



Impact of transformational leadership on execution of information technology projects in the Western Cape

by

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Dissertation submitted in partial fulfilment of the requirements for the degree Master of Technology: Business Administration in Project Management

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Date submitted: August 2020

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ABSTRACT

Introduction

This research examined the relationship between transformational leadership and technically skilled resources in the execution of information technology (IT) projects in the Western Cape.

Problem statement

If followership is a critical determinant of leadership, it is obvious that the correct leadership style should be applied to reach the desired outcome. Literature has revealed that businesses that are first to market with new technology or have a competitive advantage over their competitors achieve greater success, growth and revenue and are more sustainable.

The Project Management Institute (PMI 2014:2) reports that only 56% of strategic initiatives meet their original goal or business intent. There are many styles of leadership; however, it is unclear whether transformational leadership has a greater impact on technically skilled resources in the execution of IT projects, which may increase the likelihood of a successful project outcome.

Therefore, this study aimed to examine the relationship between transformational leadership and technically skilled resources to determine if the result of such leadership is increased followership and/or project success.

Aims/Objective of study

Primary objectives of the research

The primary objective of the research to be undertaken is to explore the effects of transformational leadership when applied to technically skilled resources in the execution of IT projects in the Western Cape.

Secondary research objectives

This research seeks to contribute to the followership body of knowledge by gaining insight into leadership characteristics that evoke or motivate followership within the

skilled resource population through targeted questionnaires to develop understanding of the power and influence of transformational leadership. This is achieved by addressing the following sub-objectives to examine the primary research objective further:

1. Ascertain if there is a relationship between the level of skill and IT project outcomes.
2. Examine the relationship between transformational leadership characteristics and successful IT project outcomes in the Western Cape.
3. Determine if there are characteristics of transformational leadership that have a negative or positive impact on IT project execution.
4. Identify leadership characteristics that influence employee performance in the IT environment positively.

Methodology

The research was conducted in two distinct stages, which ran concurrently. It consisted of an empirical study with a dual focus on two interrelated target populations that each received its own questionnaire. Each questionnaire was designed from a different perspective to elicit answers to the research questions. One was from the perspective of a leader or manager and the other from a subordinate, subject matter expert or technically skilled resource. Surveys were completed anonymously and subjected to strict data governance to ensure the integrity, accuracy and completeness of all data collected.

Ethical considerations

Permission was sought and obtained from the individuals voluntarily participating in this study. Respondents were informed that their answers would be used for research purposes only and that there was total anonymity in completing the research survey.

Main results and findings

The data results concluded that leaders and managers are applying transformational leadership in the execution of IT projects in the Western Cape. The results also confirm leaders' and managers' preference for transformational leadership and its characteristics, such as intellectual stimulation, inspirational motivation, idealised

influence and individual consideration, over traditional styles such as transactional and laissez faire leadership.

Analysed responses to individualised questions highlight uniqueness as an important characteristic in transformational leadership, manager and follower dynamics. It implies that skilled resources hold this characteristic in the highest regard and that it encourages a unique supportive relationship and sharing of ideas.

While transformational leadership is preferred by both surveyed cohorts, transactional and laissez faire leadership styles were also evident in certain circumstances. Skilled resources confirmed that incentives or rewards are sometimes offered for work and goal completion. In task execution skilled resources showed a preference for managers and leaders to be more hands-off and allow the work to continue.

Research limitations

The study was constrained to the information communication technology sector in the Western Cape. Only respondents from the Western Cape were included, whether managers, leaders, IT subject matter experts or skilled resources; all others were excluded. Only fully completed survey responses were recorded.

Practical Implications

The overall results of the study confirm the existence of transformational leadership in the execution of IT projects from not only from managers' and leaders' perspective, but also from that of skilled resources. Their responses provide much insight into the desired leadership formula that creates an environment in which skilled resources can be motivated.

Originality/Value

Many studies have explored transformational leadership; however, none of these has specifically examined the relationship between skilled resources in the execution of IT projects in the Western Cape. This study will provide valuable insights into leadership that resonates with skilled resources.

ACKNOWLEDGEMENTS

The completion of this work, a mammoth task and undertaking, has left me humbled and eternally grateful. To the Cape Peninsula University of Technology and Mrs Buys, thank you for affording me the opportunity for growth and self-enlightenment.

Mr Fore, I would not have made it this far without your help, guidance and sharing of your wealth of experience. Thank you for believing in me; the work that you do is a service above self and I salute you.

To the Almighty, without whom none of us would be here: Thanks be to God; God is great.

DEDICATION

It has been said that it takes ten thousand hours to achieve mastery. Many late nights and early mornings over several years have been invested in preparation, to equip me with the knowledge and expertise to overcome adversity and achieve more than I ever thought I could.

I would like to dedicate this achievement to my loving wife, Carryn. You have supported my dreams, put up with my absence and encouraged me to be a better human being.

To my young children, Zachari Bruce and Hannah Berrie, you are the light of my life and I can't imagine a world without you. Keep your feet on the ground, reach for the stars and always follow your dreams.

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GLOSSARY

Notation/Abbreviation

IT

Information Technology

Technically Skilled Resources

Transformational Leadership

Definition/Explanation

Information Technology

The use of developed and maintained computer systems, hardware, software and networks to create, edit, store, process and distribute data.

These refer to practical skills technical resources possess to complete work on a specific tool, software or in a discipline in an information technology environment, i.e. networking, programming, software development or customisation.

A leadership style where leaders work closely with members to identify change, create a shared vision and guide members through inspiration, identity and ownership.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

In this chapter the researcher explores the background to the study, describes the problem that exists and its significance. Understanding or assumptions of the relationship will be examined to determine why transformational leadership is important to the information technology (IT) industry and why time should be invested to provide answers. The scope of the study, its limitations, parameters and planned objectives will be clearly outlined.

1.2 Research problem statement

If followership, the acceptance or rejection of leadership is dependent on the characteristics of the group of followers and the reciprocal or complementary leadership style adopted. It would appear that leaders need followers just as much as followers need leaders (Jawah 2013:708). Therefore, to achieve the highest level of followership, the most appropriate style of leadership is to be employed, which will elicit the desired reciprocal action from the target audience or followership.

This in turn this may have an impact on levels of motivation and could increase the probability of successful project outcomes. Transformational leadership has been defined as placing strong focus on customers, shared vision, values or promoting long-term perspectives (Evans *et al.*, 2014:646). All these factors work to stimulate the organisation intellectually, but the question is whether they could result in increased ownership in temporary project groups and teams.

This study seeks to provide insight into whether transformational leadership inspires followership in technically skilled resources in the execution of IT projects.

If followership is a critical determinant of the leadership style to be adopted, it should be possible to mitigate technical risk by applying the most appropriate leadership style to elicit the desired response.

This study seeks to identify the attributes of the transformational leadership style and to determine whether it results in followership. It will also provide insight into whether this style contributes to more predictable outcomes that are conducive to a better chance or higher probability of successful project outcomes.

1.3 The leadership and followership continuum

If followership is a critical determinant of leadership, it makes sense to apply the correct leadership style to elicit the desired outcome. The Oxford Dictionary defines leadership as the action of leading a group of people or an organisation or the ability to do this. In today's world and certainly in the economic sector, much of a business's success relies squarely on a leader's innate ability to unite individuals and groups behind a common objective, goal or vision.

A strategic component of any business organisation is to achieve a sustainable competitive advantage that will give the organisation an advantage over competitors selling similar products or services, competing for the same finite market share or customer segments (Hough *et al.*, 2011:6).

In the search of this competitive advantage, according to the 2015 Standish Group Chaos Report, 19% of IT-related projects resulted in impairment or cancellation, while a further 45% of them experienced challenged delivery.

1.4 Background of the study

Research dictates that companies enter projects for many reasons; these projects can, however, typically be categorised into three main groups or types:

Compliance projects – It must be ensured that projects are compliant with existing or new legislation and regulation within their chosen industry or market segment.

Operational projects – To ensure the smooth day-to-day running of business operations, these projects may make minor improvements to tactical initiatives.

Strategic Projects – These types of projects are identified and characterised by the fact that they usually have goals to attain a competitive advantage and are focused on organisational direction (Larsen *et al.*, 2013:6).

