

Investigating the influence of leadership on organisational development at a gas energy power plant

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ABSTRACT

This study was conducted to investigate the state of leadership characteristics and the influence these variables have on organisational development dimensions at a gas energy power plant. The inquiry was conducted in a natural working environment of an organisation where respondents are situated/ located.

Due to the fact that the environment in which companies in South Africa are operating is constantly changing, the companies themselves are undergoing a process of transformation. Organisations that intend to compete successfully within this changing environment need to have the right kind of leaders in order to flourish or even stay afloat. Company leaders at all levels are, thus, expected to successfully navigate these troubled waters.

Leadership mainly has to do with the way in which leaders influence their subordinates. Research has shown that there are succinctly different styles of leadership, and that each type of style has a different influence on the motivation of workers which, in turn, impacts on the overall performance of the organisation.

The Multi Leadership Questionnaire (MLQ form 5X) from Avolio & Bass (2004) was used to measure self- and subordinates' perceptions of leadership styles. The Organisational Diagnostic Questionnaire (ODQ) from Weisbord (1976) was used to measure the dimensions of organisational development. The questionnaires were completed by 40 leader members (managers and supervisors) and 79 subordinates that have a direct relationship with the leader members at the gas energy power plant.

The research findings reveal that there is a significant difference between leaders' (managers and supervisors) self-perceptions on their own leadership and influence on organisational development, versus the perceptions of their subordinates on their leadership and influence on organisational development. The research shows that leaders tend to assess themselves higher than their subordinates do. The findings of the study reveal that transformational leadership style has significant and positive correlations with organisational development dimensions.

Key words: transformational leadership, transactional leadership, laissez-faire leadership, organisational development

DECLARATION

I, Sinclair Kaudani, declare that this mini-dissertation with the title “Investigating the influence of leadership on organisational development at a gas energy power plant” is my own work. It is submitted in partial fulfilment of the requirements for the degree of Magister in Business Administration at the North West University School of Business and Governance. It has not been submitted before for any degree or examination in any other University. I further declare that I obtained the necessary authorisation and consent to carry out this study.

Sinclair Kaudani

Signature

Date

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LIST OF ABBREVIATIONS

EPC	Engineering, Procuring and Construction
FFM	Five-Factor Model
FET	Further Education and Training
GEPP	Gas Energy Power Plant
LV	Low Voltage
MV	Medium Voltage
MW	Megawatt
MLQ	Multifactor Leadership Questionnaire
OD	Organisational Development
ODQ	Organisational Diagnostic Questionnaire
OEM	original equipment manufacturer
NWU	North West University
SLA	Service Level Agreement
SNE	Sasol New Energy
SPSS	Statistical Package for Social Science

“There is nothing permanent except change”

Heraclitus, Greek philosopher, 6th Century BC

CHAPTER 1: NATURE AND SCOPE OF THE STUDY

1.1. Introduction

Business leader Dr. Reuel Khoza told delegates at the ministerial session of the Africa Energy Indaba 2016 that the absence of compelling continental leadership focusing on energy integration will leave Africa in the dark (Africa Energy Indaba, 2016). Khoza who is chairperson of independent power producer Globeleq, stated that with energy you can illuminate what has been called the Dark Continent. For as long as Africa does not show leadership, we will remain in the dark (Khoza, 2016). Leadership has played a major contribution on the underperformance of the South African energy supply.

Leadership is one of the most pressing issues and one of the least understood concepts in the corporate world. The history of leadership encompasses through several paradigm shifts and voluminous body of knowledge. As a universal activity, leadership is fundamental for effective organizational and social functioning. The very nature of leadership is its influencing process and its resultant outcomes. Such process is determined by the leaders and followers' characteristics, dispositions, behaviour perceptions, attributions and the context wherein the process of influencing occurs. The moral purpose of leadership is to create an empowered follower that leads to moral outcomes that are achieved through moral means (Hersey, Blanchard and Johnson, 2013).

This dissertation is concerned with investigating the influence of leadership on organisational development (OD) at a gas energy power plant.

This chapter presents a preface to the research study. Background and setting of the study are highlighted below. The motivation and objectives of the study are presented as guidelines of what the project scope; outline and description of the contents of this dissertation is intended to cover. The research methodology and empirical study will give structure to the research and will also be outlined.

1.2. Background and setting

Sasol bought the gas energy power plant (GEPP) in 2012 from Wärtsilä, an original equipment manufacturer (OEM). After engineering, procuring and construction (EPC) of

the power plant, Wärtsilä signed service level agreement (SLA) contract to manage, operate and maintain the power plant for a period of three years from October 2012 to December 2015 (Wärtsilä Newsroom, 2013). It is the largest operational power plant running exclusively on gas engines on the African continent, and the first of its kind ever in the Republic of South Africa (Wärtsilä Newsroom, 2013).

During the 3rd year of the three year period of the SLA, the plant was co-governed by Wärtsilä and Sasol to ensure a smooth transition in leadership management. Some Sasol employees underwent career development programmes undertaken by Wärtsilä expert employees to ensure that when the SLA operation period ended Sasol would be able to operate the plant on their own. The two organisations had employees from different functional backgrounds who were brought together to accomplish a shared goal.

In our turbulent economic situation, leaders are considered as one of the most effective and essential components that enable organisations to overcome limiting socioeconomic issues and remain abreast with changing business trends (Finkelstein, *et al.*, 2010; Northhouse, 2010). As compared to the new roles of leaders in the current business environment the traditional roles of leaders include providing visionary direction, providing a communication channel, finding the way forward, and leading change based on mutual trust with organisation members (Bass & Riggio, 2010; Martocchio & Judge, 1997; Yukl, 1989).

1.2.1. Wärtsilä Corporation

Wärtsilä is a Finnish corporation which manufactures and services power sources and other equipment in the marine and energy markets. The core products of Wärtsilä include large combustion engines used in cruise ships and ferries. As of 2015 the company had operations in over 200 locations in more than 70 countries around the world employing close to 18,800 workers. It is headquartered in Helsinki (Wärtsilä, 2016).

Wärtsilä has three main businesses; energy solutions - focusing on the energy market, marine solutions - focusing on the marine market and services - which supports both markets. Wärtsilä operates globally but its Ship Power division is heavily focused on Asia.

Wärtsilä South Africa's local headquarters is in Cape Town, where it has been based since 1994. It employs close to 50 employees including mechanics, service engineers, spare parts co-ordinators and services sales team. Wärtsilä also has workshops in Durban, Namibia, and Madagascar. Wärtsilä South Africa operates a 24 Megawatt (MW)

power plant for a mining compound. Altogether, the company has 80 employees manning its Southern African operations. Its main activities consist of servicing all present installations, mainly for the marine industry, managing the operation and maintaining various power plants in the Southern African region, including Madagascar, Angola and Zambia (Wärtsilä S.A, 2015).

As of 2016, Wärtsilä had 60 Gigawatt (GW) of installed power plant capacity in 176 countries around the world (Wärtsilä, 2016).

1.2.2. Sasol

Sasol was founded in 1950 with the mission to commercialise coal-to-liquids (CTL) technology in South Africa. The first CTL complex started producing synthetic fuels and chemicals in Sasolburg in 1955. Today, Sasol is one of South Africa's biggest companies. It has operations in 38 countries and employs almost 34,000 people.

In 2014, Sasol Ltd, through its subsidiary Sasol New Energy (SNE), commissioned the gas-fired power plant with an installed capacity of 175 MW in Sasolburg in the province of Free State (Industrial News, 2014). The power plant generates about 140 MW of electricity from gas, using the new gas engine technology. SNE buys approximately 12 million gigajoules per annum of natural gas from its sister company, Sasol Gas, to fuel the gas engines for power generation. The natural gas originates from the Pande/Temane gas fields in Mozambique and is transported to Sasolburg via the existing cross-border ROMPCO pipeline and the Sasol Gas transmission network.

Most of the power generated from the facility is used internally within the Sasol Sasolburg complex, with the surplus being sold to Eskom. Sasol spent R1.8 billion on this development that was strategically driven by the company's desire to alleviate the reliance on coal-generated electricity in a bid to reduce its carbon dioxide emissions by 1 million tonnes per year (Sasol, 2013).

The Sasol gas-fired power plant is the only gas generating plant in South Africa. Its contribution is relatively insignificant compared to the dominant coal, nuclear and growing renewables in the country's energy generation mix. However, its success is exemplary and attests to what literature identifies as critical success factors for gas to power project development. SNE has reliable fuel supplies; the transportation infrastructure already existed before commencement of the project, equity financing was employed and the Sasol internal operations anchored its development.

Figure 1.1: Sasol Gas Energy Power Plant, Sasolburg

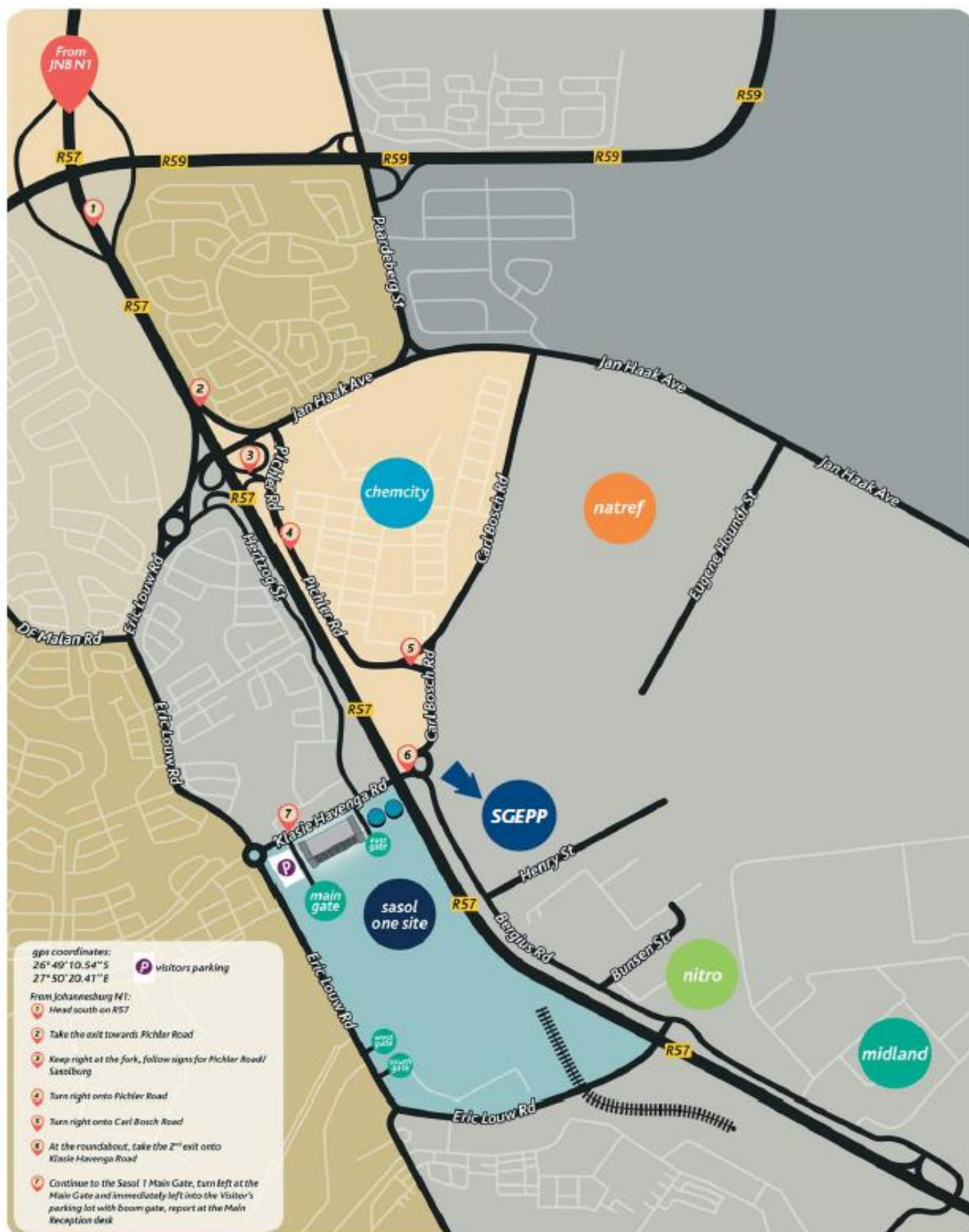


(Sasol, 2014)

Fig 1.1 above shows GEPP aerial photo. The other buildings on-site include the engine room, compressor room, administration, workshop, control room, medium voltage (MV) and low voltage (LV) rooms.

Sasol GEPP 175MW power plant is close to Sasol plants and is built close to a substation supplying power to Sasol network which is interconnected with the Eskom grid. Fig 1.2 below shows Sasol GEPP site map in relation to other Sasol sites and the GPS coordinates.

Figure 1.2: Sasol Gas Energy Power Plant Map



(Sasol, 2014)

1.3. Problem Statement and Research Question

During the three year service level agreement (SLA) operation period Wärtsilä management led Sasol employees in running of the gas energy power plant. The two organisations had employees from different functional backgrounds who were brought together to accomplish a shared goal. The challenges faced by the leaders included influencing subordinates to carry out requests, support proposals, and implement decisions. In large organisations, the effectiveness of managers depends on influence over superiors, peers and subordinates (Bildstein, Tjitra, & Gueldenberg, 2013). As the saying goes, influence in one direction tends to enhance influence in other directions.

In any organisation, influence is the essence of leadership. Leadership is defined by Yukl (2013: 7) as "... the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives." In relation to organisational change, leadership also plays a pivotal role (Goldsmith *et al.* 2015). In order to remain competitive, organisations need to embrace change. In terms of internal strategic planning, change is one of the best strategies that Sasol employs in order to remain the leading petrochemical supplier in South Africa (Sasol communication's department: 2014).

This study attempts to assess the influence of leadership style on organisational development at a gas energy power plant. To successfully deal with this research subject it is necessary to present and answer the following research questions:

1.3.1. Research Question

This study shall address the following research questions:

- What is the link between leadership and organisational development (OD)?
- Do perceptions of leadership style predict the experienced OD at gas energy power plant (GEPP)?
- What is the impact of leadership on organisational development at GEPP?
- What is the predominant leadership style at GEPP?

In order to answer the above research questions, the following research objectives are set.

1.4. Primary Objective

The main objective of this study is to investigate the influence of leadership style on an organisation, with special reference to an electricity generating gas plant in an economy with severe electricity needs.

To achieve the main objective of the study, the following specific objectives were addressed:

- i. To investigate whether leadership is related to organisational development.
- ii. To investigate the effect of leadership style on organisational development.
- iii. To investigate whether leadership predicts organisational development

1.5. Research hypotheses

The study is aimed at focusing on perception of management leaders on leadership style and organisational development versus the perception of their subordinates thereof, in an electricity generating gas plant.

The following research hypotheses were formulated for the purpose of the study (H_0 – denotes a null hypothesis):

H_{01} : There is no statistical significant relationship between leaders' self-perceptions of their own leadership and organisational development, versus the perception of their subordinates on their leadership and organisational development.

H_{a1} : There is statistical significant relationship between leaders' self-perceptions of their own leadership and organisational development, versus the perception of their subordinates on their leadership and organisational development.

H_{02} : Organisational development is not aligned with transformational leadership style.

H_{a2} : Organisational development is aligned with transformational leadership style.

H_{03} : Organisational development is not aligned with transactional leadership style.

H_{a3} : Organisational development is aligned with transactional leadership style.

H_{04} : Organisational development is not aligned with laissez-faire leadership style.

H_{a4} : Organisational development is aligned with laissez-faire leadership style.

1.6. Research Methods

The research methods used include the review of related literature and the empirical study. These were applied as key steps in paving a way for structuring this study.

1.6.1. Literature review

The literature review covers predominantly peer-reviewed journals from the databases and search engines such as Science Direct, Emerald, Google Scholar and the North-West University online-library. It focuses on previous research on leadership values and behaviours, organisational development and knowledge management.

Chapter 2 reviewed the literature pertaining to organisational development, drivers of organisational development, leadership, leadership styles, and the impact of leadership on organisational development.

1.6.2. Empirical study

The empirical study covers the research approach, research design, participants, sampling, measuring instrument and statistical analysis.

1.6.2.1. Research participants

The gas energy power plant has six operating business divisions with a total population of 250 employees. The study was targeted mainly at professionals such as engineers, accountants, artisans, buyers, logistics officers, technicians and technologists at GEPP site in the Province of Free State in South Africa. This business unit is part of the Petrochemical Industry which is the country's largest investor in capital projects, skills development and technological research and development. The main company has around 30 400 employees working in 36 countries.

This research focuses on the 45 departmental leaders (managers and supervisors) and a sample total of 195 subordinates who have a direct line of communication with these leaders. The latter sample identified comprised subordinates or junior employees (artisans, plant operators and cleaners). The leaders included middle managers (foremen, coordinators and supervisors), senior managers (maintenance and operations) and top managers (contract manager and managing director). A probability random sample method was used.

1.6.2.2. Research approach

The methodology used in this research is a quantitative approach as opposed to a qualitative approach which involves the evaluation of the study objectives. The selection of this approach was influenced by the nature of data. In obtaining data for the study cross section design, questionnaires were used as the most applicable method.

One advantage of using the quantitative approach is the ability to control investigations and the structure of the research situation in order to identify and isolate the study variables using a specific measuring instrument rather than the holistic approach.

