done).

Researchers, such as Hahn and Figge (2011) on the other hand, argued that the pursuit of sustainability requires a change in leadership that migrates from a position where profitability must be achieved at all costs. The present study also produced results that support this contention. The empirical results suggest that reducing corporate governance that include conscious leadership would lead to unhealthy employee relations and a reduction in the pursuit of equal opportunities and workforce diversity.

5.2.3 The relationship between corporate governance and the achievement of equal opportunities and workforce diversity

The empirical results showed that corporate governance (inclusive of conscious leadership) is positively related to the achievement of equal opportunities and workforce diversity. This means that this kind of corporate governance fosters a firm's public commitment to equal opportunities and workforce diversity in their policies and the targets they set. This also means that conscious leadership indirectly has a positive influence on equal opportunities and workforce diversity. The South African legislation provides clear guidelines and measurements for the achievement of equal opportunities and workforce diversity that are relevant to business firms since the early 2000s. To achieve these objectives it requires both corporate governance and appropriate leadership to develop and upskill previously disadvantaged individuals to fulfil positions previously held by Whites. Leaders must ensure that there is an ethical and transparent environment where learning and growth is encouraged and confidence is built to shape a fairer future. Corporate governance, as measured in this study, will therefore

contribute significantly toward achieving employment equity and workforce diversity targets which South African companies earnestly pursue.

5.2.4 The relationship between corporate governance and the achievement of healthy employee relations

The empirical results revealed that corporate governance (inclusive of conscious leadership) is positively related to the achievement of healthy employee relations, which is demonstrated by the extent to which firms ensure that the relevant managers in general manage employee relations effectively; doing everything in their power to use rewards effectively in order to achieve healthy employee relations; and making sure that their firms achieve their targets in respect of providing equal opportunities for all employees. This means that by applying the kind of corporate governance, as measured in this study, the achievement of healthy employee relations will be increased. Indirectly, conscious leadership increases the achievement of healthy employee relations. In other words, when leaders inspire and evoke greatness in their followers, are authentic and truthful in their dealings with others, demonstrate seamlessness between how they think, feel and do, and pursue success though the collective efforts of all, they will improve employee relations.

The empirical results further revealed that if employee relations, equal opportunities and workforce diversity are achieved through corporate governance, which includes conscious leadership, healthy employee relations and equal opportunities and workforce diversity interactively reinforce one another.

5.2.5 The interactive relationship between the achievement of healthy employee relations and the achievement of equal opportunities and workforce diversity

Employee relations and achieving equal opportunities and workforce diversity exerted a strong ($r = 0.58$, $p < 0.001$) interactive influence on each other in the present study. This interaction is a positive direction, which means that an increase

in one will lead to an increase in the other. Managers should therefore be encouraged to foster, maintain and increase both these variables in order to achieve sustainability in their firms.

5.2.6 The interactive relationship between profitability and achieving healthy employee relations, equal opportunities and workforce diversity

Empirical results of the total sample however revealed that healthy employee relations, equal opportunities and workforce diversity are not significantly related to profitability of firms. These results further support the Friedman (1970) notion that the pursuit of these "soft" issues is incongruent with profit-maximisation.

Empirical results of the sub-samples however differed from the results of the total sample. Both high ($r = -0.16$, $p < 0.05$) and lower ($r = -0.19$, $p < 0.05$) CLEAD samples indicated that profitability and employee relations are negatively correlated. This means that conscious leaders believe that a reduction in firms' efforts to improve employee relations is negatively associated with profitability and vice versa. Conscious leaders will therefore not promote profit maximisation at the expense of employee relations and the other way around. This is a finding in favour of promoting conscious leadership in firms.

5.2.7 Conscious leadership and sustainable business practices

The empirical results that emanated from the regression analyses and Pearson correlations above already indicated that corporate governance (inclusive of conscious leadership) decreases profitability, but enhances employee relations, equal opportunities and workforce diversity. The CLEAD sub-samples however revealed that employee relations and profitability are negatively related, which means healthy employee relations should not be reduced in favour of profit-maximisation. Conscious leadership in corporate governance should therefore not be reduced to increase profitability. These findings therefore provide the logic in favour of the promotion of conscious leadership.

Further support for the promotion of conscious leadership is provided by the descriptive statistics on the CLEAD sub-samples (see Tables 3.2 to 3.14) in Chapter Three). In these tables, the descriptive statistics show that high CLEAD respondents generally rate themselves and their companies higher on sustainable business practices than lower CLEAD respondents. In other words, high CLEAD respondents were more agreeable to the statements than the lower CLEAD respondents. This means that conscious leadership should be strengthened in firms in order to achieve sustainable business practices.