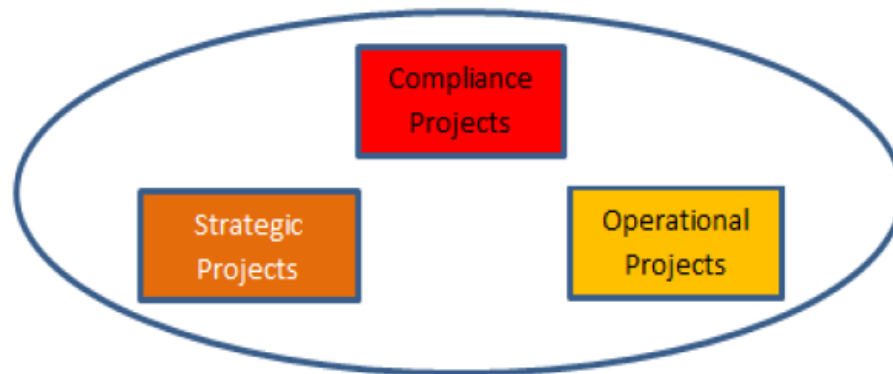


Figure 1.1: Adaptation - portfolio of projects by type (Larson *et al.*, 2013:36)

Finite resources in the way of money, time and human capital are committed to the potential successful outcomes of strategic projects. The Standish Group CHAOS reports are studies that are primarily focused on IT-related projects and are conducted every two years. The study results demonstrate that although there has been much improvement since the inception of the reports in 1994, there is still a long way to go to provide the required project leadership, mitigate technical risk and deliver successful projects in a repeatable fashion.

The Project Management Institute (PMI 2014:2) reports that only 56% of strategic initiatives meet their original goal or business intent. The report also highlights that the most important skill required in managing large, complex projects is leadership or the ability to lead projects through tumultuous, uncertain terrain. While project managers are a dime a dozen, good project leaders who possess the ability to lead large, complex projects with remarkably high degrees of change and high levels of uncertainty are scarce and quite valuable in the marketplace.

Kappelman *et al.* (2007:31) conducted a study into failed IT projects. They collected data from an extensive panel of 19 experts and surveyed 55 IT project managers to determine if the projects gave early signs or warning of inherent failure.

The Standish Group 2015 report, posits that around 19% of IT projects do not reach completion or are cancelled, while less than 36% finish on time or on budget, achieving the expected benefits. Kappelman *et al.* state that although one is dealing with modern technology, one of the causes that is mainly responsible for failure is related to risk management, which they describe as immature and lacking the required mastery.

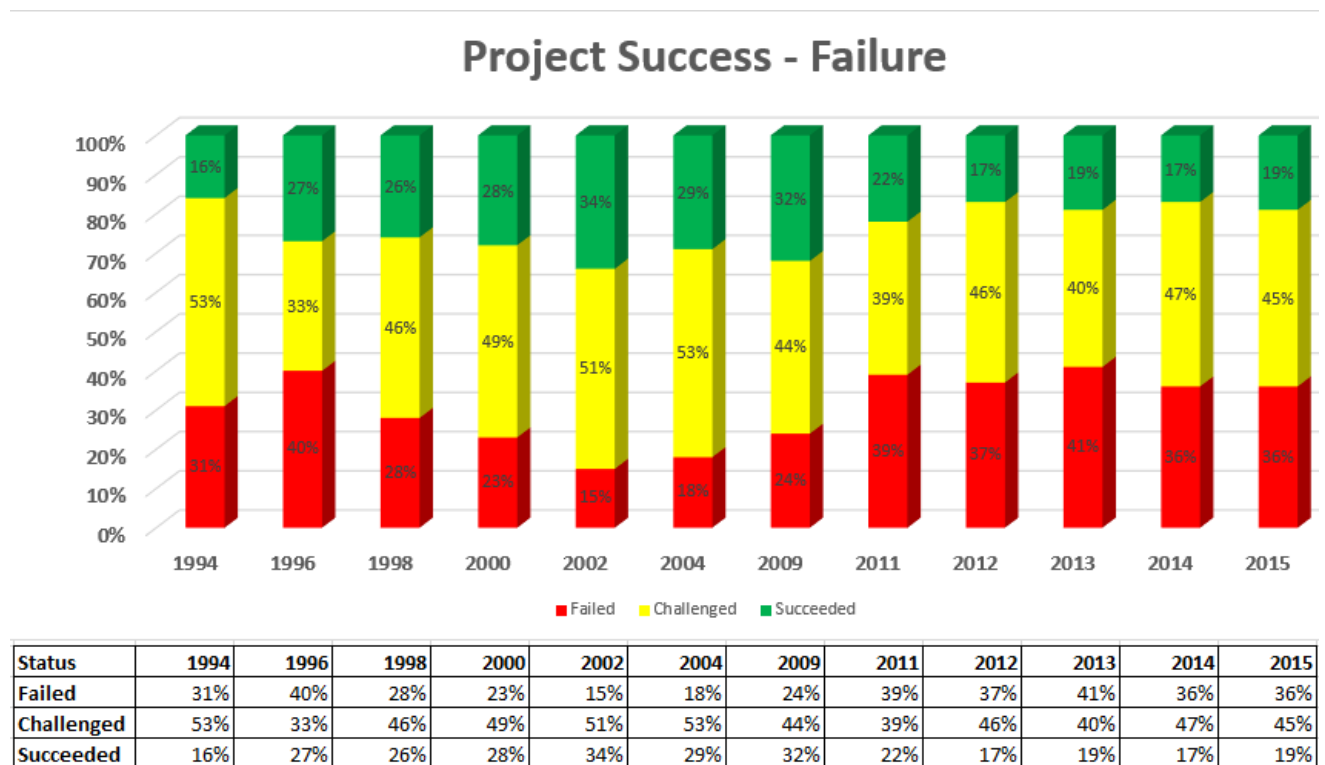


Figure 1.2: Adaptation of Standish Group CHAOS reports 2015

1.5 Primary objectives of the research

The primary objective of the research to be undertaken is to explore the effects of transformational leadership when applied to technically skilled resources in the execution of IT projects in the Western Cape.

1.6 Secondary research objective

This research seeks to contribute to the followership body of knowledge by gaining insight into leadership characteristics that evoke or motivate followership within the skilled resource population through targeted questionnaires and further to develop researchers' understanding of the power and influence of transformational leadership. This is achieved by addressing the following sub-objectives to investigate the primary research objective further:

1. Ascertain if there is a relationship between the level of skill and IT project outcomes.
2. Examine the relationship between transformational leadership characteristics and successful IT project outcomes in the Western Cape.
3. Determine if there are characteristics of transformational leadership that have a negative or positive impact on IT project execution.
4. Identify leadership characteristics that influence employee performance in the IT environment positively.

1.7 Main research question

The above statements led to the following research question:

What is the relationship between transformational leadership and technically skilled resources in the execution of IT projects in the Western Cape?

1.8 Investigative sub-questions, methods and study objectives

Table 1.1: Investigative sub-questions, methods and study objectives

| Sub-questions | Methods | Study Objectives |
|---|--|---|
| Does the application of transformational leadership improve the | Literature review, multi-factor leadership questionnaire, simple | This will inform the researcher on the relationship between |

| | | |
|---|---|--|
| likelihood of successful IT project outcomes? | correlation-based descriptive statistics | transformational leadership and successful IT project outcomes in the Western Cape. |
| Determine if the level of skill of followers and workers has an impact on the effectiveness of transformational leadership style and the ultimate project outcomes. | Literature review, multi-factor leadership questionnaire, simple correlation-based descriptive statistics | This will examine the relationship between the level of skill and the impact on IT project outcomes. |
| What are the characteristics of transformational leadership that enhance followers' performance in IT projects? | Literature review, multi-factor leadership questionnaire, simple correlation-based descriptive statistics | The researcher will explore and identify leadership characteristics that influence employee performance positively. |
| Identify the challenges or disadvantages of transformational leadership in the execution of IT projects. | Literature review, multi-factor leadership questionnaire, simple correlation-based descriptive statistics | This will determine if there are characteristics of transformational leadership that have a negative or positive impact on IT project execution. |

1.9 Research hypothesis and theoretical research

The research to be undertaken will focus on the relationship between two variables, namely transformational leadership characteristics and the followership of skilled resources in the execution of IT projects. This relationship will be categorised, examined statistically and measured to determine the impact of one on the other.

The researcher's tentative assumption is that the characteristics of the transformational leadership style are well accepted and result in a high degree of followership in skilled resources. An attempt will be made to prove through research that where followership is elicited from skilled resources through transformational leadership it results in employees who are inspired and motivated to complete project activities.

1.10 Insight into the research process

This research process outlines and denotes the approach to the research from the inception of the proposal to the submission of the dissertation for review and summative assessment.

Initially, the researcher undertook a great deal of reading and investigation to select a suitable topic and formulate a compelling research problem. A proposal was created and submitted for review and approval. Once the proposal had been approved, the researcher then immersed himself in an extensive literature review, which included published articles, books, journals and case studies.

