

# **A COMPARATIVE LEADERSHIP ANALYSIS IN AN AGRICULTURAL BUSINESS**

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## **ABSTRACT**

The purpose of the study was to compare the perceptions of subordinates with top managements' own perceptions regarding top management leadership and innovative ability and to determine whether differences and/or similarities exist.

The Multi Leadership Questionnaire (MLQ form 5X) from Avolio & Bass (2004) was used to measure self- and subordinates' perceptions of leadership styles. The Situation Outlook Questionnaire (SOQ) was used to measure leaders' self- and subordinates' perception on the ability to be innovative.

The questionnaires were completed by 6 executive committee members (top management) and 94 subordinates that have a direct relationship with the executive committee members in an agricultural business.

The research findings revealed that there is a significant difference between leaders' (executive committee members) self-perceptions on their own leadership and ability to be innovative, versus the perceptions of their subordinates on their leadership and ability to be innovative. The research showed that leaders tend to assess themselves higher than their subordinates do. Both leaders and subordinates indicated that the leaders have a transformational leadership style. The results also showed that there is a weak to moderate, positively significant correlation between innovation and transformational leadership styles.

**Key terms: Perception, self-perception, leadership, innovation, agricultural business.**

## CHAPTER 1

### 1. INTRODUCTION

#### 1.1 Introduction to the study

This dissertation focuses on perceptions of top management's leadership and innovative ability in an agricultural business. In this chapter, the problem statement and research objective are explained. The research methodology and empirical study will give structure to the research and will also be outlined.

#### 1.2 Background and motivation

The relentless pressure of competition stemming from globalisation and technological changes is increasingly bombarding organisations (Seshardri & Tripathy, 2006:17). This is confirmed by Baucus *et al.* (2008:98) by stating that in today's global economy, organisations face significant environmental complexity. The models many organisations have used in the past, no longer seem adequate for effectiveness and success in the twenty-first century environment. In many sectors today, work processes are changing at a much faster pace as organisations face the challenge of rapidly changing technology, globalisation, uncertainty, unpredictability and turbulence. In the past, because of monopoly to technology, market or brand, organisations could expect to be successful for a long time despite inability or refusal to innovate. However, due to the volatile environments in these sectors, many organisations are failing and need creativity and constant innovation to remain competitive and successful. This means that organisations must recognise and harness creativity and innovative leadership (Agbor, 2008:39).

David Magella North, Senior Enterprise Associate of the Centre of Creative Leadership, noted that not long ago, strategy was king; forecasting and planning created the power sources within the organisation. The future of a business could fit

into an established framework or systems. If managed well, success would follow. Today, uncertainty is a given and planning for the next quarter is a challenge. Even more difficult, is committing to decisions that will pay off in one to five years. What leaders need now is innovative leadership; they need it for themselves, as they learn to operate in challenging, unpredictable circumstances. Leaders need to create a climate for innovation within the organisation, and innovative systems, tools and thinking that are essential for the organisation's health and future viability (North, 2009).

The South African markets are also currently experiencing the competitive nature of the global market. No longer do they need to compete locally but they also need to create competitive advantages that outperform international competitors and multinationals, both locally and internationally. According to Van der Colff (2004:499) more and more organisations in South Africa need not only be competitive in their local markets, but they need to be globally competitive as well. The pace of change within the economy as a whole, is asking of managers and leaders alike to become more flexible and progressive in their management styles, including developing their innovation skills.

South Africa's competitive nature for agricultural companies used to be limited to their geographical area. With globalisation and international competition, agricultural businesses are currently also experiencing relentless pressure within each other's geographical areas to be competitive. Over the past few years most of the agricultural companies in South Africa have reached maturity in their life cycles and mergers and acquisitions between companies were a strategic action for growth. For agricultural companies in South Africa to become competitive both globally and locally on a sustainable basis, they need to establish a distinctive advantage over their competitors. To create this advantage, leaders need to create an innovative environment.

### **1.3 Problem statement**

To ensure a sustainable growth in an agricultural business, effective and innovative leadership are needed, which in an agricultural business means that both top

management and their subordinates' perceptions regarding leadership and their ability to be innovative, must be aligned.

In life, every person has a perception of himself and a perception of people around him. The American Psychological Association (2006:683) defines perception as “the process or result of becoming aware of objects, relationships and even by means of senses, which include such activities as recognizing, observing, and discriminating. These activities enable organisms to organise and interpret the stimuli received into meaningful knowledge.” Results of research demonstrate that observer perceptions significantly affect the evaluation of a leader’s actual behaviour. Since perception is not necessarily congruent with actual behaviour, leaders are vulnerable to biased evaluation. Thus, the evaluation of leadership stems from the traits and characteristics that an observer believes a leader should possess. Consequently, role expectancies may be contributing to the discrepancy between the perception of behaviour of leaders (Wanjau, 2008:10).

For leadership to happen, leaders have to know who they are and what they stand for. They have to stay constant so subordinates know what to expect (Richard, 1999:43). “By the very definition of the word, a “leader” cannot exist without “followers”. A leader is someone who emerges, especially in times of uncertainty, because they offer ways forward that others haven’t identified and will therefore enthusiastically follow.” (Meyer & Boninelli, 2007:45). Most corporate leaders understand quite well that there is only one way of sustainable growth that investors demand from them year after year, and that is not through tired old management practices like cost cutting, restructuring, buying back shares or mergers or acquisitions. They realize that in the longer term, if they want to grow faster than the industry average, they have no alternative but to innovate in their products, their business models, and indeed, their management systems (Skarzynski & Gibson, 2008:13).

Rich (2011:32) is of opinion that twenty-first century companies are in great need of innovative leaders, they need men and women who know how to put new ideas to work effectively and responsibly in every corner of their organisation. They need people who will define what’s next in our markets and societies. Barsh *et al.* (2008:37) utilised a survey for a Mckinsey study and found that 70% of senior

executives identified innovation as one of the top three strategy drivers of their companies.

Scott and Bruce (1994: 580) found that leaders' behaviour did indeed predict climate for innovation within the organisation through the Leader Member Exchange theory. Their study showed that the higher the level of interaction between leaders and subordinates, the higher the perceived climate for innovation. The survey for a McKinsey study by Barsh *et al.* (2008:39) found that while senior executives cited innovation as an important driver for growth, few of them explicitly lead and managed it. About one third says that they managed innovation on an ad hoc basis when necessary, and another third managed innovation as part of senior leadership agendas. Nineteen percent of these executives neither focused on growth nor innovation as part of the strategic planning process. They solely focused on budgeting and forecasting.

Innovative leadership has two components. The first component is an innovative approach to leadership. This means different actions and new thinking about how you lead and manage. What can you do to break open entrenched intractable problems and how can you be quick and agile in the absence of information or predictability? The second component is leadership in favour of innovation. Leaders must learn how to create an organisational climate where others apply innovative thinking to solve problems and develop new products and services. How can you help others thinking differently and work in new ways to face challenges? What can be done to innovate when all resources are stressed and constrained and wondering how to stay alive and stay ahead of the competition? It is about growing a culture of innovation, not just hiring a few creative outliers (North, 2009).

#### **1.4 Research objective**

The research objectives are divided into primary and secondary objectives.

### **1.4.1 Primary objective**

The primary objective of the research is to compare the perceptions of subordinates with top management's own perceptions regarding top management's leadership and innovative ability and to determine whether differences and/or similarities exist. It is critical for an agricultural business to discover how in line the perception and the realities are regarding leadership and their leaders' ability to be innovative. The outcome of this research can also be used to improve leadership and ability to be innovative in an agricultural business.

### **1.4.2 Secondary objectives**

In achieving this primary objective of the study, the secondary objectives to realise are as follows:

- Determine leaders' perceptions of what their own dominant leadership styles are.
- Determine leaders' perceptions of their own innovative abilities.
- Determine subordinates' perceptions of top management leadership styles.
- Determine subordinates' perceptions of top management's innovative ability.
- Determine whether innovation is aligned with a specific leadership style.

## **1.5 Research methodology**

"Human science is a communal human activity, by means of which a particular phenomenon is studied objectively in reality in order to present a valid understanding of the phenomenon." (Mouton & Marais, 1990:8).

The methodology addresses the processes, values and procedures whereby the research problems are addressed (Mouton, 2011:57).

There are many different resources for conducting research, but according to Welman *et al.* (2010:2), in general scientific research is used to analyse empirical evidence in an attempt to approve or disapprove concepts. Applied research is

undertaken to answer questions about specific problems identified, while basic research intends to expand the boundaries of knowledge. Shaw (1999:59) suggests that the research design used, should be flexible enough to permit the researcher to uncover and explore issues which emerge as interesting and potentially capable of understanding the substantive research problem.

According to Welman *et al.* (2010:8), the aims of qualitative research methods are to establish the socially constructed nature of reality, to stress the relationship between the researcher and the object of the study, as well as to emphasise the value-laden nature of the inquiry. On the other hand, quantitative research methods do not involve the investigation of processes but emphasise the measure and analysis of casual relationship between variables within a value – i.e. free context. The direct contrast between quantitative and qualitative methodologies can be summarised as follows:

- The purpose of quantitative research is to evaluate objective data consisting of numbers while qualitative research deals with subjective data that are produced by minds of respondents or interviewees. Qualitative data are presented in a language instead of numbers.
- As a result of dealing with numbers, quantitative research uses a process of analysis that is based on complex structure methods to confirm or disprove hypotheses. Flexibility is limited to prevent any form of bias in presenting the results. On the other hand, qualitative research is based on flexibility and explorative methods because it enables researchers to change the data progressively so that a deeper understanding of what is being investigated, can be achieved.
- Quantitative research is not to deal directly with everyday life, but rather with an abstraction of reality, to seek an ethic science based on probabilities derived from the study of large numbers of randomly selected cases. In contrast qualitative research only investigates the day-to-day events and base its results on behaviour of people.
- Quantitative researchers try to understand the facts of the research investigation from an outside perspective, while qualitative researchers try to

achieve an insider view by talking to the subjects or observing their behaviour in a subjective way.

- Quantitative researches try to keep the process as stable as possible in contrast with the dynamic and changing nature of reality by qualitative researchers.
- Quantitative research usually aims at large numbers of cases and the analysis of results is usually based on statistical significance, where qualitative research involves small samples of people, studied by means of in-depth methods.

As explained in paragraph 1.4, the purpose of this mini-dissertation is to examine perceptions of leadership and ability to be innovative in an agricultural business and furthermore, to examine how participative top management perceive their own leadership and innovative ability to be, compared to how their employees perceive them. The goal of the study is to present evidence of whether or not there is a difference between these views.

It aims to evaluate objective quantifiable data by means of standardised questionnaires, to process and analyse data within a complex structure method and to compare results in order to confirm or disprove a hypothesis. Due to these considerations a quantitative approach was opted for.

The research will be conducted in two phases: literature review followed by an empirical study.

### **1.5.1 Literature review**

A detailed literature research exercise will be done to gain theoretical knowledge and understanding on the following:

- Define perception.
- Define leadership styles.
- Define innovation.
- Define innovation leadership.

- Explore previous research on management's self-perception versus subordinates' perceptions.

Academic books, articles published in professional journals and the internet were used as source material.

### **1.5.2 Empirical study**

In terms of the empirical study, the specific aims are as follows:

*Hypotheses:*

*H0a:* There are no significant differences between leaders' self-perceptions of their own leadership and ability to be innovative, versus the perception of their subordinates on their leadership and ability to be innovative.

*H1:* There are significant differences between leaders' self-perceptions of their own leadership and ability to be innovative, versus the perception of their subordinates on their leadership and ability to be innovative.

*H0b:* Innovation is not aligned with transformational leadership style.

*H2:* Innovation is aligned with transformational leadership style.

*H0c:* Innovation is not aligned with transactional leadership style.

*H3:* Innovation is aligned with transactional leadership style.

*H0d:* Innovation is not aligned with laissez-faire leadership style.

*H4:* Innovation is aligned with laissez-faire leadership style.

### **1.5.3 Population**

The number of subordinates having a direct relationship with the identified 6 top management members, included a population of 128 senior and middle management staff members. These 128 subordinates were selected due to the fact that they are reporting to top management (on whom they completed the questionnaires) directly. This would ensure a more valid perception of top management's leadership and ability to be innovative.

Measuring Instruments: For the purpose of the study, two different sources were used for data collection: 1) The Multifactor Leadership Questionnaire (MLQ Form 5X), a Likert-type perception survey, developed by Avolio and Bass. 2) Situation Outlook Questionnaire, developed by Ekvall.

Both of these instruments adhere to the most important aspects of measuring instruments namely reliability and validity, which will be discussed in more detail in Chapter 3. The results of the data collection will be evaluated in a statistical and psychological manner with the help of a registered psychologist as well as the statistical consultation services of the North-West University.

Assessment of the instruments used required two levels: 1) top management had to assess themselves, 2) top management had to be assessed by subordinates. Due to this somewhat complex structure, it is important to pay close attention to ethical considerations in order to provide a safe environment for participants and to promote a good response rate and quality of responses.

#### **1.5.4 Ethical Consideration**

The principle underlying “research ethics” are universal and concerned with issues such as honesty and respect for the right of individuals (Welman *et al.* 2010:181). Permissions from respondents were obtained after they were thoroughly informed about the purpose of the research and investigation. The respondents were also assured of their right to privacy, by ensuring that the identity of respondents would remain anonymous. The respondents were also ensured that they were indemnified against any physical and emotional harm that could emanate from participating in this study.

#### **1.6 Limitations / Anticipated Problems**

The risk exists that participants are self-biased or subjective when completing the measurement instrument. It would have been ideal to have interviews to cross-evaluate the data, but for the purpose of this mini-dissertation which is restricted in scope, this was not deemed feasible. Triangulation of empirical findings with the

literature studies will be done instead as an alternative approach to overcome this potential obstacle. Triangulation is the combination of methodologies in the same phenomenon, where more than one method is used in the validation process to enhance the beliefs that the results are valid (Jick, 1979:519).

The participants represent a wide range of the organisation as well as different occupational backgrounds and diverse departments. These factors will need to be considered when interpreting possible variability in data.

The findings of this research could be meaningful for this particular agricultural business, but its applicability to other agricultural businesses or for other types of organisations is uncertain.

Previous research on innovation leadership is relatively scarce, which had an impact on the availability of suitable literature on the topic.

## **1.7 Chapter Division**

The chapters in this mini-dissertation are presented as follows:

Chapter 1: Introduction and problem statement

Chapter 2: Literature Review

Major topics that will be covered in the literature review.

Chapter 3: Research methodology

The research methodology in the chapter describes the research design. It also includes the substantial evidence for the reliability and validity of the actual surveys used and describes the research population and sample.

Chapter 4: Empirical study

This chapter gives a background to the empirical study. The characteristics of the target sample and data that were captured and analysed will be reviewed, as a result of all the hypotheses that were tested.

## Chapter 5: Conclusion and recommendations

Chapter 5 consists of a summary of the evaluation of the measurement instruments, conclusion and recommendations drawn from the data, and possible alternatives for future research.

### **1.8 Summary**

Chapter 1 serves as the introduction to this research project. Chapter 2 will focus on the literature review.

## CHAPTER 2

### 2. LITERATURE REVIEW

#### 2.1 Introduction to the study

Chapter 1 discussed the background and the motivation for the research. Chapter 2 presents the literature study and will cover the following subjects: Perception, leadership styles, innovation and innovation leadership. Previous research done on management self-perception versus subordinates' perception will also be explored.

#### 2.2 Perceptions

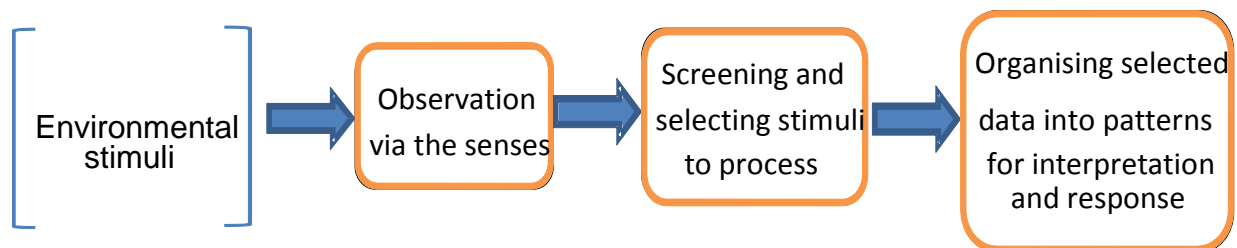
Berg and Theron (1999:116) define perception as a process by which we understand reality. Perceptions help us to recognise objects and scenes in our environment, to interpret this information and to extract meaning and useful representations of our world from it. Forgas (1996:1) mentioned that in the quest for adaptive behaviour, the way the individual gains knowledge about his environment is of prime importance. Such knowledge necessitates the extraction of information from the vast array of physical energy which stimulates the organism's senses. Only the stimuli which trigger some kind of reactive or adaptive action from the individual with cue value, should be called information.

According to Shiffman (2001:3), perception involves organising, interpreting, and giving meaning to what the sense organs initially process, or the psychological process in which meaning, judgement, past experience and memory play a role. Prinz and Bridgeman (1995:2) mention that it is not easy to give a satisfactory and theoretically neutral definition for perception; they rather provide a crude operational definition that has to do with the input side of the organism, with certain short-term consequences of variations in stimulating conditions.

Perception is the process people use to make sense out of the environment by selecting, organising, and interpreting information from the environment. There are

many ways to process and interpret information, this meaning that perception can vary widely from individual to individual. Perception occurs so naturally that we rarely think about it; however, it can be broken down into a step-by-step process, as illustrated in Figure 2.1 (Daft, 2002:169).

**Figure 2.1: The perception process**



(Daft, 2002:169)

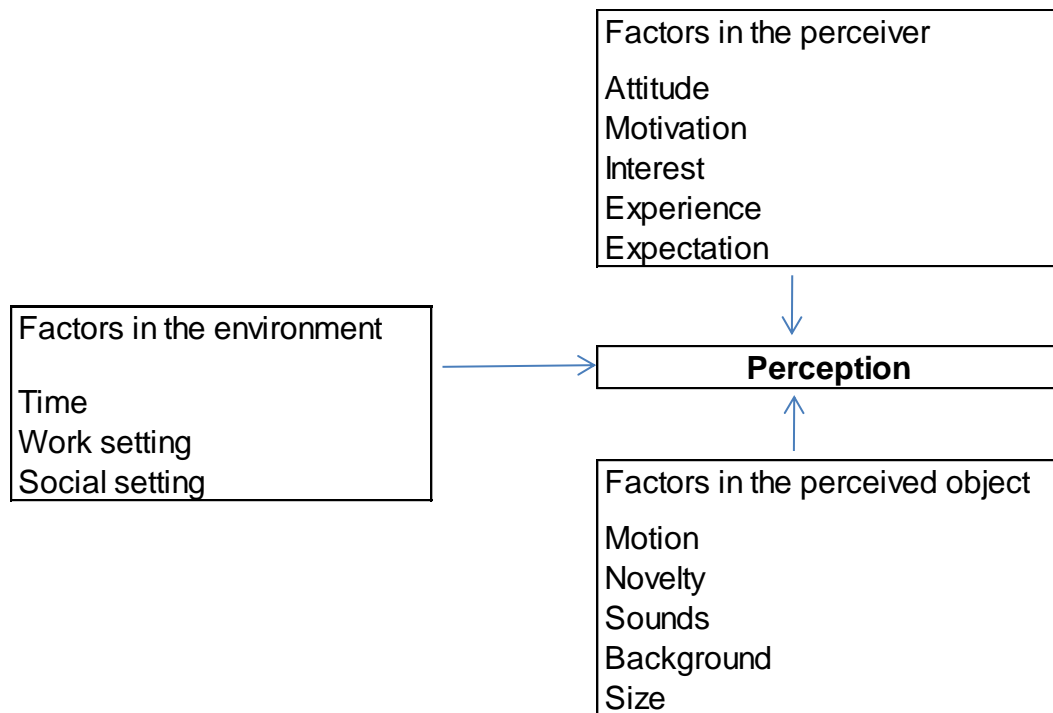
The perception process in Figure 2.1 can be described as follows: Environmental stimuli are everything from our environment that has the potential to be perceived. The world is full of stimuli that can attract our attention through various senses, these senses meaning sight, smell, sound, taste and touch. With these senses we become aware of the world around us. Perception is unique to each person and no-one views the world exactly the same. After each person has observed the stimuli around him, he/she mentally arranges the stimuli (information) so he/she can understand or make sense thereof. The last stage of the perception process is interpretation. In this stage we attach meaning to the stimuli. Our interpretation is subjective and based on our values, needs, beliefs, experiences, expectations and other personal factors.

According to Smith (1989:37), perception is a complex process involving many things: "the stimulation of one's sensory system by things or conditions in one's environment, the brain is gathering information and processing it, the interpretation of such data in terms of one's past experience and one's seeing or hearing or feeling something."

The cliché "beauty is in the eye of the beholder" suggests that perception is subjective, and these subjective factors (Figure 2.2) of the perceiver include attitude, motives, interest, preferences, past experience and expectations. The impact of this

is, for example, that our expectations can distort our perceptions, because we are inclined to see what we expect to see (Berg & Theron,1999:128).

**Figure 2.2: Factors that influence perception**



(Berg & Theron, 1999:128)

It is evident from Figure 2.2 that characteristics in the object being observed can affect what is being perceived. Motion, size, sounds and other attributes of the object influence the way we see it. Loud people in a group are more likely to be noticed than the quiet ones. Perception of human behaviour can seldom be interpreted without considering the environment in which it occurs. The time and social setting in which an object or event is seen, can influence attention and therefore perception, as can situational factors in the work situation. For example, persons who have just terminated a relationship will perceive happy couples around them differently, until they adjust to their loss or are in a new relationship (Berg & Theron,1999:128).

## 2.3 Leadership styles

Ehrhart and Klein (quoted by Issaken & Tidd, 2006:124) mention that the orientation of followers influences their preference for different leadership types. Those with intrinsic work values such as responsibility, challenge and initiative prefer to work under a charismatic leader, whereas workers who take a more instrumental approach to work as means of extrinsic rewards, do not. According to these researchers, followers' characteristics are much more than simply dependent variables influenced by leadership, or even moderators, but rather a reciprocal relationship. In this way, the selection and decision of whether or not to follow a leader becomes more active, based on the extent to which the leader is perceived to represent the interest and values of followers.