1.6.2.3. Research Design

As stated by Welman *et al.* (2010:52): “Research design is the plan according to how we obtain research participants (subjects) and collect information from them. In this we describe what we are going to do with the participants, with a view to research conclusions about the research problem (research hypothesis or research questions).”

The research design employed can be explained as follows:

- Data was gathered through the distributing of hard copies of both the Multifactor Leadership Questionnaire and the Organisational Diagnosis Questionnaire to site leaders of each division and their direct subordinates.
- After the questionnaires were returned from both the site leaders of each division and their direct subordinates, the data was captured.
- The captured data was tested for reliability (Cronbach’s alpha reliability coefficient) and then analysed using statistical analysis.

The analysed data was discussed and compared to the hypotheses.

1.6.2.4. Research procedure

In order to undertake the research for this study, permission had to be obtained from the GEPP site Senior Operations Manager. An e-mail requesting permission was addressed to him. It explained the objectives of the research. The e-mail also addressed issues of ethics and anonymity in terms of how data was to be collected.

After permission was granted, the questionnaires were self-administered, and they were delivered and collected by hand. This process assisted the researcher in ensuring that only intended qualified employees completed the questionnaires. This also provided the researcher with an opportunity to explain the purpose of the study and clarify the individual items in the questionnaire, if necessary.

The questionnaires had an introductory letter that introduced the objectives and assured employees that their responses would be treated anonymously and that their participation was voluntary. This was done in order to obtain more truthful responses, as posing questions on work-related outcomes can be regarded as sensitive issue.

1.6.2.5. Measuring instrument(s)

A questionnaire was utilized to operationalise the variables. The questionnaire was structured into four sections namely; Section One – Demographic (gender, age, race, qualification and occupation), Section Two – Leadership characteristics. Section Two comprised the Multifactor Leadership Questionnaire (MLQ). This was used to assess the self and subordinates' leadership style constructs. Bass and Avolio (1992) developed the MLQ to determine the degree to which leaders exhibited transformational and transactional leadership in comparison with the degree to which their followers were satisfied with their leader's effectiveness. The MLQ measures a broad range of leadership types - from passive leaders, to leaders who give contingent rewards to followers and those who transform their followers into becoming leaders themselves.

Section Three – For the conceptualisation of the two constructs, leadership and organisational development, a standardised, valid and reliable, measuring instrument was chosen, discussed and motivated. For these constructs the Organisational Diagnostic Questionnaire (ODQ) was used. This is based on Weisbord's (1976) Six-Box Organisational Model. Thirty-five items comprise the ODQ, with five in each of the seven variables. Respondents are asked to indicate their current views of their organisation on a scale of 1 to 7, with a score of 4 representing a neutral point.

1.6.2.6. Reliability and validity

Reliability and validity are statistical criteria used to assess whether the research provides a good measure of the reality. Reliability refers to the dependability of a measurement

instrument, that is, the extent to which the instruments yield the same result on repeated trials (Vijay and Praveen, 2006).

The concepts that will be of the most importance for quantitative research are: truth value (reflected by internal validity), applicability (reflected by external validity), consistency (reflected by reliability) and neutrality (reflected by objective).

The reliability and validity of both the MLQ and ODQ will be individually described in the next sections.

1.6.2.7. Multifactor Leadership Questionnaire (Leader & Rater Form 5X - short version)

Regarding the literature study done in Chapter 2 on leadership styles, and the widespread research done on transactional and transformational leadership, an appropriate instrument, called the MLQ form 5X - short version developed by Avolio and Bass, was identified. The questionnaire consists of two components:

- a) the leader form, in which the leader rates his leadership style as he perceives it; and
- b) the rater form, in which the subordinates rate their leaders.

The questionnaire consists of 45 items that identify and measure the key aspects of leadership behaviour. Idealised influence attributes and behaviour, inspirational motivation, intellectual stimulation and individual consideration are the five scales used to identify the characteristics of transformational leadership. The three scales that identify the characteristics of a transactional leader are contingent reward, management-by-exception-active, and management-by-exception-passive. One scale measures non-leadership.

The MLQ used a 5 point scale of measurement from 0 to 4, with 0 = not at all, 1 = once in a while, 2 = sometimes, 3 = fairly often, and 4 = frequently, if not always. The leaders' and subordinates' questionnaires that were distributed to be completed are provided in Appendix 1 and 2.

1.6.2.8. Reliability and validity of the MLQ

Multiple approaches have been used to confirm the reliability and validity of the MLQ. The MLQ scales have demonstrated excellent internal consistency, with an alpha coefficient above the 0.85 level for all MLQ scales. This is confirmed by Ackerman, *et al.* (2000). To

test the reliability of the three leadership scales of transformational, transactional, and laissez-faire leadership, Cronbach's alpha reliability co-efficient was used. Results yielded scores of 0.926, 0.756 and 0.875 respectively.

1.6.2.9. Organisational Diagnosis Questionnaire

The Organisational Diagnosis Questionnaire (ODQ) that was used in this study is based on Weisbord's (1976) Six-Box Organisational Model. The main purpose of the ODQ is to determine problems within an organisation. This includes information about attitude toward change and managerial leadership (two of the six factors measured by the ODQ) on which this study will focus.

The ODQ is a well-known South-African measuring instrument and is available in two forms: The first is a standardised questionnaire for literate people and the second is a related version that focuses on groups of illiterate people whereby, with the help of facilitators and translators, their answers are recorded. In this research, the standardised questionnaire was used.

1.6.2.10. Reliability and validity of the ODQ

The Weisbord's (1976) model is an accepted model of organisational behaviour (Cummings and Worley (2009:94) and the Organisational Diagnosis Questionnaire is based on this model.

The ODQ is a reliable measure of organisational functioning and effectiveness. Reliability refers to the generalisation of the numbers obtained at the measuring opportunity (Baron, 2001). Cronbach's alpha coefficients were used to test the reliability of the Organisational Development questionnaire and its six main factors, under which managerial leadership and attitude toward change falls. This index indicates the measure to which all the items of a factor in the questionnaire test the same characteristics (Huysamen, 1993; Yu, 2002).

The ODQ's reliability is mainly set in the factor analysis procedure with which it was designed, as well as the organisational behaviour models on which it was based (Jackson, 2015). The ODQ validity is calculated according to the Kuder-Richardson-20.

1.6.2.11. Data collection process

195 copies each of the MLQ and ODQ (see Appendix 1, 2 & 3) were distributed to subordinates to evaluate their leaders. 45 copies each of the MLQ and ODQ were distributed to site leaders to do a self-evaluation.

79 questionnaires of the 105 questionnaires distributed to the subordinates were returned, which constituted a 41% response rate. 40 questionnaires of the 45 questionnaires distributed for self-evaluation distributed to site leaders were returned, which constitutes an 89% response rate for the site leader group.

1.6.2.12. Data analysis methods

Welman *et al.* (2010) observe that data analysis by means of statistical techniques helps to investigate variables as well as their effect, relationship, and patterns of involvement within our world. The data has to be organised so that comparisons, contrasts and insights can be made and demonstrated. The data is categorised to permit analysis and comparison of meanings within a category.

Once the researcher collected the completed questionnaires, the results of the questions were captured on a Microsoft Excel spreadsheet, in order to be statistically analysed. The captured data was presented in a manner that allowed easy importing of the data into SPSS (Statistical Package for Social Science) for analysis. The data was imported and calculated by an independent statistical department of the North-West University.

Once the data was imported into the SPSS spreadsheet, descriptive statistical means, standard deviations and Cohen's Effect Size were provided for each subscale score of the instruments. Cronbach alpha coefficients were determined to assess the reliability of the measuring instruments. Pearson product-moment correlation was used to identify the relationship between the variables. A step-wise multiple regression analysis was conducted to determine the proportion of variance in the dependent variables of work success and organisational commitments that are predicted by the independent variables (leader's characteristics). The effect size in the case of multiple regressions is given by the formula (Steyn, 1999). The data was analysed by the researcher to determine data patterns to describe what the current status is in terms of each construct measured. The results are presented in the chapter 3.

As in any organisation, leadership styles play a major role in its state of affairs. This study is intended to understand the role of leadership styles and deterministic work related outcomes. The effectiveness of any organisation is mainly dependent on having the right inputs, one of which is human capital. A motivating organisational climate and conditions of employment in general are vital for employees to function properly. The characteristics of a leader determine employee work related outcomes.

1.7. Possible Limitations of the Study

The study focuses on one business unit of the organisation. The research was conducted at the GEPP in the Free State Province of South Africa, where the questionnaires were distributed and collected. For the purpose of the study, the targeted employees are the professionally qualified power utility workers ranging from artisans, accountants, buyers, to engineers. These workers have qualifications ranging from a minimum of Further Education and Training (FET) qualifications, to university diplomas and degrees. It is the opinion of the author that these professionals are capable of giving objective information for the study.

1.8. Expected Benefits

- The outcome of the study is expected to contribute towards understanding the current status with regards to the power utility leadership styles. This can be used as a baseline for integrated organisational improvements to face current and future challenges.
- Given the high failure rate of strategic initiatives, this study seeks to raise awareness of the role of leadership style in achieving the objectives of an organisation's strategic plan, which has implications for managers in companies.
- This study is unique because it focuses solely on the relationship between leadership styles and organisational development at a petrochemical industry.
- The outcome of the study is also expected to help the organisation to strategize properly on an organisational improvement roadmap that is driven more from the human capital performance paradigm as opposed to traditional approaches that only focus on technology and production processes.

1.9. Chapter outline

Chapter 1 presents the introduction to the study and the overall approach.

Chapter 2 presents an overview of the study of available literature on leadership style, organisational commitment and work success. It also analysed literature on laissez-faire, transactional and transformational leadership styles.

Chapter 3 presents the results and data analysis.

Chapter 4 presents discussion, recommendations, limitations and conclusion of the study.

1.10. Definition of the term used in title

Influence definition:

The capacity to have an effect on the character, development, or behaviour of someone or something, or the effect itself (Oxford English Dictionary, 2015).

1.11. Chapter summary

This chapter offered an overview as well as an introduction to the study. The problem statement, research objectives, the research methodology, limitations and the chapter layout were covered.

Chapter 2 will focus on the relevant literature and theory to the study.

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

The purpose of this chapter is to present a review of an existing body of knowledge which is of relevance to this research. The literature review covers three areas of interest namely; organisational development (OD), leadership and impact of leadership on OD. The headings of the research report and some of the literature under these headings are set out in this section. The literature used for the identification of constructs is based on published articles in peer-reviewed journals.

2.2. Organisational Development (OD)

There are many different definitions of organisation development (OD), each of which has a different emphasis. However, the one that incorporates most views is by Cummings and Worley (2009:2) which states, "OD is a system-wide application and transfer of behavioural science knowledge to the planned development, improvement, and reinforcement of the strategies, structures, and processes that lead to organisation effectiveness."

From the above definition, it can be inferred that organisational development uses social and behavioural science knowledge to develop interventions that help organisations and individuals to change successfully. It is a field practised in almost all kinds of organisations such as; education, health care, government, small and large businesses. Organisational development is a conceptual, organisation-wide effort to increase an organisation's effectiveness and viability (Burnes, 2014).

Bennis and Tichy (2009) refer to organisational development as a response to change, a complex educational strategy intended to change the beliefs, attitudes, values, and structure of an organisation so that it can better adapt to new technologies, markets, challenges, and the dizzying rate of change itself.

Organisational development is a unique organisational improvement strategy that emerged in the late 1950s and early 1960s (Lewin, 1958). It evolved into an integrated framework of theories and practices capable of solving or helping to solve most of the important problems confronting the human side of organisations (Burnes, 2014). Organisational development is about people and organisations and people in organisations and how they function (Lewin, 1958). Burnes (2014) adds that it is also

about planned change; that is, getting individuals, teams and organisations to function better.

Organisational development has its origins in scientific management and was made popular by Lewin (1946). Based on the human relations perspective, French and Bell (1983:15), state that the approach is a "... long range effort to improve an organisation`s problem solving and renewal process – with the assistance of change agent or catalyst and the use of the theory and technology of applied behavioural science."

Bennis and Tichy (2009: 58) corroborate French and Bell (1983) by stating that organisational development is neither "anything done to better an organisation" nor is it "the training function of the organisation; it is a particular kind of change process designed to bring about a particular kind of end result." Organisational development can involve interventions in the organisation's "processes," using behavioural science knowledge, organisational reflection, system improvement, planning and self-analysis (French & Bell, 1983).

In summary, French and Bell (1983) discuss the following features of organisational development:

- The goal is to improve the organisation`s health and effectiveness
- The focus on change effort is on the whole system (such as a division or organisation)
- Change is introduced systematically as planned intervention
- Top-down strategies are applied, that is, change starts at the top of the organisation and is gradually implemented downwards throughout the organisation
- Employees at all organisational levels must be committed to the change
- Change is made slowly, allowing for the continual assessment of change strategies
- Specialist change agents usually guide the change programmes
- The organisational development strategy is interdisciplinary
- The approach can be used for `healthy` and `unhealthy` organisations.

As a systematic approach to managing change process successfully, the process involves: "... identifying the need for change, selecting the intervention technique, gaining top management support, planning the change process, overcoming resistance to change and evaluating the change process" (Linstead, Fulop & Lilley, 2009: 641).

There have been many criticisms of organisational development (French and Bell, 1983). The main problem is the explicitly normative approach which assumes that there is one best way to manage change that increases organisational effectiveness and simultaneously achieves the well-being of employees (Palmer et al., 2009).

2.2.1. Theories of planned change

Planned change involves common sense, hard work applied painstakingly diligently over time, a systematic goal-oriented approach, and valid knowledge about organisational dynamics and how to change these dynamics (Burnes, 2014). Planned change is a deliberately designed movement occurring from one organisational state to another that has a commitment to producing a specified outcome (Linstead et al., 2009).

Most planned organisational change is triggered by the need to respond to new challenges or opportunities presented by the external environment, or in anticipation of the need to cope with potential future problems (Burnes, 2014:224). Management of change involves the modification of behaviour of individuals within the organisation and improving the ability of the organisation to cope with changes in its environment (Linstead *et al.*, 2009).

Lanning (2001) states that deliberate change is planned change. It can be fast or slow and may affect many elements of the organisation or only a few (French & Bell, 1999). Planned change represents the intention to systematically and stepwise improve the operational effectiveness of the organisation (French & Bell, 1999). Planned change can result in incremental change characterised by minute fine-tuning, fixing of problems, adjustments and modification of processes but do not necessarily result in fundamental changes in the organisation (Lanning, 2001). In contrast, radical change, which results in robust and fundamental change, is also known as revolution, refocus, transformation, reorientation, or turnaround (Buharist, 2000).

In phase models the word "phase" is used deliberately to emphasise that different phases may and do overlap (Lanning, 2001). The word "step", in turn, connotes discrete action; that is, step 1 is completed before step 2 can be taken (Burke 1994).

According to Lippitt *et al.* (1958: 10) “... planned change originates in a decision to make a deliberate effort to improve the system.” Consequently, the notion of planned change has led to different kinds of models for carrying out the planning itself and the action following it. What these models have in common is that they all contain a sequence of phases (also referred to as steps or stages) to be carried out (Lanning, 2001). These are accordingly called “phase models” for change (Lanning, 2001).

2.2.1.1. Lewin`s planned change model

Lewin (1951) developed a three phase model of change, based on the premise that an understanding of critical steps in the change process increases the likelihood of the successful management of change. These steps in table 2.1 in the process are:

- Unfreezing:

This stage involves the recognition of the need to change. Action is taken to unfreeze the existing attitudes and behaviour. Such action is essential for supporting employees and minimising change resistance (Linstead *et al.*, 2009). Lewin believed that the stability of human behaviour was based on a quasi-stationary equilibrium supported by a complex field driving and restraining forces (Burnes, 2014).

- Changing/ Movement:

As Schein (2004: 62) notes, “... unfreezing is not an end to itself, it creates a motivation to learn but does not necessarily control or predict the direction.” This echoes Lewin (1958), who posits that any attempt to predict or identify a specific outcome from planned change is very difficult because of the complexity of the forces concerned (Burnes, 2014). Moving the organisation to the desired state involves actual implementation of new systems of operation. This may involve experimentation, modification of systems or patterns of behaviour, technology or systems. It may also be at the point where people need to leave, while others join the organisation, as the full nature of transition emerges (Linstead, Fulop & Lilley, 2009). Once the change appears to have reached equilibrium once more, it would be time for the next process.

- Refreezing:

This stage involves the positive reinforcement of desired outcomes to promote the internalisation of new attitudes and behaviours (Linstead, Fulop & Lilley, 2009). An

appraisal of the change programme such as organisational culture, rewards, and structures becomes necessary at this stage to ensure that the new way of operating becomes a matter of habit, not a regulation (Cummings and Worley, 2009:24). Burnes (2014: 274) adds that "... refreezing seeks to stabilise the group at a new quasi-stationary equilibrium in order to ensure that the new behaviour is relatively safe from regression."

2.2.1.2. Kotter`s eight step model

Lewin's model has been criticised for being too simplistic and thus, not offering practical enough information for carrying out change in practice (Cummings and Worley, 2009:24). Kotter (1995) developed an 8-step model after analysing different organisations that had undergone change.