Much thought was invested in determining the most appropriate way to approach the study, what methodology to employ, the required control mechanisms and the best way to apply them to ensure that the data collected would have integrity, was protected and usable. Multiple survey tools were evaluated and one that offered the desired functionality, flexibility and data governance was selected.

Data was then collected, evaluated and analysed to inform the study and answer the research questions. The results relating to synthesised information were then summed up into a conclusion, recommendations and future research opportunities.

1.11 Significance of research

By developing understanding of how transformational leadership affects skilled resources in the successful execution of projects, the researcher hopes ultimately to increase the probability of a successful outcome.

Identifying which characteristics of transformational leadership are appealing and unappealing to this specific audience will provide valuable insight into how to drive inspiration, ownership and followership.

The results of the research can in future be used or modelled to eliminate technical resource risk, increase communication and/or reduce uncertainty in the project context.

This study aims to make project outcomes more predictable, which promotes a higher probability of achieving projects' stated goals and objectives. Essentially, the study will examine the relationship between transformational leadership and skilled resources.

1.12 Delineation of research

The purpose of this study is to develop an understanding of the role that transformational leadership plays and its effect in the motivation of skilled resources to follow guidance in the execution of IT projects in the developing South African economy.

1.13 Structure and overview of dissertation chapters

Chapter 1: Introduction: Background to study, main question, sub-questions, objectives, sub-objectives, research process and chapter classification.

Chapter 2: Literature Review: Importance of leadership, key success criteria, an overview of the status of IT projects with emphasis on failures related to leadership.

Chapter 3: Research Methodology: Research design and methodology, method of investigation, multifactor leadership questionnaires (MLQ), random sampling, constraints and ethical considerations.

Chapter 4: Data Analysis: Review of data and results of leadership study conducted, highlights of observations, current trends and beliefs with special focus on transformational leadership successes.

Chapter 5: Results, Discussion and Findings: Summary of the study and discussion. Research hypotheses will be compared to findings of the study conducted.

Chapter 6: Recommendations and Conclusion

1.14 Expected outcomes, research results and contributions to the body of knowledge

- Increased understanding of the effects of transformational leadership in the execution of IT projects.
- Increased understanding of followership among the technically skilled population.
- Insights into improved IT project human resource management.
- Improved knowledge or methodology for managing IT projects in a developing economy.
- Increased possibility of successful IT project outcome.

1.15 Summary

In this chapter an introduction to the nature of private business was discussed and it was indicated how companies compete in the economy for market in some way or another. The importance and significance of delivering projects in a consistent, repeatable manner to achieve project goals was stressed. The current state or track record of successful delivery of IT projects from recent studies was provided to give the reader an idea of the extent of the problem that the industry faces.

The primary and secondary research questions were stated, as well as the objectives planned to be achieved or outcomes of the study. Chapters in the study were outlined and a brief description of their contents was provided. The research process was outlined to give the reader insight into how the study was conducted from inception through to conclusion.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter the researcher explores only some of the historic research that is most relevant and relates to the research topic, whether confirming or opposing the argument. As leadership is quite a vast topic, inspiring many varying opinions, the researcher explores literature that provides the reader with insight into why projects fail, the characteristics of transformational leadership and the relevance of the study.

2.2 Literature review

2.2.1 Transformational leadership

Leadership has long been a topic of much research and debate in project management circles and continues to provoke debate. Project failure or failure to realise project benefits fully can be attributed to failure to understand project complexity and a range of other project-related factors (The Standish Group Report 2015:3). Researchers have yet to prove to what extent a project's success or failure can be directly attributed to leadership or the lack thereof (Nixon, Harrington & Parker, 2012:204).

Smiedt, as cited by Kappelman *et al.* (2006:33), who conducted a study that focused on failed IT projects, listed lack of top management support or commitment to the project as the number one reason why IT projects fail. These findings identify either a lack of project and organisational alignment or a general lack of leadership. The number three reason listed in the study was the project manager or managers being incapable of leading the team effectively or communicating with clients. These results may very well be supportive of this study and imply that project managers in Smiedt's study might not have been applying the most appropriate style of leadership when leading teams of skilled resources or did not possess the required leadership ability or understanding of the followers to be led.

Larsen *et al.* (2013:340) believe that while strong leadership is desirable, it is not always necessary to complete a well-planned project successfully. Drawing on the author's own experience and having managed many IT projects thus far, the inclination is to agree on this point in terms of simple or uncomplicated endeavours. However, Larsen goes further to state that where there is a large degree of uncertainty in terms of changes in scope, technological stalemates and breakdowns in coordination or in the case of software development, more leadership is required to attend to these challenged projects, provide oversight and advanced problem-solving.

The above statement identifies a rather large technical risk to any organisation embarking on a journey to obtain a competitive advantage that is to be realised through a project involving technology enablement. How does an organisation overcome challenges, provide effective leadership and bridge the gaps between the best laid plans and reality? All this should happen while providing support, management and direction to skilled resources.

In the South African context, Marnewick *et al.* (2018) wrestle with the fact that the currently accepted curriculum of project management philosophy or body of knowledge in general is dominated by Western influence and a revival of African management philosophy should form part of the decolonisation of education in South African universities.

Anantatmula, as cited by Nixon *et al.* (2012:208), examines the differences between management and leadership. He concludes that although both roles denote a difference in responsibilities and attributes, there is a definite overlap between leadership and management functions. In the completion of a successful project and the attainment of project objectives, a component of project management involves effective leadership.

Leadership is a multifaceted concept and there are numerous opinions with regard to its definition. It is therefore seen as a critical function to any business or group environment and contributes greatly to the success or failure of an organisation (Hough *et al.*, 2011). It is generally recognised and an accepted norm that technically skilled employees frequently lack leadership skills or attributes. However, their contribution is critical for the successful completion of IT projects and they have a critical role to play in any organisation.

The guidelines of the Project Management Body of Knowledge (PMBOK) (2016:284) state that strong leadership skills are required for successful projects. It notes that there are many leadership theories in existence that define several leadership styles. Contrary to the hypothesis in the current document, the guide advises that these styles should be used interchangeably as warranted, given the situation or team requirement. It highlights the importance of effective communication, shared vision and inspiring the team to achieve high performance, but does not go into any detail on how this is to be achieved.

The theory of transformational leadership was introduced by Downton (1975) and later further developed by Burns (1978). This style of leadership is characterised by four main components (Evans & Lindsay, 2014:646):

- Individualised consideration
- Inspirational motivation
- Idealised influence
- Intellectual stimulation.

Evans *et al.* (2014:646) infer that leaders who adopt this style of leadership promote intellectual stimulation among followers and create a shared vision. Transformational leaders are seen to be unafraid of taking risks; they are not risk-averse. They are known to treat employees like individuals. Transformational leadership has been associated with outcomes that lead to positive change for all of those who choose to follow.

Chan and Mak (2014:674) conducted a study to examine the relationship between transformational leadership and pride in being a follower of a leader. Bono and Judge; Landry and Vandenberghe, as cited by Chan and Mak noted that although many empirical studies have been conducted to explore the 'black box' of transformational leadership, little effort has been made to understand exactly how transformational leadership exerts its effect on the commitment or pride in being one of a leader's followers. Instilling pride is said to be one of the positive effects of transformational leadership, which increases follower motivation and work behaviour (Hart and Matsuba, as cited by Chan and Mak (2014:675)).

The study entailed collecting samples from two sources, 145 executive MBA students and 210 employees in service-based companies located in China. Results from Chan and Mak's (2014) study indicated pride in being a follower where transformational leadership was applied. Some of the limitations and challenges noted that may be incurred in the proposed study were that the data was collected from a self-reported single source.

Although that study was conducted in China, it will be interesting to observe the differences between the results and the ones collected during the current study, which focuses on a developing country. It will be interesting to see whether skilled resources share the same correlations with leadership as in the East, given that project management is not indigenous to South Africa and is largely influenced by Western and European cultures (Van Der Merwe, 2012).

Bass, as cited by Evans *et al.* (2014:646), differentiates transformational leadership from transactional leadership in that it places stronger focus on continuous organisational change and aligns self-interest to the longer range and greater good of the organisation. This point contrasts with transactional leadership in that transactional leadership is more concerned with satisfaction of self-interest and maintenance of the status quo.