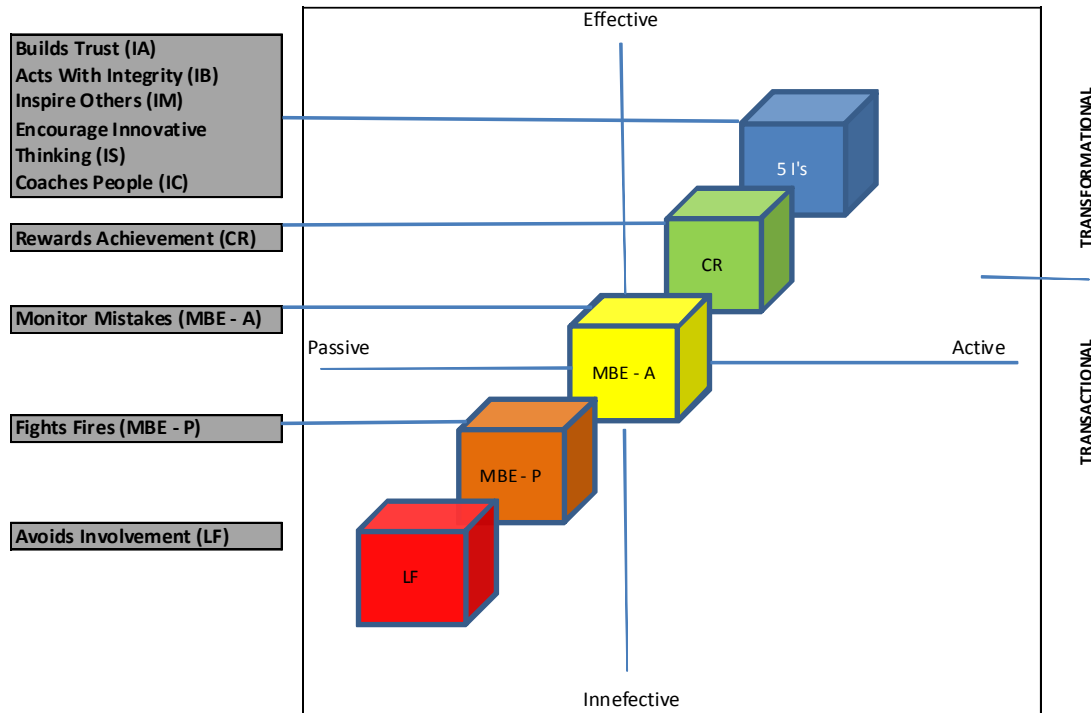
All managers develop a style of leading or motivating subordinates. A leadership style can be described as a pattern of behaviour, designed to integrate organisational and employee interests in pursuit of the organisation's objectives (Flippo, 1984:397).

The relevance of leadership styles to innovation for this mini-dissertation will now be explained in terms of specific leadership styles commonly used by managers. For this purpose, the Full Range Leadership Model of Avolio and Bass (2004:4) was chosen as a conceptual framework,

Figure 2.3 profiles a visualised overview of the concepts of the Full Range Leadership Model. These concepts include transformational leadership, transactional leadership and laissez-faire leadership. The figure also visualises the passive versus the active form of leadership, as well as the more effective versus rather ineffective forms. In the model (LF) laissez-faire leadership is typical for managers who avoid involvement. It is passive, avoidant and ineffective. Transactional leadership in its passive form involves waiting for mistakes to occur before taking action – it is called Management-by-exception - Passive (MBE-P) and is regarded as part of the passive/avoidant leadership style. In its active form, of either Management-by-exception - Active (MBE-A) or Contingent Reward (CR), it involves a close monitoring of behaviour and actively setting standards. Transformational leadership

encompasses much more than reward for effort exchange behaviour and corrective orientation mentioned above (Avolio & Bass, 2004:4).

**Figure 2.3: Full Range Leadership Model**



(Avolio & Bass, 2004:4)

### 2.3.1 Transactional leadership

Yukl (2006:249) defines transactional leadership as the motivation of followers by means of appealing to their self-interest and exchanging benefits. Cooper (2005:59) describes transactional leadership as follows: to manage, to accomplish, to have responsibility for and to conduct. “The basis of transactional leadership is a transaction or exchange process between leaders and followers. Followers receive rewards for job performance, while leaders benefit from the completion of tasks” (Daft, 2002:147).

A transactional leadership style is a mutual influence between leaders and followers, working on a basis of a reciprocal exchange relationship of cost and benefits. Decision-making takes place in a stable and certain framework where bureaucratic authority, formal rules, regulation, procedures and legitimate power are all visible and regularly exercised (Isaksen & Tidd, 2006:125). According to Lojeski (2010:23),

transactional leaders can be active: setting goals, constantly monitoring employees and meting out rewards or punishment. Transactional leaders view their relationship with employees as an implicit contract to accomplish a specified task for a specific reward.

Jogulu (2010:706) states that transactional leaders perform their leadership within the organisational constraints and adhere to the existing rules and regulations. Their aim is to make sure that all organisational tasks are completed on time. Tasks need to be carried out, and if completed successfully, a reward will be forthcoming.

Daft (2002:147) mentions that transactional leaders focus on the present and that their core functions are to keep the organisation running smoothly and efficiently. Transactional leaders are good at traditional management functions such as budgeting, planning and the focus on impersonal aspects of job performance. However, because they involve a commitment to “follow the rule”, transactional leaders maintain stability within the organisation rather than promoting change that is needed for future organisation success. Transactional leadership, according to Avolio and Bass (2004:4), is about leaders that work with individuals and/or groups, setting up and defending agreements of contract with these individuals to achieve specific work objectives, discovering individuals' capabilities and specifying the compensation and rewards that can be expected upon successful completion of the tasks.

According to Van Eeden *et al.* (2008:255), transactional leadership involves “a social exchange process where the leader clarifies what the follower needs to do as their part of the transaction (successfully complete the task) to receive a reward, or avoidance of punishment (satisfaction of the follower’s need) that is contingent on the fulfilment of the transaction (satisfying the leader’s needs)”. Deluga (1990:193) suggests that the transactional leadership theory enables subordinates and/or leaders to exercise considerable power and influence by engaging in a mutually beneficial exchange process.

Included in a transactional leadership style is management by exception that is defined as being either active or passive.

Leaders that look for mistakes, irregularities, exceptions, deviations from the standards and fail to take corrective action before or on the time of occurrence, are leaders that manage by exception (Van Eeden *et al.* 2008:255).

#### A) Manage-by-exception

- Active management by exception: leaders who focus on monitoring mistakes. They actively monitor their subordinates' performance for deviation from the rules and standards, taking corrective actions in anticipation of irregularities (Avolio & Bass, 2004:7).
- Passive management by exception: leaders that only wait until a positive or negative behaviour occurs and then only punish or reward the behaviour (Lojeski, 2010:23). Zopiatis and Constanti (2010:303) define passive management as a reactive action by leaders after the problem had already become serious. The typical behaviour of leaders that manage by exception - passive, is that they only take corrective measure after the fire has started. This behaviour is not proactive, but reactive, and focuses only on punishment (Avalio & Bass, 2004:8).

The next prominent leadership style presented by the Avolio and Bass model (Figure 2.3) is the Transformational Leadership style, which will be explained next.

### **2.3.2 Transformational leadership**

According to Isaksen and Tidd (2006:125), transformational leaders formulate, define and restate overall values, vision and mission, strategic directions and empower and mobilise commitment to new directions. Transformational leadership is based, not on physical rewards, but on innovation and motivation. It works through a process in which leaders and followers raise one another to higher levels of morality and motivation, initiate and implement changes in the structure and strategy of the business and to people, challenging and changing the core beliefs, culture, strategy and structure, products and markets of the company.

Yukl (2006:249) describes transformational leadership as leadership that appeals to the moral value of followers in an attempt to raise their consciousness about ethical issues and to mobilise their energy and resources to reform institutions.

Transformational leadership is more concerned with guiding in a particular direction and to influence a course of action (Cooper, 2005:59). Transformational leadership attributes are associated with caring and nurturing. The role is typically viewed as an ability to show consideration and develop the followers to achieve their fullest potential, by encouraging and motivation (Jogulu, 2010:707).

Lojeski (2010:23) and Van Eeden, *et al.* (2008:255) mention that transformational leaders challenge to think differently and encourage new ideas. This style of leadership has four characteristics:

- Intellectual stimulation: Present new ideas and acting as a change agent as well as also bringing individual followers into developing solutions. Encourage innovation and creativity and value the intellectual ability of followers.
- Ideal influence: Create a strong identification with the leader amongst the followers, by serving as a model through their behaviour. Followers admire, respect and trust their leaders. Followers assume that their leaders value and achieve their vision and are making sacrifices in this regard. The leader shows dedication, a strong sense of purpose, behave morally and ethically, is confident in actions and give followers a sense of empowerment and ownership.
- Individual consideration: Leaders consider the ability of followers and their level of maturity to determine their need for future development, by acting as a mentor giving personal attention, support and encouragement. Caring for their followers and promoting feelings of self-efficacy, convince followers that they can be successful.
- Inspirational motivation: Articulates a clear, compelling vision, which results in inspirational motivation and helps a group of people towards its goals.

Research indicates that the four characteristics described above, will play an important role in creating an innovative environment. According to Daft (2002:149), for example, transformational leadership is able to:

- Develop followers into leaders, where followers are given greater freedom to control their own behaviour.
- Elevate the concern of followers from lower level physical needs (safety and security) to higher level psychological needs (self-esteem and self-actualisation).
- Inspire followers to go beyond their own self-interest for the good of the group.
- Paint a vision of desired future state and communicate it in a way that makes the pain of change worth the effort.

In observation, Avolio and Bass (2004:4) underline the following benefits of transformational leadership:

- Builds trust. Transformational leaders inspire power and pride in their followers, by going beyond their own individual interest, focusing on the interest of the group and of its members.
- Acts with integrity. Transformational leaders manifest a positive and highly valued behaviour of consciousness, self-control, a high moral judgement and self-efficiency. They talk about their most important values and beliefs, focus on the vision and consider the ethical and moral consequences of their actions.
- Inspires others. Through inspiration, leaders articulate shared goals and mutual understanding of what is right and important. They provide vision of what is possible and how to attain goals.
- Encourages innovative thinking. Intellectual stimulation of associates, ideas and values, to help others think about old problems in new ways.
- Coaches people. Understanding and sharing in others' concerns and development needs and treat each individual uniquely. They also provide and develop organisational culture supportive of individual growth.

Rafferty and Griffin (quoted by Isaksen & Tidd, 2006:126) proposed that transformational leadership may have a greater influence on creativity and innovation, including articulating a vision and inspirational communication.

Research done by Avolio and Bass (quoted by Hayward *et al*, 2008:17) in organisational behaviour, concluded that transformational leadership style is the most suitable style for today's modern organisations. The current business environment requires this innovative kind of leadership style, a style that empowers employees and raise performance to increase organisational performance.

### **2.3.3 Laissez-faire leadership**

Laissez-faire leadership focuses more on a strong verbal support to initiatives. Such leaders are very energetic, enthusiastic and creative. Their interest is more on the technical aspects of the job rather than the managerial (Cooper, 2005:9).

Flippo (1984:397) describes a laissez-faire approach, where the leader wishes to join the group as a fellow participant and do what the group wants to do. According to Zopiatis and Constatnti (2010:303), laissez-faire leadership is an absence of leadership regarding the decision making process and involvement in organisational functions. Khan *et al.* (2011:131) confirm this by calling it the absence of leadership, neither transactional nor transformational. These leaders avoid involvement into making decisions and avoid using their authority. Avolio and Bass (2004:8) describe the behaviour of laissez-faire leadership as leaders that avoid involvement completely, and do not even react to threats and problems arising.

Van Eeden *et al.* (2008:255) imply that laissez-faire leadership leaves the work to the followers and avoids setting goals and clarifying expectations. The leaders don't get involved with important issues that arise, or take a stand on the issues and make a decision. Laissez-faire leadership describes passive leaders who are reluctant to influence subordinates or give direction (Deluga, 1990:192).

Research done by Skogstad *et al.* (2007:80) on 2 273 Norwegian employees found that laissez-faire leadership is also a destructive leadership behaviour and it is positively correlated with conflict.

Nyengane (2007:34) states that laissez-faire leaders are extremely passive, and is reluctant to influence, or to get involved with their subordinates, and do not motivate or consider freedom among their subordinates. Isaksen and Kenneth (1999:668) confirm that for a leader to be creative he/she needs to be emotionally involved with his/her subordinates and give them the necessary freedom to make choices.

## **2.4 Innovation**

According to Tidd and Bessant (2009:5), companies that do not invest in innovation, put their future at risk. Their business is unlikely to prosper and they will not be able to compete if they do not seek innovative solutions to emerging problems. Gumusluoglo and Ilsev (2007:461) state that innovation through creativity is an important factor in the success and competitive advantage of the organisation as well as for a strong economy.

Corporations must be able to adapt and evolve if they wish to survive and competitors will inevitably come to the market with a product that changes the basis of competition. The ability to change and adapt is essential to survival (Trott, 2008:4).

Some people confuse the term innovation with invention and most people do have a diverse range of definitions for innovation (Trott, 2008:14). Luecke (2003:2) defines innovation as: "the embodiment, combination, or synthesis of knowledge in original, relevant, valued new products, processes, or services." Silverstein *et al.* (2009:17) describe innovation as introducing something new, or coming up with the next big idea. They believe innovation is the act that generates more value for customers and business, by doing a job better than anybody else. Bhengu (2009:41) defines innovation as a step during implementation of a new idea that leads to value creation for the user of the service or product.

Myers and Marquis (1969) define innovation not as a single action, but a total process of interrelated sub-processes. It is not just the conception of a new idea, or the invention of a new device, or the development of a new market. The process is all these things acting in an integrated fashion. It matters little, as far as human behaviour is concerned, whether or not an idea is 'objectively' new as measured by

the lapse of time since it was first used or discovered. If the idea seems new and different to the individuals, it is an innovation. Innovation = theoretical conception + technical invention + commercial exploitation.

Research done by Tidd and Bessant (2009:16) found that problems in managing innovation, varies in what people understand from the term innovation versus invention. Innovation is from the Latin word “innovare”, meaning “to make something new”. Their view is that innovation is a process of turning opportunity into new ideas and of putting these into widely used practice.

“Innovation is creating the condition for creativity and for implementing the best ideas” (Heiber & Klatt, 2001:189). Scheepers *et al.* (2008:53) mention that innovation is not simply about generating creative ideas, but also involves the commercialisation, implementation and modification of existing products, systems and resources. This meaning that innovativeness enables organisations to differentiate themselves from their competitors, thereby developing a unique set of competencies within the organisation.

According to Vlok (2007:23), there are eight principles that must be honoured to sustain innovation:

- Innovation starts when people convert problems into ideas. If people do not perceive a problem, they will not put energy into seeking a solution. When looking for ideas or solutions, it helps to understand and to first practice preparation, incubation, illumination and validation of ideas and solutions.
- Innovation needs a system. An innovation system is not separate from the corporate culture. In fact the culture determines the type of innovation systems that will work well.
- Passion is the fuel and pain is the hidden ingredient. This third principle involves the innovation leader to help employees understand that passion drives innovation: it is the fuel that strikes the fire of creation. Pain, though, is the hidden ingredient of the process and it's one the innovation leader must help employees work through.

- Co-locate for effective exchange. For innovation to occur, people need to work together and do so in close proximity to each other. They must be physically present. This will build trust between team members as well as between them and the management team.
- Leverage differences. An innovation leader must understand and be able to utilise each team member's particular creative problem solving style, as well as his or her personality type and temperament. These different styles will prove advantageous at different times in the innovation process.
- The elements of destruction are present at creation. Whatever is driving the success of an organisation today may be the cause of its destruction in the future.
- Soft values drive the organisation. Soft values drive the day-to-day activities of people and include motivation as well as how people feel about themselves and the company. Attending to this more subtle and difficult to measure elements, matters a great deal in the innovation process.
- Trust is the means and love the unspoken word. It is critical that trust has to be developed between people. If people deeply care about their work, their co-workers and their company, their level of commitment goes way up.

Integrating all these eight principles into an organisation's culture will allow innovation leaders to sustain innovation in the organisation.

## **2.5 Innovation leadership**

Leading and managing others is one of the most important aspects when it comes to guiding and engaging people in systematic changes. Certain types of styles of leadership and influence have a clear impact on creativity, innovation and transformation (Isaksen & Tidd, 2006:119).

Building a self-sustaining capability for innovation is fundamentally a leadership challenge and has to be spearheaded by the CEO (Chief Executive Officer). Without the full engagement and commitment of the leadership team of the company, the idea of making innovation a core competence doesn't stand a snowball's chance (Gibson, 2007:7).

“An innovation leader must understand and be able to utilise each team member's particular creative problem solving style as well as his or her personality type and temperament” (Vlok, 2007:22). Innovation leadership includes leadership that stimulates followers to be creative and innovative, and to challenge their own beliefs and values as well as those of leaders and the organisation. Innovation leadership also includes supporting followers as they try new approaches and develop innovative ways of dealing with organisation issues (Puccio *et al*, 2007:11).

The role of innovative leaders is to create a compelling vision others can rally around, with the emphasis on enabling and empowering, rather than controlling and directing. The innovative leader must create a feeling of making a difference and the capacity to have fun at work to encourage innovation (Bhengru, 2009:42).

Hiebert and Klatt (2001:89) believe that the role of an innovation leader is crucial in encouraging a culture that generates ideas, high-grading and selling those ideas, and ensuring successful implementation and results. Techniques a leader can use to create this culture are shown in Table 2.1 below.

**Table 2.1: Techniques to create a culture of ideas**

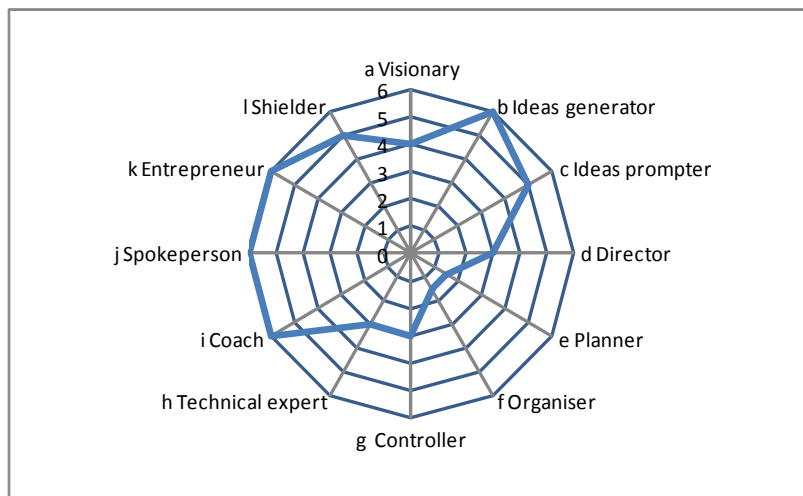
<b>Technique</b>	<b>What is it?</b>	<b>Some how to's:</b>
<b>Lateral thinking</b>	Exploring many different ways of looking at issues, rather than accepting the first logical definition and solution.	Encourage low probability thinking. Always ask for the second right answer.
<b>Brainstorming or mental popcorn</b>	Assigning a defined period to no-evaluation thinking, when novel or unusual contributions are encouraged.	Probably the most used technique used in groups and teams. A step in the process in which “popcorn” is used for the purpose of increasing the scope of thought.
<b>Reframing</b>	Exploring a set of assumptions	Make it acceptable to challenge the often

Technique	What is it?	Some how to's:
	about the scope of an issue and the range of solutions available.	narrow assumptions that are embedded in a problem definition. Ask questions that broaden or narrow the scope of the issue.
<b>Using metaphors</b>	Using metaphors helps people explore novel approaches and options.	Sport metaphors are commonly used to describe situations: kick-off, coach and heavyweights.
<b>Blue-skying/ No constraints/ What if ....</b>	Imagining how issues could be dealt with if you had no constraints or barriers to deal with.	Ask people to set aside all barriers and problems and think of the idea solution. Then take this idea and make it work as best as you can.
<b>Using humour</b>	Because it is based on unexpected twists, humour is a great way to loosen up, in order to generate new ideas.	Use humour to break out of conventional thinking. Be careful. Sarcastic humour can shoot down creativity.
<b>Mind mapping</b>	Taking a situation, especially a complex issue, and mapping all its interconnections.	On a whiteboard, name the complex issue in the centre, place all related items around it, then connect these issues with appropriate arrows.

(Heibert & Klatt, 2001:89)

Whatmore (1999:48) identified leadership roles (Figure 2.4) that a leader has to play to ensure effective leadership for managing creativity in a company. These important roles for an effective leader are: visionaries, idea generators or idea prompters, or as director.

**Figure 2.4: Roles leaders play**



(Whatmore, 1999:48)

6 = leaders made a major contribution in this role.

1 = leaders made an insignificant contribution in this role.