Table 3.3, for example, shows that high CLEAD managers rate themselves highly on actively creating an ethical environment in their firms by using their own transformational influence; viewing sustainability as a core strategy of their firms rather than a peripheral one; aligning relevant systems, structures, policies and procedures under their control so that they can achieve sustainable business practices in their firms; encouraging shared accountability for sustainability through integrated objectives and performance management rather than silo responsibility; ensuring that there is engagement with a wide range of stakeholders in developing and executing shared goals as far as sustainability is concerned; actively promoting an organisational culture of continuous improvement in their firms; exerting considerable efforts to align their employees' thought processes, assumptions and behaviours with sustainability development programmes of the firm; and actively communicating their firm's environmental and social performance to stakeholders.

Whilst many of these sustainability behaviours were lost in the statistical analyses to improve the validity and reliability of the data, the responses of the respondents on these individual behaviours are indications of the importance they attached to these behaviours. These descriptive statistics results therefore provided important information on how prevalent these sustainability behaviours are among the managers in the sampled firms. The descriptive statistics show that by promoting conscious leadership, firms will promote these sustainability behaviours among their managers.

High CLEAD managers also rated themselves highly on the sustainability competencies, which include the systems-thinking, anticipatory, normative, strategic

and interpersonal competencies. Many of the competency measuring-items were discarded in the statistical analyses to improve the validity and reliability of the data. Individual responses to these items however indicated the prevailing levels of sustainability competencies that exist in the sampled companies. The empirical results in this regard show that firms already have a foundation to pursue sustainable business practices.

5.2.8 Developing conscious leadership in firms

In the light of the findings in section 5.2.7 above, the question as to how conscious leadership could be developed in firms arises. Mackey and Sisodia (2013:35) stated that a conscious culture and leadership are "a source of great strength and stability for the firm, ensuring that its purpose and core values endure over time and through leadership transitions." The discussion that follows below provides some suggestions to do this, as well as practical examples of how firms have endeavoured to achieve this objective.

Whilst it is important to understand the characteristics of the conscious leader that is able to build sustainable business practices within firms, it is more important to understand how to grow such leaders (Renesch 2010; Hardman 2010; Carter 2009). Fyke and Buzzanell (2013) and McCaslin (2012) cautioned that there are not yet definitive methodologies to achieve this.

Fyke and Buzzanell (2013) and McCaslin (2012) however suggested that the first step in developing conscious leadership involves the transformation of consciousness within leaders, because it shapes the way they think and act. This should be followed by a showing of a clear belief, communicating and educating of the higher purpose of the firm's activities (Chandler 2014). These two steps will create the necessary engagement and motivation at all levels within the firm which is necessary to emphasise the notion of success being a collective effort (Chandler 2014).

Whole Foods, an American foods supermarket chain founded by John Mackey and specialising in organic food, is an example of a company that implemented the above-

mentioned phases of leadership development. They expressed their higher purpose by educating the public about their food choices in regard to their health. The firm also continuously communicated their commitment to the health of the food system and the planet. The firm noticed results in higher employee engagement, which in turn resulted in a positive and optimistic work environment where people believe in the value of the work they perform (Maldonado 2014; Pillay & Sisodia 2011).

Conscious leadership requires the leader to care passionately about the purpose of the business rather than being driven just by profit (Chandler 2014; Fyke & Buzzanell 2013). It is important that during the recruitment and even succession planning processes that the business firm assesses whether the prospective employee or leader has strong beliefs regarding the core purpose of the business. When recruiting, it is important that the skills associated with a high level of consciousness are assessed, such as creativity, emotional intelligence, self-awareness and sustainability knowledge (Maldonado 2014).

Conscious leadership is also developed by how firms pursue engagement with its stakeholders that shows interconnectedness with each other. Pillay and Sisodia (2011) demonstrated this principle by describing how Whole Foods adheres to their "Declaration of Interdependence", whereby the company recognises the interconnectedness and interdependence of all the company's stakeholders. The priority is to identify synergistic solutions that create value for all stakeholders rather than trading off the interests of one stakeholder against the other. To develop conscious leadership among their managers, firms must therefore inculcate the principle of understanding of interconnectedness and interdependence between the firm and its stakeholders.

Furthermore, in order to embody the positive attributes of the conscious leader, such as trust, authenticity, caring, transparency, integrity, learning and empowerment, it is important that businesses operate in a decentralised manner allowing empowerment of employees to make decisions without fear of failure and where a high level of trust exists at all levels and between all levels within the business firm (Pillay & Sisodia 2011). It is important that leaders "walk the talk", that is, they translate values and moral convictions to behaviour so that employees will trust and respect leaders and

follow their lead (Maldonado 2014; Fyke & Buzzanell 2013; Anderson & Ackerman Anderson 2011). To develop conscious leaders, firms must decentralise decision making in an environment characterised by trust and moral values.