One of the benefits of transformational leadership is that is based on more than just rewarding the completion of project activities. It has been defined by strong identification with team members and results in the creation of a shared vision (Bass, Keegan & Den Hartog, as cited by Nixon *et al.*, 2012:209). Commitment is then fostered and through this shared vision the leader can inspire the individual team members and the project team. Transformational leaders are said to display charismatic traits that result in the motivation of individuals to achieve higher levels of success or reach greater potential (Parker & Craig, as cited by Nixon *et al.*, 2012:209).

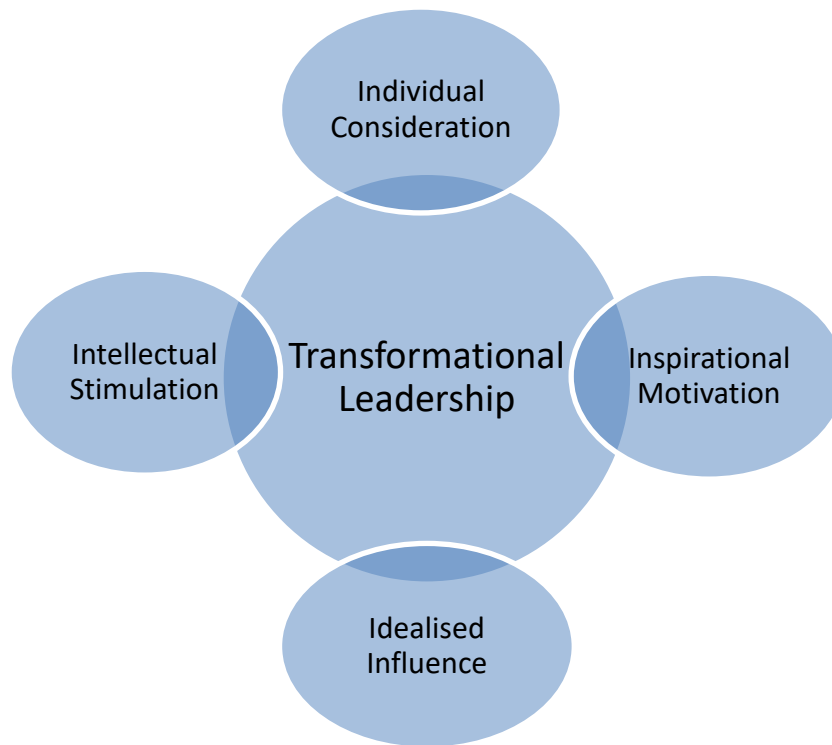


Figure 2.1: Components of transformational leadership (adapted from Evans *et al.* 2014:646)

The above diagram represents the four main characteristics or components of transformational leadership. Evans *et al.* (2014:646) state that while in practice distinguishing between these transformational and transactional leadership theories is quite difficult, research has proven them to be distinct from one another, yet related processes. They argue that while transformational leadership may increase follower motivation levels and performance, effective leaders use a combination of both transformational and transactional leadership styles in different situations to solicit the desired response. This may present a challenge to the proposed study and will require further investigation to ensure results are not skewed by transactional leadership feedback.

Dulewicz and Higgs, as cited by Nixon *et al.* (2012:208), posit that evidence-based leadership theories can be characterised by six major classes: leadership traits in addition to behaviour, being visionary, contingency, emotional intelligence and competency. Transformational leadership is viewed as a visionary leadership style;

when combined with emotional intelligence this results in a powerfully successful combination.

Anantatmula (2010:13) asserts that the act of project management refers to planning and organising project activities through a methodology or decision-making process that improves the efficiency and effectiveness of the project. He states that leadership is about motivating and guiding people towards reaching project objectives, realising potential and pursuing organisational goals. While the researcher does not disagree with the above statement, the current research presupposes that both project management activities and leadership are provided through the role of project management and by the project manager.

The results of Nixon's research findings indicated that no one leadership style or model is appropriate throughout the lifecycle of a project. He infers that styles should be employed to elicit the desired performance response, given the stage of the project life cycle Nixon *et al.* (2011:204). These findings are somewhat contradictory to the aim of the present study. However, the study will set out to determine whether transformational leadership is indeed a suitable leadership style to be employed and will result in inspiration and followership of skilled resources. These findings and benefits, if proved true, will have a positive effect on future projects where skilled resources are committed to complete technical tasks. They will assist in the reduction of technical risk and contribute to the successful completion of projects through inspiration and shared vision.

Keller and Anantatmula, as cited by Nixon *et al.* (2012:208), posit that people are convinced of the need to change when leadership has been successfully applied.

Good leadership stimulates:

- Problem solving
- New ways of thinking
- Team participation
- Motivation in team members to achieve project objectives in challenging work environments.

Table 2.1: Transformational leadership and accompanying attributes (adapted from Stone, Russell & Patterson 2004:352)

| Transformational Leadership Attributes | |
|---|--|
| Functional Attributes | Accompanying Attributes |
| (1) Idealised influence/charisma | Vision Trust Respect Risk-sharing Integrity Modelling |
| (2) Inspirational motivation | Commitment to goals Communication Enthusiasm |
| (3) Intellectual stimulation | Rationality Problem-solving |
| (4) Individualised consideration | Personal attention Mentoring Listening Empowerment |

The purpose or desired outcome of leadership is the reciprocal action of followership. Followership can be defined as a role fulfilled by a team, group or an individual. It relates to the ability or capacity of an individual to follow a leader. If the goal of leadership is to inspire, influence and motivate members to achieve a common goal, then behind great leadership there must be equally great followers who support and enable the leader to be effective (Jawah, 2013:708).

2.2.2 Business objectives

Stefanovic *et al.* (2015:494) describe business objectives as goals or targets set by a firm for the organisation to attain in the short or longer-term future. These objectives, of which there may be multiples at any one time, could be in relation to increasing assets, business growth, improving effectiveness, efficiencies within operations, meeting of targets and increased profits and should lead to organisational compositeness and flexibility.

Business objectives provide the company and its staff with direction as to where the business aspires to be in the future and commit resources to the attainment of these objectives.

Ligthelm (2011) concluded a study into the survival of small businesses in South Africa and noted that in the region of 75% of them fail during the first two years of operation. Although his study noted that businesses fail for a variety of reasons, it provides insight into the importance of profitability and wealth creation. Business resources are finite and where the business chooses to commit these resources could have both positive and negative outcomes.

2.2.3 Information Technology

IT is best described as developed and maintained computer systems, hardware, software and networks to create, edit, store, process and distribute data securely.

In today's world, many businesses employ a multi-channel or omni-channel sales strategy to penetrate additional markets and ultimately sell more goods or provide services to other geo-locations. The aim is to offer a seamless customer experience, whether it be from a brick and mortar store, tablet, computer or mobile device. Having a website, online strategy and the technology to enable devices to talk to each other securely and allow for payment seamlessly is paramount in the present and for the foreseeable future.

Law (2011) says that a successful e-commerce strategy is comprised of many separate elements that enable the solution to be effective in the marketplace. Some of these elements relate to sophisticated online content management, marketing, web

development, purchase, payment functionality, support systems and technically skilled staff to perform tasks related to these roles.

Very few businesses in present-day markets can survive without using modern networked technology. Whether at the forefront of business, such as an online website or digital platform or in the background, systems used for finance, payroll, stock control or human resource management, IT and the adoption of technology in business are here to stay. Goran *et al.* (2016) believe that it is impossible to imagine a present-day business being successful without the use of some type of communication or IT.

2.2.4 State of South African information technology sector

According to Statistics South Africa the information communication technology (ICT) sector overtook the agricultural industry in 2014, contributing 2.7% of South Africa's gross domestic product (GDP). According to a census completed by the Western Cape government (2012), there are over 1 200 ICT companies that provide employment to around 27 000 people in the Western Cape.

According to Kneale (2016), the IT industry as a whole has become an enabler for inclusion not only from a social perspective, but economically as well. It has transformational properties in how people interact with one another and conduct business and greatly contributes to the country's GDP each year. The fourth industrial revolution is said to incorporate new technologies, software and devices that will have a widespread impact on all industries and some careers and will connect billions of people.

The public sector uses several large systems to administer the business of government departments. According to a study, it faces several challenges with functional duplication, difficulty in implementation, poor system integration, unified standards, norms and the implementation of new legislation and regulations (Hendriks, 2013:3).

2.2.5 Followership

While extensive studies have been undertaken on the topic of leadership and much has been contributed to the leadership body of knowledge, much less focus has been

placed on the roles of reporting staff and subordinates, those who are led or choose to follow (Manning & Roberson, 2016:278). The roles of leadership and followership were reviewed and found not to be fundamentally different from each other; Manning *et al.* argue that these roles are inextricably linked. One of the recurring themes observed throughout the research review is that one cannot fully understand leadership or the style of leadership that is most effective without also having an understanding of followership, the audience that is to be led.