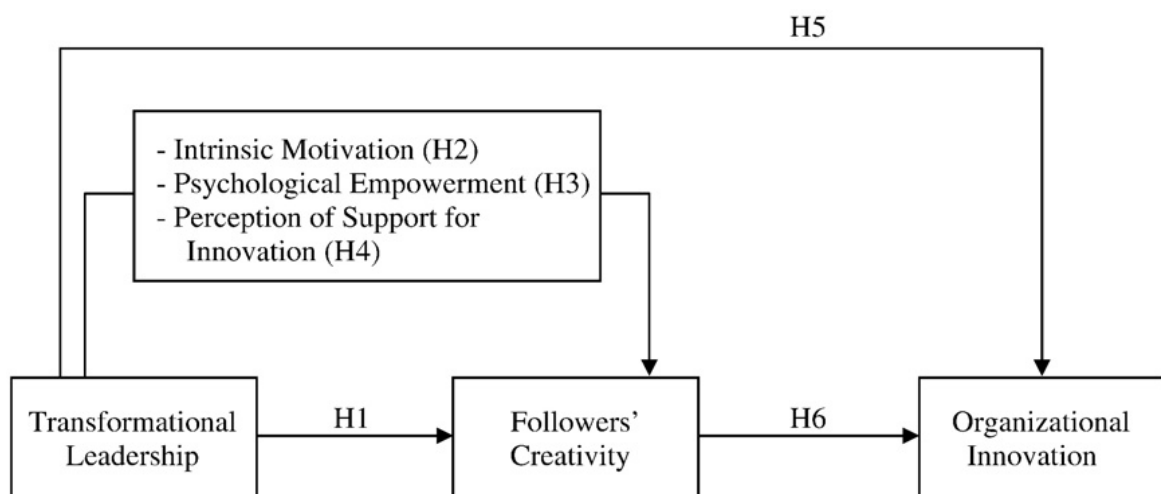
Luecke (2003:129) suggests that leadership can have an impact on creativity and innovation in an organisation if leaders take responsibility for the following:

- Develop a culture that nurtures innovation and creativity.
- Establish the strategic direction within which innovation should take place.
- Be active participants in the process that runs from idea generation to commercialisation.
- Be open to new ideas but maintain scientific scepticism.
- Put the right people in charge.
- Improve the idea-to-commercialisation process.
- Creating an ambidextrous organisation – one that is effective at two very different activities: getting the day-to-day operational work done and anticipating the future.

A study done by Gumusluoglu and Ilsev (2009:462) examines the effects of transformational leadership on creativity at the individual level and innovation at the organisational level. Since innovation at organisational level is the result of creative efforts and achievements, gaining and understanding the effect of leadership on organisation innovation and its effects on employees' creativity, is most important. According to their multilevel model developed for this purpose as shown in Figure 2.5 below, they found that transformational leadership positively relates to followers' creativity. Followers' intrinsic motivation, psychological empowerment, and perception of support for innovation mediates this effect. At the organisational level, transformational leadership positively relates to organisational innovation, and at individual level it was found that creativity influences innovation at organisational level.

The literature study indicates that the characteristics of a transformational leadership style (idealised attributes, idealised behaviour, inspirational motivation, intellectual stimulation and individual consideration) will probably support innovation the most, and that a strong positive correlation could be expected between transformational leadership style and innovation. Transactional and laissez-faire leadership styles are more result- driven (active, passive and avoidant) and are not focused on individual growth and stimulation, which could result in a negative correlation with innovation.

**Figure 2.5: Multilevel transformational leadership model**



(Gumusluoglu & Ilsev, 2009:462)

A short literature feedback will now be given on previous research done regarding how management's self-perceptions compare to their subordinates' perceptions.

## **2.6 Previous research done on managements' self-perceptions versus subordinates' perceptions**

Many people think their own perception of who they are, matches the way other people see them. According to Whatmore (1999:122), after researching it, it is remarkable how often they are wrong on their own perceptions.

Research done by Atalla (2010:157) has found that there is a disconnection between how leaders perceive their leadership abilities and how those they supervise, perceive them. Specifically, leaders evaluated their leadership abilities significantly higher than did those they supervised. Results showed that followers tend to view leaders' behaviour as inconsistent compared to how leaders perceived themselves. Followers also perceived their leaders to be weak in their ability to be innovative, foster alignment, create a shared vision, articulate a mission, and express shared goals. Leaders, in contrast, perceived themselves to be visionary leaders and living the organisation goals.

Physician leaders' self-perceptions on their ability "to enable other to act" and "inspire a shared vision" measured significantly higher than that of their subordinate nurses' perceptions (Castellese, 2006:98). According to a study done by Reid (2004:73) male managers' self-perceptions were more accurate than the females' self-perception. The group rating on male managers and self-rating for "inspire confidence" and "management information" were particularly close to each other, meaning that self-perception was strong in these areas. In contrast to the males, significant and effective large effect sizes were found for the females between self-rating and group ratings.

A study done by Felfe and Schyns (2010:393) to analyse the influence of followers' personalities and perceived leaders' personalities on followers' perception of leadership within an organisation, resulted as follows: a) followers' personalities influence the perception of transformational leadership and commitment to the

supervisor b) perception of supervisors' personalities mediates both the relationship between followers' personalities and the perception of leadership and commitment, and provides support for similarity. Wanjau's (2008:6) research results showed that performance and job satisfaction were enhanced where there was alignment in the perception of top management's own leadership versus the perception of the employees thereof.

Herbst and Conradie (2011:11) concluded in their research that "more effective leaders have a greater level of self-perception accuracy and, at the very least, are better at assessing and/or rating their own behaviours in the work place". Research by Zaccaro *et al.* (quoted by Herbst & Conradie, 2011:11) showed that personal attributes play a more substantial role in predicting leadership effectiveness as leadership situations become more complex and varied. Therefore the assessment of ability, personality, task related characteristics and multi-rater feedback either from reflection by others or by means of oneself, should be incorporated into leadership development experiences.

From the above research it is evident that different persons will view the same behaviour differently due to their different expectations regarding the behaviour. It would be exceptional in the empirical study if the leader's self-assessment regarding his leadership would be exactly the same as his subordinates' assessments.

## **2.7 Conclusion**

This chapter represented a brief literature review of perception, leadership styles, innovation and innovation leadership. An overview of previous research done on self-perception versus subordinates' perception was discussed.

Perception focuses on one's own truth, by selecting and evaluating the environment according to one's senses and previous experiences, thus implicating that perception of the same environment can vary widely from individual to individual.

Transactional leadership concentrates on the day-to-day activities, operational efficiencies and the status quo. Transformational leadership is the extension of

transactional leadership and focuses on inspiring and motivating followers to do more, and to develop themselves further.

Innovation is creating new ideas, processes and products. Innovative leaders are needed to create a culture in the organisation where these new ideas, processes and products are successfully implemented. It is the innovative leader's task to create an environment of creativity among his/her followers as well as to encourage and support them.

The conclusion can be made that an effective leader has to be more accurate when it comes to self-perception of leadership style and ability to be innovative, as well as his/her subordinates' perception of him/her as leader.

## CHAPTER 3

### 3. RESEARCH METHODOLOGY

#### 3.1 Introduction

After thorough consideration, a quantitative research method was decided upon as preferred option, to evaluate objective data, to process and analyse it on a complex structure to confirm or disprove the hypotheses. Chapter 2 reviewed the literature pertaining to perception, leadership styles, innovation and innovation leadership.

This chapter describes the research design, population and sampling used in this study. The two instruments used 1) Multifactor Leadership Questionnaire 5X - short version (MLQ) and 2) Situation Outlook Questionnaire (SOQ) for data collection will be described in detail. A description of the data analysis and statistical techniques utilised in the study will be provided.

The study is aimed at focusing on perception of top management leadership and innovative ability versus the perception of their subordinates thereof, in an agricultural business. The specific aims are as follows:

*Hypothesis :*

*H0a:* There are no significant differences between leaders' self-perceptions of their own leadership and ability to be innovative, versus the perception of their subordinates on their leadership and ability to be innovative.

*H1:* There are significant differences between leaders' self-perceptions of their own leadership and ability to be innovative, versus the perception of their subordinates on their leadership and ability to be innovative.

*H0b:* Innovation is not aligned with transformational leadership style.

*H2:* Innovation is aligned with transformational leadership style.

*H0c:* Innovation is not aligned with transactional leadership style.

*H3*: Innovation is aligned with transactional leadership style.

*H0d*: Innovation is not aligned with laissez-faire leadership style.

*H4*: Innovation is aligned with laissez-faire leadership style.

### **3.2 Research Design**

“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)” (Welman *et al*, 2010:52).

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 Situation Outlook Questionnaire to executive committee members of each division and their direct subordinates.
- After the questionnaires were returned from both the executive committee members 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 by using statistical analysis.
- The analysed data was discussed and compared to the hypotheses.

### **3.3 Measuring instruments used**

#### **3.3.1 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 (Hayward, 2005:54).

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 SOQ will be individually described in this chapter.

### **3.3.2 Multifactor Leadership Questionnaire (Leader and 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 was identified, called the MLQ form 5X - short version developed by Avolio and Bass. The questionnaire consists of two components: a) the leader form, in which the leader rates his leadership style as he perceived 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. Outcomes of leadership were measured by extra effort, effectiveness and satisfaction of 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.

#### **3.3.2.1 Reliability and validity of the MLQ**

Stainback and Stainback (quoted by Welman *et al.* 2010:9) allege that "both quantitative and qualitative researchers aim at reliable and valid results. Quantitative

researchers, however, focus more on reliability, that is, consistent and stable measurement of data as well as replicability.”

More than one approach 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 0.8 level for all MLQ scales. This is confirmed by Ackerman, *et al.* (2000:61). To test the reliability of the three leadership scales of transactional, transformational and non-transactional leadership, Cronbrach’s alpha reliability co-efficient was used. Results yielded scores of 0.736, 0.944 and 0.80 respectively.

### **3.3.3 Situation Outlook Questionnaire**

The Situation Outlook Questionnaire is an English translation of the Creative Climate Questionnaire originally developed by Ekvall in 1983 (Isaksen & Kenneth, 1999:666).

The Situation Outlook Questionnaire represents nine dimensions, each of which relates to a collection of characteristics of climate that influence creativity. Eight of the nine scales have a positive relationship to creativity: a) challenge and involvement, b) freedom, c) trust /openness, d) idea time, e) debate, h) risk taking, i) playfulness, and j) idea support. The remaining scale, which is conflict, has a negative relation to creativity (Isaksen & Kenneth, 1999:668).

The items on the questionnaire were designed to make observations about behaviour and interaction. Respondents answered the questions on a 4 point scale in which, 1 = not at all applicable, 2 = applicable to some extent, 3 = fairly applicable, and 4 = applicable to a high degree. The questionnaire that was distributed to be completed is provided in Appendix 3.

#### **3.3.3.1 Reliability and validity of the SOQ**

The reliability and construct validity of the SOQ were tested by Isaksen and Kenneth (1999:670) on a sample of 1111 subjects. The Cronbrach alpha coefficient was computed and ranged from 0,62 for risk taking to 0.90 for idea support, with seven of the nine dimensions yielding an alpha coefficient greater than 0,80. The results of

the Cronbach alpha and exploratory factor analysis, supported the reliability and construct validity of the SOQ.

The above-mentioned was supported by research done by Wartenberg and McCutcheon (1998:12), where the alpha coefficient average over three samples were 0.94, 0.86 and 0,80 respectively. The authors concluded that the SOQ is indeed reliable and valid.

### **3.4 Research population and sample**

Approval from the CEO of the agricultural business chosen for this research, was received and access to the business activities was easy. The agricultural business has six operating business divisions with a total population of 935 employees. This research focuses on the six departmental executive committee members and a sample total of 128 employees that have a direct line of communication with these executive committee members. The sample identified was mostly middle managers and to a small extent junior managers in the different departments and were defined as all subordinates reporting directly to the six divisional executive committee members. A probability random sample method was used.

### **3.5 Data collection process**

128 copies each of the MLQ and SOQ (see Appendix 1) were distributed to subordinates to evaluate their executive committee members. 6 copies each of the MLQ and SOQ were distributed to executive committee members to do a self-evaluation.

94 questionnaires of the 128 questionnaires distributed to the subordinates were returned, which constituted a 73% response rate. All 6 questionnaires for self-evaluation distributed to executive committee members were returned which constitute a 100% response rate for the executive group.

### **3.6 Data capturing and analysis**

Welman *et al.* (2010:211) describe that data analysis by means of statistical techniques help to investigate variables as well as their effect, relationship, and patterns of involvement within our world. Burn's purpose for analysing data (quoted by Wanjua, 2008:30), is to "find meaning in the data, and this is done by systematically arranging and presenting the information. It 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. 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 will be presented in the next chapter.

### **3.7 Summary**

In this chapter the research methodology of the study was discussed. In the next chapter the results of the empirical study will be presented.

## CHAPTER 4

### 4. EMPIRICAL RESEARCH

#### 4.1 Introduction

In Chapter 3 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.

#### 4.2 Goal of empirical study

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

*H0a:* There are no significant differences between leaders' self-perceptions of their own leadership and ability to be innovative, versus the perception of their subordinates on their leadership and ability to be innovative.

*H1:* There are significant differences between leaders' self-perceptions of their own leadership and ability to be innovative, versus the perception of their subordinates on their leadership and ability to be innovative.

*H0b:* Innovation is not aligned with transformational leadership style.

*H2:* Innovation is aligned with transformational leadership style.

*H0c:* Innovation is not aligned with transactional leadership style.

*H3:* Innovation is aligned with transactional leadership style.

*H0d*: Innovation is not aligned with laissez-faire leadership style.

*H4*: Innovation is aligned with laissez-faire leadership style.

### **4.3 Characteristics of the targeted sample**

#### **4.3.1 Response rate**

Of the 128 questionnaires distributed to subordinates, 94 questionnaires were returned which constituted a 73% response rate. According to Rubin and Babbie (2010:117) this is a very good 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. All 6 questionnaires for self evaluation distributed to executive committee members were returned, which constitute a 100% response rate. The 6 executive committee members are all male.

#### **4.3.2 Demographic data**

In the demographic section of the questionnaire, respondents had to indicate their division (department), gender, age category, years work experience, years service in this organisation and education.

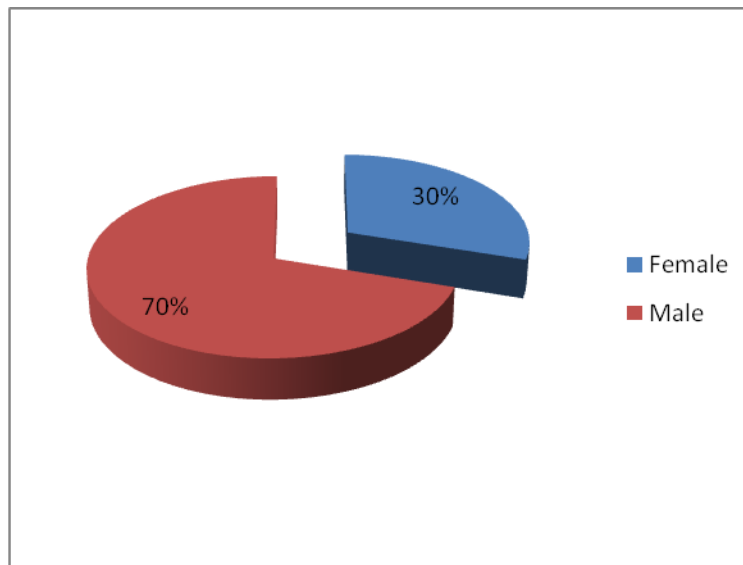
##### **4.3.2.1 Gender**

From the 100 respondents, 70 (70%) were male and 30 (30%) were female. Figure 4.1 illustrates the distribution by gender.

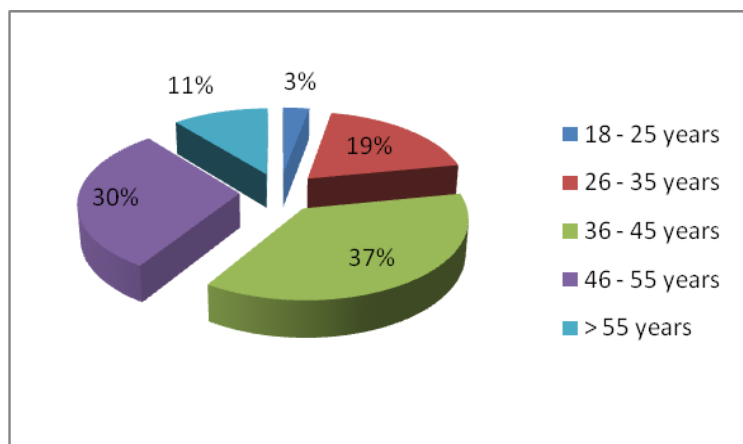
##### **4.3.2.2 Age**

The majority of the respondents is in the age group 36 – 55 years, with a total of 67 (67%) of the total of 100. Figure 4.2 illustrates the distribution by gender.

**Figure 4.1: Respondents by gender**



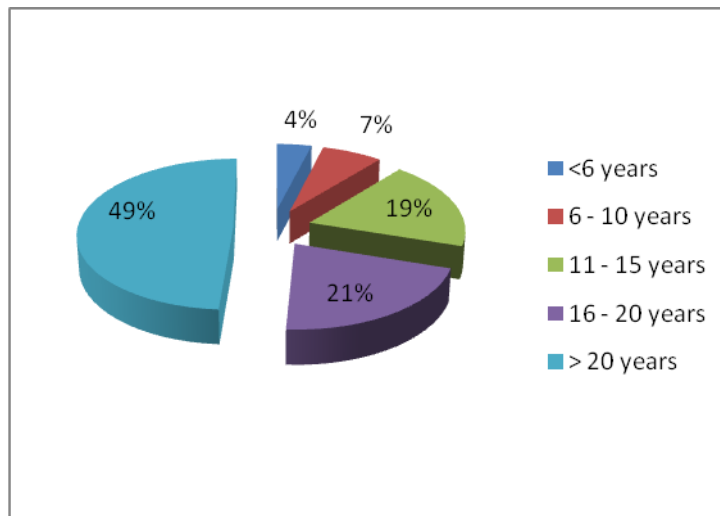
**Figure 4.2: Respondents by age**



#### **4.3.2.3 Years working experience**

It is interesting that 70 (70%) of the respondents have more than 16 years work experience, with 49 (49%) more than 20 years work experience. 50% of the respondents have tertiary qualifications. Figure 4.3 shows the distribution of years working experience.

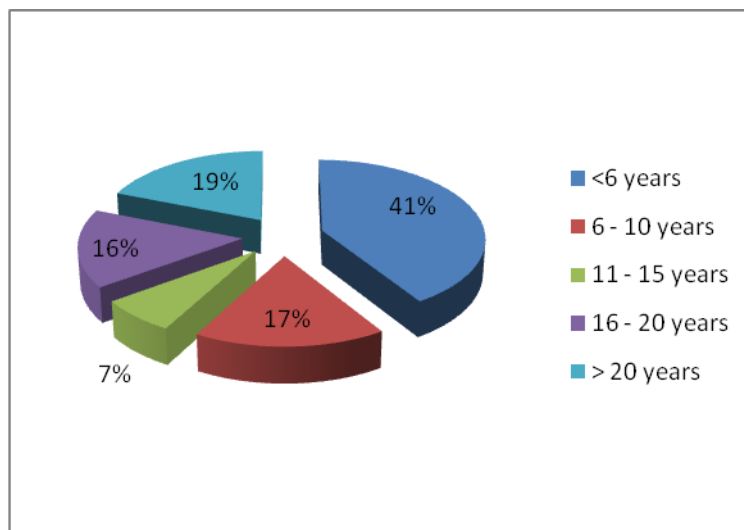
**Figure 4.3: Respondents' years working experience**



#### **4.3.2.4 Years working experience in this company**

35 (35%) of the respondents are currently employed for longer than 16 years at this organisation where 19 (19%) of the total respondents had more than 20 years service at this organisation. Figure 4.4 indicates the distribution of years working experience in this company.

**Figure 4.4: Respondents by years working experience in this company**



#### 4.4 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 dependent variables for the MLQ were: Extra Effort, Effectiveness and Satisfaction.

The independent variables on the SOQ were: 1) Challenge/Involvement, 2) Freedom, 3) Trust/Openness, 4) Ideal Time, 5) Playfulness/ Humour, 6) Conflict, 7) Idea Support, 8) Debate and 9) Risk Taking.

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

Findings of the self-assessment done by the executive committee members and the assessments done by their subordinates, will be listed per table and discussed per business department. The symbols used in these tables represent the following:

- N - the number of values or sample size or the number of respondents in the selected sample that completed the questionnaire, that realise usable data (Levine *et al.* 2008:97).
- Mean – the most common measure of central tendency, the balance point in the set of data, by adding together all the values in a data set and then dividing that sum by the number of values in the data set (Levine *et al.* 2008:97). For this research the mean is the average score of the point scale of the questionnaire.

- STD – Levine *et al.* (2008:106) define this as a simple measure of standard variation around the mean.
- Effect Size (*d*): According to Cohen (1988:20), the Effect Size is a simple way of quantifying the size of the differences between two groups. It is easy to calculate, readily understood and can be applied to any measure outcome in education or social science.
- The *d* is defined as the difference between two means divided by a standard deviation for the data.

$$d = \frac{\bar{x}_1 - \bar{x}_2}{s},$$

The meaning of the Effect Size varies by contexts according to Cohen (1998:21), but the standard interpretation is as follows:

- 0.8 - large effect (8/10 of a standard deviation unit)
- 0.5 - medium (1/2 of a standard deviation)
- 0.2 - small (1/5 of a standard deviation)

Table 4.1 gives an interpretation of Cohen’s (*d*) for Effect Sizes. In Table 4.1 a 0.8 Effect Size indicates that the mean is at the 79th percentile standing of the control group, or a non-overlap of 47.4% in the distribution within the control group.

**Table 4.1: Interpretation of Cohen’s “*d*” for Effect Size**

Original Standard	Effect Size	Percentile Standing	Percentage of Non-overlap
Large	0.8	79	47.4%
Medium	0.5	69	33.0%
Small	0.2	50	14.7%

Table adapted from Cohen (1988:23).

In Table 4.2 the raw and norm mean scale of the leadership profile according to the full range leadership style is discussed. The research validated benchmark for each leadership profile is indicated by the norm mean scale.