Since consciousness refers to ethical awareness, it is important for the leader to be aware of the influences that impact the complex set of relationships that characterise business life so that decision making supports sustainable business practices (Fyke & Buzzanell 2013). This increased awareness also requires leaders to have a holistic understanding of themselves for them to be able to operate in a manner that is authentic (Maldonado 2014). Leadership development courses focussing on personal development and self-awareness are therefore critical in fostering conscious leadership in firms.

Since businesses are probably the most influential institutions in the world today, there is a huge responsibility for leaders within business firms to adopt a world-centric perspective (Chandler 2014; Legault 2012). Interviews conducted with leaders that exhibit world-centric behaviour revealed that action learning programmes should be at the heart of the development of conscious leaders (Legault 2012). These programmes must have the capacity to effect individual and organisational changes simultaneously, expand the level of consciousness and develop higher levels of psychcological complexity. These leaders refer to both horizontal and vertical development to expand the leader's perspectives and transform organisational cultures whilst focusing on the four elements of conscious business, namely higher purpose, stakeholder orientation, conscious leadership and conscious culture (Mackey & Sisodia 2013). This development must be focused at the personal, the organisational and the systems levels of leadership (Legault 2012).

Finally, a key ingredient in developing conscious leadership is teaching leaders the importance of implementing actions to create value for all stakeholders: customers, employees, suppliers, investors, society and the environment. Through their businesses, leaders must solve problems encountered by these stakeholders. In this way they can create value. The Harvard Business Review (2014) suggested that conscious leaders should have the ability to change the perception that business is the source of virtually every problem with no solutions, to a perception that

businesses are able to have a positive impact on the world whilst generating excellent economic returns.

5.2.9 The relationship between systems-thinking competency and achieving profitability, equal opportunities and workforce diversity, and healthy employee relations

The empirical results showed that systems-thinking competency is positively related to achieving equal opportunities and workforce diversity and healthy employee relations in firms. This competency was however not significantly related to profitability in this study. The respondents in this study believed that by developing system thinking competencies as measured in this study, managers will succeed in achieving healthy employee relations, equal opportunities and workforce diversity in their organisations.

In this present study, systems-thinking competency was defined as the extent to which managers actively support their firms' Boards of executives having separate committees for audits and remuneration; participate in the use of methods for designing, testing, implementing and evaluating of strategies and plans of the firm; and participate in analysing economic and environmental issues (external and internal to the firm) related to sustainability in order to achieve sustainable business practices in the firm. By implementing these individual competencies, managers will achieve two of three sustainable business practices investigated in this study. This is therefore an important sustainability competency to develop in business leaders.

The above-mentioned empirical results with regard to systems-thinking competency support the findings of Treven and Mulej (2006) which indicated that effective employee diversity management requires a holistic approach which is reliant on systems-thinking. Treven and Mulej (2006) found systems-thinking to be the most effective process for managing employee diversity in terms of the interdisciplinary co-operation required in firms.

Against the above-mentioned background it is recommended that systems-thinking competencies of managers be developed through management courses such as competitive intelligence and strategic management in which the interconnections and interaction of all internal and external environments of businesses are a core focus. The present study suggests that this will ultimately lead to the achievement of increased equal opportunities, workforce diversity and enhanced employee relations in firms. The positive relation between systems-thinking competency and corporate governance is discussed in the following section.

5.2.10 The interactive relationship between corporate governance and systems-thinking competency

The findings in this study indicated that corporate governance (inclusive of conscious leadership) and systems-thinking competency are highly interactively related ($r = 0.72$, $p < 0.001$). In other words, corporate governance exerts a positive influence on systems-thinking competency and the latter exerts a positive influence on corporate governance. In order to foster and enhance the one, firms must also foster and enhance the other. Better governance requires greater skilled application of systems-thinking.

The positive relationship between systems-thinking competency and corporate governance does not only imply that conscious leadership can be strengthened through it, but also suggests that the following other corporate governance behaviours can be increased though it:

- Commitment to and compliance with internationally accepted governance standards, such as King III;
- Support for review procedures for both internal and external audit findings;
- Support for management and training in codes of ethics; and
- Support for the fostering of ethical environments in firms.

Against the background of the preceding empirical results, both systems-thinking competency and conscious leadership aligned corporate governance should be developed in firms.

5.3   SIGNIFICANCE OF THE STUDY

All previous studies on conscious leadership were based on qualitative studies, whilst the present study attempted a quantitative measurement of the construct. The present study therefore provided the opportunity to further improve this quantitative instrument to generate a more comprehensive method of establishing the level of consciousness within a leader.