The article published by Manning and Roberson (2016:279) introduces a three-factor model of followership and defines the role of leadership as a senior position, characterised by high status, power and control. Individuals in this role are seen to play a strategic role. Conversely, the follower role is seen as a junior position; it is characterised by low power, status and locus of control. Individuals in the follower position are regarded as playing a narrower operational role in the organisation.

Manning and Roberson argue that the essential difference between leader and follower roles is that individuals in follower roles use their skills to manage themselves and a smaller set of relationships, whereas individuals in leadership roles use the same skills to manage others across levels and boundaries, both in and outside the organisation. They assert that effective organisations need both effective followers and effective leaders (Manning & Roberson, 2016:278).

Skilled resources are defined as people who have a special ability or training to perform a certain job well. Technically skilled resources form a critical part of project teams and are often used to deliver specialist functions related to the business and technology enablement in search of competitive advantages. Jowah (2013:708) states that extensive studies have been carried out about leadership. Many theories have been presented and explained in great detail; however, no agreement has yet been reached on the standard or definition of the topic itself. He goes further to state that followership or the characteristics or types of followers are pivotal to the success of any leadership style applied in a particular environment. This research sets out to explore and quantify why it is believed that transformational leadership is more effective or a more suitable style of leadership to employ when leading teams or projects where technically skilled resources are employed.

Manning and Roberson (2016) argue that the skills acquired by an effective leader develop out of and are built upon those of the effective follower. Kelly, as cited by Manning, emphasises that the pre-occupation with management and leadership literature is preventative in that it does not allow the importance or nature of followership to be considered. Two underlying behavioural dimensions were identified that help explain behaviour in followers: the degree to which followers are able to exercise independent thought and critical thinking and whether they are passive or active followers (Manning & Roberson 2016:278).

The current study is focused on the researcher's chosen follower population who are 'technically skilled resources'. Some of the characteristics associated with skilled resources are that they are often subject matter experts (SMEs) in their fields, qualified by experience, and have acquired good understanding of the business. This implies that they have attained a certain level of position, possess a high level of independent thought and are critical to the business. In addition, it means that they play a very active role in the delivery of project objectives.

Williams *et al.* (2012) completed a study on identifying and acting on early project failure warning signs. Their study, which is comparable to Kappelman's results, noted that the leadership and competence of the team are directly correlated with risk relating to quality of information, lack of requirement criteria, ineffective planning and change control.

Evans *et al.* (2013:644) mention that situational leadership theory supposes that the effectiveness of task and leadership orientation or behaviour is dependent on the maturity of those to be led. This suggests that one of the key contributing factors to the choice of leadership style to be adopted is related to the level of maturity of followers, enabling them to accept responsibility for completing their assigned tasks. Situational leadership presupposes that the leadership style may vary from one person to the next, depending on the readiness of the follower to perform the task at hand. This can be characterised by their confidence, motivation to do the job, commitment and level of skill to perform the work.

This model defines four levels of follower maturity:

1. Unable and unwilling

2. Unable but willing
3. Able but unwilling
4. Able and willing.

Barki, as cited by Kappelman *et al.* (2006:33), posits that the eleventh most common reason that projects fail found in their study is related to project team members or followers who do not have the required skills or knowledge to complete assigned tasks or reach objectives.

The researcher assumed that the chosen follower population, skilled resources, has a high level of maturity, as well as the skills and ability to perform assigned tasks.

The diagram below is the author's own attempt to illustrate the relationship between transformational leadership and skilled resources, who are the target audience or follower population in this study. The study will firstly attempt to determine whether there is any correlation between applied transformational leadership and whether this results in high levels of followership among skilled resources. If followership is a critical determinant of the leadership style to be adopted, it has to be determined if higher levels of followership will result if a transformational style of leadership is employed. In the second place, it is necessary to ascertain whether higher levels of followership translate into or contribute to a higher probability of successful project outcomes.

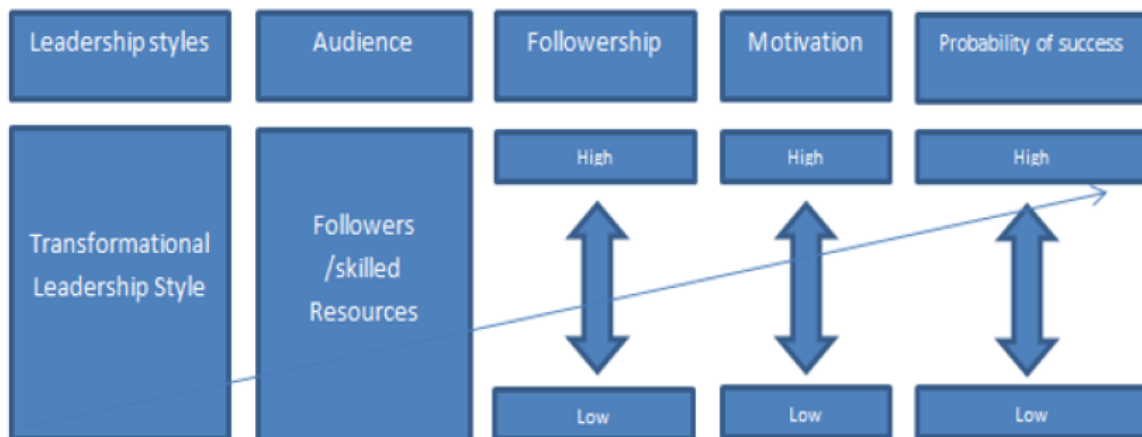


Figure 2.2: The relationship between transformational leadership and followership of skilled resources (Source: Author's own)

Jawah (2013:709) presents the hypothesis that skilled resources or experienced personnel may require a different style of leadership that corresponds better to the follower population. The leader in this situation, considering the target audience, may exhibit or make use of a leadership style that is more supportive, directive or participative. This style of leadership may be more attractive and inviting to skilled resources with a certain level of training or experience in a particular field.

This research proposal seeks to gather insight into whether transformational leadership affects the motivation of skilled resources to perform well. The findings of this study are intended to advance or contribute to the body knowledge and aid in the mitigation of future resource risk. This will ensure more certain, predictable conditions that will offer a better chance or higher probability of successful project outcomes.

2.2.6 Project Success Criteria

Project success criteria are usually identified, defined and documented at the beginning of a project. They describe what success will look like at the end of the project and should be agreed on by all stakeholders. It is important that the identified criteria, whether quantitative or qualitative, are measurable so that they are tangible and can remain reportable throughout the project.

Nixon *et al.* (2012:204) conducted a research review to explore how the performance of leadership in project management determines project outcomes. The study focused on the performance of leadership, describing it as a critical success factor that determines project success or failure. Dulewicz and Higgs, as cited by Nixon *et al.* (2012:204), argue that the performance of leadership is a fundamental element that relates to how people work together in groups or teams and has been reported to be a well-known human behavioural area of research.

Lech (2013:267), who conducted a qualitative and quantitative study on project success measures in enterprise system implementations, is of the opinion that today's view of project success measures embraces areas such as how satisfied a stakeholder is at the end of a project, the success of the product, organisation, benefit to the business and team development. Nixon *et al.* (2012:208) argue that insufficient consideration is given to the significant influence of leadership in projects and improved emphasis on leadership performance is required.

Magwali (2018), who undertook a study in the Western Cape to examine specific organisations and the influence of project management software (PMS) on project success, concluded that the uptake of PMS has had a positive influence on successful outcomes of projects in the Western Cape.

Atkinson and Baccarini, as cited by Nixon *et al.* (2012:205), are of the opinion that today's view of project success measures embraces areas such as how satisfied a stakeholder is at the end of a project, the success of the product, organisation, benefit to the business and team development.

2.2.7 Project risk management

Project risk management is the discipline of managing uncertain events that may have a positive or negative impact on the project if they should occur. The PMBOK guide (2015:310) and the PMI define risk management as one of the 10 knowledge areas that should be managed consistently and proactively throughout the life of a project to ensure a greater chance of success.

Positive risks can often be seen as opportunities, whereas negative risks are seen as threats to project success. Strategies are created to manage or respond to risks throughout the life cycle of the project. Negative risks that are realised are then classified as issues, which will often have resolution actions assigned to them. An example of a project risk may be finding suitable staff to fill key technical positions within the project to deliver specific deliverables related to IT.