Kotter's 8-step change model can be summarised as (Kotter, 1995):

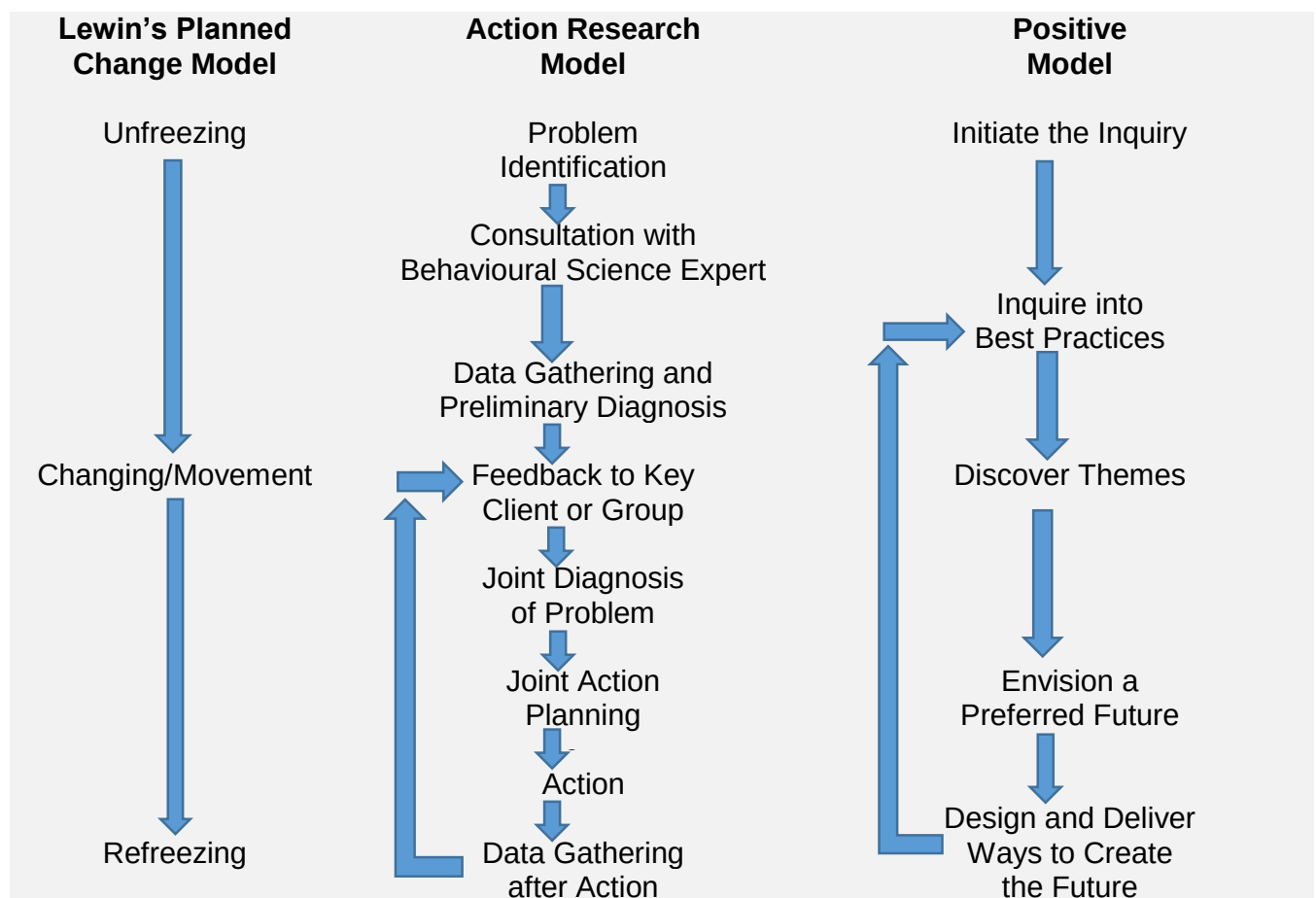
- Increase urgency - inspire people to move, make objectives real and relevant.
- Build the guiding team - get the right people in place with the right emotional commitment, and the right mix of skills and levels.
- Get the vision right - get the team to establish a simple vision and strategy, focus on emotional and creative aspects necessary to drive service and efficiency.
- Communicate for buy-in - involve as many people as possible, communicate the essentials simply, and to appeal and respond to people's needs. De-clutter communications - make technology work for you rather than against.
- Empower action - remove obstacles, enable constructive feedback and lots of support from leaders - reward and recognise progress and achievements.
- Create short-term wins - set aims that are easy to achieve - in bite-size chunks.
- Manageable number of initiatives - finish current stages before starting new ones.
- Do not let up - foster and encourage determination and persistence - ongoing change - encourage ongoing progress reporting - highlight achieved and future milestones.
- Make change stick - reinforce the value of successful change via recruitment, promotion, and use of change leaders.

Cummings and Worley, (2009) mapped Kotter's eight stage process onto Lewin's phases: establishing a sense of urgency, creating the guiding coalition, developing a vision and strategy, and communicating the change vision (unfreezing); empowering broad-based action, generating short-term wins (moving); and consolidating gains and producing more change, and anchoring new approaches in the culture (refreezing).

2.2.1.3. Action research and positive model

Shani and Bushe (1978) as cited by Cummings and Worley, (2009:24) state that the action research model focuses on planned change as a cyclical process in which initial research about the organisation provides information to guide subsequent action. The stages in the action research process are shown in the figure 2.1 below. The positive model focuses on what the organisation is doing right. It helps members understand their organisation when it is working at its best and builds off those capabilities to achieve even better results (Cummings and Worley, 2009). The positive model stages are shown below in figure 2.1.

Figure 2.1: Comparison of Planned Change



Source: (Cummings and Worley, 2009:25).

2.2.1.4. Comparisons of change models

All three models - Lewin's change model, the action research model, and the positive model describe the phases by which planned change occurs in organisations. A comparison by Cummings and Worley (2009) of the models can be summarised as:

- All three models describe the phases by which change occurs,
- The models overlap in:
 - Emphasis on action to implement change is preceded by a preliminary stage:
 - Unfreezing / diagnosis / initiate the enquiry
 - And followed by a closing stage:
 - Refreezing / evaluation
- All three models emphasise:
 - The application of behavioural science knowledge
 - The involvement of organisational members.
- All three models recognise:
 - That any interaction between the consultant and an organisation constitute an intervention.

2.3. Organisational development model for planned change utilised by GEPP

There are many frameworks developed for planned change. The gas energy power plant utilises a combination of all models described above and the more dominant model in use is the positive organisational development. The leaders at the gas energy power plant strive to promote a positive approach to planned change. The positive model should be used in situations when there is nothing particularly 'wrong' with the organisation, but where best practice and a focus on improving what is good about the organisation can lead to a shared vision for the future (Cummings and Worley, 2009).

2.4. Weisbord's organisational diagnostic model

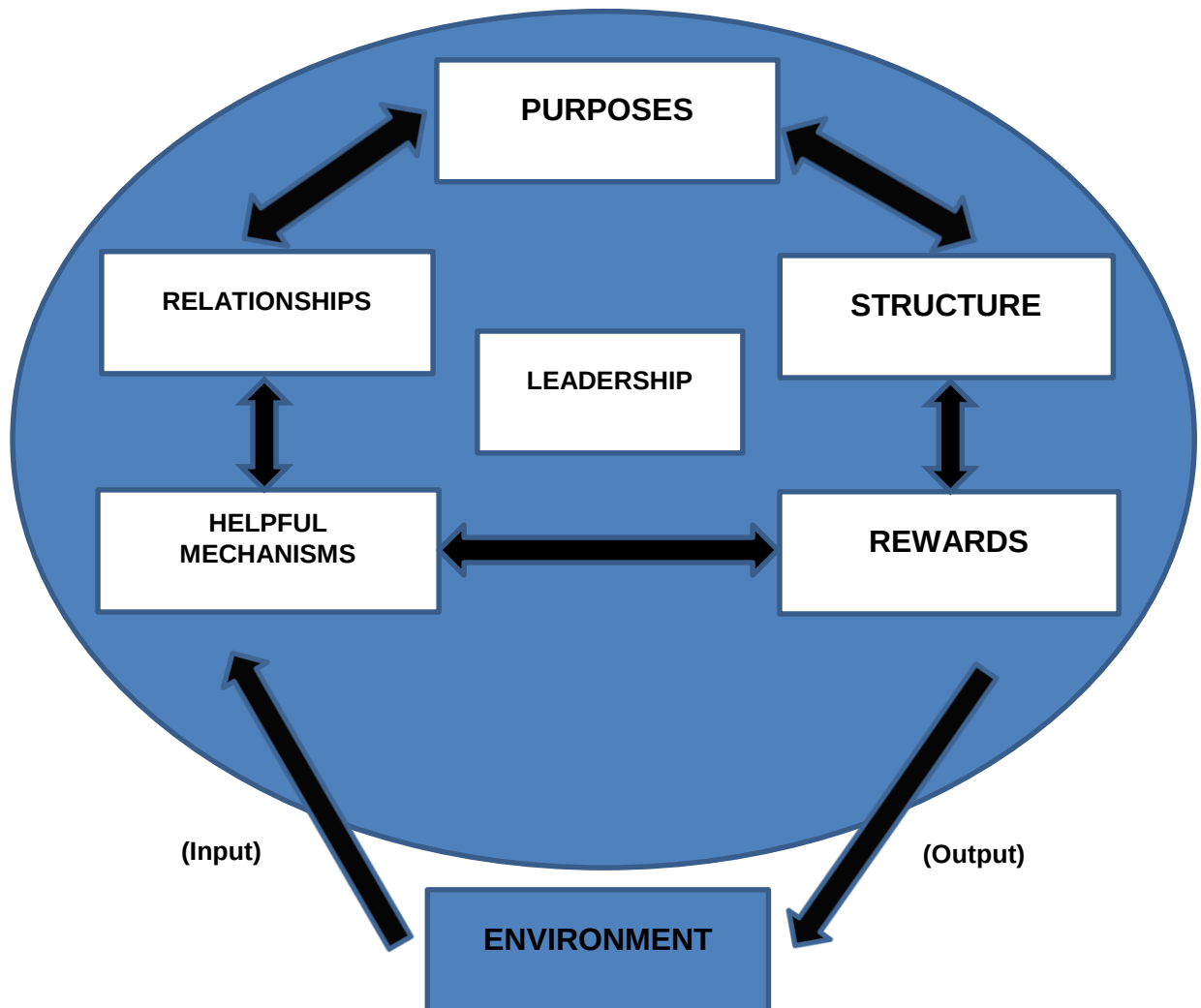
The Organisational Diagnosis Questionnaire (ODQ) used in this study is based on the Weisbord's (1976) organisational diagnosis model. Weisbord proposes six broad categories in his model of organisational life, including purposes, structures, relationships, leadership, rewards, and helpful mechanisms (Weisbord, 1976). These are summarised below:

- The **purposes** dimension has two most important elements which are goal clarity (the extent to which organisation members are clear about organisation's purpose and mission) and goal agreement (whether people support the organisation's purpose).
- **Structure** is referred to as the way in which the organisation is organized; this may be by function – where specialists work together – or by product, programme, or project – where multi-skilled teams work together.
- **Relationships** focus on who should deal with whom about what and what the quality of those relationships is. There are three main types of work relationships: between people, between work units doing different tasks, and between people and the technology they are using.
- **Rewards** dimension measures employees' level of satisfaction with the rewards (the compensation package and incentive systems) offered by the organisation.
- **Helpful Mechanisms** are the planning, controlling, budgeting, and information systems that serve to meet organisational goals. Weisbord refers to this box as the "cement that binds an organisation with separate needs" (Weisbord, 1976: 443). Thus, helpful mechanisms are the processes every organisation must attend to in order to survive.
- The **leadership** box refers to typical leadership tasks, including the balance between the other boxes – hence it is intentionally positioned in the centre of the model.

The external environment is also depicted in Weisbord's model, although it is not represented as a "box". Weisbord identifies inputs as the money, people, ideas, and machinery which are used to fulfil the organisation's mission. The outputs are products and services (Weisbord, 1976).

Weisbord likens his model to a radar screen, where five boxes of information are watched by the leadership for anomalies, within a boundary that is permeable to the environment (Jones and Brazzel, 2006). The figure 2.2 below depicts the model.

Figure 2.2: Weisbord's Six Box Model



Source: (French, Bell and Vohra, 2006:77)

The six elements in the Weisbord's model are similar to these in other diagnostic models, such as those of Nadler and Tushman (1997), Tichy (1983) and Burke and Litwin (1992). The Weisbord model was used in this study because it is relatively uncomplicated when compared to others. It is relatively easy to understand and visualise since it reflects the essential activities and key variables in an organisation. In addition, the model has been successfully implemented to assist organisations in managing their change programmes (Burke, 1991).

2.5. Drivers of organisation development

According to Lewin's force-field analysis model, an organisation is an open system. There are two forces in organisational change (Lewin, 1951). One of these is known as the

driving force. Its main function is to push the organisation in a new direction. The other force, the restraining force, prevents the organisation from changing.

When the driving force is stronger than the restraining force, organisational change occurs, and the organisation moves towards a new direction. When restraining is stronger than the driving force, the organisation stays where it was; and when these two forces are equally powerful, it will stay stable temporarily.

When an organisation is about to change, it encounters different forces aimed at preventing the envisaged change. These forces fall into the above-mentioned category of restraining forces. Restraining forces can be divided into three levels: organisation level, secondary unit level, and individual level (Yang, Zhuo, & Yu, 2009).

Factors at organisational level include the organisational structure inertia and system pressure, organisational culture, and the pressure from past success. Factors at the secondary unit level include the standpoint difference and conflict of interest between different departments. At individual level, the factors include misunderstanding, lack of trust, own benefit threat feeling, uncertainty and custom.

There are two methods, namely active and passive, that can be used to manage factors that may hinder the successful change of the organisation. The active ways to gain an organisation's members' support include education, communication, participation and involvement. The passive ways to eliminate members' resistance include assistance, negotiation control, and coercion (Kotter, & Schlesinger, 1979). The effectiveness of these methods depends on conditions prevailing within and outside the organisation. Therefore, leaders must steer organisational change according to the situation at hand, and use a combination of suitable methods to implement the desired change.

Changes within an organisation demand a catalyst (Connor & Lake, 1994). The persons who assume the responsibility of managing or leading the change process within an organisation and who act as catalysts are called 'change agents' (Fox, 2006). Change leaders design, oversee and direct change (Connor & Lake, 1994). Change agents can come from within the organisation or can be external consultants (Nahavandi & Malekzadeh, 1999).

Internal change agents are typically senior executives, managers, internal staff developers or powerful lower level employees (Conner & Lake, 1994). External change agents can be consultants brought in from outside the company. These agents usually

have more credibility since they are not involved in company politics (Nahavandi & Malekzadeh, 1999). Any manager may act as a change agent, although a change agent may also be a non-manager, a staff specialist or outside specialist whose area of expertise is in the implementation of change (Bhengu, 2007).

The characteristics or competencies of a change agent according to Buchanan & Boddy (1992), as cited by Senior (2010) are:

- **Goals:** Sensitive to changes in key personnel, top management perceptions, able to specify goals clearly, flexible in responding to changes.
- **Roles:** Able team builder who can bring together stakeholders, skilled networker inside and outside the company, tolerant to ambiguity.
- **Communication:** Able to transmit need for change effectively, excellent interpersonal skills, enthusiastic, able to motivate people.
- **Negotiation:** Able to sell plans and ideas to others, finely tuned negotiator.
- **Managing up:** Aware of internal company politics, skilled at influencing people to gain commitment, to take a broad perspective. Fox (2006: 160) states that:

“... often in the event of any major organisational change, internal managers are inclined to hire the services of an outside specialist as consultant to provide advice and assistance. These outside experts are said to be able to present an objective perspective, as opposed to insiders. On the other hand, outsider specialists may be at a disadvantage because they do not have an adequate understanding of the culture, history, operating procedures and personnel of the organisation.”

Managing the kinds of changes encountered by, and instituted within, organisations requires an unusually broad and finely honed set of skills, chief among which are the following;

- **Political Skills:** Organisations are first and foremost social systems. Without people there can be no organisation. Lose sight of this fact and any would-be change agent will likely lose his or her head (Nickols, 2004).

Organisations are hotly and intensely political. Change agents dare not join in this game but they should better understand it. This is one area where one

must make one`s own judgment and keep one`s own counsel; no one can do it for the other (Senior, 2010)

2.6. Resistance to change

Newstrom and Davis (1993: 276) view resistance to change as, "... employees resisting change because it threatens their needs for security, social interaction, status or self-esteem." Buelens *et al* (2011: 594) define resistance to change as, "... emotional or behavioural response to real or imagined work changes."

The perceived threat stemming from change may be real or imagined, intended or unintended, large or small (Palmer, Dunford & Akin, 2009). Regardless of its nature, employees will try to protect themselves from effects of change. Strebel (1996: 139) explains the reason for employees' resistance to change as, "... many employees see change as disruptive and intrusive."

Fox (2006) suggests that older people tend to resist change more than the younger generation. This is because older people have generally invested more in the current system and, therefore, have more to sacrifice by adapting to change. Linstead, Fulop and Lilley (2009: 649) add, "... hostility occurs when individuals or group of individuals fail to take on the change initiative, or some element of change programme, and actively work to frustrate it."