The empirical findings of this study made original and significant contributions to the body of knowledge on sustainable business practices. These contributions include the following:

- This is the first empirical quantitative study on conscious leadership. The study therefore represents the first attempt to measure conscious leadership quantitatively. Brown (2011) suggested that most of the studies on conscious leadership were of a qualitative nature.

- This is also the first study that investigated a hypothesised model investigating the link between conscious leadership, corporate governance, sustainability competencies and sustainability behaviours.

- This study is also a first in investigating the direct link between sustainability behaviours and Triple Bottom Line sustainable business practices.

- The study comprised an empirical investigation into the debate on the trade-off between the profit and people elements of sustainability.

- Finally, all the above-mentioned contributions are based on a credible sample of directors and senior managers of mostly JSE-listed companies.

5.4   LIMITATIONS OF THE STUDY

The use of self-constructed instruments to measure the latent variables in this study appears to be a weakness of the study. This could have led to validity issues as far as the data are concerned. For example, the variables, conscious leadership, corporate governance and four of the five sustainability competencies and the sustainability behaviour variables did not exhibit sufficient discriminant validity for these variables to be measured as distinct and separate constructs. Improved measuring instruments could have improved the hypothesised model of the present study. An improved quantitative measurement of conscious leadership could allow this variable to be distinguished from sustainability competencies, sustainability behaviours and corporate governance.   It is therefore suggested that these instruments be improved in future replications of the study.

In the present study, only directors and senior managers of companies were included in the sample. It is also recommended that the study be replicated with middle managers in order to investigate how the high versus lower conscious leadership dichotomy plays out on this management level. It would be interesting to ascertain whether middle managers also believe that conscious leadership-aligned corporate governance is associated with reduced profitability.

In the present study, no differentiation was made between industries, for example manufacturing from trading or financial services. Testing the hypothesised model in different industries could render valuable results in future studies. It would for example be interesting to see whether conscious leadership-aligned corporate governance is viewed the same in the different industries and whether its influence on sustainable business practices will be different.

5.5   CONCLUSION

The study endeavoured to show that conscious leadership would be a driver of sustainability competencies, sustainability behaviours and corporate governance to achieve sustainability outcomes (the Triple Bottom Line). This objective was achieved in an indirect way, showing that corporate governance that includes

conscious leadership must be developed to higher levels in business firms. This will ensure that the negative and seemingly insignificant relationships to profitability, as viewed by lower and high conscious leaders, are changed to positive relationships and further increase the existing strong positive relationships between corporate governance, employee relations and the achievement of equal opportunities and workforce diversity. The study asserts that the reduction of corporate governance (inclusive of conscious leadership) for short-term profitability gains, but at the expense of employee relations and the achievement of equal opportunities and workforce diversity is not a viable option in any firm, especially not in the South African context.

The first important finding of this study is that senior managers and directors of large business firms, mostly JSE-listed companies, regard conscious leadership as an important part of corporate governance. In other words, they believe corporate governance includes leadership that inspires and evokes greatness in followers in order to motivate them to do a proper job; leadership that is authentic and truthful in dealings with followers; leadership who believes that to be effective there must be integration between head, heart and hand; and leadership that acknowledges that success is a result of collective efforts rather than isolated contributions by leaders.

The empirical results reveal that corporate governance, which includes this kind of leadership, is positively related to healthy employee relations and the achievement of equal opportunities and workforce diversity. This means that cultivating conscious leadership in managers will achieve sustainable outcomes of healthy employee relations and the achievement of equal opportunities and workforce diversity.

The second important finding of this study was that the above-mentioned corporate governance actions, which include conscious leadership, exerted a negative influence on the profitability of firms. This negative influence on profitability was not significant for high conscious leaders, but significant for lower conscious leaders. With regard to this finding, the study concludes that conscious leadership should be encouraged until the high corporate governance-conscious leadership variable is positively related to profitability. If this is done, only then will the other corporate governance actions, listed in the preceding paragraph, come to fully realised.

In the third place, the study showed support for the notion that managers should strive to find and maintain the balance between profit, people and planet dimensions of sustainability. The empirical results clearly showed that the pursuit of profitability by reducing corporate governance, as the questionnaire responses suggested, undermine healthy employee relations and the achievement of equal opportunities and workforce diversity. Corporate governance, inclusive of conscious leadership, should rather be encouraged, until higher levels of the latter are achieved. This will increase healthy employee relations and the achievement of equal opportunities and workforce diversity, and ultimately the profitability of the firm.

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ANNEXURE 1

COVER LETTER OF QUESTIONNAIRE

16 September 2014

Dear Respondent

I am studying towards my DBA (Doctor in Business Administration) degree at the Nelson Mandela Metropolitan University Business School. I am conducting research on the influence of leadership on achieving sustainable business practices in business firms. I believe that my study will make an important contribution to understanding businesses sustainability.