**Table 4.2: Interpretations and drilldown of leadership profiles**

	Raw Mean	Norm Mean	Interpretation of the norm mean (Scale of 0 to 4)
<b>Transformational leadership</b>			
Idealised Attributes	2.50	2.66	Leaders who are able to build trust in their followers. This is done by going beyond their own interest and inspiring pride and power in their followers. High scores on this scale identify leaders to whom their followers attribute these qualities.
Idealised Behaviour	2.25	3.21	Leaders who act with integrity. High scores on this are leaders who manifest positive and highly valued behaviours, and focus on a desirable vision that consider the moral and ethical consequences of their actions.
Inspirational Motivation	1.5	3.08	Leaders who inspire each other, share goals and the mutual understanding of what is right and important. They enhance meaning and promote positive expectations of what needs to be done to achieve the vision.
Intellectual Stimulation	3.00	3.12	Encourage innovative thinking. In addition to above, transformational leaders also provide intellectual stimulation to associates' ideas and values, to think about old problems in a new way. Inspire associates to be creative and innovative.
Individual Consideration	1.25	2.87	Leaders who coach people. Understanding and sharing in others' concerns and treating each individual uniquely. To expand current needs of individuals in an attempt to maximise and develop their full potential. Creating a culture of support and growth.
<b>Transactional leadership</b>			
Contingent Reward	3.50	3.08	Leaders who are able to reward achievements. High scores on this scale are

	Raw Mean	Norm Mean	Interpretation of the norm mean (Scale of 0 to 4)
			leaders that discuss clear responsibilities for tasks and projects, state performance objectives, clarify rewards and punishment and express satisfaction when the correct output is reached.
Management-by-exception (active)	3.00	2.43	Leaders who focus on mistakes. High scoring leaders specify compliance standards and vividly inefficient performance. Keep track of mistakes and errors.
Management-by-exception (passive)	2.50	1.23	Fights fires in the team or organisation. Focuses on continuously monitoring mistakes and taking corrective actions of errors and mistakes only when it appears, and no preventative actions.
<b>Laissez-faire</b>	2.50	1.25	Leaders who tend to avoid involvement. They refuse to assume the responsibilities that are part of their position as leader, and do not offer enough information to their followers. High scores in this scale avoid approaching problems and is absent when needed.

Table created from Avolio and Bass (2004:5).

## 4.5 Descriptive statistics

### 4.5.1 Descriptive statistics for differences between leaders' self-perceptions on their own leadership versus subordinates' perceptions of their leadership

#### Leadership Perceptions (Department 1): Transformational leadership

Each characteristic of transformational leadership will be discussed shortly as interpreted by Avolio and Bass (2004:5). See Table 4.2 above.

Idealised influence attributes measure whether leaders are able to build trust among their followers. This is done by going beyond their own interest and inspiring pride

and power among their followers. Table 4.3 below, reveals a large Effect Size ( $d=0.76$ ) for subordinates. This result indicates that the leader's self-assessment regarding his ability to build trust among his followers, is significantly higher than how he is perceived by his subordinates.

**Table 4.3: Descriptive statistics: Department 1 (Leadership)**

Department 1	Leader N = 1	Subordinates N = 14		Leaders vs. Subordinates
	Mean 0 – 4	Mean 0 - 4	Standard Deviation	Effect Size (d)
<b>Transformational Leadership</b>				
Idealised influence attributes	3.75	3.30	0.59	0.76**
Idealised influence behaviour	3.50	2.96	0.68	0.79**
Inspirational motivation	3.25	3.14	0.55	0.19
Inspirational stimulation	3.75	2.66	0.59	1.86**
Individualised consideration	3.25	2.70	0.96	0.58*
<b>Transactional Leadership</b>				
Contingent reward	3.25	2.63	0.81	0.77**
Manage-by-exception (active)	2.75	2.27	0.77	0.62*
Manage-by-exception (passive)	1.75	1.13	0.80	0.79**
<b>Laissez-faire</b>	4.00	0.93	0.80	3.84**
Effectiveness	3.75	3.07	0.76	0.90**
Extra effort	3.67	2.93	1.15	0.65*
Satisfaction	3.50	3.25	0.70	0.36

$d=0.8$  -large effect (8/10 of a standard deviation unit) \*\*

$d=0.5$  -medium (1/2 of a standard deviation) \*

Idealised influence behaviour measures the integrity of the leader and whether he manifests highly positive valued behaviour and focuses on the desirable vision. Table 4.3 above indicates that the Effect Size for the subordinates ( $d=0.79$ ) is large. The impact is that the leader rated his integrity fairly higher to what was assessed by his subordinates.

Inspirational motivation measures if leaders inspire people around him. This is done by sharing goals with his associates as well as the mutual understanding of what is

right and important. The Effect Size (Table 4.3) for subordinates is small ( $d=0.19$ ). The results indicate that subordinates perceive the leader to inspire people in the same way as he evaluated himself.

Inspirational stimulation measures the leader's ability to encourage innovation. Table 4.3 reveals a large Effect Size ( $d=1.86$ ) for subordinates as well as for co-leaders ( $d=1.00$ ). The result indicates that both subordinates' and co-leaders' assessments perceive their leader's ability to encourage innovation significantly lower than his self-assessment.

Individualised consideration depicts the extent to which the leader coaches people, through understanding and sharing in others' concerns and treating each individual uniquely. Table 4.3 reveals a medium Effect Size for subordinates' assessments ( $d=0.58$ ). The result is that, when it comes to coaching people, the subordinates perceive their leader fairly the same as his own assessment.

### **Leadership Perceptions (Department 1): Transactional leadership**

Each characteristic of transactional leadership will be discussed shortly as interpreted by Avolio and Bass (2004:5). See Table 4.2 above.

Contingent reward identifies leaders who reward achievements. In Table 4.3 subordinates have a large Effect Size ( $d=0.77$ ). The implication hereof is that subordinates rate their leader significantly lower than he perceived himself when it comes to rewarding achievement.

Manage-by-exception (active) measures whether leaders focus on mistakes or not. Table 4.3 indicates that subordinates have a medium Effect Size ( $d=0.62$ ). The implication is that subordinates rate their leader to focus less on mistakes than was perceived by himself.

Manage-by-exception (passive) assesses leaders that fight fires in the team or organisations. Table 4.3 indicates a large Effect Size for subordinates ( $d= 0.79$ ). The result is that the leader's self-assessment of fighting fires in the organisation was much higher than perceived by his subordinates.

### **Leadership Perceptions (Department 1): Laissez-faire**

Laissez-faire attributes identify leaders who tend to avoid involvement and refuse to accept responsibility which is part of their position as a leader (Avolio & Bass, 2004:5). Table 4.3 shows that subordinates ( $d=3.84$ ) have a large Effect Size. According to the leader's self-assessment, he confirms that he avoids involvement and responsibilities. His subordinates, in contrast, perceive him to be significantly less avoidant when it comes to involvement and that he is indeed perceived to take responsibility.

### **Leadership Perceptions (Department 1): Outcome of leadership**

The Effectiveness scale identifies leaders who are able to be efficient (Avolio & Bass, 2004:5). Table 4.3 refers to a large Effect Size for subordinates ( $d=0.90$ ). This implies that subordinates perceive their leader to be less efficient.

Extra efforts evaluate leaders who are able to generate extra efforts among followers. This is done through assisting followers to strive for superior performance (Avolio & Bass, 2004:5). In Table 4.3 it is clear that the Effect Size for subordinates is medium ( $d=0.65$ ). Subordinates' assessments of the leader to generate extra efforts, agreed to some extent with the leader's self-assessment.

Satisfaction identifies leaders who are able to generate work satisfaction among their followers (Avolio & Bass, 2004:5). Table 4.3 indicates a small Effect Size for subordinates ( $d=0.36$ ). The outcome was that subordinates' assessments are the same as the leader's self-assessment regarding his ability to generate satisfaction among his followers.

### **Leadership Perceptions (Department 2): Transformational leadership**

Each characteristic of transformational leadership will be discussed shortly as interpreted by Avolio and Bass (2004:5). See Table 4.2 above.

Idealised influence attributes measure whether leaders are able to build trust among their followers. This is done by going beyond their own interest and inspiring pride and power among their followers. Table 4.4 below reveals a small Effect Size for the subordinates ( $d=0.27$ ), which indicates that, according to subordinates'

assessments, the leader is perceived to be able to build trust. This is also the way that he perceived himself.

**Table 4.4: Descriptive statistics: Department 2 (Leadership)**

Department 2	Leader N = 1	Subordinates N = 39		Leaders vs. Subordinates
	Mean 0 - 4	Mean 0 - 4	Standard Deviation	Effect Size (d)
<b>Transformational Leadership</b>				
Idealised influence attributes	3.25	3.02	0.84	0.27
Idealised influence behaviour	2.75	3.17	0.67	-0.63*
Inspirational motivation	3.50	3.31	0.65	0.30
Inspirational stimulation	3.25	2.80	0.70	0.64*
Individualised consideration	3.25	2.46	0.95	0.83**
<b>Transactional Leadership</b>				
Contingent reward	2.75	2.99	0.70	-0.35
Manage-by-exception (active)	1.75	2.54	0.85	-0.94**
Manage-by-exception (passive)	1.25	1.67	1.00	-0.42
<b>Laissez-faire</b>	1.00	1.37	1.02	-0.36
Effectiveness	3.25	3.13	0.70	0.17
Extra effort	3.00	2.81	1.02	0.18
Satisfaction	3.00	3.09	0.94	-0.10

d=0.8 -large effect (8/10 of a standard deviation unit) \*\*

d=0.5 -medium (1/2 of a standard deviation) \*

Idealised influence behaviour measures the integrity of the leader and whether he manifests highly positive valued behaviours and focuses on the desirable vision. Table 4.4 above indicates a medium Effect Size for subordinates (d=-0.63) and a small Effect Size for co-leaders (d=0.25). The impact is that the leader rated his integrity fairly higher to what it was assessed by his subordinates. Co-leaders perceived the leader's integrity in the same way he perceived himself.

Inspirational motivation measures whether leaders inspire people around him. This is done by sharing goals with his associates as well as the mutual understanding of what is right and important. The Effect Size (Table 4.4) for subordinates is small

( $d=0.30$ ). The results indicate that subordinates perceive the leader to inspire people in the same way as he evaluates himself.

Inspirational stimulation measures the leader's ability to encourage innovation. Table 4.4 reveals a medium Effect Size on subordinates' assessments ( $d=0.64$ ). The result is that subordinates perceive their leader's ability to encourage innovation only partially the same as he assesses himself.

Individualised consideration depicts the extent to which the leader coaches people, through understanding and sharing in others' concerns and treating each individual uniquely. Table 4.4 reveals a large Effect Size ( $d=0.83$ ) for subordinates. The result is that the subordinates perceive their leader's ability to coach people significantly lower than his self-assessment.

### **Leadership Perceptions (Department 2): Transactional leadership**

Each characteristic of transactional leadership will be discussed shortly as interpreted by Avolio and Bass (2004:5). See Table 4.2 above.

Contingent reward identifies leaders who reward achievements. In Table 4.4 it is clear that subordinates have a small Effect Size ( $d=-0.35$ ). The results indicate that the leader's self-assessment perceives him to be able to reward achievement and it is aligned with his subordinates' assessments.

Manage-by-exception (active) measures whether leaders focus on mistakes. Table 4.4 indicates that subordinates have a large Effect Size ( $d=-0.94$ ). The implication is that subordinates rate their leader significantly higher than he perceives himself regarding focusing on mistakes.

Manage-by-exception (passive) assesses leaders that fight fires in the team or organisations. Table 4.4 indicates a medium Effect Size for subordinates ( $d=-0.42$ ). Subordinates' assessments agree to some degree with their leader's self-assessment.

### **Leadership Perceptions (Department 2): Laissez-faire**

Laissez-faire attributes identify leaders who tend to avoid involvement and refuse to accept responsibility that is part of their position as a leader (Avolio & Bass, 2004:5).

In Table 4.4 subordinates have a small Effect Size ( $d=-0.36$ ). According to the leader's self-assessment, he rarely avoids involvement and responsibilities, which agrees with the perception of his subordinates.

### **Leadership Perceptions (Department 2): Outcome of leadership**

The effectiveness scale identifies leaders who are able to be efficient (Avolio & Bass, 2004:5). Table 4.4 refers to a small Effect Size for subordinates ( $d=0.17$ ) which implies that the subordinates' assessments of the leader's effectiveness (being efficient), were significantly the same as the leader's self-assessment.

Extra efforts evaluate leaders who are able to generate extra efforts among followers (Avolio & Bass, 2004:5). This is done through assisting followers to strive for superior performance. In Table 4.4 it is clear that subordinates have a small Effect Size ( $d=0.18$ ). The result is that subordinates' assessments were aligned with their leader's self-evaluation regarding his ability to generate extra efforts.

Satisfaction identifies leaders who are able to generate work satisfaction among their followers (Avolio & Bass, 2004:5). Table 4.4 indicates a small Effect Size for subordinates ( $d=-0.10$ ). The outcome was that the subordinates' assessments are the same as the leader's self-assessment, regarding his ability to generate satisfaction among his followers.

### **Leadership Perceptions (Department 3): Transformational leadership**

Each characteristic of transformational leadership will be discussed briefly as interpreted by Avolio and Bass (2004:5). See Table 4.2 above.

Idealised influence attributes measure whether leaders are able to build trust among their followers. This is done by going beyond their own interest and inspiring pride and power among their followers. Table 4.5 below reveals a medium Effect Size for subordinates ( $d=0.53$ ). Subordinates perceive the evaluated leader only partially the same as he evaluated himself when it comes to building trust between the leader and subordinates.

**Table 4.5: Descriptive statistics: Department 3 (Leadership)**

Department 3	Leader N = 1	Subordinates N = 6		Leaders vs. Subordinates
	Mean 0 - 4	Mean 0 - 4	Standard Deviation	Effect Size (d)
<b>Transformational Leadership</b>				
Idealised influence attributes	3.25	2.67	1.09	0.53*
Idealised influence behaviour	3.25	2.71	0.94	0.58*
Inspirational motivation	3.00	2.54	1.07	0.43*
Inspirational stimulation	3.00	2.83	0.66	0.25
Individualised consideration	3.50	2.42	0.74	1.47**
<b>Transactional Leadership</b>				
Contingent reward	3.25	2.54	1.19	0.60*
Manage-by-exception (active)	1.25	1.58	0.82	-0.41*
Manage-by-exception (passive)	1.75	1.54	0.98	0.21
<b>Laissez-faire</b>	0.00	0.50	0.57	-0.88**
Effectiveness	3.75	3.08	0.79	0.85**
Extra effort	3.00	2.61	1.25	0.31
Satisfaction	3.00	2.83	1.25	0.13

d=0.8 -large effect (8/10 of a standard deviation unit) \*\*

d=0.5 -medium (1/2 of a standard deviation) \*

Idealised influence behaviour measures the integrity of the leader and whether he manifests highly positive valued behaviour and focuses on the desirable vision. Table 4.5 above indicates a medium Effect Size for subordinates (d=0.58). This indicates that subordinates' assessments of their leader's integrity differ from how the leader assessed himself.

Inspirational motivation measures if leaders inspire people around him. This is done by sharing goals with his associates as well as the mutual understanding of what is right and important. Table 4.5 above reveals a medium Effect Size for subordinates (d=0.43). Subordinates perceive the evaluated leader only partially the same as the way he assessed himself when it comes to inspiring people around him.

The Inspirational stimulation measures the leader's ability to encourage innovation. Table 4.5 reveals a small Effect Size for subordinates ( $d=0.25$ ) assessments. The result is that subordinates perceive their leader's ability to encourage innovation in the same way as he assesses himself.

Individualised consideration depicts the extent to which the leader coaches people, through understanding and sharing in others' concerns and treating each individual uniquely. Table 4.5 reveals a large Effect Size ( $d=1.47$ ) according to subordinates' assessments. The result is that subordinates perceive their leader's ability to coach people, significantly lower than he assessed himself.

### **Leadership Perceptions (Department 3): Transactional leadership**

Every characteristic of transactional leadership will be shortly discussed as interpreted by Avolio and Bass (2004:5). See Table 4.2 above.

Contingent reward identifies leaders who reward achievements. In Table 4.5 it is clear that subordinates have a medium Effect Size ( $d=0.60$ ). Subordinates' assessments reveal only some agreement between how they perceive the leader's ability to reward achievement and the way the leader perceives it.

Manage-by-exception (active) measures whether leaders focus on mistakes. Table 4.5 indicates that subordinates have a medium Effect Size ( $d=-0.41$ ). The implication is that subordinates rate their leader fairly in the same way than the leader assessed himself.

Manage-by-exception (passive) assesses leaders that fight fires in the team or organisations. Table 4.5 indicates a small Effect Size for subordinates ( $d= 0.21$ ). The result is that the leader's self-assessment is in line with subordinates' assessments when it comes to fighting fires in the organisation.

### **Leadership Perceptions (Department 3): Laissez-faire**

Laissez-faire attributes identify leaders who tend to avoid involvement and refuse to accept responsibility that is part of their position as a leader (Avolio & Bass, 2004:5). In Table 4.5 it is evident that subordinates have a large Effect Size ( $d=-0.88$ ). According to the leader's self-assessment, he confirms that he does not avoid involvement and responsibilities. His subordinates, in contrast, perceive him to be

significantly more avoidant when it comes to involvement and that he takes fewer responsibilities as assessed by himself.

### **Leadership Perceptions (Department 3): Outcome of leadership**

The effectiveness scale identifies leaders who are able to be efficient (Avolio & Bass, 2004:5). Table 4.5 refers to a large Effect Size for subordinates ( $d=0.85$ ). This implies that subordinates perceive their leader to be less efficient than he assessed himself.

Extra efforts evaluate leaders who are able to generate extra efforts among followers (Avolio & Bass, 2004:5). This is done through assisting followers to strive for superior performance. In Table 4.5 it is clear that subordinates have a small Effect Size ( $d=0.31$ ). The result is that subordinates' assessments were aligned with their leader's self-evaluation regarding his ability to generate extra efforts.

Satisfaction identifies leaders who are able to generate work satisfaction among their followers (Avolio & Bass, 2004:5). Table 4.5 indicates a small Effect Sizes ( $d=0.13$ ) on subordinates' assessments. The outcome was that the subordinates' assessments are more or less the same as the leader's self-assessment regarding his ability to generate satisfaction among his followers.

### **Leadership Perceptions (Department 4): Transformational leadership**

Each characteristic of transformational leadership will be discussed shortly as interpreted by Avolio and Bass (2004:5). See Table 4.2 above.

Idealised influence attributes measure whether leaders are able to build trust among their followers. This is done by going beyond their own interest and inspiring pride and power among their followers. Table 4.6 below reveals a small Effect Size for the subordinates ( $d=0.05$ ). The result indicates that subordinates' assessments perceive the leader to be able to build trust in the same way he perceived himself.

Idealised influence behaviour measures the integrity of the leader and whether he manifests highly positive valued behaviour and focuses on the desirable vision. Table 4.6 below indicates a medium Effect Size for subordinates ( $d=0.43$ ). This indicates that the subordinates' assessments of their leader's integrity, differ from how the leader assessed himself.

**Table 4.6: Descriptive statistics: Department 4 (Leadership)**

Department 4	Leader N = 1	Subordinates N = 4		Leaders vs. Subordinates
	Mean 0 - 4	Mean 0 - 4	Standard Deviation	Effect Size (d)
<b>Transformational Leadership</b>				
Idealised influence attributes	3.00	2.94	1.14	0.05
Idealised influence behaviour	3.00	2.50	1.17	0.43*
Inspirational motivation	3.25	3.25	1.17	0.00
Inspirational stimulation	3.00	2.88	0.75	0.17
Individualised consideration	2.75	3.00	1.19	-0.21
<b>Transactional Leadership</b>				
Contingent reward	2.75	2.81	0.97	-0.06
Manage-by-exception (active)	2.50	1.81	0.63	1.10**
Manage-by-exception (passive)	2.00	0.75	0.65	1.94**
<b>Laissez-faire</b>	4.00	0.75	0.61	5.31**
Effectiveness	3.25	3.00	0.74	0.34
Extra effort	3.25	3.25	0.88	0.00
Satisfaction	4.00	3.00	1.00	1.00**

d=0.8 -large effect (8/10 of a standard deviation unit) \*\*

d=0.5 -medium (1/2 of a standard deviation) \*

Inspirational motivation measures if leaders inspire people around him. This is done by sharing goals with his associates as well as the mutual understanding of what is right and important. The Effect Size (Table 4.6) for subordinates are small (d=0.00). The results indicate that subordinates perceive the leader to inspire people in the same way as he evaluated himself.

Inspirational stimulation measures the leader’s ability to encourage innovation. Table 4.6 reveals a small Effect Size for the subordinates’ assessments (d=0.17). The result is that subordinates perceive their leader’s ability to encourage innovation in the same way as he assesses himself.

Individualised consideration depicts the extent to which the leader coaches people, through understanding and sharing in others’ concerns and treating each individual uniquely. Table 4.6 reveals a small Effect Size, (d=-0.21) for subordinates’

assessments. The result is that subordinates' assessments of the leader's ability to coach people, are in line with the leader's self-assessment.

#### **Leadership Perceptions (Department 4): Transactional leadership**

Each characteristic of transactional leadership will be discussed shortly as interpreted by Avolio and Bass (2004:5). See Table 4.2 above.

Contingent reward identifies leaders who reward achievements. In Table 4.6 subordinates ( $d=-0.06$ ) have a small Effect Size. The results indicate that the leader's self-assessment perceive him to be able to reward achievement. This is confirmed by the subordinates' assessments.

Manage-by-exception (active) measures whether leaders focus on mistakes. Table 4.6 indicates that subordinates have a large Effect Size ( $d=1.10$ ). The implication is that subordinates rate their leader significantly lower than he perceives himself regarding focusing on mistakes.

Manage-by-exception (passive) assesses leaders that fight fires in the team or organisations. Subordinates in Table 4.6 have a large Effects Size ( $d=-1.94$ ). The result is that the leader's self-assessment of fighting fires in the organisation was much higher as perceived by his subordinates.

#### **Leadership Perceptions (Department 4): Laissez-faire**

Laissez-faire attributes identify leaders who tend to avoid involvement and refuse to accept responsibility that is part of their position as a leader (Avolio & Bass, 2004:5). Table 4.6 shows a large Effect Size for subordinates ( $d=5.31$ ). According to the leader's self-assessment, he confirms that he significantly avoids involvement and responsibilities. His subordinates, in contrast, perceive him to be significantly less avoidant when it comes to involvement and that he takes more responsibility than assessed by himself.

#### **Leadership Perceptions (Department 4): Outcome of leadership**

The effectiveness scale identifies leaders who are able to be efficient. Table 4.6 refers to a small Effect Size for the subordinates ( $d=0.34$ ). This implies that the

subordinates' assessments of the leader's effectiveness (being efficient) were significantly the same as the leader's self-assessment.