Technical risk can be classified as the risk associated with the technical undertaking or the knowledge base being employed in the execution of a technical task and the possibility of undesirable events affecting the desired outcome. Examples of these may be related to the discovery of new information, which renders current assumptions invalid, as well as technology limits or constraints. Gregory *et al.* (2009) introduce the role of technical risk management as the act of actively planning, identifying, assessing and mitigating risks relating to technology to stay within acceptable levels of risk tolerance.

2.3 Summary

In this chapter, the concept of transformational leadership was introduced. The researcher explored its origin, the values, principles or components that are believed to set it aside from other types of leadership and make it more suitable for teamwork, individual inclusion and inspiration of the technically skilled. Business objectives and their relevance in modern business were discussed; attainment of business objectives was linked to increased value, wealth and new markets. With advances in IT, omni-channel strategies, new markets and the need for projects, requirements for ongoing maintenance and technically skilled staff have increased. The researcher discussed followership, a less understood knowledge area, and why it is believed that leadership and followership are inextricably linked. Project success criteria were also introduced and the pivotal or critical role these play in the project was explored. The concepts of project risk management, technical risk and technical risk management were also introduced and discussed. Identifying and managing risks more effectively may result in more predictable outcomes.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In chapter three the researcher explores the research design and outlines the methodology, processes and controls that have been applied to ensure that data collected is independent and verifiable. Also discussed are limitations, constraints and sampling of answers or results that provide insight into the research question.

3.2 Research strategy and method

The primary focus of this research originates from the leadership style applied to elicit the desired follower response. An action that is applied requires the desired reciprocal response. The researcher therefore employs both quantitative [positivist] and qualitative [anti-positivist] research methods to conduct the study and gather the information required for this study. It is believed that both these methods contribute to proving the value of transformational leadership when applied to a technically skilled follower population (Chan & Mak, 2014:680).

The research is to be conducted involving two distinct but related populations. It consists of an empirical study with a dual focus on managers, leaders and skilled resources in the Western Cape. The study was undertaken to gather evidence to find answers to the research questions and features two carefully and meticulously created MLQ for each identified cohort (Chan & Mak, 2014:679). Surveys were selected as they allow for the gathering information from a large population and being electronic aligned to the target audience. The questionnaires were completed anonymously and neither population knew that the other might or might not have completed a questionnaire.

3.3 Cohort 1: Managers and leaders: research design and collection

The research plan consisted of the collection, measurement and analysis of specific data points that were used to identify the relationship or correlation between transformational leadership and the management of skilled resources. In this study, the plan or blueprint included the careful construction of a manager or leader questionnaire, which included both quantitative and qualitative questions. Creswell (2018) advocates for mixed methods allowing for greater understanding of variables that lead to quantifiable numerical findings. The results were non-experimental and were statistically tested to identify correlations with the research questions. This questionnaire is, however, only one half of the picture, from the perspective of managers and leaders.

3.3.1 Sampling, sample size and research process

Section A of the MLQ questionnaire requests specific biographical information from the respondent, which enables the researcher to group feedback by role, experience, technical skills, geographic location and industry focus. Section B focuses on six factors, four of which are relative to transformational leadership (inspirational motivation, idealised influence, individualised consideration and intellectual stimulation) and another two that relate to transactional and laissez faire leadership styles.

Survey responses were solicited from manager and leader respondents in one of three ways:

Direct contact – Face-to-face conversation. The researcher approached people in ICT positions and invited them to complete a survey. This was followed by an email containing the survey details.

Companies – Three companies with large ICT contingents were contacted, and approval was obtained to solicit anonymous responses within their organisations. Companies selected were the organisations of Wonga.com, Karabina Solutions and TFG Infotec. Posters were created and placed strategically around buildings to

encourage survey participation. The poster, which has been attached as Appendix Z, encouraged voluntary participation and informed prospective participants that there would be no reward for completion and that the information would be used for scholarly purposes.

Indirect contact – Public posts were made on several occasions over a period of three months on two selected social media platforms, namely Facebook and LinkedIn. In addition, a message was constructed on the platforms to target individuals’ in-mail with a call to action. In this initiative, 131 survey requests were sent out on Facebook and 343 survey requests on the LinkedIn platform respectively.

Respondents were invited to click on a link that took them to a Google forms survey where they could submit their responses anonymously. These were then saved to a database. Respondents were also asked to share the survey with at least five others upon successful completion.

The minimum sample size was calculated as follows (adapted from Morris 2012): Total population is approximately 40 000 (Azim 2018) noting that most management structures work on the one manager to 20 subordinate staff principle. In this case the manager or leader population is thus 40 000 / 20 = 2000

$$x = \frac{N Z^2 pq}{E^2(N-1) + Z^2 pq}$$

$$x = \frac{(2000)(1.96^2) (0.5)(0.5)}{0.04^2(2000-1) + (1.96^2) (0.5) (0.5)}$$

$$x = \frac{(2000) (3.8416) (0.25)}{0.0016 (1999) + (3.8416) (0.25)}$$

$$x = \frac{1920.08}{4.1588}$$

Sample size = $461.86 \approx 462$

X = 23.09% of the total population

where:

x = the required survey sample

N = the current population size

p and q are the populations (each set to 0.5)

Z = the value that specifies the levels of confidence wanted for the confidence interval when data is analysed. Typical levels of confidence for surveys are 95%, in which case z is set to 1.96

E = the accuracy of the sample proportions. With an accuracy of approximately 4%, E is then set to 0.04.

3.4 Cohort 2: Skilled resources - research design and collection

The follower population in this study refers to followers with specific characteristics, technically skilled resources with specialised IT technical or business skills gained by qualification, training or experience. These resources are often referred to as SMEs. This population will either be involved in projects or have worked on projects regularly. The MLQ questionnaire was designed to enable the tool to gather the required information from skilled resources. The questionnaire contains three main sections. In each section the questions are carefully considered and designed to elicit the desired responses, which are collected, compiled, reviewed and analysed to give information on the population (Manning & Roberson, 2016:211). The skilled resource questionnaire include both quantitative and qualitative questions, the results of which are non-experimental and are statistically tested to identify correlations to the research questions. This questionnaire is the second half and final part of the picture, which is from the perspective of the skilled resources.

3.4.1 Sampling, sample size and research process

Section A of the MLQ questionnaire requests specific biographical information from the respondents, which enables the researcher to group feedback by role, experience, technical skills, geographic location and industry focus. Section B focuses on six factors, four of which are relative to transformational leadership (inspirational motivation, idealised influence, individualised consideration and intellectual stimulation) and both transformational and laissez faire leadership styles.

Skilled resource questionnaires were specially designed to include a mix of how these people feel they are currently being managed and what their preference may be with regard to transformational, transactional and laissez faire types of leadership.

Survey responses were solicited from skilled resource respondents in one of three ways:

Direct contact – Face-to-face conversation. The researcher approached people in ICT positions and invited them to complete a survey. This was followed by an email containing the survey details.

Companies – Three companies with large ICT contingents were contacted and approval was obtained to solicit anonymous responses within their organisations. These were the organisations of Wonga.com, Karabina Solutions and TFG Infotec. Posters were created and placed strategically around buildings to encourage survey participation. The poster, which is attached as Appendix Z, encouraged voluntary participation, informing people that there would be no reward for completion and that the information would be used for scholarly purposes.

Indirect contact – Public posts were made on several occasions over a period of three months on two selected social media platforms, namely Facebook and LinkedIn. In addition, a message was constructed on the platforms to target individuals' in-mail with a call to action. In this way 131 survey requests were sent out on Facebook and 343 on the LinkedIn platform respectively.

Respondents were invited to click on a link that took them to a Google forms survey where they could submit their responses anonymously. These were then saved to a database. Respondents were also asked to share the survey with at least five others upon successful completion.

The minimum sample size was calculated as follows (adapted from Morris 2012):
 Total population is 40 000 (Azim, 2018).

$$x = \frac{N Z^2 pq}{E^2(N-1) + Z^2 pq}$$

$$x = \frac{(40000)(1.96^2) (0.5)(0.5)}{0.04^2(40000-1) + (1.96^2) (0.5) (0.5)}$$

$$x = \frac{(40000) (3.8416) (0.25)}{0.0016 (39999) + (3.8416) (0.25)}$$

$$x = \frac{38\ 416}{64.9588}$$

Sample size = 591.3902 ≈ 592

X = 1,48% of the total population

where:

x = the required survey sample

N = the current population size

p and q are the populations (each set to 0.5)

Z = the value that specifies the levels of confidence wanted for the confidence interval when data is analysed. Typical levels of confidence for surveys are 95%, in which case z is set to 1.96

E = the accuracy of the sample proportions. With an accuracy of approximately 4%, E is then set to 0.04.