You are part of our selected sample of respondents whose views we seek on the above-mentioned matter. We would therefore appreciate it if you could answer a few questions. It should not take more than thirty minutes of your time and we want to thank you in advance for your co-operation.

There are no correct or incorrect answers. Please answer the questions as accurately as possible. For each statement, tick the number which best describes your experience or perception. For example, if you strongly agree with the statement, tick the number 5. If you strongly disagree with the statement, tick the number 1. **Tick only one answer for each statement and answer <u>all questions</u> please.** <u>Please note also that your participation in this study is entirely voluntary and that you have the right to withdraw from the study at any stage. We also guarantee your anonymity and the confidentiality of information acquired by this questionnaire. Neither your name nor the name of your firm will be mentioned in the study.</u>

Thank you very much.

Beverley Sukhdeo

Contact details: at 0845471213 or beverley.sukhdeo@sappi.com

To verify the authenticity of the study, please contact Prof CA Arnolds at 041-5043825 and cecil.arnolds@nmmu.ac.za.

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ANNEXURE 2

THE ORIGINAL SELF-CONSTRUCTED MEASURING INSTRUMENTS

CONSCIOUS LEADERSHIP

As a leader, I inspire and evoke greatness in my followers in order to motivate them to do a proper job.

I have an holistic awareness of who I am as a leader.

As a leader, I believe in being authentic and truthful in my dealings with my followers.

As a leader, I believe there are always many right answers to a problem.

As a leader, I always approach a situation with an open mind and with my voice of judgement suspended.

As a leader, I believe that to be effective there must be integration between head, heart and hand, i.e. seamlessness between what I think, how I feel and what I do.

As a leader, I am concerned not only about my own needs but the needs of all stakeholders.

As a leader, I acknowledge that success is a result of collective effort and is not isolated to my contribution.

As a leader, I am concerned about how current decision making and actions will affect future generations.

CORPORATE GOVERNANCE

As a manager, I actively support my firm's public commitment to complying with internationally accepted governance standards, e.g. King III.

As a manager, I actively support my firm's Board having separate committees for audits and remuneration.

As a manager, I actively support my firm having procedures to review both internal and external audit findings.

As a manager, I actively support my firm's code of ethics policy.

As a manager, I actively support my firm ensuring senior responsibility for ethics management.

As a manager, I actively support my firm ensuring training and/or communication on the code of ethics and the associated conduct of employees, e.g. Part of employee induction programme.

As a manager, I actively support my firm ensuring a secure communication channel for employees to seek advice or voice concerns, e.g. confidential fraud hotline.

As a manager, I actively support my firm having compliance monitoring and regular reviews of the implementation of the code of ethics.

SUSTAINABILITY BEHAVIOURS

As a manager, I actively create an ethical environment in my firm by using my own transformational influence.

As a manager, I view sustainability as a core strategy of my firm rather than a peripheral one.

As a manager, I align relevant systems, structures, policies and procedures under my control so that we can achieve sustainable business practices in my firm.

As a manager, I encourage shared accountability for sustainability through integrated objectives and performance management rather than silo responsibility.

As a manager, I ensure that there is engagement with a wide range of stakeholders on developing and executing shared goals as far sustainability is concerned.

As a manager, I actively promote an organisational culture of continuous improvement.

As a manager, I exert considerable efforts to align our employees' thought processes, assumptions and behaviours with our sustainability development programme(s).

As a manager, I actively communicate my firm's environmental and social performance to stakeholders.

SYSTEMS-THINKING COMPETENCY

As part of the management team, I participate in the analysing of economic issues (external and internal to the firm) related to sustainability in order to achieve sustainable business practices in the firm.

As part of the management team, I participate in the analysing of environmental issues (external and internal to the firm) related to sustainability in order to achieve sustainable business practices in the firm.

As part of the management team, I participate in the analysing of social issues (external and internal to the firm) related to sustainability in order to achieve sustainable business practices in the firm.

Our managers consider all factors related to sustainability in order to achieve sustainable business practices in the firm.

As part of the management team, I understand the interconnectedness of natural, social and economic systems in efforts to achieve sustainability objectives.

As part of the management team, I understand that a fragmented approach to sustainability is unlikely to be successful because of its integrated and complex nature.

As part of the management team, I understand the intermediate and root causes of sustainability concerns.

As part of the management team, we make all the effort to understand the actions, needs, motives, intentions and mandates of all stakeholders when building sustainable business practices.

ANTICIPATORY COMPETENCY

As part of the management team, I have the capacity to think systemically about the future of the firm.

As part of the management team, I have the ability to analyse, evaluate and craft future sustainability solutions for the firm.