Extra efforts evaluate leaders who are able to generate extra efforts among followers (Avolio & Bass, 2004:5). This is done through assisting followers to strive for superior performance. In Table 4.6 it is clear that subordinates ( $d=0.00$ ) have a small Effect Size. The result is that subordinates' assessments were in line with their leader's self-evaluation regarding his ability to generate extra efforts.

Satisfaction identifies leaders who are able to generate work satisfaction among their followers (Avolio & Bass, 2004:5). Table 4.6 indicates a large Effect Size for subordinates ( $d=1.00$ ). The outcome was that subordinates' assessments are lower than the leader's self-assessment regarding his ability to generate satisfaction among his followers.

**Table 4.7: Descriptive statistics: Department 5 (Leadership)**

Department 5	Leader N = 1	Subordinates N = 8		Leaders vs. Subordinates
	Mean 0 - 4	Mean 0 - 4	Standard Deviation	Effect Size (d)
<b>Transformational Leadership</b>				
Idealised influence attributes	3.25	3.00	0.99	0.25
Idealised influence behaviour	4.00	2.97	0.57	1.80**
Inspirational motivation	3.50	3.56	0.37	-0.17
Inspirational stimulation	3.25	2.47	0.84	0.93**
Individualised consideration	3.25	2.31	1.02	0.92**
<b>Transactional Leadership</b>				
Contingent reward	3.25	2.34	0.88	1.03**
Manage-by-exception (active)	2.50	1.91	0.72	0.83**
Manage-by-exception (passive)	0.25	1.72	0.94	-1.56**
<b>Laissez-faire</b>	2.00	1.53	0.89	0.53*
Effectiveness	3.00	2.78	1.03	0.21
Extra effort	3.00	2.96	1.21	0.03
Satisfaction	3.00	2.81	1.19	0.16

$d=0.8$  -large effect (8/10 of a standard deviation unit) \*\*

$d=0.5$  -medium (1/2 of a standard deviation) \*

### **Leadership Perceptions (Department 5): Transformational leadership**

Each characteristic of transformational leadership will be discussed shortly as interpreted by Avolio and Bass (2004:5). See Table 4.2 above.

Idealised influence attributes measure whether leaders are able to build trust among their followers. This is done by going beyond their own interest and inspiring pride and power among their followers. Table 4.7 above reveals a small Effect Size ( $d=0.25$ ) for subordinates. This result indicates that subordinates' perceptions are aligned with the leader's self-assessment of building trust among his subordinates.

Idealised influence behaviour measures the integrity of the leader and whether he manifests highly positive valued behaviour and focuses on the desirable vision. Table 4.7 above indicates that the Effect Size for the subordinates ( $d=1.80$ ) is large. The impact is that the leader rated his integrity significantly higher than it was assessed by his subordinates.

Inspirational motivation measures whether leaders inspire people around him. This is done by sharing goals with his associates as well as the mutual understanding of what is right and important. The Effect Size (Table 4.7) for subordinates ( $d=-0.17$ ) is small. The results indicate that subordinates perceive the leader to inspire people in the same way as he evaluated himself.

Inspirational stimulation measures the leader's ability to encourage innovation. Table 4.7 reveals a large Effect Size, ( $d=0.93$ ) on subordinates assessments. The result is that the subordinates perceive their leader's ability to encourage innovation to be significantly lower than his self-assessment.

Individualised consideration depicts the extent to which the leader coaches people, through understanding and sharing in others' concerns and treating each individual uniquely. Table 4.7 reveals a large Effect Size, ( $d=0.92$ ) for subordinates. The result is that the subordinates perceive their leader's ability to coach people significantly lower than his self-assessment.

### **Leadership Perceptions (Department 5): Transactional leadership**

Each characteristic of transactional leadership will be discussed shortly as interpreted by Avolio and Bass (2004:5). See Table 4.2 above.

Contingent reward identifies leaders who reward achievements. In Table 4.7 subordinates have a large Effect Size ( $d=1.03$ ). The implication hereof is that subordinates rate their leader significantly lower than he perceived himself regarding rewarding achievement.

Manage-by-exception (active) measures whether leaders focus on mistakes. Table 4.7 indicates that subordinates have a large Effect Size ( $d=0.83$ ). The implication is that subordinates rate their leader significantly lower than he perceives himself regarding focusing on mistakes.

Manage-by-exception (passive) assesses leaders that fight fires in the team or organisations. Subordinates in table 4.7 have a large Effects Size ( $d=-1.56$ ). The result is that the leader's self-assessment of fighting fires in the organisation was much lower than perceived by his subordinates.

### **Leadership Perceptions (Department 5): Laissez-faire**

Laissez-faire attributes identify leaders who tend to avoid involvement and refuse to accept responsibility that is part of their position as a leader (Avolio & Bass, 2004:5). Table 4.7 subordinates have a medium Effect Size ( $d=0.53$ ). According to the leader's self-assessment, he confirms that he sometimes avoids involvement and responsibilities. His subordinates also perceive him to be avoiding some of the attributes.

### **Leadership Perceptions (Department 5): Outcome of leadership**

The effectiveness scale identifies leaders who are able to be efficient (Avolio & Bass, 2004:5). Table 4.7 refers to a small Effect Size for the subordinates ( $d=0.21$ ). This implies that the subordinates' assessments on their leader's effectiveness (being efficient), were significantly the same as the leader's self-assessment.

Extra efforts evaluate leaders who are able to generate extra efforts among followers (Avolio & Bass, 2004:5). This is done through assisting followers to strive for superior

performance. In Table 4.7 it is clear that subordinates have a small Effect Size ( $d=0.03$ ). The result is that subordinates' assessments were aligned with their leader's self-evaluation regarding his ability to generate extra efforts.

Satisfaction identifies leaders who are able to generate work satisfaction among their followers (Avolio & Bass, 2004:5). Table 4.7 indicates a small Effect Size ( $d=0.16$ ) for subordinates, with the outcome that the subordinates' assessments are the same as the leader's self-assessment regarding his ability to generate satisfaction among his followers.

### **Leadership Perceptions (Department 6): Transformational leadership**

Each characteristic of transformational leadership will be discussed shortly as interpreted by Avolio and Bass (2004:5). See Table 4.2 above.

Idealised influence attributes measure whether leaders are able to build trust among their followers. This is done by going beyond their own interest and inspiring pride and power among their followers. Table 4.8 below, reveals a large effect size ( $d=1.76$ ) for subordinates. This result indicates that the leader's self-assessment regarding his ability to build trust among his followers, is significantly higher than how he is perceived by his subordinates.

Idealised influence behaviour measures the integrity of the leader and whether he manifests highly positive valued behaviour and focuses on the desirable vision. Table 4.8 below, indicates that the Effect Size for subordinates ( $d=1.66$ ) is large. The impact is that the leader rated his integrity significantly higher than assessed by his subordinates.

Inspirational motivation measures whether leaders inspire people around them. This is done by sharing goals with their associates as well as the mutual understanding of what is right and important. The Effect Size (Table 4.8) for subordinates ( $d=1.69$ ) is large. The results indicate that subordinates perceive the leader to be inspiring people around him much less as what he perceives himself to inspire.

The Inspirational stimulation measures the leader's ability to encourage innovation. Table 4.8 reveals a large Effect Size for subordinates ( $d=2.04$ ). The outcome of the

large Effect Size is that the leader rates his ability to encourage innovation significantly higher than assessed by his subordinates

**Table 4.8: Descriptive statistics: Department 6 (Leadership)**

Department 6	Leader N = 1	Subordinates N = 23		Leaders vs. Subordinates
	Mean 0 - 4	Mean 0 - 4	Standard Deviation	Effect Size (d)
<b>Transformational Leadership</b>				
Idealised influence attributes	4.00	2.43	0.89	1.76**
Idealised influence behaviour	4.00	2.91	0.66	1.66**
Inspirational motivation	4.00	2.91	0.64	1.69**
Inspirational stimulation	4.00	2.42	0.77	2.04**
Individualised consideration	3.75	2.26	1.12	1.33**
<b>Transactional Leadership</b>				
Contingent reward	4.00	2.55	0.87	1.66**
Manage-by-exception (active)	3.50	2.18	0.63	2.08**
Manage-by-exception (passive)	1.00	1.80	0.67	-1.21**
<b>Laissez-faire</b>	0.00	1.51	0.69	-2.18**
Effectiveness	3.75	2.46	0.97	1.33**
Extra effort	3.33	2.45	1.00	0.88**
Satisfaction	4.00	2.37	1.12	1.46**

d=0.8 -large effect (8/10 of a standard deviation unit) \*\*

d=0.5 -medium (1/2 of a standard deviation) \*

Individualised consideration depicts the extent to which the leader coaches people, through understanding and sharing in others' concerns and treating each individual uniquely. Table 4.8 reveals a large Effect Size (d=1.33). The result is that the subordinates perceive their leader's ability to coach people significantly lower than his self-assessment.

### **Leadership Perceptions (Department 6): Transactional leadership**

Each characteristic of transactional leadership will be discussed as interpreted by Avolio and Bass (2004:5). See Table 4.2 above.

Contingent reward identifies leaders who reward achievements. In Table 4.8 subordinates ( $d=1.66$ ) have a large Effect Size. The implication is that subordinates rate their leader significantly lower than how he perceived himself regarding rewarding achievement.

Manage-by-exception (active) measures whether leaders focus on mistakes. Table 4.8 indicates a large Effect Size for subordinates ( $d=2.08$ ). The result is that subordinates rate the leader significantly lower, regarding focusing on mistakes, than he perceives himself.

Manage-by-exception (passive) assesses leaders that fight fires in the team or organisations. Subordinates in Table 4.8 have a large Effects Size ( $d=-1.21$ ). The effect is that the leader's self-assessment of fighting fires in the organisation is much higher than perceived by his subordinates.

### **Leadership Perceptions (Department 6): Laissez-faire**

Laissez-faire attributes identify leaders who tend to avoid involvement and refuse to accept responsibility that is part of their position as a leader (Avolio & Bass, 2004:5). In Table 4.8 subordinates ( $d=-2.18$ ) have a large Effect Size. According to the leader's self-assessment, he claims that he never avoids involvement and responsibilities. This is a significant contrast to his subordinates' perception thereof.

### **Leadership Perceptions (Department 6): Outcomes of leadership**

The effectiveness scale identifies leaders who are able to be efficient (Avolio & Bass, 2004:5). Table 4.8 refers to a large Effect Size for the subordinates ( $d=1.33$ ). This implies that the subordinates' assessments on the leader's effectiveness (being efficient), were significantly lower than the leader's self-assessment.

Extra efforts evaluate leaders who are able to generate extra efforts among followers (Avolio & Bass, 2004:5). This is done through assisting followers to strive for superior performance. In Table 4.8 it is clear that the Effect Size is large ( $d=0.88$ ) for subordinates. The result is that subordinates rate the leader much more negatively on his ability to generate extra efforts than he perceives himself to be.

Satisfaction identifies leaders who are able to generate work satisfaction among their followers (Avolio & Bass, 2004:5). Table 4.8 indicates a large Effect Size ( $d=1.46$ ) for

subordinates. The outcome is that the leader's assessment regarding generating satisfaction among his followers, is significantly higher than assessed by his subordinates.

#### **4.5.1.2 Descriptive statistics: Summary on Leadership perceptions**

The descriptive statistics in Table 4.3 to Table 4.8 revealed that there is a significant difference between leaders' self-perceptions on their own leadership versus the perception of their subordinates on their leadership. The results indicate that the nil hypothesis (H0a) can be rejected and that hypothesis H1 can be accepted, according to the statistics.

The results in Tables 4.3 to 4.8 indicated that the leaders in all six departments perceived their characteristics of the leadership styles much higher as perceived by their subordinates. In Chapter 2 (literature study - Item 2.6), research done by Atalla (2010:157) and Castellese (2006:98) has also found that there is a disconnection between leaders' self-perceptions versus subordinates' perceptions. Their research showed that leaders tend to assess themselves higher than their followers do.

It is evident from Table 4.6 that the self-assessment of the leader that was the most in line with how he is perceived by his subordinates, is that of Department 4. In Table 4.8 it is clear that the leader's self-perception in Department 6, is significantly higher than the subordinates' assessments, with a large Effect Size on all leadership style characteristics. This indicates that Department 6 is the highest at risk and Department 4 the lowest at risk regarding their leadership perceptions.

The department leaders referred to in Table 4.3 to Table 4.8 perceived themselves to be strong transformational leaders (lowest mean rating of 2.75, to the highest mean rating of 4). This was confirmed by the subordinates' assessments (Table 4.3 to Table 4.8), but at a significantly lower mean scale as perceived by the leaders themselves, except for Department 6 where transactional leadership was rated stronger and transformational leadership was rated much more moderate.

Of all six departments, the two strongest transformational leadership characteristics (perceived by the leaders' self-assessments), are idealised influence attributes and inspirational motivation with an average mean (Appendix 4) of 3.42 each. These two

characteristics were also rated the highest by their subordinates with an average mean of 3.12 (Appendix 4) for inspirational motivation and an average mean of 2.89 (Appendix 4) for idealised influence attributes. The average mean score for leaders' self-assessments on this characteristic is higher than the benchmark's mean score as indicated in Table 4.2. This implies that all department leaders perceived themselves to be highly effective when it comes to inspiring pride and power among their followers. They inspire people through sharing goals and also sharing what needs to be done to achieve the vision. This characteristic is perceived lower by subordinates than by the leader.

The characteristics that are identified as a concern are those rated by subordinates that are lower than the mean score according to Table 4.2 and Appendix 4. The characteristics are idealised behaviour (average mean = 2.87), inspirational stimulation (average mean = 2.68) and individualised consideration (average mean = 2.57). The impact of these characteristics is as follows:

- a) if Idealised behaviour between the leader and subordinates is low, subordinates will not achieve the leader's vision;
- b) if subordinates do not perceive a high Inspirational stimulation from their leaders, creativity and innovative thinking will be low among the subordinates; and
- c) if subordinates are not coached, their maximum potential will never be reached and individuals will not feel part of the organisation.

The average mean for all six departments' transactional leadership characteristics from Tables 4.3 to 4.8 and Appendix 4 is as follows:

- a) Contingent reward = 3.21 on leaders' assessments versus 2.65 on subordinates' assessments. The average mean scores for leaders' self-assessments on contingent reward, is above the benchmark mean score as indicated in Table 4.2.
- b) Manage-by-exception (active) = 2.38 on leaders' assessments versus subordinates' assessments of 2.05.

c) Management-by-exception (passive) = 1.33 on leaders' assessments versus subordinates' assessments of 1.44.

The average mean (Appendix 4) for all six departments on laissez-faire leadership as assessed by the leaders, was 1.83 versus subordinates' assessments of 1.10.

The risk when leaders perceive their leadership abilities much higher than their subordinates do (as in the case of all 6 departments in Table 4.3 to 4.8), is that leaders could be self-biased. Herbst and Conradie (2011:10) confirm in research that was done by them, that managers tend to overstate their own leadership abilities and therefore exhibit low self-perception accuracy. The risk, according to Sosik (2001), as quoted by Herbst and Conradie (2011:10), is that over-estimators may be viewed by their subordinates as unreceptive, self-centred and uncaring, and that these adverse perceptions are unlikely to build follower trust and commitment.

#### **4.5.2 Descriptive statistics for differences between leaders' self-perceptions on their ability to be innovative versus subordinates' and co-leaders' perceptions of the leaders' ability to be innovative**

##### **4.5.2.1 Descriptive statistics: Innovation perceptions**

Challenge/involvement identifies the degree of emotional involvement, commitment and motivation created by the leader in the organisation (Isaksen & Kenneth, 1999:668). Table 4.9 indicates a small Effect Size for subordinates ( $d=-0.36$ ). The result is that subordinates' assessments of the leader regarding emotional involvement, are fairly in line with the leader's self-assessment.

Freedom is the level of autonomy, direction and initiative in behaviour exerted by individuals to acquire information and make decisions (Isaksen & Kenneth, 1999:668). In Table 4.9 below, the result reveals a large Effect Size for subordinates ( $d=0.96$ ). The outcome of the large Effect Size is that the leader's self-assessment to allow freedom, is much higher than assessed by his subordinates.

**Table 4.9: Descriptive statistics: Department 1 (Innovation)**

Department 1	Leader N = 1	Subordinates N = 14		Leaders vs. Subordinates
	Mean 0 – 3	Mean 0 – 3	Standard Deviation	Effect Size (d)
Challenge / Involvement	1.86	2.22	1.00	-0.36
Freedom	2.00	1.46	0.56	0.96**
Trust / Openness	1.40	1.44	0.72	-0.06
Idea Time	1.33	1.38	0.63	-0.08
Playfulness / Humour	2.33	1.81	0.58	0.89**
Conflict	2.17	1.11	0.62	1.70**
Idea Support	2.00	1.57	0.71	0.60*
Debate	2.00	1.74	0.65	0.40*
Risk Taking	1.80	1.19	0.49	1.26*

d=0.8 -large effect (8/10 of a standard deviation unit) \*\*

d=0.5 -medium (1/2 of a standard deviation) \*

Trust/openness identifies the degree of emotional safety and openness found in relationships (Isaksen & Kenneth, 1999:668). Table 4.9 indicates a small Effect Size for subordinates (d=-0.06). The result is that subordinates' assessments of the leader's emotional safety and openness, are fairly in line with the leader's self-assessment.

Idea time is the amount of time people are allowed to use (and do) for elaborating new ideas (Isaksen & Kenneth, 1999:668). Table 4.9 shows a small Effect Size for subordinates (d=-0.08). The impact of this result is that the leader's self-assessment regarding the amount of time people are allowed to use (and do) for elaborating new ideas, is aligned with subordinates' assessments.

Playfulness/humour displays the level of spontaneity, good nature joking and laughter (Isaksen & Kenneth, 1999:668). As per Table 4.9 above, the results of the Effect Size were large for subordinates (d=0.89). The outcome of these results is that the leader's self-assessment regarding playfulness and an environment with humour, is significantly higher than was assessed by his subordinates.

Conflict measures the presence of personal and emotional tensions or hostilities (Isaksen & Kenneth, 1999:668). In Table 4.9 it is clear that subordinates ( $d=1.70$ ) have a large Effect Size. The outcome of these result is that subordinates experience significantly less conflict than assessed by the leader.

Idea support is the degree to which new ideas and suggestions are attended to and treated in a kindly matter (Isaksen & Kenneth, 1999:668). In table 4.9 above, the result shows a large Effect Size for subordinates ( $d=0.60$ ). This implies that subordinates assessed the leader to be less supportive when it comes to new ideas than he assessed himself to be.

Debate measures the expression and consideration of many different view-points, ideas and experiences (Isaksen & Kenneth, 1999:668). The results of Table 4.9 above, indicate a medium ( $d=0.40$ , subordinates) Effect Size, which implies that there is some correlation between how subordinates experience their leader to be expressing and considering different viewpoints and ideas.

Risk taking identifies the tolerance of ambiguity and uncertainty (Isaksen & Kenneth, 1999:668). In Table 4.9 subordinates have a large Effect Size ( $d=1.26$ ). These results imply that subordinates assessed their leader to take fewer risks than he assessed himself.

Challenge/involvement identifies the degree of emotional involvement, commitment and motivation created by the leader in the organisation (Isaksen & Kenneth, 1999:668). Table 4.10 below, indicates a small Effect Size for subordinates ( $d=-0.05$ ). The result is that subordinates' assessments of the leader regarding emotional involvement, are fairly in line with the leader's self-assessment.

Freedom is the level of autonomy, direction and initiative in behaviour exerted by individuals to acquire information and make decisions (Isaksen & Kenneth, 1999:668). In Table 4.10 below, the result reveals a small ( $d=-0.37$ , subordinates) Effect Size. The results indicate that subordinates' assessments of the leader are fairly in line with the leader's self-assessment regarding freedom in the work place.

**Table 4.10: Descriptive statistics: Department 2 (Innovation)**

Department 2	Leader N = 1	Subordinates N = 39		Leaders vs. Subordinates
	Mean 0 – 3	Mean 0 - 3	Standard Deviation	Effect Size (d)
Challenge / Involvement	2.00	2.03	0.53	-0.05
Freedom	1.50	1.71	0.56	-0.37
Trust / Openness	1.80	1.44	0.53	0.68*
Idea Time	1.00	1.64	0.64	-1.00**
Playfulness / Humour	1.50	1.85	0.54	-0.64*
Conflict	0.83	1.36	0.69	-0.76**
Idea Support	2.20	1.92	0.58	0.48*
Debate	2.50	1.97	0.47	1.11**
Risk Taking	1.20	1.48	0.49	-0.57*

d=0.8 -large effect (8/10 of a standard deviation unit) \*\*

d=0.5 -medium (1/2 of a standard deviation) \*

Trust/openness identifies the degree of emotional safety and openness found in relationships (Isaksen & Kenneth, 1999:668). Table 4.10 indicates a medium Effect Size for subordinates (d=0.68). The result is that there are some attributes which the subordinates assessed on their leader’s trust and openness, that agreed with the leader’s self-assessment.

Idea time is the amount of time people are allowed to use (and do) for elaborating new ideas (Isaksen & Kenneth, 1999:668). Table 4.10 shows a large Effect Size for subordinates (d=-1.00). The impact of this result is that the leader’s self-assessment regarding the amount of time people are allowed to use (and do) for elaborating new ideas, is much lower than perceived by his subordinates.

Playfulness/humour displays the level of spontaneity, good nature joking and laughter (Isaksen & Kenneth, 1999:668). As per Table 4.10 above, the results of the Effect Size are medium for the subordinates (d=-0.64). The outcome of these results is that the leader’s self-assessment regarding playfulness and humour, is fairly lower than assessed by his subordinates.

Conflict measures the presence of personal and emotional tensions or hostilities (Isaksen & Kenneth, 1999:668). In Table 4.10 above, the result is that subordinates have a large Effect Size ( $d=-0.76$ ). The impact of this result is that subordinates experience more conflict as assessed by the leader.

Idea support is the degree to which new ideas and suggestions are attended to and treated in a kindly matter (Isaksen & Kenneth, 1999:668). In Table 4.10 above, the result shows a medium Effect Size for subordinates ( $d=0.48$ ). This implies that there are some alignment between subordinates' assessments and the leader's self-assessment regarding being supportive for new ideas.