Karyn (2002:138) states that, "... major organisational change or innovation can anticipate resistance, especially if proposed changes alter values and visions related to the existing order." Senior (1997), as cited in Bhengu (2007:42), explains that there are "forces 'facilitating' change and forces 'acting against' it. The forces that are acting against change are categorised into individual responses and company responses as shown below:

2.6.1. Individual resistance:

- Fear of the unknown.
- Dislike of the uncertainty and ambiguity surrounding change.
- Potential loss of power base.
- Potential loss of rewards.
- Perceived lack of skills for new situation.

- Potential loss of current skills.

2.6.2. Company resistance:

- Inertia forces deriving from the systemic nature of companies.
- Interlocking aspects of structures, control systems, rituals and routines, signs and symbols.
- Inertial forces deriving from group norms.
- Potential loss of group power bases.
- Entrenched interest of stakeholders.
- Lack of company capability.
- Lack of resources.
- Threat to resource allocations.

Robbins (1998) suggests six tactics to overcome resistance to change. These are; education and communication, participation and involvement, facilitation and support, negotiation and agreement, manipulation and co-optation: covert influence, explicit and implicit coercion. Linstead, Fulop and Lilley (2009: 649) state that, “Organisational and individual resistance need to be worked out, not dismissed or defeated”. They further state that communicating the change often and consistently is important but not enough. Change needs to be supported with adequate resources, in order to make sure that the change is appropriate and sustainable (Linstead, Fulop and Lilley (2009: 649).

2.7. Leadership

Leadership is defined as a relationship between people, exercising encouragement toward the attainment of a chosen goal (Crocker, 2004). According to Yukl (2013: 5), leadership involves a process through which purposeful effect is exerted over followers, to direct the organisation and empower the actions of either a collective or society (Awan & Mahmood, 2010). This definition is supported by McShane and von Glinow (2010) who state that leadership is influencing, motivating, and enabling others to contribute toward the effectiveness and success of the organisations of which they are members. Leadership is further defined as the method of consolidating by people seeking benefits and with ideals, several financial, partisan, and other means, in context of opposition and rivalry, so that individual or mutual objectives held by leaders and supporters can be realised (Bellou, 2011).

Previous studies suggest that crucial fundamentals of effective leadership style and competency have been to craft a vision and persevere with it, build effective successful teams, ensure constant team motivation, maintain good support with people around to ensure they are adequately furnished with relevant information, and to keep employees engaged in order to reduce attrition (Sethuraman and Suresh, 2014). The intelligence and self-awareness of a leader give him an advantage in influencing supporters (Ibid).

The study evaluates leadership in the context of supervision, with an emphasis on the understanding of the dynamics that apply in the supervision roles of leaders. This further involves the understanding of the emergence of leaders in the context of supervision, along with the impact of gender, culture, personality and the age of leaders assuming leadership roles. There are also informal leaders within employee groups. It would be beneficial to understand the scope, power and influence of informal leaders to explore possibilities of either control or collaboration.

2.7.1. How leaders emerge

When choosing a team leader/supervisor, organisations tend to put more emphasis on an individual's performance rather than on his leadership abilities. Such leaders sometimes lack characteristics associated with emerging leaders of self-esteem, self-monitoring, cognitive skills, emotional abilities and an individual's self-view as a leader (Emery *et al.*, 2011). It would therefore be beneficial to understand the emergence of natural leaders and their comparison to those that become leaders by appointment.

In light of the above, the researcher seeks to understand the benefits of collaboration between the two means of emergence and their impact on organisational development.

The history of the emergence of leadership can be traced back to ancient times where charismatic leaders were believed to have a gift from God that allowed them to accomplish things beyond imagination (Middleton, 2005). Charismatic leadership was later conceptualised by a German sociologist Max Weber as potency for revolution and improvement (Middleton, 2005).

Emergent leadership is a vibrant communal practice in which persons without official power assume leadership roles. The leadership emergence practice is founded in the collective's approval and acknowledgement of a person as a leader. This process depends on the person, the supporters, the circumstances, or a combination of these factors (Emery *et al.*, 2011).

Characteristics associated with emerging leaders are gender, self-esteem, self-monitoring, cognitive skills, emotional abilities and an individual's self-view as a leader (Kellett, Humphrey & Sleeth, 2002, 2006). Self-concept embodies the totality of a person's beliefs and approaches with regard to him as a leader. This can contain current, future or possible identities, which characterize the person's thoughts of what they might be, what they would like to be, or are afraid of being (Markus & Nurius, 1986).

The social identity theory states that a collective defines a person's character by means of feedback obtained from social relations within a group (Emery *et al.*, 2011). Although the behaviour of people is in accordance to their self-view, by observing their own behaviour together with the acceptance or rejection thereof by their peers, it allows them to either maintain or modify their self-view (Ibarra *et al.*, 2005). Individuals who recognize themselves as leaders are likely to be frequently selected for leadership roles. As these people become more prevalent with selections, their self-view strengthens (Emery *et al.*, 2011). They further state that the cycle repeats and reinforces both self-view and peer perceptions of the individual as a leader.

Trait theories of leadership dispute that leadership depends on leaders' individual abilities (Luria & Berson, 2012). Despite variations in results, meta-analyses recommend that extraversion, particularly the aspects of self-confidence, authority, and friendliness, were some of the predictors of leadership emergence (Hoffman *et al.*, 2011).

Dominance is considered by a large number of studies as a primary predictor of leadership. Dominance is defined as a tendency to behave assertively, forcefully and with self-assurance while maintaining eye contact (Anderson & Kilduff, 2009). Effective identity, social normative and non-calculative motivations are the three dimensions of leadership emergence through which leaders are encouraged to pursue their leadership roles (Luria & Berson, 2012). They further state that persons with high effective identity motives enjoy leading and consider themselves as having high leadership abilities.

2.7.2. Leadership and gender

The impact of the introduction of female employees to leadership roles, particularly in South Africa, cannot be ignored. Cultural stereotypes associated with female leadership in South Africa seem to have an impact on other employees' perceptions. Conducting a survey where such cultural differences exist warrants a better understanding of the

dynamics associated with gender in the workplace and the impact this might have on the survey results.

A great deal of the research done by psychologists in the field of gender characteristics in organisations has been devoted to sex stereotypes and sex-role attitudes (Ashmore & Del Boca, 1979). A sex stereotype is defined as a set of opinions about what women and men are like, particularly the psychological traits or characters of women and men (Ashmore & Del Boca, 1979). The difference between men and women in the field of leadership is represented by two opposite schools of thought. One supports the existence of differences in behaviour between genders, while the other opposes that view and places more emphasis on the similarity of leadership styles, maintaining that gender does not affect leadership (McShane and von Glinow, 2010).

Most studies support the former view, which asserts that there are indeed differences in leadership styles between genders. This is due to the presence of some traits that are gender-specific, such as maternal instinct, unselfishness, very complex communication abilities and attention to detail and beauty for females. In contrast, there are some traits that are generally specific to males, such as authority, influence and analytical intelligence (Andreea-Simona *et al.*, 2014). These characteristics have a direct impact on the leadership style of an individual based on gender (Andreea-Simona *et al.*, 2014). The distinct differences between men and women leaders relate to figures of speech and effective communication.

The results of the MLQ leadership questionnaire suggest that female leaders tend to indicate stronger transformational leadership qualities, while their male counterparts exhibit stronger transactional styles (Avolio & Bass, 1995). Men generally tend to adopt an authoritative leadership style focused on task completion while women are generally more flexible and lenient, focusing on employee development and training (Andreea-Simona *et al.*, 2014). According to Yukl (2013), transformational leadership directly corresponds with women's characteristics because they differentiate themselves through vision, personality and encouragement, which are characteristics more associated with transformational leadership.

Studies on personal practice in organisations have found female leaders to be less hierarchical, more supportive and accommodating, and more orientated to improving self-respect when compared to their male counterparts (Eagly and Chin, 2010). They further state that these qualities arguably make female managers greater leaders for modern

businesses, as they tend to significantly outperform their male counterparts. Some studies advocate that leaders of each gender adopt the best of the other gender to become more effective neutral leaders (Yukl, 2013).

The behaviour of men and women occupying managerial roles in organisations are less stereotypic. This is mainly because these roles are paid jobs and provide clear guidelines about conduct and behaviour (Yukl, 2013). The selection processes of organisations ensure that the leadership style of recruits fits the role and is similar, irrespective of gender, and that managers focus more on managing effectively than on representing their stereotypical gender behaviours (Eagly & Chin, 2010). Although a few scholars concur that there is some proof of gender differences in leadership styles between male and female leaders; most are in agreement that women and men who occupy managerial roles in organisations do not differ (Yukl, 2013).

2.7.3. Formal and informal leadership

Apart from formally appointed supervisors, a team may have one or more informal leaders. Since they are trusted by other employees, they have power to either enhance or distract attention from the goals that supervisors are trying to achieve. It is important to understand how these leaders come to being, their power and how they can be handled to minimise the potential negative impact of their influence.

Informal leaders exercise levels of control that are miscalculated and generally overlooked by formal leaders (Luria and Berson 2012).

Robert (2013) summarises the characteristics of informal leaders as:

- They share many of the characteristics of formal leaders, such as intelligence, self-assurance, obligation, skilled proficiency, and determination.
- They however differ from formal leaders with regards to levels of humbleness, objectivity, and unselfish conduct.
- They appreciate and can relate to the desires of the supporters to an extent that formal leaders cannot contend with, or may not understand.
- Informal leaders typically have little to no authority and constrained responsibility.

Informal leaders can simply be defined as transformational leaders, but at an advanced level. This highlights the necessity for formal leaders to identify, recognize, and work with informal leaders (Robert, 2013). Informal leadership in organisations refers to leadership carried out by people who do not hold official power or authority within an organisation, but can nevertheless influence and guide others based on the reverence and integrity they have (Stincelli & Baghurst, 2014). Although most people have some leadership aptitude, people's inclinations to lead vary (Yukl, 2013). Research has, however, focused on formal leaders, at the expense of the role of informal leaders, although both exist and are vital to the success of any business (Stincelli & Baghurst, 2014).

2.7.4. Leadership and power bases

Social power can be defined as the capacity of a leader to convey change in approaches, conduct, or principles by using means at his disposal (Pierro *et al.*, 2013). Leaders have power that can be coercive, rewarding, legitimate, expert, referent, informational, or a combination of these (Yukl, 2013). Within the organisational context, leaders attempt to enhance employees' affective organisational commitment, in order to achieve the goals of the organisation (Pierro *et al.*, 2013).

For leaders occupying significant organisational positions in modern times, there are various concepts to consider as part of their leadership focus. An example of these is the so-called big five ideas (Awan & Mahmood, 2010) which are summarised as: firstly, good leaders need to be ethical and competent; secondly, today's circumstances are constantly changing, and require adaptable leadership; thirdly, collaboration amongst leaders in conflict resolution and decision-making needs to take place in consultation with as many stakeholders as possible; fourthly, success will only be realised by leaders who can lead their organisations through constant change - adaptability and endurance make this possible; and lastly, leaders are self-made and created by life experiences and learned principles, while theories play a minor role in leader creation.

2.7.5. Leadership and organisational culture

Culture is collective motives, values, beliefs, identities and interpretations or implications for important occasions that result from the collective experience of the members of a collective that are transferred through generations (Ruth & Niglas, 2008). McShane and von Glinow (2010) support this definition stating that it consists of the values and assumptions shared within an organisation.

Organisational culture can impact the way people establish individual and professional objectives, execute work and manage assets to accomplish them (Nwibere, 2013). It also influences the manner in which employees and managers cognitively and subconsciously think, decide and influence their perceptions, feelings and actions (Yukl, 2013). Corporate culture has both direct and indirect relationships with organisational effectiveness (Cummings and Worley, 2009).

Xirasagar (2008) states that corporate culture is directly correlated with the managerial leadership style of managers in the organisation as summarised below:

- Managers working in organisations with a competitive organisational culture are more inclined to adopt a transformational style of leadership as opposed to laissez-faire style. This is because competitive culture organisations highlight principles of challenging goals, competitive benefit, advertising dominance, and high earning.
- Managers working for organisations with the organisational culture of a bureaucratic nature are more likely to practice transactional leadership style. This is because values depicted by bureaucratic cultures are formalisation, instructions, standard operating procedures and hierarchical co-ordination.
- Managers working for companies adopting consensual corporate culture are more likely to practice all leadership styles as mentioned above. This is because consensual culture depicts elements of institution, allegiance, individual obligation, wide-ranging socialization, collaboration, self-management, and communal inspiration.

2.7.6. Leadership and personality

Personality is an array of invisible characteristics and practices that inspire a fairly consistent array of behaviour in response to thoughts, substances or individuals in the environment (Ünsar and Karalar, 2013). They further state that it is also a person's distinctive difference from the common evolutionary design of human nature, articulated as an evolving framework of personalities, variations in character, and integrative life stories, complexly and differently situated in culture.

McShane and von Glinow (2010:39) classified different personality traits into a five-factor model (FFM) described below:

- Conscientiousness: characterizes people who are careful, dependable, and self-disciplined. Some scholars argue that this dimension also includes the will to achieve. People with low conscientiousness tend to be careless, less thorough, more disorganized, and irresponsible.
- Agreeableness: this dimension includes the traits of being courteous, good-natured, empathic, and caring. Some scholars prefer the label “friendly compliance” for this dimension, with its opposite being “hostile noncompliance.” People with low agreeableness tend to be uncooperative, short-tempered, and irritable.
- Neuroticism: characterizes people with high levels of anxiety, hostility, depression, and self-consciousness. In contrast, people with low neuroticism (high emotional stability) are poised, secure, and calm.
- Openness to experience: this dimension is the most complex and has the least agreement among scholars. It generally refers to the extent to which people are imaginative, creative, curious, and aesthetically sensitive. Those who score low on this dimension tend to be more resistant to change, less open to new ideas, and more conventional and fixed in their ways.
- Extroversion: characterizes people who are outgoing, talkative, sociable, and assertive. The opposite is introversion, which characterizes those who are quiet, shy, and cautious. Extroverts get their energy from the outer world (people and things around them), whereas introverts get their energy from the internal world, such as personal reflection on concepts and ideas. Introverts do not necessarily lack social skills. Rather, they are more inclined to direct their interests to ideas than to social events. Introverts feel quite comfortable being alone, whereas extroverts do not.

Traits generally associated with effective leadership consist of the behavioural traits of extraversion, conscientiousness and openness to experience (Ünsar and Karalar, 2013). Research conducted by Hirschfeld et al., (2008) found that a leader personality outlined a higher-order pattern for illustrative co-variation among extraversion, conscientiousness, and emotional stability.

2.7.7. Effect of age on leadership

Age does not seem to have an impact on the leader's undertakings, yet older leaders have less need for interactions (Yukl, 2013). In transformational leadership, accomplished, well-informed and mature people are more likely to provide broader guidance and fewer instructions (Fernando and Conteras, 2012). Mature leaders have an enhanced aptitude to listen to views and recommendations of subordinates (Yukl, 2013).

2.8. Leadership styles

Leadership style is considered to be a factor that affects employees in a significant way. It can translate into the achievement of the organisation's values, vision, mission, and achievement of organisational outcomes (Nwibere, 2013). According to contingency theory, a leader's achievements are dependent on two factors: the leader's distinctive approach of interaction with followers (leadership behaviour) and the extent of power the leader has at his disposal to exercise over the situation such as the group, the task, and the outcome (Quader, 2011). As revealed by Fiedler and Chemers (1984), situations of high control are better managed by task-motivated leaders (transactional leaders), while relationship-motivated and low-control (transformational leaders) are inclined to excel in circumstances of reasonable control.

The Multifactor Leadership Questionnaire (MLQ) was devised to determine transformational, transactional, and laissez-faire leadership styles (Zineldin & Hytter, 2012). Transactional and transformational leadership were originally seen as opposites. However, later research suggests that instead of these being viewed as independent dimensions, optimal leadership behaviour is a mix of different styles (Zineldin & Hytter, 2012). The organisational climate - a company's beliefs, values, and assumptions - that paves the way for interaction between leaders and employees and such interaction, is of critical importance to the overall style of leadership that leaders adopt (Omolayo, 2007).

There is an argument that leadership challenges of the modern world can be more effectively resolved through versatile and adaptive leadership, which involves adapting conduct in suitable ways in order to accommodate the changing circumstances (Yukl & Mahsud, 2010). Examples of various terms used to describe this leadership style include flexible, adaptable, agile, and versatile.

Adaptive leaders are able to accurately analyse the circumstances around them and regulate their response accordingly (Yukl & Mahsud, 2010). The rapid pace of change makes it more important for managers and administrators to consider adopting a flexible and adaptive leadership style (Yukl & Mahsud, 2010). The types of changes that demand versatility from leaders include: rapid globalisation and universal business, fast technological advances, shifting cultural principles, a more varied workforce, subcontracting, social networking, simulated communication, publicity of leader activities on the internet, and anxiety for products other than profits (e.g., ethical actions, social responsibility, environmental impact, and sustainability) (Yukl & Mahsud, 2010).

Herd (2012), argues that leadership is a process, not an object or a set of characteristics, and is something of which most people are capable. This suggests that there is no ideal, fixed leadership style and that effective leadership evolves over time and through circumstances (Yukl & Mahsud, 2010). For a leader to be successful, it is imperative that his leadership style is altered to adapt to the situation at hand. He should direct his attention to supporting his supporters and improve their trust and reverence (Sethuraman and Suresh, 2014). The integration of transformational and transactional leadership can result in superior performance, while at the same time acknowledging the business structure (Fernando and Conteras, 2012).