3.5 Sample selection

Non-probability or convenience sampling was applied to both cohorts, where only completed surveys responses were utilised. This method was employed owing to challenges in obtaining the desired sample responses.

3.6 Data analysis

The data collected through the study was subjected to a five-step data validation process to ensure that all data had been collected efficiently, effectively and was free from errors before analysis.

1. Planning – A plan was created to outline the steps and timelines for data collection and analysis.
2. Collection – The method and parameters for collection were pre-defined and documented to ensure that data was collected in an unbiased manner.
3. Validation – Validation was conducted to ensure that questionnaires had been administered and obtained ethically.
4. Editing – The raw data was checked for completeness and mistakes.
5. Data submission – The data was encoded and directly captured into a computer database or repository for analysis.

3.7 Research geographic area

The Western Cape province is most commonly broken down into the 12 sub-areas below. All respondents were from this province only; respondents from all other regions were excluded.

Table 3.1: Research geographic area

| | | | |
|-------------------|------------|------------|------------------|
| Atlantic Seaboard | Cape Flats | Cape Town | Cape Winelands |
| Central Karoo | Eden | Helderberg | Northern Suburbs |

| | | | |
|----------|-----------------|------------------|------------|
| Overberg | South Peninsula | Southern Suburbs | West Coast |
|----------|-----------------|------------------|------------|

3.8 Research constraints

- The study was constrained to the ICT sector in the Western Cape.
- Only respondents, whether managers, leaders or skilled resources working in the Western Cape, were included; all others were excluded.
- Only fully completed survey responses were recorded.
- Obtaining the required sample size was challenging and time-consuming.
- The study was constrained by respondents taking time to submit a survey response.

3.9 Ethical considerations

Both manager/leader and skilled resource questionnaires were designed to be completed anonymously. No identifying data of individuals or companies was recorded for this study. Respondents were requested to complete the survey on a voluntary basis for research purposes, with no reward offered.

3.10 Summary

In this chapter the researcher explained the research strategy and the process and the method employed for the careful design of both questionnaires. Categories and sample sizes were also explained at a high level. Sample selection and stratified random sampling were discussed to ensure the elimination of bias and ensure that all strata were represented equally. Constraints affecting the study and ethical considerations were discussed to provide the reader with more context.

CHAPTER FOUR

DATA ANALYSIS

4.1 Introduction

In this chapter the researcher will explore the results of surveys conducted for both cohorts, skilled ICT resources and managers and leaders. This data will provide answers to the research questions discussed in Chapter 1 to determine the relationship between transformational leadership and technically skilled resources in the execution of IT projects in the Western Cape. It will also be used to provide answers to investigative sub-questions.

The MLQs were designed to elicit specific responses and have both been attached as Appendices A and B. These surveys were created and administered through a web-based tool, Google forms. This method provided easy access to anyone with an internet connection. All survey responses were captured anonymously and no reward was offered for completion thereof.

4.2 Data integrity and qualification

For the purposes of this study, only complete responses were used. Surveys that were either incomplete or from which data was missing were ignored and not considered for this study.

4.3 Research collection and supporting methodology

Respondents were targeted and encouraged to submit an electronic response in several ways. An email was drafted, with a short motivation and a call to action. Links and quick response (QR) codes were created and embedded for both skilled ICT resources' and for leaders' and managers' surveys to ensure that no matter what device was used, a respondent would be able to participate.

Direct contact – Face-to-face conversation. Potential respondents in ICT positions were approached and invited to complete a survey. This was followed up with an email containing the survey details and stipulations.

Companies – Three companies with large ICT contingents were contacted and approval was obtained to solicit anonymous responses from employees within their organisations. These were the organisations of Wonga.com, Karabina Solutions and TFG Infotec. Posters were created and placed strategically around buildings to encourage survey participation. A copy of this poster is attached as Appendix C. To ensure that ethical integrity was maintained, the poster boldly stated the purpose, namely academic research, displayed the qualifying criteria and indicating that no reward was offered for completion.

Indirect contact – Public posts were made on several occasions over a period of three months on two social media platforms. In addition, a message was constructed on the platforms to target individuals' in-mail with a call to action. Subsequently 131 survey message requests were sent on Facebook and 343 on the LinkedIn platform respectively.

According to calculation 3.3.1 above, the total target population for managers and leaders was 462 respondents. However, only 50 responses had been obtained after three months.

In addition, for calculation 3.4.1 the total target population for skilled ICT resources was 592 respondents. Only 50 responses were obtained. Johnston *et al.* (2008) conducted an ICT study in the Western Cape on a similar population, using a questionnaire as means to obtain survey responses. They distributed 1 700 questionnaires in total and received only 58 responses, 51 of which were deemed usable. Their response rate was 3.4%; even though the number of responses obtained in the current study was below the desired sample size, the rate obtained was 9.4%.

The impact on the study was that instead of using random stratified sampling, it was decided to use all completed survey responses to conclude the findings. It is likely that the low response rate is due to respondents not seeing the value in contributing to the study or being unwilling to share information about their management styles. Skilled

resources may not want to share information about managers for fear or lack of available time.

Data collection for skilled resources as well as manager and leader cohorts was hindered and interrupted by the Corona virus pandemic. On 27 March 2020 the entire South Africa was placed in a government lockdown for 21 days to curb the spread of the virus. This meant that all non-essential businesses, schools and entities had to close. People were confined to their houses. The lockdown was then extended for a further 14 days. After the 35-day lockdown, the country remained in various levels of lockdown, depending on the spread and containment of the virus. A decision was taken to proceed with the surveys that had been collected.

4.4 Cohort 1: Managers and leaders survey results

The manager and leader MLQ questionnaire consisted of 37 questions in total (see attached Appendix A). In hindsight the questionnaire could have been reduced to around 25 questions. It took approximately eight minutes to answer all questions, which were divided into three sections:

- Section A – Survey consent and introductory information
- Section B – Seven biographical questions
- Section C – Thirty multifactor leadership questions.

4.5 Section A: Survey consent and introductory information

In this section, respondents were informed about the aim of the research, their rights and how the data would be treated and used. They were also informed about the qualifying criteria and encouraged to participate only if they met the criteria.

The introduction to the questionnaire stated:

“The research being conducted is intended to determine the impact of transformational leadership on IT projects’ execution within the Western Cape.

Please note that your views/responses will be treated with respect, honesty and confidentiality. Your responses and the name of your organisation will be kept anonymous. Filling in the questionnaire is an indication that you consent to participate in the research and you can withdraw at any time, should you decide to do so.

Participation is voluntarily; please only continue if you meet the qualifying criteria below:

Manager/leader

- Must have worked or currently work in an ICT leadership role.
- Must have worked or currently work in the Western Cape.

The process involves filling in an online survey that will take approximately eight minutes. Your responses will be confidential, and the researcher will not record any personal identifying details. The results of the study will be used for scholarly purposes and no reward is offered for participation.”

4.6 Section B: Seven biographical questions

Seven questions were constructed to provide the researcher with an understanding of:

- The positions or types of management and leadership roles of respondents; this concerned seniority.
- The number of years of experience in a leadership role.
- Level of education and qualifications
- The number of people they manage
- The predominant technical skills of the managed resources
- The area in the Western Cape in which their company is located
- The industry or market sector in which their company operates.

Question 1: What is your role, defining who is responding to the survey?

This question was mandatory and only allowed the respondent to choose one of six options. One selection triggered a further response in Question 2 where they could

specify their position if it did not closely resemble one of the first five options. This allowed the researcher to understand the respondents' position, level of authority or seniority in an organisation. It enabled the researcher to understand who was responding to the questionnaire, confirming that the right population was providing insight into the research questions and objectives of the study from a manager and leader perspective.

Results:

1. What is your current position within your organisation?

50 responses

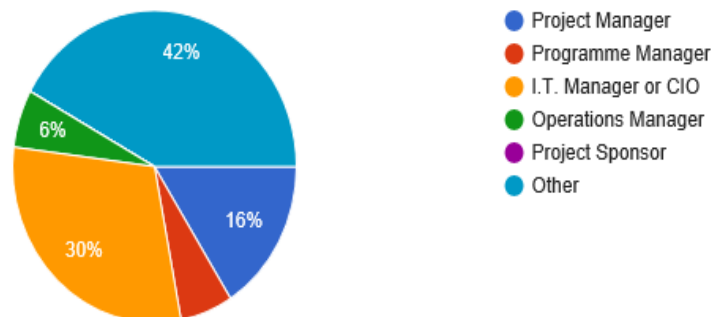


Figure 4.1: Leader, manager respondent roles

Most respondents, 30%, were IT managers or chief information officers (CIOs), 16% were project managers and 6% programme managers. Another 42% chose the 'other' option, which will be discussed further in Question 2.