Debate measures the expression and consideration of many different viewpoints, ideas and experiences (Isaksen & Kenneth, 1999:668). The results of Table 4.10 above indicate that subordinates ( $d=1.11$ ) have a large Effect Size. These results imply that subordinates assessed the leader to express fewer different viewpoints and ideas according to his self-assessment.

Risk taking identifies the tolerance of ambiguity and uncertainty (Isaksen & Kenneth, 1999:668). The results of Table 4.10 above measured a medium ( $d=-0.57$ , subordinates) Effect Size. The result indicates that there is some correlation between the subordinates' assessments and the leader's self-assessment regarding risk taking.

Challenge/involvement identifies the degree of emotional involvements, commitment, and motivation created by the leader in the organisation (Isaksen & Kenneth, 1999:668). Table 4.11 below indicates a small Effect Size for subordinates ( $d=-0.19$ ). The result is that subordinates' assessments of the leader, regarding emotional involvement, are fairly in line with the leader's self-assessment.

Freedom is the level of autonomy, direction and initiative in behaviour exerted by individuals to acquire information and make decisions (Isaksen & Kenneth, 1999:668). In Table 4.11 below, the result reveals a large Effect Size for subordinates ( $d=0.89$ ). The impact of the results is that the leader's self-assessment is much higher than his subordinates' assessments regarding allowing freedom in the work place.

**Table 4.11: Descriptive statistics: Department 3 (Innovation)**

Department 3	Leader N = 1	Subordinates N = 6		Leaders vs. Subordinates
	Mean 0 – 3	Mean 0 - 3	Standard Deviation	Effect Size (d)
Challenge / Involvement	2.00	2.07	0.37	-0.19
Freedom	2.33	1.84	0.56	0.89**
Trust / Openness	1.80	1.60	0.46	0.44*
Idea Time	1.67	1.61	0.66	0.09
Playfulness / Humour	2.17	1.70	0.52	0.91**
Conflict	0.83	1.08	0.63	-0.40*
Idea Support	2.20	1.70	0.78	0.64*
Debate	2.00	1.59	0.67	0.62*
Risk Taking	2.00	1.30	0.69	1.01*

d=0.8 -large effect (8/10 of a standard deviation unit) \*\*

d=0.5 -medium (1/2 of a standard deviation) \*

Trust/openness identifies the degree of emotional safety and openness found in relationships (Isaksen & Kenneth, 1999:668). Table 4.11 indicates a medium Effect Size for subordinates (d=0.44). The result is that there are some attributes on which the subordinates assessed the leader regarding trust and openness, that agreed with the leader’s self-assessment.

Idea time is the amount of time people are allowed to use (and do) for elaborating new ideas (Isaksen & Kenneth, 1999:668). Table 4.11 shows a small Effect Size for subordinates (d=0.09). The impact of this result is that the leaders’ self-assessment regarding the amount of time people are allowed to use (and do) for elaborating new ideas, is in line with the assessment by his subordinates.

Playfulness/humour displays the level of spontaneity, good nature joking and laughter (Isaksen & Kenneth, 1999:668). As per Table 4.11 above, the Effect Size is large (d=0.91, subordinates). The outcome of these results is that the leader’s self-assessment regarding playfulness and humour, is significantly higher than assessed by his subordinates.

Conflict measures the presence of personal and emotional tensions or hostilities (Isaksen & Kenneth, 1999:668). In Table 4.11 above, the result is that subordinates have a medium Effect Size ( $d=-0.40$ ). The impact of this result is that subordinates' experience of conflict is in line with the leader's assessment, but with some differences.

Idea support is the degree to which new ideas and suggestions are attended to and treated in a kindly matter (Isaksen & Kenneth, 1999:668). In Table 4.11 above, the result shows a medium Effect Size for subordinates ( $d=0.64$ ). This implies that there is some alignment between subordinates' assessments and the leader's self-assessment regarding being supportive for new ideas.

Debate measures the expression and consideration of many different view-points, ideas and experiences (Isaksen & Kenneth, 1999:668). The results of Table 4.11 above, reflect a medium Effect Size for subordinates ( $d=0.62$ ). These results imply that subordinates' assessments agree with some attributes in the leader's self-assessment.

Risk taking identifies the tolerance of ambiguity and uncertainty (Isaksen & Kenneth, 1999:668). The results of Table 4.11 above measure a large Effect Size for subordinates ( $d=1.01$ ). The result is that subordinates' assessments of the leader's ability to take risk, are much lower than the leader's self-assessment.

Challenge/involvement identifies the degree of emotional involvement, commitment and motivation created by the leader in the organisation (Isaksen & Kenneth, 1999:668). Table 4.12 below indicates a small Effect Size for subordinates ( $d=0.32$ ). The result is that subordinates' assessments of the leader regarding emotional involvement, are fairly in line with the leader's self-assessment.

Freedom is the level of autonomy, direction and initiative in behaviour exerted by individuals to acquire information and make decisions (Isaksen & Kenneth, 1999:668). In Table 4.12 below, the result reveals a medium Effect size for subordinates ( $d=0.58$ ). The impact of the results is that the leader's self-assessment on some of the attributes, is in line with his subordinates' assessment for allowing freedom in the work place.

**Table 4.12: Descriptive statistics: Department 4 (Innovation)**

Department 4	Leader N = 1	Subordinates N = 4		Leaders vs. Subordinates
	Mean 0 – 3	Mean 0 - 3	Standard Deviation	Effect Size (d)
Challenge / Involvement	2.00	1.79	0.66	0.32
Freedom	1.83	1.59	0.42	0.58*
Trust / Openness	1.40	1.40	0.28	0.00
Idea Time	2.00	1.09	0.35	2.65**
Playfulness / Humour	2.17	1.42	0.40	1.90**
Conflict	0.50	1.25	0.21	-3.50**
Idea Support	1.80	1.65	0.85	0.18
Debate	2.00	1.79	0.76	0.27
Risk Taking	2.00	1.30	0.26	2.71**

d=0.8 -large effect (8/10 of a standard deviation unit) \*\*

d=0.5 -medium (1/2 of a standard deviation) \*

Trust/openness identifies the degree of emotional safety and openness found in relationships (Isaksen & Kenneth, 1999:668). Table 4.12 indicates a small Effect Size for subordinates (d=0.00). The result is that subordinates' assessments of the leader's degree of trust and openness is exactly the same as the leader's self-assessment.

Idea time is the amount of time people are allowed to use (and do) for elaborating new ideas (Isaksen & Kenneth, 1999:668). Table 4.12 shows a large Effect Size for subordinates (d=2.65). The impact of this result is that the leader's self-assessment regarding the amount of time people are allowed to use (and do) for elaborating new ideas, is significantly higher than perceived by his subordinates.

Playfulness/humour displays the level of spontaneity, good nature joking and laughter (Isaksen & Kenneth, 1999:668). As per Table 4.12 above, subordinates' Effect Size is large (d=1.90). The outcome of these results is that the leader's self-assessment regarding playfulness and humour is significantly higher than was assessed by his subordinates.

Conflict measures the presence of personal and emotional tensions or hostilities (Isaksen & Kenneth, 1999:668). In Table 4.12 above, the result is that subordinates have a large Effect Size ( $d=-3.50$ ). The impact of this result is that subordinates' experience of conflict is significantly higher than was assessed by the leader himself.

Idea support is the degree to which new ideas and suggestions are attended to and treated in a kindly matter (Isaksen & Kenneth, 1999:668). In Table 4.12 above, the result shows a small Effect Size for subordinates ( $d=0.18$ ). This implies that, most of the time, there is alignment between subordinates' assessments and the leader's self-assessment regarding being supportive for new ideas.

Debate measures the expression and consideration of many different view-points, ideas and experiences (Isaksen & Kenneth, 1999:668). The results of Table 4.12 above reflect a small Effect Size for the subordinates ( $d=0.27$ ). These results imply that subordinates' assessments agree with most of the attributes in the leader's self-assessment.

Risk taking identifies the tolerance of ambiguity and uncertainty (Isaksen & Kenneth, 1999:668). The results of Table 4.12 above measure a large Effect Size for subordinates ( $d=2.71$ ). The result is that subordinates' assessments of the leader's ability to take risk, are much lower than the leader's self-assessment.

Challenge/involvement identifies the degree of emotional involvement, commitment and motivation created by the leader in the organisation (Isaksen & Kenneth, 1999:668). Table 4.13 below, indicates a large Effect Size for subordinates ( $d=2.37$ ). The result is that subordinates' assessments on the leader, regarding emotional involvement, are significantly lower than the leader's self-assessment.

Freedom is the level of autonomy, direction and initiative in behaviour exerted by individuals to acquire information and make decisions (Isaksen & Kenneth, 1999:668). In Table 4.13 above the results reveal a medium Effect Size for subordinates ( $d=0.44$ ). There is some alignment between subordinates' assessments and the leader's self-assessment.

**Table 4.13: Descriptive statistics: Department 5 (Innovation)**

Department 5	Leader N = 1	Subordinates N = 8		Leaders vs. Subordinates
	Mean 0 – 3	Mean 0 - 3	Standard Deviation	Effect Size (d)
Challenge / Involvement	3.00	1.93	0.45	2.37**
Freedom	2.17	2.02	0.34	0.44
Trust / Openness	1.80	1.20	0.79	0.76
Idea Time	2.33	1.44	0.43	2.05
Playfulness / Humour	2.33	2.08	0.46	0.53**
Conflict	1.00	1.71	0.76	-0.93**
Idea Support	2.20	1.83	0.45	0.84**
Debate	2.17	1.98	0.45	0.42*
Risk Taking	2.40	1.65	0.50	1.50**

d=0.8 -large effect (8/10 of a standard deviation unit) \*\*

d=0.5 -medium (1/2 of a standard deviation) \*

Trust/openness identifies the degree of emotional safety and openness found in relationships (Isaksen & Kenneth, 1999:668). Table 4.13 indicates a large Effect Size for subordinates (d=0.76). The result is that subordinates’ assessments, regarding the degree of trust and openness of their leader, are lower than the leader’s self-assessment.

Idea time is the amount of time people are allowed to use (and do) for elaborating new ideas (Isaksen & Kenneth, 1999:668). Table 4.13 shows a large Effect Size for the subordinates (d=2.05). The impact of this result is that the leader’s self-assessment regarding the amount of time people are allowed to use (and do) for elaborating new ideas, is significantly higher than the subordinates’ assessments.

Playfulness/humour displays the level of spontaneity, good nature joking and laughter (Isaksen & Kenneth, 1999:668). As per Table 4.13 above, the results of the Effect Size are medium for the subordinates (d=0.53). The outcome of these results is that leader’s self-assessment regarding playfulness and humour do agree with some of the attributes assessed by his subordinates.

Conflict measures the presence of personal and emotional tensions or hostilities (Isaksen & Kenneth, 1999:668). In Table 4.13 above, subordinates ( $d=-0.93$ ) have a large Effect Size. The outcome of these results is that subordinates experience more conflict in the work place than was measured by the leader's self-assessment.

Idea support is the degree to which new ideas and suggestions are attended to and treated in a kindly matter (Isaksen & Kenneth, 1999:668). In Table 14.3 above, the result shows a large Effect Size for subordinates ( $d=0.84$ ). This implies that subordinates assessed the leader to be fairly less supportive for new ideas as he assessed himself to be.

Debate measures the expression and consideration of many different view-points, ideas and experiences (Isaksen & Kenneth, 1999:668). The results of Table 4.13 above show a medium ( $d=0.42$ , subordinates) Effect Size. This result indicates that there is some correlation on how subordinates experience their leader when it comes to expressing and considering different viewpoints and ideas and how the leader perceives himself to be.

Risk taking identifies the tolerance of ambiguity and uncertainty (Isaksen & Kenneth, 1999:668). The results of Table 4.13 above measure a large Effect Size for subordinates ( $d=1.50$ ). This result indicates that subordinates' assessments of the leader's ability to take risk, are much lower than the leader's self-assessment.

Challenge/involvement identifies the degree of emotional involvement, commitment and motivation created by the leader in the organisation (Isaksen & Kenneth, 1999:668). Table 4.14 indicates a large Effect Size for subordinates ( $d=1.68$ ). The result is that subordinates' assessments of the leader regarding emotional involvement are significantly lower than the way the leader assessed himself.

Freedom is the level of autonomy, direction and initiative in behaviour exerted by individuals to acquire information and make decisions (Isaksen & Kenneth, 1999:668). In Table 4.14 below, the results reveal a large Effect Size for subordinates ( $d=2.39$ ). The outcome of the large Effect Size is that the leader's self-assessment to allow freedom, is much higher than was assessed by his subordinates.

**Table 4.14: Descriptive statistics: Department 6 (Innovation)**

Department 6	Leader N = 1	Subordinates N = 23		Leaders vs. Subordinates
	Mean 0 – 3	Mean 0 - 3	Standard Deviation	Effect Size (d)
Challenge / Involvement	2.86	1.78	0.65	1.68**
Freedom	3.00	1.65	0.56	2.39**
Trust / Openness	2.40	1.52	0.43	2.02**
Idea Time	2.17	1.19	0.54	1.82**
Playfulness / Humour	1.83	1.28	0.60	0.92**
Conflict	1.50	1.46	0.54	0.08
Idea Support	2.60	1.41	0.57	2.09**
Debate	2.67	1.57	0.50	2.20**
Risk Taking	2.00	1.24	0.50	1.52**

d=0.8 -large effect (8/10 of a standard deviation unit) \*\*

d=0.5 -medium (1/2 of a standard deviation) \*

Trust/openness identifies the degree of emotional safety and openness found in relationships (Isaksen & Kenneth, 1999:668). Table 4.14 indicates a large Effect Size for subordinates (d=2.02). The result is that subordinates' assessments on the leader's degree of emotional safety and openness, are much lower than the leader's self-assessment.

Idea time is the amount of time people are allowed to use (and do) for elaborating new ideas (Isaksen & Kenneth, 1999:668). Table 4.14 shows a large Effect Size for the subordinates (d=1.82). The impact of this result is that the leader's self-assessment regarding the amount of time people are allowed to use (and do) for elaborating new ideas, is significantly higher than the subordinates' assessments.

Playfulness/humour displays the level of spontaneity, good nature joking and laughter (Isaksen & Kenneth, 1999:668). As per Table 4.14 above, the results of the Effect Size are large for subordinates (d=0.92). The outcome of these results is that the leader's self-assessment regarding playfulness and humour is higher than assessed by his subordinates.

Conflict measures the presence of personal and emotional tensions or hostilities (Isaksen & Kenneth, 1999:668). In Table 4.14 subordinates have a small Effect Size ( $d=0.08$ ). The outcome of these results is that the leader's self-assessment is in line with his subordinates' assessments regarding conflict in the work place.

Idea support is the degree to which new ideas and suggestions are attended to and treated in a kindly matter (Isaksen & Kenneth, 1999:668). In Table 4.14 above, the result shows a large Effect Size for subordinates ( $d=2.09$ ). Subordinates' assessments of the leader's ability to be supportive, were significantly lower than the leader's self-assessment.

Debate measures the expression and consideration of many different view-points, ideas and experiences (Isaksen & Kenneth, 1999:668). Table 4.14 above indicates a large Effect Size for subordinates ( $d=2.20$ ). The result indicates that subordinates assessed the leader to express and consider different viewpoints and ideas, lower than was assessed by himself.

Risk taking identifies the tolerance of ambiguity and uncertainty (Isaksen & Kenneth, 1999:668). The results of Table 4.14 above measure a large Effect Size for subordinates ( $d=1.52$ ). The result is that subordinates' assessments on the leader's ability to take risk, are much lower than the leader's self-assessment.

#### **4.5.2.2 Descriptive statistics: Summary on innovation perceptions**

It is clear from the descriptive statistics in Table 4.9 to Table 4.14 above, that a significant difference exists between all the department leaders' self-perceptions of their innovation ability, versus the perception of their subordinates on their innovation ability. The results indicate that leaders' self-assessments on their innovation ability were much higher than assessed by their subordinates and that the nil hypothesis ( $H_0a$ ) can be rejected. This implies that hypothesis  $H_1$  can be accepted, according to the statistics.

It is evident from Table 4.11 that the self-assessment of the leader that was the most in line with how he is perceived by his subordinates, is that of Department 3. In Table 4.14 it is clear that the leader's self-perception in Department 6 is significantly higher than the subordinates' assessments, with a large Effect Size on all innovation

characteristics. This indicates that Department 6 is the highest at risk and Department 3 the lowest at risk regarding their perception to be innovative.

The average mean (Appendix 5) on the nine characteristics of innovation for Department 1 to 6 falls within an acceptable range of 1.75 to 2.29 (except for conflict, which has to be closer to nil: 1.14). In contrast to the leaders' self-assessments, they were perceived by their subordinates to be less innovative, with a low mean average on the nine characteristics of innovation that ranges from 1.36 to 1.97 (except for conflict: 1.33).

The two strongest innovation characteristics perceived by the leaders' self-assessments of all six departments, are Challenge/involvement (average mean = 2.29) and debate (average mean = 2.22). These two characteristics were also rated the highest by their subordinates with an average mean of 1.97 for Challenge/involvement and an average mean of 1.77 for debate. With such a high mean score, the leaders perceive themselves to be emotionally involved with their subordinates and consider many different viewpoints and ideas, however, these characteristics were perceived much lower by their subordinates.

The characteristics that are identified as a concern are Trust/openness (average mean = 1.43), idea time (average mean = 1.39), risk taking (average mean = 1.36) and conflict (average mean = 1.33). The impact of these characteristics are:

- a) if trust and openness between the leader and subordinates are low, subordinates do not feel emotionally safe in the relationship;
- b) if subordinates do not perceive idea time to be of great value, then there would not be much encouragement for available time to subordinates to use to create new ideas;
- c) if subordinates perceive that risk taking is low, they believe that the tolerance of ambiguity and uncertainty is low, and that punishment for failures are high; and
- d) if conflict is perceived higher by subordinates than their leaders, the presence of personal and emotional tensions in the relationship is high.

### 4.5.3 Descriptive statistics to determine if innovation is aligned with a specific leadership style

Pearson's correlation coefficient was performed, using SPSS, in order to establish if there is a correlation between the leadership style dimensions and innovation dimensions in an agricultural business.

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.* 2008:128).

In this research, correlation coefficients represent the nature of the relationship between leadership style dimensions and innovation dimensions (Schumann & Bouwer, 1967:97). Table 4.15 below indicates the coefficient relationship between two variables.

**Table 4.15: 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

Addapted from (Schumann & Bouwer, 1967:97)

According to Maccoll (quoted by Nyengane, 2007:75), the statistical significance ( $p$ -level) is the result representing a decreasing index on the reliability. The higher the  $p$ -level, the less we can depend on the observed relations between variables in the sample. The  $p$ -level represents the probability of error that is involved in accepting the observed result as valid, as representative of the population. If the computer generates a  $p$ -value of less than the level of significance of 0.05, the researcher will then conclude that there is a statistical significance as a positive or negative

relationship between the two variables under study. If the p-value is higher than the level of significance of 0.05, then the researcher will conclude that there is no statistical significance and positive or negative relationship between the two variables.

### **Innovation and transformational leadership**

It is evident from Table 4.16 that innovation's characteristic Idea Support have the strongest correlation with transformational leadership style. Table 4.16 indicates a moderate, but significantly positive relationship between Idea Support and all the characteristics of transformational leadership. Intellectual Stimulation and Idealised Influence behaviour showed the strongest correlation between transformational leadership characteristics and Idea Support. The implication is that the integrity of the leader and whether he manifests a positive behaviour to encourage innovation, will have a moderate but significant impact on the degree to which new ideas and suggestions are attended to. The result is then to inspire people and to build trust among subordinates.

Idea Time, which refers to the time that people are allowed to use (and do) for elaborating new ideas, showed the second strongest correlation with transformational leadership style. The relationship correlation between Idea Time and all the dimensions of transformational leadership (except Individualised Consideration,  $r=0.475$ ,  $p < 0.01$ ) can be concluded as relatively moderate and significantly positive as per Table 4.16. Idealised Influence behaviour and Inspirational Motivation showed the strongest correlation between transformational leadership characteristics and Idea Time. This means that, if the leader's integrity and behaviour is high, he/she will allow enough time to encourage new ideas.

Challenge/involvement as per Table 4.16 above, also revealed a relatively moderate, but significantly positive relationship with most of transformational leadership style characteristics, except for Inspirational Motivation, which is weak but significantly positive. This implies that Intellectual Stimulation, Idealised Influence behaviour/attributes and Individualised Consideration have a significantly positive impact on the degree of emotional involvement and commitment created by the leader.

**Table 4.16: Descriptive statistics: Innovation and transformational leadership**

		<b>Intellectual Stimulation</b>	<b>Idealised Influence behaviour</b>	<b>Idealised Influence attributes</b>	<b>Inspirational Motivation</b>	<b>Individualised Consideration</b>
Challenge / Involvement	Pearson Correlation	.561**	.527**	.528**	.430**	.561**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	94	94	94	94	94
Freedom	Pearson Correlation	.404	.440	.409	.451	.301
	Sig. (2-tailed)	.000	.000	.000	.000	.003
	N	94	94	94	94	94
Trust / Openness	Pearson Correlation	.430**	.470**	.435**	.416**	.445**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	94	94	94	94	94
IdeaTime	Pearson Correlation	.503	.608	.514	.536	.475
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	94	94	94	94	94
Playfulness / Humour	Pearson Correlation	.477**	.438**	.461**	.474**	.401**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	94	94	94	94	94
Conflict	Pearson Correlation	-.484**	-.481**	-.463**	-.367**	-.442**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	94	94	94	94	94
Idea Support	Pearson Correlation	.613**	.654**	.586**	.547**	.541**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	94	94	94	94	94
Debate	Pearson Correlation	.435**	.504**	.418**	.483**	.380**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	94	94	94	94	94
Risk Taking	Pearson Correlation	.429**	.442**	.362**	.535**	.342**
	Sig. (2-tailed)	.000	.000	.000	.000	.001
	N	94	94	94	94	94

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

In table 4.16 above, the following can be interpreted from the remaining correlation between innovation characteristics and transformational leadership style characteristics:

- a) the relationships between freedom and transformational leadership characteristics are relatively weak, but significantly positive;
- b) there is a weak, but significantly positive relationship between Trust/openness and all the characteristics of transformational leadership;
- c) there is a relative weak, but significantly positive relationship between Playfulness/humour and all the characteristics of transformational leadership;
- d) the relationship between Debate and all the characteristics of transformational leadership (except Idealised Influence behaviour), is relatively weak but significantly positive; and
- e) it is evident that there is a weak, but significant relationship between Risk taking and most of the characteristics of transformational leadership (except for Inspirational motivation).