2.8.1. Transformational leadership

Nemanich and Keller (2007) defined transformational leadership as an association of a leader and his supporters, created by a set of leadership activities observed by followers as demonstrating idealised inspiration, motivational creativeness, knowledgeable inspiration, and distinct reflexion. This leadership style is perceived to improve follower contentment with the leader and followers' insights of leader success (Yukl, 2013).

Transformational leaders are practical. They keep followers informed for shared benefits and assist them in reaching their ultimate aspirations (Nemanich & Keller, 2007). The theory of transformational leadership comprises idealised influence (behaviour, principles, opinions, and convictions), inspiring enthusiasm, intellectual stimulation, and individualised consideration (Antonakis *et al.*, 2003).

Inspirational motivation provides for encouragement of followers to their own requirements for self-actualisation and progress through Maslow's hierarchy of needs (Xirasagar, 2008). This trait has the ability to empower followers to resolve contradictory

forces and make practical progressive decisions, and minimise dysfunctional or selfishly inspired resolutions (McShane and von Glinow, 2010).

Idealised influence is concerned with the leader's all-encompassing vision and mission, prioritising supporters' requirements over that of his own, encouraging pride, gaining confidence and reverence, growing positivity and establishing apprehension for ethical and moral values in taking resolutions (Xirasagar, 2008). Intellectual stimulation takes place when a leader actively supports followers with interesting thoughts that motivate the review of methods and means of doing things from old to new (Xirasagar, 2008). Such leaders create a cognitive-emotional environment for followers to discover and try out new methods for confronting progressively interesting goals (Yukl, 2013).

Individualised consideration involves mentoring, coaching and continuous feedback where a supervisor devotes some of his personal time to an employee's development and growth (Xirasagar, 2008). This also includes connecting the person's present requirements to the organisation's mission (Avolio & Bass, 1995).

Transformational leaders are able to motivate followers to review their anticipations, insights and incentives and work towards a shared vision, through the power of their charisma and temperament (Mclaggan *et al.*, 2013). Transformational leaders deliver positive results, which are related to the successes that most companies, people and leaders deem important (Mclaggan *et al.*, 2013).

For business to succeed in building an organisation of choice and, consequently, retain talented employees, it should adopt transformational leadership, empowering behaviours of assignment of power, responsibility, autonomous decision-making, and sharing of information (Mendes & Stander, 2011). The findings of a study conducted in the South African context suggest that leaders engaging in charismatic leadership styles enhance the imaginative ability of their followers. This was found to help address the challenging and dynamic work environment and society as a whole (Mokgolo, Mokgolo, & Modiba, 2012).

Managers with a transformational leadership style have a big vision and imagination for the company and they always persuade subordinates to adopt the same frame of thought (Mclaggan *et al.*, 2013).

Transformational leadership power has been criticised as having the capacity for inappropriate use (Quader, 2011). If transformational leadership is about challenging the

current state of peoples' principles and moving them to renewed vision, the leader is in full control of the new direction, without the followers knowing whether it is good (Ibid). The leader decides on new visions, based on his belief of whether these are good or not (Yukl, 2013).

Transformational leaders, by virtue of their charisma, can be too powerful to be influenced in a direction different from that of their own choosing (Quader, 2011). Transformational leaders encourage followers to both develop and perform beyond standard expectations. They achieve this by showing followers the sacrifices they are willing to make, and followers are subsequently encouraged to follow suit (Avolio & Bass, 1995).

2.8.1.1. Transformational leadership personality, values and traits

Transformational leaders are guided by positive values to take responsibility and provide leadership into the future. These leaders are characterised by effective decision making skills, empathy, kindness, benevolence, emotional and social intelligence. They value systems, restraint, authority, wealth and personal credit in favour of espousing the collective cause. Impediments are confronted with equanimity while using their innovative intelligence to translate challenges to prospects, while simultaneously inspiring followers to do the same. They define accomplishments as a collective rather than individual success (Harish, 2015).

Transformational leaders have a strong ability to cope with adversity and stimulating adaptation to globalisation and similar challenges of the modern world. They employ participatory decision making, openness to change and concentrate on collective interests rather than personal gain (Yukl, 2013). These leaders are characterised by novelty, arbitration strategies, accountability and persistence (Fernando and Conteras, 2012).

2.8.1.2. Transformational leadership and organisational change management

Large numbers of organisational changes are unsuccessful, largely due to the lack of inclusion of people in the change process. The other reason for the poor success rate is the inability of change agents with appropriate leadership styles to implement the change (Penava and Šehić, 2014). A supportive leadership approach has a better success rate in change implementation than a leader-centric approach does, because it leads change

through personal involvement (Yukl, 2013). The ability of transformational leaders to apply supportive leadership enables them to yield better results in the implementation of organisational change (Penava and Šehić, 2014).

Employees evaluate change based on the impact it will have on them. This perception needs to be managed by the change agent in order to minimise the likelihood of failure of the change process (Cummings and Worley, 2009). The most common psychological factors that affect employees' attitudes towards change are obligation, insecurity and skepticism (Penava and Šehić, 2014).

2.8.2. Transactional leadership

Transactional leadership is defined as a process of exchange founded on the realisation of agreed requirements, usually through outlining intentions, observing and guiding intended results (Yukl, 2013). The theory of transactional leadership comprises of dependent reward leadership, active only when necessitated by situation (active vigilance), and passive management-by-exception (the leader only intervenes after non-compliance has occurred) (Antonakis *et al.*, 2003).

As a result, transactional leadership tends to be short-lived, because the relationships are reviewed or terminated at the end of each agreement (Mclaggan *et al.*, 2013). Transactional leadership occurs when an individual or group approaches the other party for the purpose of a mutual exchange of treasured things (Mclaggan *et al.*, 2013). The two groups or individuals involved in the exchange acknowledge the influence of the other and together they continue to pursue their private separate interests. They are not bound by any common or mutual purpose (Mclaggan *et al.*, 2013).

Transactional leadership takes a corrective form concentrating on setting principles, an inactive form characterised by waiting for errors prior to taking actions and an active form closely watching for the occurrence of mistakes (Avolio & Bass, 1995). It is a predominantly a mistake-orientated leadership style in all its forms (Avolio & Bass, 1995).

Transactional leaders tend to focus on motivating followers towards established goals through clarification of roles and task requirements (Mclaggan *et al.*, 2013). Northouse (2010) further states that transactional leaders place more importance on work ethics, projects, and task-oriented objectives than transformational leaders do (Mclaggan *et al.*, 2013). Transactional managers make greater use of incentives to motivate their employees (Mclaggan *et al.*, 2013). Followers of a transformational leader do so because

of their convictions of the leader's vision and autonomous beliefs rather than being concerned with the extent of the leaders influence and power (Pierro *et al.*, 2013).

2.8.3. Laissez-faire leadership

Laissez-faire leadership is, in essence, the absence of leadership and comprises non-interference strategies where employees are permitted absolute free will (Omolayo, 2007). These leaders do not intrude in the affairs of followers, exercising little or no control over the group. Their participation in group activities is low (Awan & Mahmood, 2010). Teams led by laissez-faire leaders struggle with a lack of direction and enthusiasm (Awan & Mahmood, 2010).

Laissez-faire leaders are inactive, and are profoundly disengaged from work progression and leadership duties such as determining a clear vision and mission are not discharged at all (Zineldin & Hytter, 2012). Leaders using a laissez-faire style usually adopt monitoring methods and wait until there are serious issues that come to light before they become involved (Notgrass, 2014).

2.9. The influence of leadership on organisational development

Leadership is the key to successful change in an organisation (American Management Association, 1994). Leadership is a process of interaction between leaders and followers whereby the leader attempts to influence followers to achieve a common goal (Northouse, 2010; Yukl, 2005). According to Chen and Chen (2008), previous studies on leadership identify different types of leadership styles which leaders adopt in managing organisational change. Among the more prominent leadership styles are Burns' (1978) transactional and transformational leadership styles.

Transformational leaders emphasise followers' intrinsic motivation and personal development (Voon *et al.*, 2011). They seek to align followers' aspirations and needs with desired organisational outcomes (Voon *et al.*, 2011). In so doing, transformational leaders are able to foster followers' commitment to the organisation and inspire them to exceed their expected performance (Miia *et al.*, 2006).

With regard to today's complex organisations and dynamic business environment, transformational leaders are often seen as ideal agents of change who could lead followers in times of uncertainties and high risk-taking. In contrast, transactional leaders gain legitimacy through the use of rewards, praises and promises that would satisfy

followers' immediate needs (Northouse, 2010). They engage followers by offering rewards in exchange for the achievement of desired goals (Burns, 1978).

Transformational leadership is generally regarded as more desirable than transactional leadership (Locke *et al.*, 1999). An effective leader must appeal to the self-interest of followers and use a mixture of short-term and long-term rewards in order to lead followers towards achieving organisational goals.

Individuals are motivated by their requirements to satisfy a (Maslow's) hierarchy of needs (Adair, 2004). A good leader provides the right climate and the opportunities for these needs to be met on an individual basis (Adair, 2004). Kouzes and Posner (1987) as cited by Adair (2004) identify five characteristics of what they call exemplary leaders:

- **Challenge the process:** leaders search for opportunities. They experiment and take risks, constantly challenging other people to exceed their own limitations.
- **Inspire a shared vision:** leaders envision an enabling future and enlist people to join in that new direction.
- **Enable others to act:** leaders strengthen others and foster collaboration.
- **Model the way:** leaders set the example for people by their own leadership behaviour and they plan small wins to get the process moving.
- **Encourage the heart:** leaders regard and recognize individual contributions and they celebrate team successes.

2.10. Conclusion of literature review

In this chapter the theory base and literature on the study was conveyed to the reader. This has, hopefully, led the reader to understand the meaning and possible influence of leadership as well as the models upon which organisational development is based and the drivers that influence it. The organisational development model utilised at the gas energy power plant was also explained. Thereafter, the values and behaviours of leadership were examined by focusing on the evolution of leadership from transactional, transformational and laissez-faire leadership styles. All the theories and studies point to the fact that leadership has a paramount influence on organisational development. An objective of this study that remains is to investigate what influence leadership has on

organisational development and furthermore, which of the leadership values and behaviours have the most profound influence on levels of organisational development.

CHAPTER 3: EMPIRICAL RESEARCH

3.1. Introduction

In **Chapter 1** the methodology for this research was discussed and the research design, measuring instruments used (reliability and validity), research population and sample, the data collection, capturing and analysis process and the goals of the research were presented.

In this chapter the results of the analysed data will be presented. Descriptive statistics were used to summarise the quantitative data and relationships which are not apparent from the raw data. This helped to interpret and understand the results.

3.2. Goal of empirical study

In terms of the empirical study, the specific aims were to prove or disprove the following hypotheses:

H₀₁: There is no statistical significant relationship between leaders' self-perceptions of their own leadership and organisational development, versus the perception of their subordinates on their leadership and organisational development.

H_{a1}: There is statistical significant relationship between leaders' self-perceptions of their own leadership and organisational development, versus the perception of their subordinates on their leadership and organisational development.

H₀₂: Organisational development is not aligned with transformational leadership style.

H_{a2}: Organisational development is aligned with transformational leadership style.

H₀₃: Organisational development is not aligned with transactional leadership style.

H_{a3}: Organisational development is aligned with transactional leadership style.

H₀₄: Organisational development is not aligned with laissez-faire leadership style.

H_{a4}: Organisational development is aligned with laissez-faire leadership style.

3.3. Characteristics of the targeted sample

3.3.1. Response rate

Of the 195 questionnaires distributed to subordinates, 79 were returned. This constitutes a 41% response rate. According to Shaughnessy *et al.*, (2012) this is a fair response rate. They believe a response rate of at least 50% is usually considered adequate for analysing and reporting, a response rate of at least 60% is good and a response rate of 70% and higher is very good. If a higher response rate is achieved, then there is a smaller chance of significant response bias, than when a low rate is achieved. 40 questionnaires of the 45 distributed for self-evaluation to site-leaders (managers and supervisors), which constitutes an 89% response rate for the site leader group, were returned.

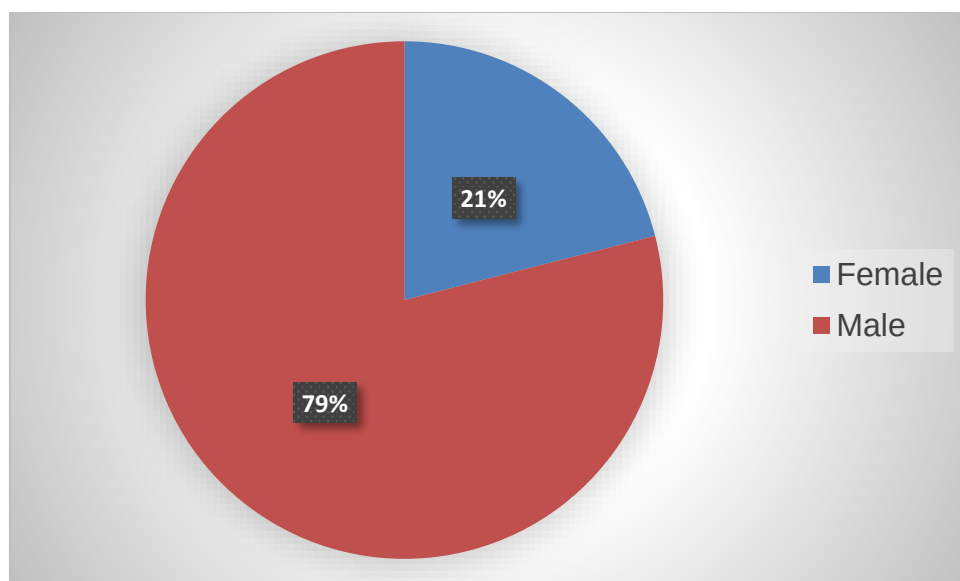
3.3.2. Demographic data

In the demographic section of the questionnaire, respondents had to indicate their division (department), gender, age category, ethnicity, education, position and superiors' position.

3.3.2.1. Gender

Typical of manufacturing firms in South Africa, relatively few women (only 21%) were found in the sample. Figure 3.1 illustrates the distribution by gender.

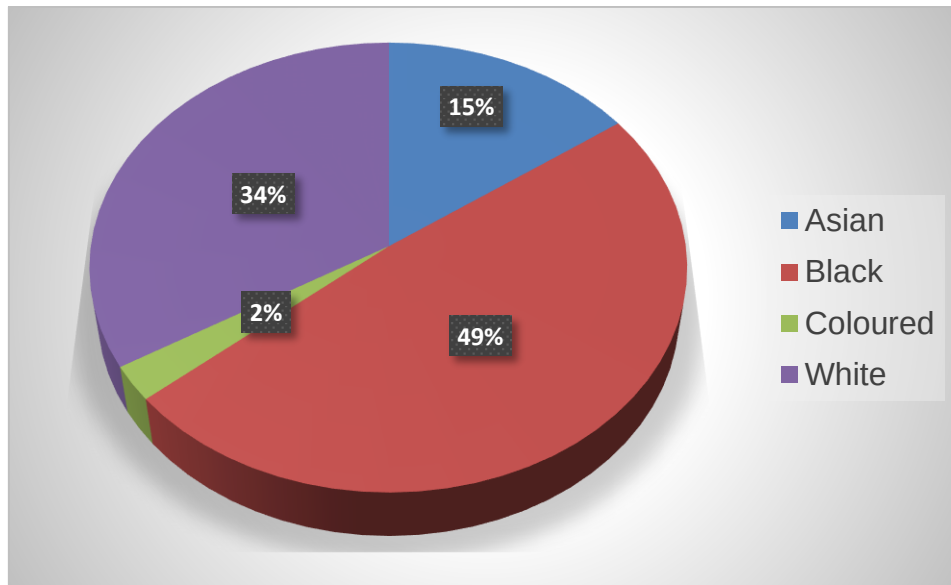
Figure 3.1: Respondents by gender



3.3.2.2. Ethnicity

The general assumption that most South African shop floor workers are black Africans was found to be consistent with the respondents' race. Figure 3.2 illustrates the distribution by race.

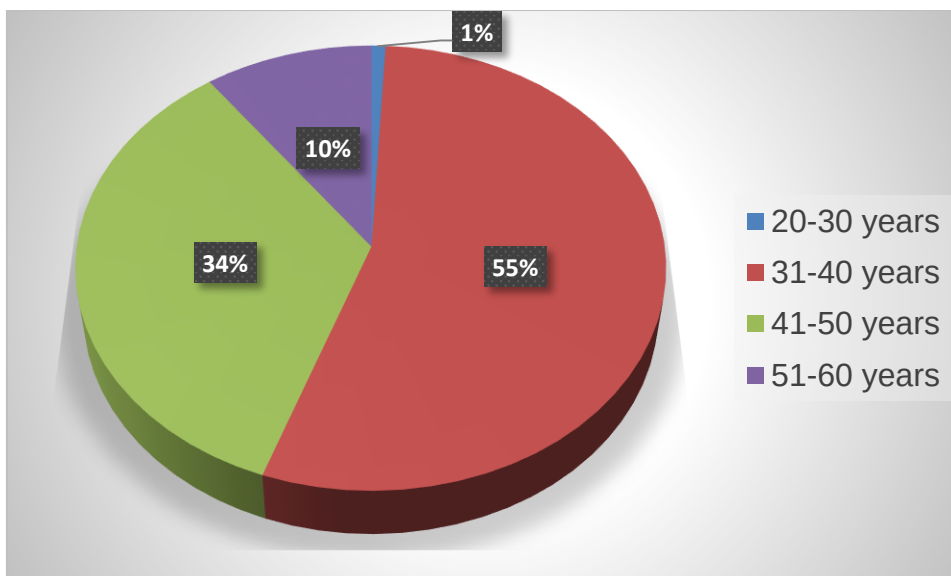
Figure 3.2: Respondents by race



3.3.2.3. Age

The majority of the respondents is in the age group 31 – 40 years, with a total of 65 (55%) of the total of 119. Figure 3.3 illustrates the distribution by gender.