As part of the management team, I have the ability to discern which time scales are relevant to a problem and its possible solutions.

As part of the management team, I am familiar with different theories of how the future emerges, whether accidentally or intentional determined.

As part of the management team, I understand that different types of futures exist, i.e. possible futures (based on notions of plausibility), probable futures (those determined "likely" to occur), and desirable futures (value-laden; based on sustainability principles).

As part of the management team, I understand the corresponding ways to build these different futures using methods like scenario construction, forecasting from statistical or simulation models and sustainability visioning.

NORMATIVE COMPETENCY

As part of the management team, I participate in the development of norms to assess the impact of our operations on sustainability.

As part of the management team, I participate in life cycle assessments of products and services and understand their relation to sustainability.

As part of the management team, I participate in the assessment of how our decisions will impact future generations.

As part of the management team, I understand concepts of justice, equity, social–ecological integrity and ethics, how these vary across and within cultures, and how integrating these concepts contribute to solving sustainability problems.

As part of the management team, I understand the use of methods such as visioning, multi-criteria assessment and risk assessment to collaborate with stakeholders in our pursuit of sustainability values, principles, objectives and goals.

STRATEGIC THINKING COMPETENCY

As part of the management team, I participate in the designing and execution of interventions and governance strategies that will address sustainability challenges in the firm.

As part of the management team, I translate the knowledge and skills associated with the sustainability competencies into action that will result in the desired sustainable solutions for the firm.

As part of the management team, I accommodate varying perspectives on issues and act despite inconclusive or incomplete evidence.

As part of the management team, I understand concepts and methods for strategy building in real-world situations (i.e. concepts such as intentionality, systemic inertia, path dependencies, barriers, carriers and alliances).

As part of the management team, I participate in the assessing of the viability, feasibility, efficiency and efficacy of systemic interventions in the firm.

As part of the management team, I understand the potential of interventions to produce unintended consequences.

As part of the management team, I participate in the use of methods for designing, testing, implementing and evaluating of strategies and plans of the firm.

In collaboration with different stakeholders, our management team adapts company policies, programmes and action plans in accordance with desired changes.

INTERPERSONAL COMPETENCY

As part of the management team, I effectively facilitate collaboration amongst stakeholders of the firm in order to foster an understanding of the system complexity in achieving sustainable development.

As part of the management team, I effectively facilitate collaboration amongst stakeholders of the firm to explore future alternatives in achieving sustainable development.

As part of the management team, I effectively facilitate collaboration amongst stakeholders of the firm in order to craft compelling visions for achieving sustainable development.

As part of the management team, I effectively facilitate collaboration amongst stakeholders of the firm in order to develop robust strategies for achieving sustainable development.

As part of the management team, I motivate and facilitate sustainability problem solving in the firm.

As part of the management team, I effectively communicate and negotiate sustainability solutions wherever necessary in the firm.

As part of the management team, I have developed expertise in participatory methods for collaborating with stakeholders.

As part of the management team, I embrace diversity of knowledge and values amongst all cultures and social groups.

HUMAN RESOURCE DEVELOPMENT

My firm has documented objectives and targets for the training and development of our human resources that our managers must achieve.

Compared to our competitors, my firm is performing very well with regard to the training and development of our human resources.

My firm effectively monitors and records the type of skills and competencies that we focus on in our training and development programme(s).

My firm regularly provides quantitative and qualitative data to relevant stakeholders on how we perform on the training and development of our human resources.

My firm strongly considers knowledge and skills that support our sustainability objectives when recruiting and selecting staff.

My firm provides sustainability training at all levels within our organisation.

My firm infuses our sustainability focus in all our mentoring, coaching and/or career development processes.

My firm regularly creates opportunities for sustainability dialogues amongst all leadership levels in the firm.

EMPLOYEE RELATIONS

My firm's employee relations are reasonably healthy.

In my firm, disciplinary and grievance processes and procedures are clearly communicated to all employees.

My firm does everything in its power to avert industrial action (labour strikes).

My firm effectively implements a clear code of conduct for all employees.

My firm does everything in its power to use rewards effectively in order to achieve healthy employee relations.

In general, the relevant managers in my firm manage employee relations effectively.

EQUAL OPPORTUNITIES AND WORKFORCE DIVERSITY

In its policies, my firm publicly demonstrates its commitment to equal opportunities.

In its policies, my firm publicly demonstrates its commitment to workforce diversity.

My firm has clearly stated targets for promoting equal opportunities for all employees.

My firm has clearly stated targets for promoting workforce diversity.

In my firm, managers regularly report quantitative data on achieving equal opportunity targets.

In my firm, managers regularly report quantitative data on achieving workforce diversity targets.