Conflict as per Table 4.16 indicates a relatively weak but significantly negative relationship with the characteristics of transformational leadership. The impact is that the presence of personal and emotional tension would be low when the leader has a high self-perception regarding his leadership and ability to be innovative and that it is in line with how his subordinates perceive his leadership and ability to be innovative.

The results from Table 4.16 indicate significant evidence (1% significance) that there is a weak to moderate positive alignment between innovation and transformational leadership style and that hypothesis H0b can be rejected. The conclusion can be made that hypothesis H2 can be statistically accepted.

### **Innovation and transactional leadership**

Idea support according to Table 4.17 indicates the strongest relationship between innovation and Contingent reward, which is a characteristic of transactional leadership style. Idea Support and contingent reward are moderate, but significantly positive related. The implication is that new ideas generated by subordinates could have a moderately positive influence on rewards.

The second strongest relationship between innovation and transactional leadership, is Idea time with Contingent reward. Idea time and Contingent reward are weak, but significantly positive related.

In Table 4.17 the following can be interpreted from the remaining correlation between innovation characteristics and Contingent reward (a characteristic of transformational leadership styles):

- a) Contingent reward and Challenge/involvement are weak, but significantly positive related.
- b) Contingent reward and Freedom are insignificant, but positively related.
- c) Contingent reward and Trust/openness are weak, but significantly positive related.
- d) Contingent reward and Playfulness/humour are weak, but significantly positive related.
- e) Contingent reward and Debate are weak, but significantly positive related.
- f) Contingent reward and Risk taking are insignificantly but positive related.

Conflict as per Table 4.17 indicates a relative weak but significantly negative relationship with Contingent reward. The impact is that the presence of personal and emotional tension would be low when subordinates are rewarded for their innovation.

It is evident from Table 4.17 that there is insignificant correlation between Management-by-exception (active and passive) and the nine characteristics of innovation. The only relationship is between Conflict and Management by exception (passive), where the relationship is weak, but significantly positive.

The results from Table 4.17 indicate that there is insignificant evidence (1% significance) and that the nil hypothesis  $H_0c$  can therefore be accepted. The statistical hypothesis  $H_3$  can be rejected.

**Table 4.17: Descriptive statistics: Innovation and transactional leadership**

		Contingent Reward	Management-by- Exception (passive)	Management-by- Exception (active)
Challenge / Involvement	Pearson Correlation	.473**	-.311**	.109
	Sig. (2-tailed)	.000	.002	.297
	N	94	94	94
Freedom	Pearson Correlation	.260*	-.002	-.003
	Sig. (2-tailed)	.011	.985	.978
	N	94	94	94
Trust / Openness	Pearson Correlation	.353**	-.178	-.030
	Sig. (2-tailed)	.000	.087	.773
	N	94	94	94
IdeaTime	Pearson Correlation	.487**	-.150	.177
	Sig. (2-tailed)	.000	.148	.088
	N	94	94	94
Playfulness / Humour	Pearson Correlation	.329**	-.139	-.007
	Sig. (2-tailed)	.001	.182	.948
	N	94	94	94
Conflict	Pearson Correlation	-.396*	.400	.103
	Sig. (2-tailed)	.000	.000	.322
	N	94	94	94
Idea Support	Pearson Correlation	.541**	-.223	.090
	Sig. (2-tailed)	.000	.031	.387
	N	94	94	94
Debate	Pearson Correlation	.384**	-.126	.075
	Sig. (2-tailed)	.000	.225	.475
	N	94	94	94
Risk Taking	Pearson Correlation	.294**	-.067	.055
	Sig. (2-tailed)	.004	.521	.597
	N	94	94	94

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

## **Innovation and laissez-faire leadership**

Table 4.18 represents the descriptive statistics for correlation between innovation dimensions and laissez-faire leadership. The strongest correlation between laissez-faire leaders and innovation is conflict. The implication is that conflict is moderate, but significantly positive related to the laissez-faire leadership style. The impact is that there will be more personal tension and emotions present, when a leader tends to be more of a laissez-faire leader.

In Table 4.18 the following can be interpreted from the remaining correlation between innovation characteristics and laissez-faire leadership:

- a) Laissez-faire leadership and Challenge/involvement are weak, but significantly negative related.
- b) Laissez-faire and Freedom are insignificantly and negatively related.
- c) Laissez-faire and Trust/openness are insignificantly and negatively related.
- d) Laissez-faire and Idea time are insignificantly and negatively related.
- e) Laissez-faire and Playfulness/humour are insignificantly and negatively related.
- f) Laissez-faire and Idea support are insignificantly and negatively related.
- g) Laissez-faire and Debate are insignificantly and positively related.
- h) Laissez-faire and Risk taking is insignificantly and negatively related.

It is clear from the above, that a leader that tends to be involved and refuses to take responsibilities that are part of the position as leader, will not encourage innovation and will enhance conflict between himself and his subordinates.

The conclusion regarding the above and Table 4.18, is that it is evident that the nil hypothesis (H0d) can be accepted and the conclusion can also be made that there is no significant alignment between innovation and laissez-faire leadership. The impact is that hypothesis H4 can be rejected statistically.

**Table 4.18: Descriptive statistics: Laissez-faire and innovation**

		Laissez-faire
Challenge / Involvement	Pearson Correlation	-.394**
	Sig. (2-tailed)	.000
	N	94
Freedom	Pearson Correlation	-.083
	Sig. (2-tailed)	.428
	N	94
Trust / Openness	Pearson Correlation	-.240*
	Sig. (2-tailed)	.020
	N	94
Idea Time	Pearson Correlation	-.186
	Sig. (2-tailed)	.073
	N	94
Playfulness / Humour	Pearson Correlation	-.177
	Sig. (2-tailed)	.089
	N	94
Conflict	Pearson Correlation	.568**
	Sig. (2-tailed)	.000
	N	94
Idea Support	Pearson Correlation	-.243*
	Sig. (2-tailed)	.018
	N	94
Debate	Pearson Correlation	-.128
	Sig. (2-tailed)	.220
	N	94
Risk Taking	Pearson Correlation	-.125
	Sig. (2-tailed)	.232
	N	94

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

## 4.6 Conclusion

The descriptive statistics from Tables 4.3 to 4.14 revealed that there is a significant difference between leaders' self-perception of their own leadership and ability to be innovative, versus the perceptions of their subordinates regarding their leadership and ability to be innovative. The risk associated with leaders that tend to assess themselves higher than their subordinates, is that the leaders could be self-biased. The implication and reason for potential self-biasness will be discussed in more detail in Chapter 5.

Table 4.15 to 4.18 revealed the relationship between innovation and leadership styles. The tables showed a weak to moderate positively significant alignment between innovation and transformational leadership styles. This is confirmed by the literature study in Chapter 2 where a model described by Gumusluoglu and Ilsev (2009:462) found that transformational leadership is positively related to followers' creativity. Khan *et al.* (2009:680) confirmed that effects of transformational leadership were found on creativity and innovation and that there is a positive association between followers' creativity and transformational leadership.

The relationships between innovation, transactional leadership and laissez-faire leadership, were insignificantly aligned with each other. Crawford (2001:13) confirmed that there is no relationship between innovation and transactional leadership.

The next chapter is the final chapter and contains a summary of what had occurred during the evaluation of the measurement instruments. A conclusion is reached and it also contains recommendations from excerpts on the data that were analysed, together with suggestions for future research.

## CHAPTER 5

### 5. CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Background to research

South African agricultural companies need not only be competitive in their local markets, but they need to be globally competitive too. The pace of change within the economy as a whole, is asking of leaders to be more flexible and progressive in their management style, including developing their innovation skills. Over the past few years most of the agricultural companies in South Africa have reached maturity in their life cycle and mergers and acquisitions between companies were a strategic action of growth.

The natural next step for an agricultural company to be competitive both locally and globally, would be to achieve a distinctive competitive advantage over their competitors. To achieve this advantage, effective and innovative leadership are needed. Perceptions of both top management and their subordinates on leadership and the leader's ability to be innovative, have to be aligned in order for this to be successful in an agricultural business.

#### 5.2 Introduction

The primary objective of the research was to compare the perceptions of subordinates with top management's perceptions regarding top management leadership and innovative ability and to determine whether differences and/or similarities exist. The secondary objectives were to determine leaders' perception on their own dominant leadership style and innovative abilities versus subordinates' perceptions, and whether or not innovation is aligned with a specific leadership style.

In this chapter the outcome of the research problem is addressed, and whether the research objectives by means of the empirical study and literature review have been reached.

In Chapter 2 a literature study was done on perceptions, leadership styles, innovation, innovation leadership and previous research on management's self-perception versus subordinates' perceptions. From the literature study it is clear that, for leadership to happen, leaders have to know who they are and what they stand for. They have to be consistent so that subordinates know what to expect (Richard, 1999:43).

For the purpose of the study a Full Range Leadership Model of Avolio and Bass (2004:4) was chosen to determine leadership styles. The leadership styles included were transformational leadership, transactional leadership and laissez-faire leadership. Transactional leadership concentrates on the day-to-day activities, operational efficiencies and the status quo. Transformational leadership is the extension of transactional leadership and focuses on inspiring and motivating followers to do more, and to develop themselves further. Innovation leadership includes leadership that stimulates followers to be creative and innovative, and to challenge their own beliefs and values as well as those of leaders and the organisation (Puccio *et al.* 2007:11).

Gumusluoglo and Ilsev (2007:461) state that innovation through creativity is an important factor in the success and competitive advantage of the organisation as well as for a strong economy.

The research methodology in Chapter 3 described the research design. The MLQ (form 5X) and SOQ were used to determine how leaders assessed their own leadership and innovation abilities versus how they were assessed by their subordinates. These two measuring instruments were used because they are both globally accepted and their reliability and validity have already been confirmed.

Chapter 4 gave the background to the empirical study, and the characteristics of the target sample and data captured. Descriptive statistics were presented for analysis, as well as to provide better insight for further discussions. Leaders' self-assessments regarding their leadership and ability to be innovative versus subordinates' assessments of leaders' leadership and ability to be innovative were measured. Pearson's correlation coefficient was applied, using SPSS, in order to establish whether there was a correlation between the leadership style characteristics and innovation characteristics.

The outcomes of the research objectives were as follows:

- a) There is a significant difference between leaders' self-perceptions on their own leadership and ability to be innovative, versus the perceptions of their subordinates on their leadership and ability to be innovative. The leaders also assessed themselves higher than their subordinates did.
- b) Leaders tend to evaluate themselves as strong transformational leaders with the support of outcome leadership.
- c) There is a weak to moderate significantly positive alignment between innovation and transformational leadership styles and an insignificant relationship between transactional and laissez-faire leadership and innovation.

## **5.3 Conclusions**

### **5.3.1 Descriptive statistics**

#### **5.3.1.1 Leaders' self-perceptions versus subordinates' perceptions on their leadership and innovative ability**

Descriptive statistics were used to determine the Effect Size ( $d$  = quantifying the size of the differences between two groups) between how leaders perceived their own leadership and ability to be innovative, versus the perception of their subordinates.

#### **Leadership:**

Regarding the Effect Size ( $d$ ) - differences in Tables 4.3 to 4.8 confirm that leaders' self-perceptions on their leadership ability differ significantly from how they are perceived by their subordinates. The results in Tables 4.3 to 4.8 indicate that the leaders perceived most of their characteristics as higher than were perceived by their subordinates. In Chapter 2 (literature study - Item 2.6), research done by Atalla (2010:157) and Castellese (2006:98) also found that there is a disconnection between leaders' self-perceptions versus subordinates' perceptions.

Their research also showed that leaders tend to assess themselves higher than their followers do. The risk is, if leaders do perceive their leadership abilities much higher than their subordinates do, they could be self-biased. Herbst and Conradie (2011:10) confirm in their research that managers tend to overstate their own leadership abilities and therefore exhibit low self-perception accuracy, that over-estimators may be viewed by their subordinates as unreceptive, self-centred and uncaring, and that these adverse perceptions are unlikely to build follower trust and commitment

From Appendix 4 it is evident that the leaders rated themselves as strong transformational leaders with the support of leadership with outcomes. The conclusion can be made that they rate themselves strong as:

- leaders that are able to build trust in their followers (idealised attributes);
- leaders that act with integrity (idealised behaviour);
- leaders that inspire each other (inspiration motivation);
- leaders that encourage innovative thinking (intellectual stimulation); and
- leaders that coach people (individual consideration).

This was in contrast with a more moderate evaluation (Appendix 4) on their leadership styles as perceived by their subordinates. From the empirical study in Chapter 4 item 4.5.1.1 (Table 4.3 to 4.8), the following significant differences in their perceived leadership style characteristics were identified as a concern:

- a) Subordinates' perceptions on leaders integrity and ability to manifest positive and valued behaviour were less than perceived by their leaders (idealised behaviour).
- b) Subordinates' perception regarding the ability of leaders to encourage innovation was lower than leaders' self-perception (intellectual stimulation). This was confirmed in the empirical study in Tables 4.9 to 4.14.
- c) Subordinates' perception regarding leaders' ability to coach followers and share in others' concern was lower than leaders' self-perception (individual consideration).

## **Innovation:**

It is clear according to the Effect Size (d) differences in Table 4.9 to 4.14 that leaders' self-perception on their ability to be innovative differ significantly from how they are perceived by their subordinates. The results in Tables 4.9 to 4.14 indicate that the leaders perceived most of their innovation characteristics as higher than were perceived by their subordinates. Results of the literature study (Chapter 2 – Item 2.6) showed that followers tend to view leaders' behaviour as inconsistent (in contrast with how leaders perceived themselves). Followers also perceived their leaders to be weak in their ability to be innovative, foster alignment, create a shared vision, articulate a mission, and express shared goals. Leaders, in contrast, perceived themselves to be visionary leaders who are living the organisation goals.

### **5.3.1.2 Alignment between innovation and leadership styles**

Pearson's correlation coefficient was applied, using SPSS, in order to establish whether there is a correlation between the leadership style characteristics and innovation characteristics.

The results from 4.5.3 in Chapter 4 indicate that the leadership style that is the most significantly aligned with innovation, is transformational leadership. In Chapter 2, Khan *et al.* (2009:680) confirmed that effects of transformational leadership were found on creativity and innovation and that there is a positive association between followers' creativity and transformational leadership. The results also indicated that there was an insignificant alignment between innovation and transactional leadership styles.

### **5.3.2 Interpretations from descriptive study**

Self-awareness, risk taking, trust and conflict have been identified from the study as the major concerns that have an impact regarding the alignment between subordinates' assessments versus leaders' self-assessments.

#### **Self-awareness:**

There could be leaders in the company who do not understand the need for feedback and development and they do not see the need for increasing their own

self-awareness and capabilities. This is confirmed by the empirical study done in Chapter 4, that leaders have a higher perception of their leadership and ability to be innovative than perceived by their subordinates.

Leaders may believe that due to the fact that most of the respondents (67%) are between the ages of 36 – 55 years, where 49% of respondents have 20 years and more working experience and 19% of them more than 20 years within this organisation, leaders know their subordinates and the subordinates should also know their leaders. The impact is that they do not believe that due to the working experience in years, and specifically in this organisation, they as leaders need to get more involved with their subordinates and aligned with their self-awareness. What could also impact on leaders not addressing their self-awareness, is that an agricultural corporate environment does not expect this from them. The above perceptions could be considered for future research.

If leaders are not self-aware, they are likely to not be aware of blind spots in their personal bias and preferences, thus they may not process a balanced perspective in decision-making. The risk for leaders overstating their leadership ability, is that they only will be concentrating on what is wrong, like ineffective communication and conflict management.

### **Risk taking:**

Risk taking identifies the tolerance of uncertainty and ambiguity exposed in the work place (Isaksen & Kenneth, 1999:668). The research findings in Chapter 4 regarding subordinates' perceptions that risk taking is perceived much lower by subordinates than perceived by leaders, is confirmed with previous research done by Lotz (2009) in an unpublished doctoral degree, where he found that South African agricultural businesses have a risk adverse culture, that included this specific agricultural business. The impact is that subordinates are not allowed to make independent decisions and that they feel that they have to report to leaders before making a mistake. It could be that the subordinates in the agricultural business feel that they are not allowed to take risks due to the punishment for failure. This is indicated by low risk-taking, propensity, a low tolerance for failure, a weak ability to manage ambiguity and the ability to see opportunities in the market, and uncertainty. The

implication of companies that have a low risk is that the organisations do not value new ideas or has developed an evaluation system that is bureaucratic.

### **Trust:**

In Chapter 4 from Table 4.3 to 4.14 in the empirical study it was evident that the subordinates assessed their leaders much lower regarding their ability build trust among subordinates (idealised influence behaviour) and to build a relationship of openness and emotional safety to encourage innovation among subordinates. In Chapter 2 under 2.3.2 it is confirmed that a leader should inspire power and pride in their followers, by going beyond their own interest to build trust.

Dietz and Hartog (2006:558) indicate that there are two forms of trust; belief and intention to act, where belief focuses on "trustworthiness" and intention to act on actual behaviour intentions. Belief must be in the respondent positive willing, "decision", to trust and "the intention" to act or the risk taking behaviour. The decision to trust is also connected to the base of conflict evidence.

### **Conflict:**

From the empirical study done in Chapter 4, it is evident in 4.3 that conflict has an impact on leadership and leaders' ability to be innovative. There was a significant negative correlation between conflict and transformational leadership style, the concern however that management-by-exception (active and passive) and laissez-faire are significantly positively correlated with conflict. This is a damper for leadership and the ability to be innovative.

The reason why conflict could be a huge concern in an agricultural business, is because subordinates' believe (trust) in their leader's idealised behaviour characteristics and that the subordinates are experiencing low emotional involvement from their leaders. With this mistrust between leaders and subordinates no environment of interpersonal relationships will be developed or created.

Avoiding conflict, subordinates are scared to implement new ideas or to take risk. If they do take the risk they are punished for failure. The result of this is that subordinates will not show the need to grow or develop an interpersonal relationship with their leaders because they are too scared of conflict. The possibility exists that

leaders could overstate their self-awareness that will have an impact on how they are perceived by their subordinates.

#### **5.4 Future research**

Empirical studies on subordinates' perceptions of leaders' leadership and ability to be innovative are rare, especially in South African agricultural businesses. The impact of this empirical study focused on the differences between perception of the leaders' leadership and ability to be innovative.

Further research is suggested to determine:

- if the significant difference between the leaders' own perceptions and the perception of his or her subordinates in each department, can be linked to each department's financial performance in an agricultural business;
- if agricultural companies in South Africa insist that their leaders' self-awareness must be aligned with how they are perceived by their subordinates;
- what the impact of conflict is on innovation ability in an agricultural business; and
- the comparison of a specific agricultural company's innovation level, with other agricultural companies' innovation levels.

#### **5.5 Recommendations**

Considering the literature study done in Chapter 2 and the descriptive statistics analysis in Chapter 4, it is evident that a transformational leadership style will be the most suitable style to support an innovative kind of leadership in an agricultural business. For leaders' ability to leverage innovation, it depends largely on leaders' effectiveness. Improving effectiveness starts ultimately by knowing oneself.

To ensure that the agricultural business which had been analysed achieve an effective level of innovation leadership, the following recommendations are being made:

Leaders could take a self-awareness journey, by reflecting on who and what they are and what their skills are through a 360 degree feedback assessment. Through this, assessment gaps in their skills could be determined and development programs could be constructed. The capacity of self-reflection is a key strength that can be developed in action to achieve better perspective decision-making. The growth in the shortfall skills identified by the feedback assessment must be evaluated through follow up feedback assessments over a period.

Development of self-regulations can align leaders' core values and credibility. This will enable systematic stability to provide more honest transactions and building trust that is founded in emotional intelligence. Through emotional intelligence leaders could develop their personal and social competence. Appendix 6 identifies the characteristics that are addressed through emotional intelligence.

Leaders should encourage subordinates by empowering them and enhance their creative performance through transformational leadership behaviour to boost their creativity and to bring about organisation innovation.

Leaders must allow risk taking in every day tasks, to ensure that information problems are insignificant and that employees are encouraged to take risk, based on available information provided by their leaders.

## **5.6 Summary**

From the literature and empirical study it is evident that there is a significant difference between the agricultural business top management self-perception regarding their leadership and ability to be innovative versus how they are perceived by their subordinates.

Leaders have a great influence in how their subordinates perceive them. The leaders also determine how their subordinates perceive their leadership and ability to be

innovative. For an agricultural business' leaders to be effective they must make sure that their self-perception regarding their leadership and ability to be innovative are seen the same as that of their subordinates. The impact of this could create a culture of innovation leaders in an agricultural business.

## REFERENCES

- ACKERMAN, C.P., SCHEEPERS, J.M., LESSING, B.C. & DANHAUZER, Z. 2000. Die faktorstruktuur van Bass se veelfaktorleierskapvraelys in die Suid-Afrikaanse konteks. *Journal of industrial psychology*, 26(2):58-65.
- AGBOR, E. 2008. Creativity and innovation: the leadership dynamics. *Journal of strategic leadership*, 1:39-45.
- AMERICAN PSYCHOLOGICAL ASSOCIATION. 2006. APA dictionary of psychology. Washington, D.C.: American Psychological Association. 1024 p.
- ATALLA, A.D. 2010. Self-assessment vs. employee perception of non profit leadership. Capella University. (Thesis - PhD.) 186 p.
- AVOLIO, B.J. & BASS, B.M. 2004. Multifactor leadership questionnaire: manual and sampler set. Menlo Park, Calif.: Mind Garden. 11 p.
- BARSH, J., CAPOZZI, M.M. & DAVIDSON, J. 2008. Leadership and innovation. *Mckinsey quarterly*, 1:32-47.
- BAUCUS, M.S., NORTON, W.I., BAUCUS, D.A. & HUMAN, S.E. 2008. Fostering creativity and innovation without encouraging unethical behaviour. *Journal of business ethics*, 81:97-115.
- BERG, Z.C. & THERON, A.L. 1999. Psychology in the work context. Johannesburg: International Thomson Publishing (Southern Africa). 584 p.
- BHENGU, J. 2009. Innovation through people. *Management today*, 25(8):41-42, Sept.
- CASTELLESE, S.R. 2006. Medical worker perception versus leader's self-perception. Capella University. (Thesis - PhD.) 153 p.