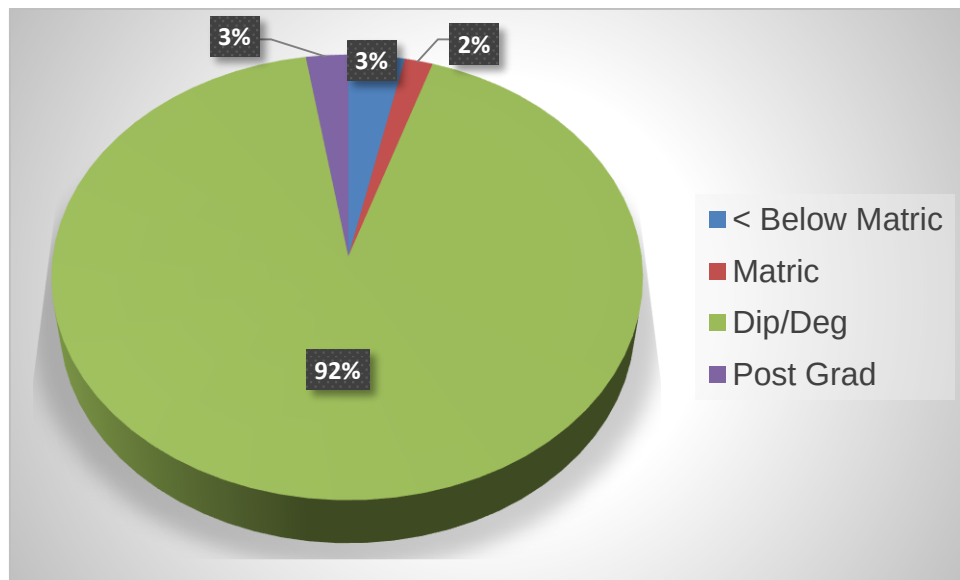
Figure 3.3: Respondents by age



3.3.2.4. Education

It is interesting to note that 110 (92%) of the respondents have tertiary qualifications. This may be due to the level of technology and literacy required at the plant. Figure 3.4 shows the distribution of highest qualifications of the respondents.

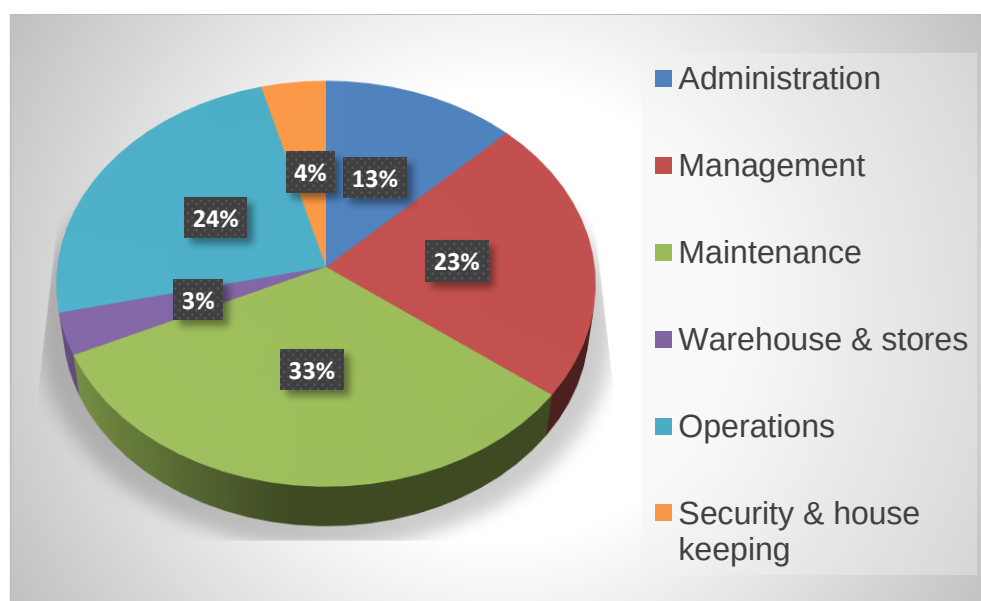
Figure 3.4: Respondents' highest qualification



3.3.2.5. Work division

39 (33%) of the respondents are currently employed in the maintenance department. Figure 3.5 indicates the distribution of the work divisions in this company.

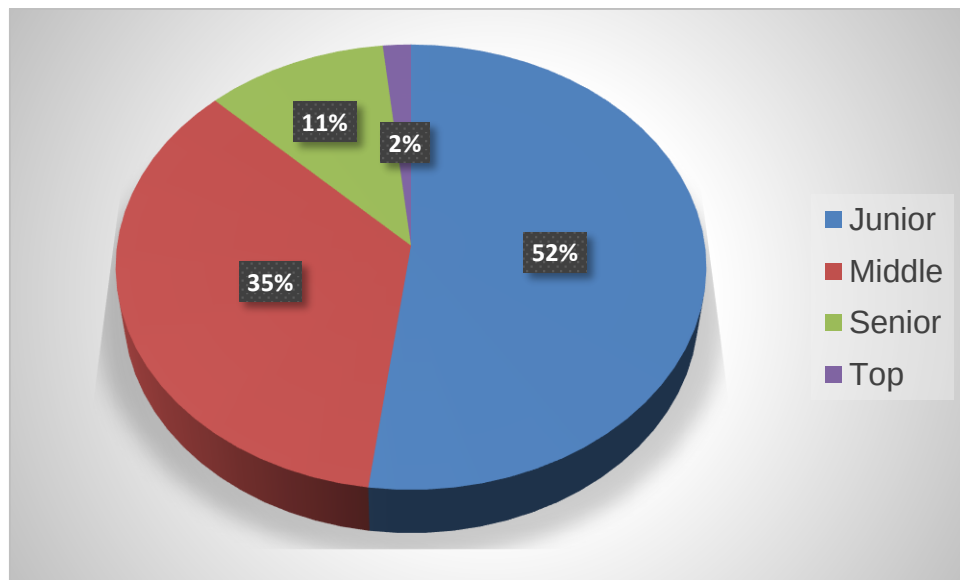
Figure 3.5: Respondents by work division



3.3.2.6. Current positions

62 (52%) of the respondents are currently employed in junior positions and 13 (11%) in senior positions at this organisation. Figure 3.6 indicates the distribution of employee current positions at this company.

Figure 3.6: Respondents' current positions



3.4. Data analysis

The Statistical Package for Social Science (SPSS) was used to test the hypothesis.

The independent variables on the MLQ were:

- Transformational Leadership: 1) Idealised Influence (attribute), 2) Idealised Influence (behaviour), 3) Inspirational Motivation, 4) Intellectual Stimulation 5) Individualised Consideration.
- Transactional Leadership: 1) Contingent Reward, 2) Manage-by-exception (active), 3) Manage-by-exception (passive).
- Laissez-faire.

The independent variables on the ODQ were: 1) Purposes, 2) Structure, 3) Leadership, 4) Relationships, 5) Rewards, 6) Helpful mechanisms, and 7) attitude toward change.

Information on how to score the MLQ and ODQ was obtained, and the scoring and subscales are presented in Appendix 1, 2 and 3.

3.5. Descriptive statistics for leadership styles and organisational development

Descriptive statistics was used as a way to examine the mean, standard deviation and other information which are not apparent in the raw data. It was needed to determine the leaders' and their subordinates' perception to leadership style and organisational development at the gas energy power plant. Table 3.1 below contains descriptive data (mean and standard deviations) for the five transformational leadership subscales, three transactional leadership subscales, one laissez-faire subscale, and table 3.2 contains seven organisational development scales as indicated by the respondents. In all cases, the distribution of scores for the sample contained reasonable variance and normality for use in subsequent analyses.

3.5.1. Subordinates' perception to leadership styles

The sample size for all variables (leadership and organisational development) is 79 indicating that leaders' responses are excluded because here the purpose is to determine employees' perception to current organisation's leadership styles and their influence to the organisation.

Table 3.1: Mean and standard deviations of leadership styles and organisational development for subordinates' responses

Variables	N	Mean	Std. Deviation
Idealized attributes (IA)	79	2.76	1.09
Idealized behaviours (IB)	79	3.43	0.93
Inspirational motivation (IM)	79	3.18	0.99
Intellectual stimulation (IS)	79	3.52	0.96
Individual consideration (IC)	79	2.84	0.88
Transformational Leadership (TL)	79	3.15	0.80
Contingent reward (CR)	79	2.31	0.99
Management by exception (active) (MBEA)	79	2.41	0.89
Management by exception (passive) (MBEP)	79	1.06	1.05
Transactional Leadership (TA)	79	2.18	0.48
Laissez Faire (LF)	79	1.75	1.02

The mean values for each of the transformational leadership subscales are calculated between 2.76 to 3.52 and having the standard deviation value of nearly 1; whereas for those of transactional leadership ranges from 1.06 to 2.41 and standard deviation of

nearly 1. The mean and standard deviation values for laissez-faire are 1.75 and 1.02, respectively.

From the leadership subscales, idealized influence (attributed) has the highest standard deviation approximately 1.09 followed by management-by-exception (passive) which scored approximately 1.05 standard deviation.

The overall scores of data for the transformational and transactional subscales are, in some cases, slightly less than what Bass & Avolio (1997) as cited in Bass *et al* (2003) consider “ideal” levels for effective leadership. The suggested scores for the most effective leaders include a mean of 3.0 or higher for idealized influence (attributed), idealized influence (behaviour), inspirational motivation, intellectual stimulation, and individualized consideration. Mean scores for the subscales in this study ranged from 1.06 to 3.52.

On the other hand, the same authors suggest a mean score of 2.0 for contingent reward while this study’s sample data mean score is 2.31, which is only slightly higher than the suggested one. The score for management-by-exception (active) in this study is 2.41; this is also found above the suggested range of 1.0 and 2.0. In the same way, the suggested scores for management-by-exception (passive) and laissez-faire are between 1.0 and 0.0, but mean scores for my study have higher ranges of 1.66 and 1.75, respectively.

The aforementioned patterns of scores for this study suggest that some respondents perceived their leaders as devoid of the “ideal” levels of transformational leadership behaviours. These behaviours included instilling pride, inspiring a shared vision, talking optimistically, encouraging creativity, and placing much importance in coaching or training.

On the contrary, the mean score of contingent reward implies that some of the subordinates perceived their leaders as performing beyond the expected average job of recognizing accomplishments and clarifying expectations. This is also similar for the management-by-exception (active) mean, which entails that some employees perceived their leaders as taking corrective action immediately when deviations occur. Furthermore, the mean scores of management-by-exception (passive) and laissez-faire proposes as some employees perceived that their immediate supervisors tended not to take corrective action or make decisions as soon as problems occur.

As the results of this study indicate, respondents perceived leadership style to be slightly more transformational (M =3.15) than to that of transactional (M = 2.18) and laissez-faire (M = 1.75). Therefore, this supports the finding by Trottier *et al.*, (2008) which shows that transformational leadership variables are slightly more important in terms of their overarching concept of leadership effectiveness in followers' perceptions of importance.

3.5.2. Subordinates' perception to organisational development

In addition to the scores of leadership styles, the mean and standard deviations of the constructs of organisational development are presented in Table 3.2 below, as indicated by the respondents. The mean and standard deviation scores for each of the constructs scales are ranked by respondents as: *Purposes* - 2.41 and 0.83, *Structure* - 2.34 and 1.07, *Leadership* - 3.56 and 0.85, *Relationships* - 1.92 and 0.76, *Rewards* - 3.89 and 0.94, *Helpful mechanisms* - 2.34 and 0.88, and *Attitude towards change* - 2.06 and 0.79, respectively.

When we look at the results from the highest to the lowest mean scores, it is clear that the respondents ranked *Rewards* with highest mean of 3.89, whereas their *Relationships* scored the lowest mean of 1.92. From the standard deviation scores, *Structure* has the highest value of all, which is 1.07.

Table 3.2: Mean and standard deviations of organisational development dimensions for subordinates' responses

Variables	N	Mean	Std. Deviation
Purposes	79	2.41	0.83
Structure	79	2.34	1.07
Leadership	79	3.56	0.85
Relationships	79	1.92	0.76
Rewards	79	3.89	0.94
Helpful mechanisms	79	1.93	0.88
Attitude toward change	79	2.06	0.79

In describing the application of their Organisational Diagnosis Questionnaire (ODQ) scales, Preziosi (1980) states that the simplest diagnosis would be to assess the amount of variance for each of the seven variables in relation to a score of 4, which is the neutral point. Scores above 4 would indicate a problem with organisational functioning. The closer the score is to 7 the more severe the problem would be. Scores below 4 indicate

the lack of a problem, with a score of 1 indicating optimum functioning. This more precise diagnostic effort is likely to lead to a more appropriate intervention in the organisation.

The result of this study in table 3.2, which reflects that there is no problem in the pattern for mean scores, is consistent with the above mentioned ones. The mean score in *Purpose* (2.41) is below the scale mid-point at the gas energy power plant. This result revealed that the goals, objectives and direction of the company were generally well communicated to all employees.

The responses to the items in the *Structure* (2.34) showed positive evaluation by the subordinates. The company went through restructuring when merging the two organisations' employees who had different work cultures into one workforce.

Leadership (3.56) mean score is close to the mid-point scale. Even though it is perceived to be supportive and accessible to everyone in the organisation, there are some elements of doubt in the leadership by some subordinates.

Relationship (1.92) mean score showed that the employees were generally very supportive of each other and that there were no obvious relationship problems or conflict among them.

For the *Rewards* (3.89) the mean score is close to the neutral scale mid-point value of 4. This implies as the subordinates felt that the leaders were not paying enough attention to the rewards in exchange of efforts they provide to the organisation compared to others.

Helpful mechanisms (1.93) mean score is below the neutral scale mid-point. This indicates that the gas energy power plant have a structure, systems and processes in place to ensure that workflow was continuously improved. There was sufficient planning to utilise the latest information technology to enhance efficiency.

The mean score for the *Attitude to change* (2.06) is also below the neutral scale mid-point value of 4. This would indicate that the subordinates were not resistant to change.

3.6. Comparisons between leader and employee responses on leadership styles

The results of descriptive statistics for employees' and leaders' responses to the Multifactor Leadership Questionnaire (MLQ) are presented in Table 3.3. T-test is used to compare the means of two samples (independent). In this case, the significant differences, between the two samples on the dimensions of the questionnaires, are

determined. The test considers two critical assumptions regarding data distribution: the values in the data set are independent (measured on randomly selected units from the study area) and the data to be normally distributed, but are not sensitive to violations of the normality assumption unless the data is extremely non-normal.

Also the standard deviations and standard error mean of the two samples (employees and leaders) are compared to determine whether their perception is similar to, or different from, the leadership styles based on the dimensions of the questionnaires.

According to the results shown in **Table 3.3**, the mean score for subordinates' responses on each of the transformational leadership subscales are ranged from 2.76 to 3.52 with the standard deviation values from 0.88 to 1.09, whereas that for leaders has mean scores ranging from 3.66 to 3.89 with standard deviation values from 0.54 to 0.77. If we consider the mean and standard deviation scores of the transformational leadership scales taken as a whole for both groups, the subordinates' group has 3.15 and 0.80 respectively whereas the leaders' group has 3.86 and 0.38 respectively.

Table 3.3: Comparison for the MLQ (leaders and subordinates) responses

Variables	Participants	N	Mean	Std. Deviation	Std. Error Mean
Idealized attributes (IA)	Subordinates	79	2.76	1.09	.11133
	Leaders	40	3.85	0.73	.16379
Idealized behaviours (IB)	Subordinates	79	3.43	0.93	.09550
	Leaders	40	3.72	0.77	.17147
Inspirational motivation (IM)	Subordinates	79	3.18	0.99	.10183
	Leaders	40	3.89	0.64	.14281
Intellectual stimulation (IS)	Subordinates	79	3.52	0.96	.09886
	Leaders	40	3.96	0.54	.12115
Individual consideration (IC)	Subordinates	79	2.84	0.88	.09012
	Leaders	40	3.66	0.66	.14730
Transformational Leadership (TL)	Subordinates	79	3.15	0.80	.08254
	Leaders	40	3.86	0.38	.08389
Contingent reward (CR)	Subordinates	79	2.31	0.99	.10141
	Leaders	40	3.93	0.43	.09703
Management by exception (active) (MBEA)	Subordinates	79	2.41	0.89	.09151
	Leaders	40	3.84	0.95	.21344
Management by exception (passive) (MBEP)	Subordinates	79	1.66	1.05	.10757
	Leaders	40	1.15	1.11	.24836
Transactional Leadership (TA)	Subordinates	79	2.18	0.48	.04969
	Leaders	40	3.89	0.55	.12206
Laissez Faire (LF)	Subordinates	79	1.75	1.02	.10490
	Leaders	40	0.87	0.74	.16473

On the other hand, the mean and standard deviation scores for each of the transactional leadership subscales ranges from 1.06 to 2.41 mean and standard deviation of nearly 1 for subordinates' responses while it ranges from 1.15 to 3.93 mean and 0.43 to 1.11 standard deviation values for leaders' responses. When taken as a whole, the leaders' responses on the transactional leadership scale present higher mean with slightly higher standard deviation to that of subordinates' response. But the mean and standard deviation values of the leaders' responses for laissez-faire leadership scale are lower and slightly lower than to that of subordinates' one, respectively.