In its policies, my firm clearly specifies forms of discrimination that might occur in pursuit of equal opportunities and diversity.

My firm effectively implements its policy of providing equal opportunities for all employees.

My firm effectively implements its policy of pursuing workforce diversity.

My firm has been achieving its targets with regard to providing equal opportunities for all employees.

My firm has been achieving its targets with regards to promoting workforce diversity.

ENVIRONMENTAL PERFORMANCE

My firm has practices in place to safeguard biodiversity.

My firm has practices in place to reducing greenhouse gas emissions.

My firm has been steadily increasing our use of renewable energy.

My firm continues our commitment to independent environmental certification systems (e.g. wood and fibre certification systems, ISO 140001).

My firm is successful in reducing waste.

My firm conforms to best environmental practice and legislation.

My firm plays its part in preventing resource depletion.

My firm plays it part in looking at ways to beneficiate waste streams (creating new income streams from waste).

PROFITABILITY

a) Please indicate your firm's basic earning power (profit before interest and taxes as a percentage of total assets) for the last financial year

0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%

b) Please indicate your firm's rate of return on total assests (net profit after taxes as a percentage of total assets) for the last financial year

0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%

c) Please indicate your firm's net profit margin (net profit after taxes as a percentage of net sales income) for the last financial year

0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%

d) Please indicate indicate your firm's turnover speed of total assets (net sales income divided by total assets) for 2013

2-3 times p.a	4-5 times p.a	6-7 times p.a	8-9 times p.a	10-11 times p.a	12-13 times p.a	14-15 times p.a	16-17 times p.a	18-19 times p.a	> 20 times p.a

e) Please indicate your firm's return on equity (net profit after taxes as a percentage of equity capital)

0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%

f) The average growth of my firm's share price over the past 5 years was

0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%

DEMOGRAPHIC VARIABLES

Please make a cross (X) or enter the relevant information in the blocks provided.

GENDER: Male [   ]   Female [   ]

AGE GROUP: | 20 – 29 | 30 – 39 | 40 – 49 | 50 – 59 | 60+ |

Please indicate your highest educational qualification (Indicate actual degree/diploma rather than NQF level)

Please indicate your JOB TITLE:
(Director, Deputy-director, Senior Manager, etc.)

For HOW LONG have you been working for your current employer (in years?)

| LESS THAN 5 YEARS | 5 – 9 | 10 – 14 | 15 – 19 | 20 + |

How many years of EXPERIENCE have you got in your current job?

| LESS THAN 5 YEARS | 5 – 9 | 10 – 14 | 15 – 19 | 20 + |

ANNEXURE 3

THE MEASURING INSTRUMENTS AFTER THE EXPLORATORY FACTOR ANALYSES

CORPORATE GOVERNANCE

COGOV1 As a manager, I actively support my firm's public commitment to complying with internationally accepted governance standards, e.g. King III.

COGOV3 As a manager, I actively support my firm having procedures to review both internal and external audit findings.

COGOV4 As a manager, I actively support my firm's code of ethics policy.

COGOV5 As a manager, I actively support my firm ensuring senior responsibility for ethics management.

COGOV6 As a manager, I actively support my firm ensuring training and/or communication on the code of ethics and the associated conduct of employees, e.g. Part of employee induction programme.

COGOV7 As a manager, I actively support my firm ensuring a secure communication channel for employees to seek advice or voice concerns, e.g. Confidential fraud hotline.

COGOV8 As a manager, I actively support my firm having compliance monitoring and regular reviews of the implementation of the code of ethics.

CLEAD1 As a leader, I inspire and evoke greatness in my followers in order to motivate them to do a proper job.

CLEAD3 As a leader, I believe in being authentic and truthful in my dealings with my followers.

CLEAD6 As a leader, I believe that to be effective there must be integration between head, heart and hand, i.e. seamlessness between what I think, how I feel and what I do.

CLEAD8 As a leader, I acknowledge that success is a result of collective effort and is not isolated to my contribution.

SBEHS1 As a manager, I actively create an ethical environment in my firm by using my own transformational influence.

STRAT6 As part of the management team, I understand the potential of interventions to produce unintended consequences.

SYSTC6 As part of the management team, I understand that a fragmented approach to sustainability is unlikely to be successful because of its integrated and complex nature.

SYSTEMS-THINKING COMPETENCY

COGOV2 As a manager, I actively support my firm's Board having separate committees for audits and remuneration.

STRAT7 As part of the management team, I participate in the use of methods for designing, testing, implementing and evaluating of strategies and plans of the firm.

SYSTC1 As part of the management team, I participate in the analysing of economic issues (external and internal to the firm) related to sustainability in order to achieve sustainable business practices in the firm.