COHEN, J. 1988. Statistical power analysis for the behavioural sciences. 2nd ed. Hillsdale, N.Y.: Erlbaum. 567 p.

COOPER, C.L. 2005. Leadership and management in the 21st century: business challenges of the future. Oxford: Oxford University Press. 375 p.

CRAWFORD, C.B. 2001. Leadership and innovation: Champion and techies as agent of influence. <http://www.leadershipeducators.org> Date of access: 16 November 2011.

DAFT, R.L. 2002. The leadership experience. 2nd ed. Fort Worth, Tx.: Harcourt College Publishers. 638 p.

DIETS, G. & HARTOG, D.N. 2006. Measuring trust inside organizations. *Personal review*, 35(5): 587-588.

DELUGA, R.J. 1990. The effect of transformational, transactional, and laissez-faire leadership characteristics on subordinate influence behaviour. *Basic & applied social psychology*, 11(2):191-203, Jun.

FELFE, J. & SCHYNS, B. 2010. Followers' personality and the perception of transformational leadership. *British journal of management*, 21(2):393-410, Jun.

FLIPPO, E.B. 1984. Personnel management. 6th ed. New York: McGraw-Hill. 607 p.

FORGUS, R.H. 1996. Perception: the basic process in cognitive development. New York: McGraw-Hill. 402 p.

GIBSON, R. 2007. Making innovation happen: turning it into an enterprise-wide capability. *Management today*, 23(3):6-8, Apr.

GUMUSLUOGLU, L. & ILSEV, A. 2007. Transformation leadership, creativity, and organisational innovation. *Journal of business research*, 62:461-473.

HAYWARD, B.A. 2005. Relationship between employee performance, leadership and emotional intelligence in South Africa. Grahamstown: Rhodes University. (Dissertation - MCom.) 83 p.

HAYWARD, B.A., AMOS, T.L. & BAXTER, J. 2008. Employee performance, leadership style and emotional intelligence: an exploratory study in a South African parastatal. *Acta commercii*, 8:15-26.

HERBST, T.H.H. & CONRADIE, P.D.P. 2011. Leadership effectiveness in higher education: managerial self-perception versus perception by others. *SA journal of industrial psychology*, 37(1):1-14, March.

HETLAND, H., SANDAL, G.M. & JOHNSON, T.B. 2007. Followers' personality and leadership. <http://www.entrepreneur.com/tradejournals/article/179660456.html>  
Date of access: 14 July 2011.

HIEBERT, M. & KLATT, B. 2001. The encyclopaedia of leadership: a practical guide to popular leadership theories and techniques. New York: McGraw-Hill. 479 p.

ISAKSEN, S.G. & KENNETH, J.L. 1999. Situational outlook questionnaire: a measure of the climate for creativity and change. *Psychology report*, 85:665-674, Oct.

ISAKSEN, S.G. & TIDD, J. 2006. Meeting the innovation challenge: leadership for transformation and growth. Chichester: Wiley. 392 p.

JICK, T.D. 1979. Mixing qualitative and quantitative methods: Triangulation in action. *Administrative science quarterly*, 24(4):519-711p, Dec.

JOGULU, U. 2010. Culturally-linked leadership styles. *Leadership & organization development journal*, 31(8):705-719.

KHAN, M.M., RAMZAM, M. & AHMED, I. 2011. Transformational, transactional, and laissez-faire styles of teaching faculty as predictors of satisfaction, and extra

effort among the students. *Interdisciplinary journal of research in business*, 1(4):130-135, Apr.

KHAN, R., REHMAN, A.U. & FATIMA, A. 2009. Transformational leadership and organizational innovation: Moderated by organization size. *African journal of business management*, 3(11):678-684, Nov.

KREITNER, R. & KINICKI, A. 2008. Organisational behavior. 8 ed. New York, McGraw-Hill. 564 p.

LEVINE, D.M., STEPHAN, D.F., KREHBIEL, T.C. & BERENSON, M.L. 2008. Statistics for managers using Microsoft Excel. 5 ed. Upper Saddle River, N.J.: Pearson/Prentice Hall. 858 p.

LOJESKI, K.S. 2010. Leading the virtual workforce: how great leaders transform organisations in the 21st century. Hoboken, N.J.: Wiley. 155 p.

LOTZ, H.M. 2009. An assessment of the determinants of corporate entrepreneurship in agricultural businesses: an integrated framework. North-West University (Thesis - PhD.) 349 p.

LUECKE, R. 2003. Managing creativity and innovation. Boston, Mass.: Harvard Business School Press. (Harvard business essentials.) 174 p.

MEYER, N.A. & BONINELLI, I. 2007. Conversation in leadership: South African perspectives. 2nd ed. Randburg: Knowledge Resources. 419 p.

MOUTON, J. & MARAIS, H.C. 1990. *Basic concepts in the methodology of the social sciences*. Pretoria: Sciences Research Council.

MOUTON, J. 2011. How to succeed in your master's and doctoral studies: A South African guide and Resource Book. Pretoria: Van Schaik Publishers. 280p.

MYERS, S. & MARQUIS, D.G. 1969. Successful industrial innovation: A study of factors underlying innovation in a selected firm. Washington: US Government Print.

NORTH, D. 2009. Innovation leadership. <http://www.ccl.org/leadership/index.aspx>  
Date of access: 7 April 2011.

NYENGANE, M.H. 2007. The relationship between leadership style and employee commitment: An exploratory study in an electricity utility of Sout Africa. Cape Town: Rhodes University. (Dissertation - MBA.) 148p.

PRINZ, W. & BRIDGEMAN, B. 1995. Handbook of perceptions and actions, v. 1. London: Academic Press. 456 p.

PUCCIO, G.J., MURDOCK, M.C. & MANCE, M. 2007. Creative leadership: skills that drive change. Thousand Oaks, Calif.: Sage Publication. 308 p.

REID, K. 2004. Self perception of leadership behaviour in the work place. Pretoria: University of South Africa. (Dissertation - MA.) 83 p.

RICH, L. 2011. Paths to innovative leadership. *BizEd*, 10(1):32-38, Jan/Feb.

RICHARD, L.D. 1999. Leadership theory and practise. Orlando: Dryden Press. 496 p.

RUBIN, A. & BABBIE, E.R. 2010. Essential research methods for social work. <http://www.books.google.co.za/books.html> Date of access: 13 November 2011.

SCHEEPERS, M.J., HOUGH, J. & BLOOM, J.Z. 2008. Nurturing the corporate entrepreneurship capability. *South African business review*, 12(3):50-75, Dec.

SCHIFFMAN, H.R. 2001. Sanitation and perception: an integrated approach. 5th ed. New York: Willey. 591 p.

SCHUMANN, D.E.W. & BOUWER, B. 1967. Inleiding tot statistiek. Stellenbosch: Kosmos Uitgewers Edms Bpk. 294p.

SCOTT, S.G. & BRUCE, R.A. 1994. Determinates of innovative behaviour: a path model of individual innovation in the workplace. *Academy of Management journal*, 137:580-607.

SESHARDI, D.V.R. & TRIPATHY, A. 2006. Innovation through intrapreneurship. *Vikalpa: the journal for decision makers*, 31(1):17-29.

SHAW, E. 1999. A guide to the qualitative research process: evidence from a small firm study. *Qualitative market research: an international journal*, 2(2):59-70.

SILVERSTEIN, D., SAMUEL, P. & DECARLO, N. 2009. The innovator's toolkit: 50+ techniques for predictable and sustainable organic growth. Hoboken, N.J.: Willey. 352 p.

SKARZYNSKI, P. & GIBSON, R. 2008. Innovation to the core. Boston, Mass.: Harvard Business Press. 295 p.

SKOGSTAD, A., EINARSEN, S., TORSHEIM, T., AASLAND, M.S. & HETLAND, H. 2007. The destructiveness of Laissez-Faire behaviour. *Journal of occupational health psychology*, 12(1):80-92.

SMITH, D.W. 1989. The circle of acquaintance. Boston, Mass.: Kluwer Academic Publishers. 252 p.

TIDD, J. & BESSANT, J. 2009. Managing innovation. 4th ed. Chichester: Wiley. 622 p.

TROTT, P. 2008. Innovation management and new product development. 4 ed. Harlow: Financial Times/Prentice Hall. 581 p.

VAN DER COLFF, L. 2004. A new paradigm for business education: the role of business educators and business school. *Management decision*, 42:499-507.

VAN EEDEN, R., CILLIERS, F. & VAN DEVENTER, V. 2008. Leaders styles and associated personality traits: support for the conceptualisation of transactional

and transformational leadership. *South African journal of psychology*, 38(2):253-267, Jun.

VLOK, A. 2007. Leadership for quantifiable innovation gain: honouring human principles. *Management today*, 23(7):22-24, Aug.

WARTENBERG, L. & McCUTCHEON, L. 1998. Psychology and mental health: sports and fitness. *Journal of sport behaviour*, 21:2, Jun.

WANJAU, D. 2008. Employees' perception of leadership behaviour in retail banking. Potchefstroom: North-West University. (Dissertation - MBA.) 60 p.

WELMAN, C., KRUGER, F. & MITCHELL, B. 2010. Research methodology. 3rd ed. Cape Town: Oxford University Press. 342 p.

WHATMORE, J. 1999. Releasing creativity: how leaders develop creative potential in their teams. London: Kogan Page. 244 p.

YUKL, G. 2006. Leadership in organizations. 6th ed. Upper Saddle River, N.J.: Prentice Hall. 542 p.

ZOPIATIS, A. & CONSTANTINI, P. 2010. Leadership styles and burn out: is there an association. *International journal of contemporary hospitality management*, 22(3):300-322.

## APPENDIX 1

### Multilevel Leadership Questionnaire (Leader self-assessment) MLQ form 5X

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits yourself. Use the following rating scale:

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

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

### Situation Outlook Questionnaire (SOQ)

<b>Response Key</b>	
0 = Not at all applicable	2 = Fairly Applicable
1 = Applicable to some extent	3 = Applicable to a high degree

1.)	Most people here strive to do a good job	0	1	2	3
2.)	People here feel energized about their work	0	1	2	3
3.)	People here take time to test ne ideas	0	1	2	3
4.)	There is a great deal of personal tension here	0	1	2	3
5.)	Many different points of view are shared here during discussion	0	1	2	3
6.)	People here make their own choices about their daily word	0	1	2	3
7.)	People here exhibit a sense of humour	0	1	2	3
8.)	There are quite a few people here who cannot tolerate each other	0	1	2	3
9.)	People her receive support and encouragement when presenting new ideas	0	1	2	3
10.)	Differences of opinion are frequently expressed here	0	1	2	3
11.)	Most people here enjoy contributing to the success of the organization	0	1	2	3
12.)	People here can change time-lines to think about new ideas	0	1	2	3
13.)	People here have fun when they work	0	1	2	3
14.)	People usually feel welcome when presenting new ideas here	0	1	2	3
15.)	People here can move forward even in the face of uncertainty	0	1	2	3
16.)	People here feel deeply committed to their jobs	0	1	2	3
17.)	Most people here usually control their own work	0	1	2	3
18.)	The atmosphere here helps inspire people in their work	0	1	2	3

19.)	Time is available to explore new ideas here	0	1	2	3
20.)	People here often engage in laughter	0	1	2	3
21.)	People here often exchange opposing viewpoints	0	1	2	3
22.)	People here make decisions on their own to a fairly large extent	0	1	2	3
23.)	People desire to improve the quality of work here	0	1	2	3
24.)	It is common here to have people plot against each other	0	1	2	3
25.)	People here feel they can take bold action even if the outcome is unclear	0	1	2	3
26.)	People here are usually accepting of new ideas	0	1	2	3
27.)	People are committed to solving problems here	0	1	2	3
28.)	People here have enough time to think about their ideas	0	1	2	3
29.)	A playful atmosphere prevails here	0	1	2	3
30.)	There is a good deal of tension here due to prestige differences	0	1	2	3
31.)	A wide variety of viewpoints are expressed here	0	1	2	3
32.)	People here often venture into unknown fields or areas	0	1	2	3
33.)	Most people here prioritize their own work to a rather large extent	0	1	2	3
34.)	People here do not talk behind each others' backs	0	1	2	3
35.)	The pace of work here allows for the testing of new ideas	0	1	2	3
36.)	Good-natured joking and teasing occurs frequently here	0	1	2	3
37.)	People generally share their ideas here because they are listened to and encouraged	0	1	2	3
38.)	People here often discuss different points of view	0	1	2	3
39.)	People here take as sincere interest in their work	0	1	2	3
40.)	People here tend to define their own work projects	0	1	2	3
41.)	People here are likely to put forward new or untested ideas	0	1	2	3

42.)	People here feel free to set their priorities	0	1	2	3
43.)	The atmosphere is easygoing and light hearted	0	1	2	3
44.)	There are power and territory struggles here	0	1	2	3
45.)	People here believe in and trust each other	0	1	2	3
46.)	The atmosphere here is filled with gossip and slander	0	1	2	3
47.)	Initiative often receives a favourable response here so people feel encouraged to generate new ideas	0	1	2	3
48.)	There is no fear of being "stabbed in the back" here	0	1	2	3
49.)	It is possible to discuss different ideas and opinions here	0	1	2	3
50.)	Most people have time to think through new ideas here	0	1	2	3
51.)	People here act in an open and sincere manner	0	1	2	3
52.)	People make changes here even when results are uncertain	0	1	2	3
53.)	People here keep their commitments to each other	0	1	2	3
54.)	We are successful in implementing new ideas to obtain results in my word unit	0	1	2	3
55.)	Compared with our competitors, my organization has been successful at innovation	0	1	2	3
56.)	People here are satisfied with the outcomes of our innovation efforts	0	1	2	3
57.)	Our organization successfully introduces innovative products and services	0	1	2	3
58.)	Our new products and services are often perceived as unique by customers	0	1	2	3

APPENDIX 4

Table 5.1: Average mean for leaders self-perception on leadership

	DEPARTMENT						Average Mean	Average Mean
	1	2	3	4	5	6		
	Leader n = 1 Mean Scale 0 - 4	Leader n = 1 Mean Scale 0 - 4	Leader n = 1 Mean Scale 0 - 4	Leader n = 1 Mean Scale 0 - 4	Leader n = 1 Mean Scale 0 - 4	Leader n = 1 Mean Scale 0 - 4	Leader n = 6 Mean Scale 0 - 4	Leader n = 6 Mean Scale 0 - 5
<b>Transformational Leadership</b>								<b>3.38</b>
Idealised influence attributes	3.75	3.25	3.25	3.00	3.25	4.00	3.42	
Idealised influence behaviour	3.50	2.75	3.25	3.00	4.00	4.00	3.42	
Inspirational motivation	3.25	3.50	3.00	3.25	3.50	4.00	3.42	
Inspirational stimulation	3.75	3.25	3.00	3.00	3.25	4.00	3.38	
Idividualised consideration	3.25	3.25	3.50	2.75	3.25	3.75	3.29	
<b>Transactional Leadership</b>								<b>2.31</b>
Contingent reward	3.25	2.75	3.25	2.75	3.25	4.00	3.21	
Manage-by-exception (active)	2.75	1.75	1.25	2.50	2.50	3.50	2.38	
Manage-by-exception (passive)	1.75	1.25	1.75	2.00	0.25	1.00	1.33	
Laissez - faire	4.00	1.00	0.00	4.00	2.00	0.00	1.83	<b>1.83</b>
<b>Outcome Leadership</b>								<b>3.36</b>
Effectiveness	3.75	3.25	3.75	3.25	3.00	3.75	3.46	
Extra effort	3.67	3.00	3.00	3.25	3.00	3.33	3.21	
Satisfaction	3.50	3.00	3.00	4.00	3.00	4.00	3.42	

Table 5.2: Average mean for subordinates' perception on leadership

	DEPARTMENT						Average Mean	Average Mean
	1	2	3	4	5	6		
	n = 14 Mean Scale 0 - 4	n = 39 Mean Scale 0 - 4	n = 6 Mean Scale 0 - 4	n = 4 Mean Scale 0 - 4	n = 8 Mean Scale 0 - 4	n = 23 Mean Scale 0 - 4	Leader n = 94 Mean Scale 0 - 4	Leader n = 94 Mean Scale 0 - 5
<b>Transformational Leadership</b>								<b>2.82</b>
Idealised influence attributes	3.30	3.02	2.67	2.94	3.00	2.43	2.89	
Idealised influence behaviour	2.96	3.17	2.71	2.50	2.97	2.91	2.87	
Inspirational motivation	3.14	3.31	2.54	3.25	3.56	2.91	3.12	
Inspirational stimulation	2.66	2.80	2.83	2.88	2.47	2.42	2.68	
Idividualised consideration	2.70	2.46	2.42	3.00	2.31	2.26	2.52	
<b>Transactional Leadership</b>								<b>2.04</b>
Contingent reward	2.63	2.99	2.54	2.81	2.34	2.55	2.65	
Manage-by-exception (active)	2.27	2.54	1.58	1.81	1.91	2.18	2.05	
Manage-by-exception (passive)	1.13	1.67	1.54	0.75	1.72	1.80	1.44	
Laissez - faire	0.93	1.37	0.50	0.75	1.53	1.51	1.10	<b>1.10</b>
<b>Outcome Leadership</b>								<b>2.88</b>
Effectiveness	3.07	3.13	3.08	3.00	2.78	2.46	2.92	
Extra effort	2.93	2.81	2.61	3.25	2.96	2.45	2.83	
Satisfaction	3.25	3.09	2.83	3.00	2.81	2.37	2.89	

**APPENDIX 5**

**Table 5.3: Average mean for leaders self-perception on innovation ability**

	DEPARTMENT						Average Mean
	1	2	3	4	5	6	
	Leader n = 1	Leader n = 1	Leader n = 1	Leader n = 1	Leader n = 1	Leader n = 1	Leader n = 6
	Mean Scale 0 - 3	Mean Scale 0 - 3	Mean Scale 0 - 3	Mean Scale 0 - 3	Mean Scale 0 - 3	Mean Scale 0 - 3	Mean Scale 0 - 4
Challenge / Involvement	1.86	2.00	2.00	2.00	3.00	2.86	2.29
Freedom	2.00	1.50	2.33	1.83	2.17	3.00	2.14
Trust / Openness	1.40	1.80	1.80	1.40	1.80	2.40	1.77
Idea Time	1.33	1.00	1.67	2.00	2.33	2.17	1.75
Playfulness / Humour	2.33	1.50	2.17	2.17	2.33	1.83	2.06
Conflict	2.17	0.83	0.83	0.50	1.00	1.50	1.14
Idea Support	2.00	2.20	2.20	1.80	2.20	2.60	2.17
Debate	2.00	2.50	2.00	2.00	2.17	2.67	2.22
Risk Taking	1.80	1.20	2.00	2.00	2.40	2.00	1.90

**Table 5.4: Average mean for subordinates' perception on innovation ability**

	DEPARTMENT						Average Mean
	1	2	3	4	5	6	
	n = 14	n = 39	n = 6	n = 4	n = 8	n = 23	Leader n = 94
	Mean Scale 0 - 4	Mean Scale 0 - 4	Mean Scale 0 - 4	Mean Scale 0 - 4	Mean Scale 0 - 4	Mean Scale 0 - 4	Mean Scale 0 - 4
Challenge / Involvement	2.22	2.03	2.07	1.79	1.93	1.78	1.97
Freedom	1.46	1.71	1.84	1.59	2.02	1.65	1.71
Trust / Openness	1.44	1.44	1.60	1.40	1.20	1.52	1.43
Idea Time	1.38	1.64	1.61	1.09	1.44	1.19	1.39
Playfulness / Humour	1.81	1.85	1.70	1.42	2.08	1.28	1.69
Conflict	1.11	1.36	1.08	1.25	1.71	1.46	1.33
Idea Support	1.57	1.92	1.70	1.65	1.83	1.41	1.68
Debate	1.74	1.97	1.59	1.79	1.98	1.57	1.77
Risk Taking	1.19	1.48	1.30	1.30	1.65	1.24	1.36

**Table 5.5: Developing personal and social competence through emotional intelligence**

**Personal Competence: These characteristics determine how manage ourselves**

**Self-awareness:**

- Emotional self-awareness: reading one's own emotions and recognizing their impact; using "gut sense" to guide decisions.
- Accurate self-assessment: knowing one's strengths and limits.
- Self-confidence: a sound sense of one's self-worth and capabilities.

**Self-management:**

- Emotional self conflict: keeping disruptive emotions and impulses under control.
- Transparency: display honesty, integrity and trustworthiness.
- Achievement: the drive to improve performance to meet inner standards.
- Optimism: seeing the upside in events.

**Self-management:**

- Emotional self conflict: keeping disruptive emotions and impulses under control.
- Transparency: display honesty, integrity and trustworthiness.
- Achievement: the drive to improve performance to meet inner standards.
- Optimism: seeing the upside in events.

## **Social competence : These capabilities determine how we manage relationships**

### **Social awareness:**

- Empathy: sensing others' emotions, understanding their perspective, and taking active interest in their concerns.
- Organisational awareness: reading the currents, decision networks and politics at organisational level.
- Service: recognising and meeting follower, client or customers need.

### **Relationship management:**

- Inspirational leadership: guiding and motivating with a compelling vision.
- Influence: wielding a range of tactics for persuasion.
- Developing others: bolstering others' abilities through feedback and guidance.
- Change catalyst: initiating, managing, and leading in new directions.
- Conflict management: resolving disagreements.
- Building bonds: cultivating and maintaining a web of relationships.

Adapted from Kreitner and Kinicki (2008:145).