For some of the transformational leadership subscales such as inspirational motivation ($m=3.89$) and intellectual stimulation ($m = 3.96$), leaders' responses indicate that the current study has slightly higher mean score than that of Bass & Avolio (1997) which suggests that one for the most effective leaders ($m \geq 3.0$) whilst the subordinates' responses for all subscales has slightly less than to the suggested benchmark. In the case of contingent reward, the mean scores for both groups are higher than the suggested mean score of 2.0 compared with employees mean score of 2.31 and with 3.43 mean score of leaders. Similarly, the mean scores of both employees and leaders for management-by-exception (active) are found within and above, respectively, the suggested ranges of 1.0 and 2.0. The mean scores of employees' responses for management-by-exception (passive) and laissez-faire are found above the suggested ranges of 1.0 and 0.0 whereas for those of leaders it is slightly higher than and within the suggested ranges respectively.

As the whole values of the mean imply for all leadership subscales with an exception of management-by-exception (passive) and laissez-faire, the leaders' responses have higher mean scores than those of subordinates' responses. The values of standard deviation on all leadership subscales with the exception of management-by-exception (active) and management-by-exception (passive) indicate higher standard deviation scores for subordinates' responses than the leaders' responses.

The variations in both cases can be attributed to different reasons. In particular, the difference in mean values may be due to the difference in the size of the two samples or due to the considerable difference between perception of both groups about leadership styles or leaders are considering themselves as practically exercising what is required in theoretical leadership behaviours without convincing their followers. Likewise, the

differences in the values of the standard deviations show that there is more difference in variability for the scores of subordinates' responses than those of the leaders. This is an indication of major differences between leadership behaviours which are being practised and behaviours which are being perceived by the subordinates.

When we consider the standard error mean, the results indicate that subordinates' responses have smaller standard error mean than that of the leaders almost in all variables. The great difference in the size of the two samples (subordinates = 79, leaders = 40) could be considered as a possible reason. Another reason may be that the standard error depends on both the standard deviation of the samples and the sample size. Berenson et al. (2002) explain that as the size of the sample increases the standard error decreases. Thus, it is obvious that as the sample size increases, there is a higher possibility that the sample's mean is not too far from the population mean.

Table 3.4: T-test results for equality of mean scores by the two samples on MLQ

Variables	t-test for Equality of Means	t	df	Sig. (2-tailed)
Idealized attributes (IA)	Equal variances assumed	-4.664	96	.000
	Equal variances not assumed	-5.323	81.410	.000
Idealized behaviours (IB)	Equal variances assumed	-5.240	96	.000
	Equal variances not assumed	-6.209	64.882	.000
Inspirational motivation (IM)	Equal variances assumed	-5.021	96	.000
	Equal variances not assumed	-5.802	76.146	.000
Intellectual stimulation (IS)	Equal variances assumed	-4.440	96	.000
	Equal variances not assumed	-5.323	59.700	.000
Individual consideration (IC)	Equal variances assumed	-4.312	96	.000
	Equal variances not assumed	-4.801	90.010	.000
Contingent reward (CR)	Equal variances assumed	-5.324	96	.000
	Equal variances not assumed	-6.315	64.353	.000
Management by exception (active) (MBEA)	Equal variances assumed	-4.027	96	.000
	Equal variances not assumed	-4.412	93.806	.000
Management by exception (passive) (MBEP)	Equal variances assumed	1.120	96	.265
	Equal variances not assumed	1.351	57.000	.182
Laissez Faire (LF)	Equal variances assumed	2.664	96	.009
	Equal variances not assumed	3.213	57.000	.002
Transformational Leadership (TL)	Equal variances assumed	-5.282	96	.000
	Equal variances not assumed	-6.235	66.634	.000
Transactional Leadership (TA)	Equal variances assumed	-5.385	96	.000
	Equal variances not assumed	-6.232	75.460	.000

The results analysis of the T-test for equality of mean scores are presented in **Table 3.4** above. This test measures whether the difference is significant or not between the mean scores of the two samples (subordinates and leaders) for Multifactor Leadership Questionnaire (MLQ). Confidence Interval of the Difference is 95% ($p \leq 0.05$).

The finding points out significant differences between the two samples on all dimensions of leadership with an exception to idealized influence (behaviours), management by exception (active), and management by exception (passive). These significant differences imply that there are major differences between leadership behaviours which are being practically exercised and behaviours which are being perceived by the employees of the organisation.

3.7. The relationship between leadership styles and organisational development

In this section, correlation analysis conducted in the light of each research question is mentioned. The relationship between leadership styles and organisational development dimensions was investigated using two-tailed Pearson correlation analysis. This provided correlation coefficients which indicated the strength and direction of relationships.

The coefficient of correlation measures the relative strength of a linear relationship between two numerical variables. The values range from -1 (a perfect negative correlation) to +1 (a perfect positive correlation), where perfect implies that if the points were plotted on a scatter plot, all the points could be connected with a straight line. When dealing with a population of two numerical variances, the letter p is used as the symbol for the coefficient of correlation (Levine *et al.*, 2008). The p -value also indicated the probability of this relationship's significance.

In this research, correlation coefficients represent the nature of the relationship between leadership style dimensions and OD dimensions (Bhattacharyya & Johnson, 2010). **Table 3.5** below indicates the coefficient relationship between two variables.

Table 3.5: Correlation Coefficient Relationship

Coefficient Ratio	Relationship
Above 0.80	Represents a strong relationship
Between 0.50 and 0.80	Represents a moderate relationship
Between 0.25 and 0.50	Represents a weak relationship
Between 0.00 and 0.25	Represents an insignificant relationship

Adapted from (Bhattacharyya & Johnson, 2010:94)

3.7.1. Correlations between transformational leadership style and organisational development dimensions

As seen from the results in **Table 3.6** below, the correlations relationships range from weak to moderate. *Rewards* have the strongest correlation with transformational leadership style. Table 4.6 indicates a moderate, but significantly positive relationship between *Rewards* and all the characteristics of transformational leadership. Idealised attributes and Idealised Behaviour showed the strongest correlation between transformational leadership characteristics and *Rewards*. The implication is that the rewards system can influence the subordinates' perceptions. Leaders can provide tangible rewards to encourage innovative individuals to acquire new knowledge and apply it to improve their job performance. Trading of favours needed to accomplish task objectives is a common form of influence among peers in organisations and research indicates that it is important for the success of middle-level managers (Yokl, 2013; Meyer et al., 2004; Cohen & Bradford, 1989; Kaplan, 1984; Kotter, 1982). The result is then to inspire people and to build trust among subordinates.

In **Table 3.6** below, the following can be interpreted from the remaining correlation between organisational development characteristics and transformational leadership style characteristics:

- a) the relationships between *Purposes* and transformational leadership characteristics are relatively moderate, but significantly positive (except for Inspirational motivation);
- b) there is a moderate, but significantly positive relationship between *Structure* and all the characteristics of transformational leadership (except for Individual consideration);
- c) there is a relative moderate, but significantly positive relationship between *Relationships* and all the characteristics of transformational leadership (except for Inspirational motivation);
- d) the relationship between *Helpful mechanisms* and all the characteristics of transformational leadership (except for Inspirational motivation), is relatively moderate but significantly positive;
- e) it is evident that there is a weak, but significant relationship between *Attitude to change* and most of the characteristics of transformational leadership (except for Inspirational motivation and Individual consideration).

Table 3.6: Pearson correlation matrix between transformational leadership and organisational development dimensions

		Idealized attributes	Idealized behaviours	Inspirational motivation	Intellectual stimulation	Individual consideration	Transformational Leadership
Purposes	Correlation Coefficient Sig. (2-tailed) N	,618** .000 119	,552** .000 119	,384** .000 119	,530** .000 119	,525** .000 119	,611** .000 119
Structure	Correlation Coefficient Sig. (2-tailed) N	,690** .000 119	,605** .000 119	,581** .000 119	,576** .000 119	,438** .000 119	,666** .000 119
Leadership	Correlation Coefficient Sig. (2-tailed) N	,705** .000 119	,625** .000 119	,505** .000 119	,660** .000 119	,594** .000 119	,712** .000 119
Relationships	Correlation Coefficient Sig. (2-tailed) N	,610** .000 119	,578** .000 119	,441** .000 119	,563** .000 119	,534** .000 119	,650** .000 119
Rewards	Correlation Coefficient Sig. (2-tailed) N	,661** .000 119	,652** .000 119	,570** .000 119	,650** .000 119	,606** .000 119	,744** .000 119
Helpful Mechanisms	Correlation Coefficient Sig. (2-tailed) N	,595** .000 119	,582** .000 119	,495** .000 119	,608** .000 119	,569** .000 119	,683** .000 119
Attitude to Change	Correlation Coefficient Sig. (2-tailed) N	,508** .000 119	,545** .000 119	,396** .000 119	,528** .000 119	,482** .000 119	,579** .000 119

*. Correlation is significant at the $p < 0.05$ level (2-tailed).

**. Correlation is significant at the $p < 0.01$ level (2-tailed).

Inspirational motivation in **Table 3.6** indicates a relatively weak but significantly negative relationship with the characteristics of OD (*Purposes*, *Relationships*, *Helpful mechanisms* and *Attitude to change*). There is also a relatively weak but significantly negative

relationship between *Individual consideration* in **table 3.6** with the characteristics of OD (*Structure and attitude to change*).

The results from **Table 3.6** indicate significant evidence (1% significance) that there is a weak to moderate positive alignment between organisational development and transformational leadership style and that hypothesis H₀₂ can be rejected. A conclusion can be made that hypothesis H_{a2} can be statistically accepted.

3.7.2. Correlations between transactional leadership style and organisational development dimensions

The *Rewards* dimension, according to **Table 3.7** indicates the strongest relationship with *Contingent reward*, which is a characteristic of transactional leadership style.

Rewards and *contingent reward* are moderate, but significantly positively related. The implication is that the distribution of rewards to employees, especially high performers, has an influence on the performance of employees. When rewards are used frequently as a source of influence, people may come to perceive their relationship to the leader in purely economic terms. Even when the conditions are favourable for using rewards, they are more likely to result in compliance rather than commitment (Yukl, 2013).

In **Table 3.7** below, the following can be interpreted from the remaining correlation between organisational development characteristics and transactional leadership style characteristics:

- a) *Contingent reward* and *Purposes* are weak, but significantly positively related.
- b) *Contingent reward* and *Structure* are insignificant, but positively related.
- c) *Contingent reward* and *Leadership* are weak, but significantly positively related.
- d) *Contingent reward* and *Helpful mechanisms* are weak, but significantly positively related.
- e) *Contingent reward* and *Attitude to change* are weak, but significantly positively related.

Table 3.7: Pearson correlation matrix between transactional leadership and organisational development dimensions

		Contingent reward	Management by exception (active)	Management by exception (passive)	Transactional Leadership
Purposes	Correlation Coefficient	,464**	-,377**	,214*	,419**
	Sig. (2-tailed)	.000	.000	.019	.000
	N	119	119	119	119
Structure	Correlation Coefficient	,475**	-,291**	.086	,320**
	Sig. (2-tailed)	.000	.001	.352	.000
	N	119	119	119	119
Leadership	Correlation Coefficient	,446**	-,460**	,212*	,438**
	Sig. (2-tailed)	.000	.000	.021	.000
	N	119	119	119	119
Relationships	Correlation Coefficient	,336**	-,379**	,208*	,356**
	Sig. (2-tailed)	.000	.000	.023	.000
	N	119	119	119	119
Rewards	Correlation Coefficient	,539**	-,430**	,188*	,403**
	Sig. (2-tailed)	.000	.000	.041	.000
	N	119	119	119	119
Helpful Mechanisms	Correlation Coefficient	,401**	-,416**	,208*	,379**
	Sig. (2-tailed)	.000	.000	.023	.000
	N	119	119	119	119
Attitude to Change	Correlation Coefficient	,416**	-,324**	.180	,397**
	Sig. (2-tailed)	.000	.000	.050	.000
	N	119	119	119	119

*. Correlation is significant at the $p < 0.05$ level (2-tailed).

**. Correlation is significant at the $p < 0.01$ level (2-tailed).

OD dimensions as per **Table 3.7** indicate a relatively weak but significantly negative relationship with Management-by-exception (active). It is evident from **Table 3.7** that there is an insignificant correlation between Management-by-exception (passive) and the nine characteristics of OD.

The results from **Table 3.7** indicate that there is insignificant evidence (1% significance) and that the nil hypothesis H_{03} can therefore be accepted. The statistical hypothesis H_{a3} can be rejected.

3.7.3. Correlations between laissez-faire leadership style and organisational development dimensions

Table 3.8 below represents the descriptive statistics for the correlation between organisational development dimensions and laissez-faire leadership. The strongest correlation between laissez-faire leaders and organisational development is attitude to change. The implication is that attitude to change is weak, but significantly positively related to the laissez-faire leadership style. The impact is that there will be less change initiation present, when a leader tends to be more laissez-faire inclined.

Table 3.8: Pearson correlation matrix between laissez-faire leadership and organisational development dimensions

		Laissez Faire
Purposes	Correlation Coefficient Sig. (2-tailed) N	,242** .008 119
Structure	Correlation Coefficient Sig. (2-tailed) N	,316** .000 119
Leadership	Correlation Coefficient Sig. (2-tailed) N	,340** .000 119
Relationships	Correlation Coefficient Sig. (2-tailed) N	,215** .002 119
Rewards	Correlation Coefficient Sig. (2-tailed) N	,273** .003 119
Helpful Mechanisms	Correlation Coefficient Sig. (2-tailed) N	,332** .000 119
Attitude to Change	Correlation Coefficient Sig. (2-tailed) N	,391** .000 119

*. Correlation is significant at the $p < 0.05$ level (2-tailed).

**. Correlation is significant at the $p < 0.01$ level (2-tailed).

In **Table 3.8** the following can be interpreted from the remaining correlation between innovation characteristics and laissez-faire leadership:

- a) Laissez-faire leadership and *Purposes* are weak, but significantly positively related.
- b) Laissez-faire and *Structure* are weak, but significantly positively related.
- c) Laissez-faire and *Relationships* are insignificantly and positively related.
- d) Laissez-faire and *Rewards* are weak, but significantly positively related.
- e) Laissez-faire and *Helpful mechanisms* are weak, but significantly positively related.

It is clear from the above, that a leader who tends to be less involved and refuses to take leadership responsibilities, will not encourage organisational development and engender conflict between himself and his subordinates.

In regards to **Table 3.8**, it is evident that the nil hypothesis H_{04} can be accepted. It can, thus, be concluded that there is no significant alignment between OD and laissez-faire leadership. The impact is that hypothesis H_{a4} can be rejected statistically.

3.7.4. Conclusion

The descriptive statistics depicted in **Tables 3.1 to 3.8** reveals that there is a relationship between leadership and organisational development. There is a significant difference between leaders' self-perception of their own leadership, versus the perceptions of their subordinates regarding their leadership and the experienced organisational development at the gas energy power plant. The risk associated with leaders that tend to assess themselves higher than their subordinates, is that the former could be self-biased. The implication and reason for potential self-biasness will be discussed in more detail in Chapter 4.

The findings of this study reveal that transformational leadership has positive associations with the dimensions of organisational development, and that transformational and transactional leadership are important in relation to organisational development. Such findings clearly indicate the important role of transformational leadership, and the importance for organisations to nurture transformational leadership qualities among their leaders.

Generally, the present study has exhibited that transformational leaders have a more significant and stronger relationship with organisational development. This is consistent with previous studies by Bass & Avolio (1993) who claim that transactional leadership creates only short-term organisational effectiveness, whereas transformational leadership creates long-term commitment. The claim is corroborated by Lok & Crawford (2000) who posit that the leadership style variable, a bureaucratic environment that resembles transactional characteristics, often results in a lower level of employee commitment and performance. Similarly, Mannheim & Halamish (2008) reveal that leaders who exhibit transformational leadership styles are more effective in achieving significantly higher organisational effectiveness levels than transactional leaders.

CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS

4.1. Discussion of results

The main objective of this research was to investigate the influence of leadership on organisational development at a gas energy power plant. According to the analysis results and discussion of the study, conclusions are made on the nature and relationship of leadership styles and organisational development dimensions.

The patterns of mean scores for transformational leadership subscales suggest that some respondents perceived their leaders as one that has not exhibited the “ideal” levels of transformational leadership behaviours as well as some need for improvement. The mean for contingent reward and management-by-exception (active) of transactional subscales proposes that some employees perceived their leaders as performing beyond expected average job of recognising accomplishments and taking corrective action immediately when deviations occur.