SYSTC2 As part of the management team, I participate in the analysing of environmental issues (external and internal to the firm) related to sustainability in order to achieve sustainable business practices in the firm.

EQUAL OPPORTUNITIES AND WORKFORCE DIVERSITY

EQWD1 In its policies, my firm publicly demonstrates its commitment to equal opportunities.

EQWD2 In its policies, my firm publicly demonstrates its commitment to workforce diversity.

EQWD3 My firm has clearly stated targets for promoting equal opportunities for all employees.

EQWD4 My firm has clearly stated targets for promoting workforce diversity.

EMPLOYEE RELATIONS

EMPRE5 My firm does everything in its power to use rewards effectively in order to achieve healthy employee relations.

EMPRE6 In general, the relevant managers in my firm manage employee relations effectively.

EQWD10 My firm has been achieving its targets with regard to providing equal opportunities for all employees.

PROFITABILITY

Please indicate your firm's basic earning power (profit before interest and taxes as a percentage of total assets) for the last financial year

0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%

Please indicate your firm's net profit margin (net profit after taxes as a percentage of net sales income) for the last financial year

0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%

Please indicate your firm's rate of return on total assests (net profit after taxes as a percentage of total assets) for the last financial year

0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%

ANNEXURE 4

ETHICS CLEARANCE

Nelson Mandela Metropolitan University

for tomorrow

FORM E

ETHICS CLEARANCE FOR TREATISES/DISSERTATIONS/THESES

Please type or complete in black ink

FACULTY: Business and Economic Sciences

SCHOOL/DEPARTMENT: Business School

I, (surname and initials of supervisor) Arnolds, C.A

the supervisor for (surname and initials of candidate) Jukhdeo, S.A.F

_____ (student number) 211256013

a candidate for the degree of Doctor in Business Administration

with a treatise/dissertation/thesis entitled (full title of treatise/dissertation/thesis):

A conscious leadership model to achieve sustainable business practices

considered the following ethics criteria *(please tick the appropriate block):*

	YES	NO
1. Is there any risk of harm, embarrassment of offence, however slight or temporary, to the participant, third parties or to the communities at large?		X
2. Is the study based on a research population defined as 'vulnerable' in terms of age, physical characteristics and/or disease status?		X
2.1 Are subjects/participants/respondents of your study:		
(a) Children under the age of 18?		X
(b) NMMU staff?		X
(c) NMMU students?		X
(d) The elderly/persons over the age of 60?		X
(e) A sample from an institution (e.g. hospital/school)?		X
(f) Handicapped (e.g. mentally or physically)?		X

3. Does the data that will be collected require consent of an institutional authority for this study? (An institutional authority refers to an organisation that is established by government to protect vulnerable people)		X
3.1 Are you intending to access participant data from an existing, stored repository (e.g. school, institutional or university records)?		X
4. Will the participant's privacy, anonymity or confidentiality be compromised?		X
4.1 Are you administering a questionnaire/survey that:		
(a) Collects sensitive/identifiable data from participants?		X
(b) Does not guarantee the anonymity of the participant?		X
(c) Does not guarantee the confidentiality of the participant and the data?		X
(d) Will offer an incentive to respondents to participate, i.e. a lucky draw or any other prize?		X
(e) Will create doubt whether sample control measures are in place?		X
(f) Will be distributed electronically via email (and requesting an email response? Note: • If your questionnaire **DOES NOT** request respondents' identification, is distributed electronically and you request respondents to return it *manually* (print out and deliver/mail); **AND** respondent anonymity can be guaranteed, your answer will be NO. • If your questionnaire **DOES NOT** request respondents' identification, is *distributed via an email link and works through a web response system (e.g. the university survey system); **AND** respondent anonymity can be guaranteed, your answer will be NO.		X

Please note that if ANY of the questions above have been answered in the affirmative (YES) the student will need to complete the full ethics clearance form (REC-H application) and submit it with the relevant documentation to the Faculty RECH (Ethics) representative.
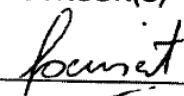
and hereby certify that the student has given his/her research ethical consideration and full ethics approval is not required.

_____   _____16/9/2014_____

SUPERVISOR(S)   **DATE**

_____   _____16/9/2014_____

HEAD OF DEPARTMENT   **DATE**

_____   _____16/9/2014_____

STUDENT(S)   **DATE**

Please ensure that the research methodology section from the proposal is attached to this form.

ANNEXURE 5

TURNITIN REPORTS

The attached Turnitin reports provide proof that the thesis has been tested for plagiarism. The NMMU Business School requires a Similarity Index (SI) of not exceeding 24%. The attached reports indicate that all chapters show a SI of below 24%. Below is a summary of the results as indicated in the attached reports.

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