Consistent to other findings, transformational leadership has the highest mean score followed by transactional leadership, with laissez-faire having the least score. Therefore, it can be said that subordinates’ perceptions of leadership style are positive. Regarding the comparison between subordinates’ and leaders’ responses to leadership styles used at the gas energy power plant, subordinates’ group has mean of 3.15 whereas leaders’ group has mean of 3.82 on transformational leadership scale. Similarly, the leaders’ responses on the transactional leadership scale present a higher mean with slightly higher standard deviation to that of the employees’ responses. The mean and standard deviation values of the leaders’ responses for laissez-faire leadership scale are lower and slightly lower than to that of the employees, respectively. This indicates that leaders of the gas energy power plant perceive more than what employees perceive as they respectively adopt, from most to least, transformational, transactional and the laissez-faire leadership styles.

In almost all leadership variables, the standard error mean of employees’ responses is smaller than that of the leaders. Analysis of the T-test for equality of mean scores revealed significant differences between the two samples on all dimensions of leadership with an exception to idealized influence (behaviours), management by exception (active), and management by exception (passive).

The results of this study confirm some of the earlier findings and contradict others on the relationship between leadership style and organisational development dimensions. Pearson's correlation analysis was used to investigate the relationship between these variables.

The important finding of this study is that transformational leadership style has a greater significant influence on all organisational development dimensions than transactional and laissez-faire leadership styles. It can be suggested that transformational leadership styles which involve building trust, inspiring a shared vision, encouraging creativity, and emphasising development, explain some of the variations in whether employees want to or do not want to stay with the gas energy power plant.

In terms of good work relationships, these same transformational leadership activities explain a little less of the variation in whether employees feel needed to or do not feel needed to stay with the organisation. This finding also led the author to conclude that transformational leadership is a better predictor of leader and subordinate relationships and organisational direction.

According to the results of the research, there is a weak but positive and significant relationship between transactional leadership style and organisational development dimensions. This reflects that leadership behaviours, which involve recognising accomplishments taking immediate action or waiting for problems to become chronic before taking action, explain positive variations in how employees feel about their performance in the organisation. In other words, it can be said that employees' performance in the organisation increases as transactional leadership behaviours increase.

The third leadership style, laissez-faire leadership, was found to be weak but significantly and positively associated with purposes, structure, rewards, helpful mechanisms and attitude to change but has no significant relationship with relationships. This predicts that leadership behaviours which involve ignoring problems, displaying indifference, and overlooking achievements will negatively affect how employees feel about their commitment to perform at the organisation. Thus, it can be said that this leadership style may intervene in the work affairs of leader-employee interaction or inhibit the successful development of an organisation.

4.2. Limitations

The following limitations were present in this study:

- The gas energy power plant had only 3 years of operation and have been co-governed by two organisations.
- The research was conducted in English, which is likely to be a second language for most respondents. Some concepts may have not been completely comprehended.
- Questioning employees about employees' relationships with their leaders may have caused them to give answers towards favouring their leaders in fear of information leaking to their leaders.

4.3. Recommendations

It is clear that the owners and managers want their organisations to have sustainable development and growth. One of the ways to achieve this is to create favourable conditions for employees. Based on the findings of this study, the author suggests the following points to the gas energy power plant and for future research.

4.3.1. Recommendations to the organisation

Although leadership functions may vary by organisational level or discipline, the study presented here suggests that the interaction of transformational and transactional leadership styles are potentially important points of influence in affecting attitudes towards change to the organisation.

It is suggested that the leaders of gas energy power plant should pay more attention to developing efficient team work and express warm concern and trust to co-workers through transformational leadership behaviours. This is because leaders can play a role in building commitment by assuring that the organisation makes effort to address both the work content and the work context by engaging in management practices to increase psychological attachment of employees to the organisation.

As there are considerable differences in mean scores between the leaders' and employees' perceptions of leadership styles, leaders must try to practically demonstrate to their subordinates the precepts and theories they state and enforce.

To improve the lowest mean score of rewards, gas energy power plant should improve their payments and other benefits systems to develop employee commitment, otherwise there will always be a high staff turnover.

From the managerial perspective, this study shows the policy makers at the gas energy power plant that they can focus on developing their employees by tapping their potentials, inspiring them, promoting collaboration, motivating and reinforcing positive attitudes towards commitment to change within the organisation.

Because both transformational and transactional leadership styles have been found to have a significant and positive relationship with organisational development dimensions, the gas energy power plant should attempt to maintain these leadership styles within the organisation as committed employees are most desirable. For transactional leadership, recognizing accomplishments and expectations, and taking immediate action rather than waiting for problems to become serious.

Since the laissez-faire leadership has weak significant and insignificant correlation with organisational development dimensions, leaders should avoid such behaviours like displaying indifference, overlooking achievements, and ignorance of problems to improve their attitude to change levels of employees. In other words, leaders may be able to improve their laissez-faire leadership behaviours by giving negative feedback in a timely manner and using language that is both clarifying and encouraging.

Based on the findings that revealed the significant relationships between leadership styles and rewards, it is imperative to establish a sound system of benefits, promotion, and development in order to increase employees' organisational commitment and then raise productivity by reducing labour turnover. These are the major factors which influence the decisions of employees on whether they want to, need to or ought to stay in the current organisation. Low labour turnover increases the knowledge base within the organisation which is also critical for organisation growth.

4.3.2. Recommendations for further studies

In future research, it would be interesting to assess causal relationships and consider alternative modes of inquiry such as employing the longitudinal design (e.g. observations or interviews) to determine if the findings tested are likely to be sustained. Further research should also involve a nationwide survey covering samples from the whole population of the power industries in South Africa.

Future studies can benefit by including leadership styles and other variables such as commitment, loyalty or self-efficacy beliefs in determining organisation development. Comparisons can also be made between the private and state owned power plants. The findings of this study may not be generalised to the whole power industry or to other types of organisations in the country. Generalisation of the present findings should, therefore, be examined in future research in state-owned power plants and other organisations with balanced gender, and more heterogeneous samples.

Furthermore, researchers might further examine the particular circumstances under which leadership behaviours might influence organisational development. Meyer *et al.* (2004) suggest that this relationship could vary based on employees' perceptions of their ability to find another job with similar characteristics. Emphasis in this area could improve leaders' ability to have a positive influence on employees who stay with the organisation because they feel they have no other choice.

4.4. Summary

The study has demonstrated that the transformational style of leadership has a great influence on organisational development. This is substantially enhanced by the existence of a high quality relationship between subordinates and leaders. Leaders play a role in creating a conducive atmosphere for employees to optimally function in. Valuable insight into the emergence, characteristics and behaviours of these leaders that could be used in leader selection, promotion and development has been provided. The study also provided valuable information regarding the distractive nature of a laissez-faire style of leadership, and for organisations to actively guard against recruitment of such leaders. The study further provided insight into the importance of high quality relationships between leaders and employees, and the importance of actively encouraging these through incentive schemes and rewards.

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Appendix 1: Multilevel Leadership Questionnaire (Leader self-assessment) MLQ

– 5X

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits yourself. Use the following rating scale by making an “X” over the appropriate number:

Not at all	Once in a while	Sometimes	Fairly often	Frequently
0	1	2	3	4

STATEMENT	SCALE				
1. I provide others with assistance in exchange for their efforts	0	1	2	3	4
2. I re-examine critical assumptions to question whether they are appropriate	0	1	2	3	4
3. I fail to interfere until problems become serious	0	1	2	3	4
4. I focus attention on irregularities, mistakes, exceptions, and deviations from standards	0	1	2	3	4
5. I avoid getting involved when important issues arise	0	1	2	3	4
6. I talk about my most important values and beliefs	0	1	2	3	4
7. I am absent when needed	0	1	2	3	4
8. I seek differing perspectives when solving problems	0	1	2	3	4
9. I talk optimistically about the future	0	1	2	3	4
10. I instil pride in others for being associated with me	0	1	2	3	4
11. I discuss in specific terms who is responsible for achieving performance targets	0	1	2	3	4
12. I wait for things to go wrong before taking action	0	1	2	3	4
13. I talk enthusiastically about what needs to be accomplished	0	1	2	3	4
14. I specify the importance of having a strong sense of purpose	0	1	2	3	4
15. I spend time teaching and coaching	0	1	2	3	4
16. I make clear what one can expect to receive when performance goals are achieved	0	1	2	3	4
17. I show that I am a firm believer in “If it ain’t broke, don’t fix it.”	0	1	2	3	4
18. I go beyond self-interest for the good of the group	0	1	2	3	4
19. I treat others as individuals rather than just as a member of a group	0	1	2	3	4
20. I demonstrate that problems must become chronic before I take action	0	1	2	3	4
21. I act in ways that build others’ respect for me	0	1	2	3	4
22. I concentrate my full attention on dealing with mistakes, complaints, and failures	0	1	2	3	4
23. I consider the moral and ethical consequences of decisions	0	1	2	3	4
24. I keep track of all mistakes	0	1	2	3	4
25. I display a sense of power and confidence	0	1	2	3	4
26. I articulate a compelling vision of the future	0	1	2	3	4
27. I direct my attention toward failures to meet standards	0	1	2	3	4
28. I avoid making decisions	0	1	2	3	4
29. I consider an individual as having different needs, abilities, and aspirations from others	0	1	2	3	4
30. I get others to look at problems from many different angles	0	1	2	3	4
31. I help others to develop their strengths	0	1	2	3	4
32. I suggest new ways of looking at how to complete assignments	0	1	2	3	4
33. I delay responding to urgent questions	0	1	2	3	4
34. I emphasize the importance of having a collective sense of mission	0	1	2	3	4
35. I express satisfaction when others meet expectations	0	1	2	3	4
36. I express confidence that goals will be achieved	0	1	2	3	4
37. I am effective in meeting others’ job-related needs	0	1	2	3	4
38. I use methods of leadership that are satisfying	0	1	2	3	4
39. I get others to do more than they expected to do	0	1	2	3	4
40. I am effective in representing others to higher authority	0	1	2	3	4
41. I work with others in a satisfactory way	0	1	2	3	4
42. I heighten others’ desire to succeed	0	1	2	3	4
43. I am effective in meeting organisational requirements	0	1	2	3	4
44. I increase others’ willingness to try harder	0	1	2	3	4
45. I lead a group that is effective	0	1	2	3	4

Appendix 2: Multilevel Leadership Questionnaire (Leader assessment) MLQ – 5X

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits person you are describing. Use the following rating scale by making an “X” over the appropriate number:

Not at all	Once in a while	Sometimes	Fairly often	Frequently	
0	1	2	3	4	
STATEMENT		SCALE			
1. Provides me with assistance in exchange for my efforts	0	1	2	3	4
2. Re-examines critical assumptions to question whether they are appropriate	0	1	2	3	4
3. Fails to interfere until problems become serious	0	1	2	3	4
4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards	0	1	2	3	4
5. Avoids getting involved when important issues arise	0	1	2	3	4
6. Talks about their most important values and beliefs	0	1	2	3	4
7. Is absent when needed	0	1	2	3	4
8. Seeks differing perspectives when solving problems	0	1	2	3	4
9. Talks optimistically about the future	0	1	2	3	4
10. Instills pride in me for being associated with him/her	0	1	2	3	4
11. Discusses in specific terms who is responsible for achieving performance targets	0	1	2	3	4
12. Waits for things to go wrong before taking action	0	1	2	3	4
13. Talks enthusiastically about what needs to be accomplished	0	1	2	3	4
14. Specifies the importance of having a strong sense of purpose	0	1	2	3	4
15. Spends time teaching and coaching	0	1	2	3	4
16. Makes clear what one can expect to receive when performance goals are achieved	0	1	2	3	4
17. Shows that he/she is a firm believer in “If it isn’t broke, don’t fix it.”	0	1	2	3	4
18. Goes beyond self-interest for the good of the group	0	1	2	3	4
19. Treats me as an individual rather than just as a member of a group	0	1	2	3	4
20. Demonstrates that problems must become chronic before taking action	0	1	2	3	4
21. Acts in ways that builds my respect	0	1	2	3	4
22. Concentrates his/her full attention on dealing with mistakes, complaints, and failures	0	1	2	3	4
23. Considers the moral and ethical consequences of decisions	0	1	2	3	4
24. Keeps track of all mistakes	0	1	2	3	4
25. Displays a sense of power and confidence	0	1	2	3	4
26. Articulates a compelling vision of the future	0	1	2	3	4
27. Directs my attention toward failures to meet standards	0	1	2	3	4
28. Avoids making decisions	0	1	2	3	4
29. Considers me as having different needs, abilities, and aspirations from others	0	1	2	3	4
30. Gets me to look at problems from many different angles	0	1	2	3	4
31. Helps me to develop my strengths	0	1	2	3	4
32. Suggests new ways of looking at how to complete assignments	0	1	2	3	4
33. Delays responding to urgent questions	0	1	2	3	4
34. Emphasizes the importance of having a collective sense of mission	0	1	2	3	4
35. Expresses satisfaction when I meet expectations	0	1	2	3	4
36. Expresses confidence that goals will be achieved	0	1	2	3	4
37. Is effective in meeting my job-related needs	0	1	2	3	4
38. Uses methods of leadership that are satisfying	0	1	2	3	4
39. Gets me to do more than I expected to do	0	1	2	3	4
40. Is effective in representing me to higher authority	0	1	2	3	4
41. Works with me in a satisfactory way	0	1	2	3	4
42. Heightens my desire to succeed	0	1	2	3	4
43. Is effective in meeting organisational requirements	0	1	2	3	4
44. Increases my willingness to try harder	0	1	2	3	4
45. Leads a group that is effective	0	1	2	3	4

Appendix 3: Organisational Diagnosis Questionnaire (ODQ)

The following 35 statements designed to collect data on organisational functioning. They measure the perceptions of persons in an organisation or work unit to determine areas of activity that would benefit from an organisation development effort. Please read each statement carefully and decide if you feel this way. Please do not skip any questions.

STATEMENT	Agree Strongly	Agree	Agree Slightly	Neutral	Disagree Slightly	Disagree	Disagree Strongly
1 The goals of this organisation are clearly stated.	1	2	3	4	5	6	7
2 The division of labour of this organisation is flexible.	1	2	3	4	5	6	7
3 My immediate supervisor is supportive of my efforts.	1	2	3	4	5	6	7
4 My relationship with my supervisor was a Harmonious one.	1	2	3	4	5	6	7
5 My job offers me the opportunity to grow as a person.	1	2	3	4	5	6	7
6 My immediate supervisor has ideas that are helpful to me and my work group	1	2	3	4	5	6	7
7 This organisation is not resistant to change.	1	2	3	4	5	6	7
8 I am personally in agreement with the stated goals of my work unit.	1	2	3	4	5	6	7
9 The division of labour in this organisation is intended to help it reach its goals	1	2	3	4	5	6	7
10 The leadership norms of this organisation help its progress.	1	2	3	4	5	6	7
11 I can always talk with someone at work if I have a work-related problem	1	2	3	4	5	6	7
12 The pay scale and benefits of this organisation treat each employee equitably	1	2	3	4	5	6	7
13 I have the information that I need to do a good job.	1	2	3	4	5	6	7
14 This organisation introduces enough new policies and procedures.	1	2	3	4	5	6	7
15 I understand the purpose of this organisation	1	2	3	4	5	6	7
16 The manner in which work tasks are divided is a logical one	1	2	3	4	5	6	7
17 This organisation's leadership efforts result in the organisation's fulfilment of its purposes.	1	2	3	4	5	6	7
18 My relationships with members of my work group are friendly as well as professional	1	2	3	4	5	6	7
19 The opportunity for promotion exists in this organisation.	1	2	3	4	5	6	7
20 This organisation has adequate mechanisms for binding itself together	1	2	3	4	5	6	7
21 This organisation favours change	1	2	3	4	5	6	7

STATEMENT	Agree Strongly	Agree	Agree Slightly	Neutral	Disagree Slightly	Disagree	Disagree Strongly
22 The priorities of this organisation were understood by its employees	1	2	3	4	5	6	7
23 The structure of my work unit is well designed	1	2	3	4	5	6	7
24 It is clear to me whenever my boss is attempting to guide my work efforts	1	2	3	4	5	6	7
25 I have established the relationships that I need to do my job properly	1	2	3	4	5	6	7
26 The salary that I receive is commensurate with the job that I perform	1	2	3	4	5	6	7
27 Other work units are helpful to my work unit whenever assistance is requested	1	2	3	4	5	6	7
28 Occasionally I like to change things about my job.	1	2	3	4	5	6	7
29 I had enough input in deciding my work-unit goals	1	2	3	4	5	6	7
30 The division of labour in this organisation actually helps it to reach its goals	1	2	3	4	5	6	7
31 I understand my boss's efforts to influence me and the other members of the work unit	1	2	3	4	5	6	7
32 There is no evidence of unresolved conflict in this organisation	1	2	3	4	5	6	7
33 All tasks to be accomplished are associated with incentives	1	2	3	4	5	6	7
34 This organisation's planning and control efforts are helpful to its growth and development	1	2	3	4	5	6	7
35 This organisation has the ability to change	1	2	3	4	5	6	7

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Name of client: Sinclair Kaudani

This is to certify that Language Editing has been carried out on the following

Article/dissertation/thesis:

Title of article/dissertation/thesis

Investigating the influence of leadership on organisational development at a gas energy power plant.

Language editing was carried out to appropriate academic standards, including syntax, grammar and style.

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