This amounts to 52% of respondents reporting direct day-to-day project involvement. These results are indicative of the target population that the researcher sought to attract and implies that the response provided to the research questions confirms that the researcher reached the correct audience.

Question 2: Which other positions of management or leadership are involved?

This option offered a text box for the respondent to provide his/her management or leadership role description. This enabled the researcher to understand the respondents' position, level of authority or seniority in their organisations.

Results:

Table 4.1: Leader, manager other role responses

| 2. If other, please state in space below | Direct Project Team Involvement |
|--|--|
| Business Analyst | 1 |
| Regional Manager | 0 |
| Modern Workplace and Digital Enablement Lead | 1 |
| Customer Relationship Manager Functional Consultant | 2 |
| Chief Customer Officer | 0 |
| IT Executive | 1 |
| Client Success Manager | 0 |
| Developer | 3 |
| Business Analyst Trainee | 1 |
| Business Analyst | 1 |
| Senior Partner Technical Architect | 1 |
| Business Intelligence Manager | 1 |
| Senior Logistics Technician | 1 |
| IT Development System Manager | 1 |
| Product Director | 1 |
| Software Engineer | 1 |
| Scrum Master | 1 |
| Team Lead | 1 |
| Total | 18 |
| Percentage | 36% |

Of the 42% in the 'other' category, a further 36% of respondents indicated roles with direct day-to-day project involvement. This total, in combination with the totals from Question 1, indicates that 88% of respondents belong to the desired target population. The remaining 12% are involved in operational day-to-day business; their feedback, although indirect, is still of value. In totality these results imply that a large majority of respondents are ICT managers or leaders in the Western Cape, the desired audience.

Question 3: How many years of experience do you have in a management or leadership role?

This question was mandatory and only allowed the respondent to choose one of four options. This enabled the researcher to quantify the respondents' years of experience in a management or leadership role.

Results:

3. How many years have you been in a management or leadership role?

50 responses

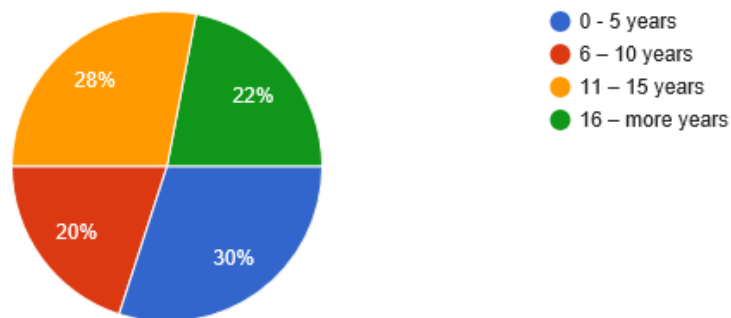


Figure 4.2: Manager, leader years of experience

In terms of experience, 50% of respondents had more than 11 years' experience and 50% had less than 11 years' experience in a management or leadership role. The largest population, however, with 30% of responses, had between less than a year's experience and five years' experience. Of the 50% respondents with 11 or more years of experience, 76% had tertiary education, as indicated below in Table 4.2.

Question 4: What is your level of formal education?

This mandatory question only allowed the respondent to choose one of six options. This enabled the researcher to quantify the respondent’s highest level of education.

Results:

4. What is your highest educational qualification?

50 responses

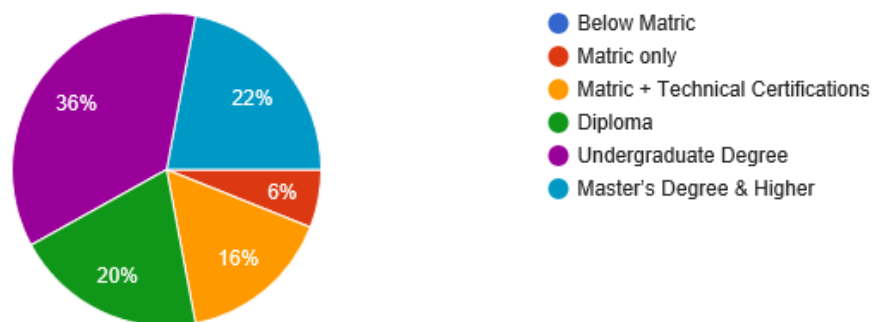


Figure 4.3: Managers’ and leaders’ educational qualifications

The majority of respondents in management and leadership roles (58%) possessed an undergraduate degree, master’s degree or higher. None had a qualification below matric and 6% had matric only. Figure 4.3 indicates that the majority of respondents (94%) had tertiary qualifications or were technically skilled and had invested in further education after secondary schooling education.

Table 4.2: Respondents with 11+ years of experience and tertiary qualifications

| 1. What is your current position in your organisation? | 2. If other, please state in space below | 3. How many years have you been in a management or leadership role? | 4. What is your highest educational qualification? |
|--|--|---|--|
| IT Manager or CIO | | 11 -15 years | Undergraduate Degree |

| | | | |
|--------------------|-------------------|------------------|----------------------------|
| Other | Business Analyst | 16 or more years | Diploma |
| Other | Managing Director | 16 or more years | Diploma |
| Project Manager | | 16 or more years | Diploma |
| Programme Manager | | 11 -15 years | Diploma |
| Operations Manager | | 16 or more years | Undergraduate Degree |
| Project Manager | | 11 -15 years | Master's Degree and Higher |
| IT Manager or CIO | | 11 -15 years | Undergraduate Degree |
| Project Manager | | 11 -15 years | Undergraduate Degree |
| Project Manager | | 11 -15 years | Master's Degree and Higher |
| IT Manager or CIO | | 16 or more years | Undergraduate Degree |
| Programme Manager | | 16 or more years | Master's Degree and Higher |
| IT Manager or CIO | | 11 -15 years | Master's Degree and Higher |
| IT Manager or CIO | | 11 -15 years | Master's Degree and Higher |
| Other | Developer | 16 or more years | Undergraduate Degree |
| IT Manager or CIO | | 16 or more years | Undergraduate Degree |
| IT Manager or CIO | | 16 or more years | Master's Degree and Higher |
| Project Manager | | 11 -15 years | Undergraduate Degree |
| IT Manager or CIO | | 11 -15 years | Undergraduate Degree |
| | | Total | 19 |

The results indicate strong correlation between managers' or leaders' years of experience and tertiary education. This implies that leaders with more experience see the value in self-improvement and pursue tertiary education. These findings are

supported by a study conducted by Poekert (2011:177) who examined the relationship between teacher leadership and professional development. He noted a link between personal development and leadership efficacy in the study. The correlation also applies to the main research question of the current study, examining the relationship between transformational leadership and skilled workers. This gives rise to a further question: Do both leaders and followers need to be intellectually stimulated for transformative leadership to be effective?

Question 5: What is the size of your team? How many people do you manage?

This mandatory question only allowed the respondent to choose one of six options. This enabled the researcher to quantify the number of resources under management.

Results:

5. How many technically skilled resources do you Manage? [On average across projects or direct reports]

50 responses

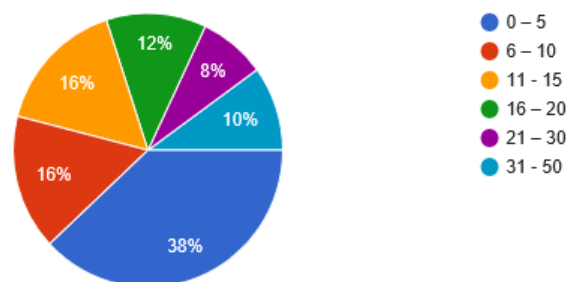


Figure 4. 4: Managers' and leaders' team size

Of the respondents, 54% managed between 0 and 10 resources, 28% managed between 11 and 20 resources and only 18% managed between than 21 and 50 resources. The data suggests that the more senior the management or leadership position, the more resources under direct management. Cha *et al.* (2015:722) studied the relationship between transformational leadership and inter-team collaboration and found that team sizes with more than 20 members experience a decline in inter-member cooperation. This is related to one of the research questions in this study on the challenges or disadvantages of transformational leadership and implies that

transformational leadership is less effective in IT projects with a team size of more than 20 members; this may have a negative effect on successful project outcomes.

Question 6: What types of technical skills do you manage?

This mandatory question allowed the respondent to choose multiple options, including 'other'. This enabled the researcher to understand the types of technical skills of the population under management sampled.

Results:

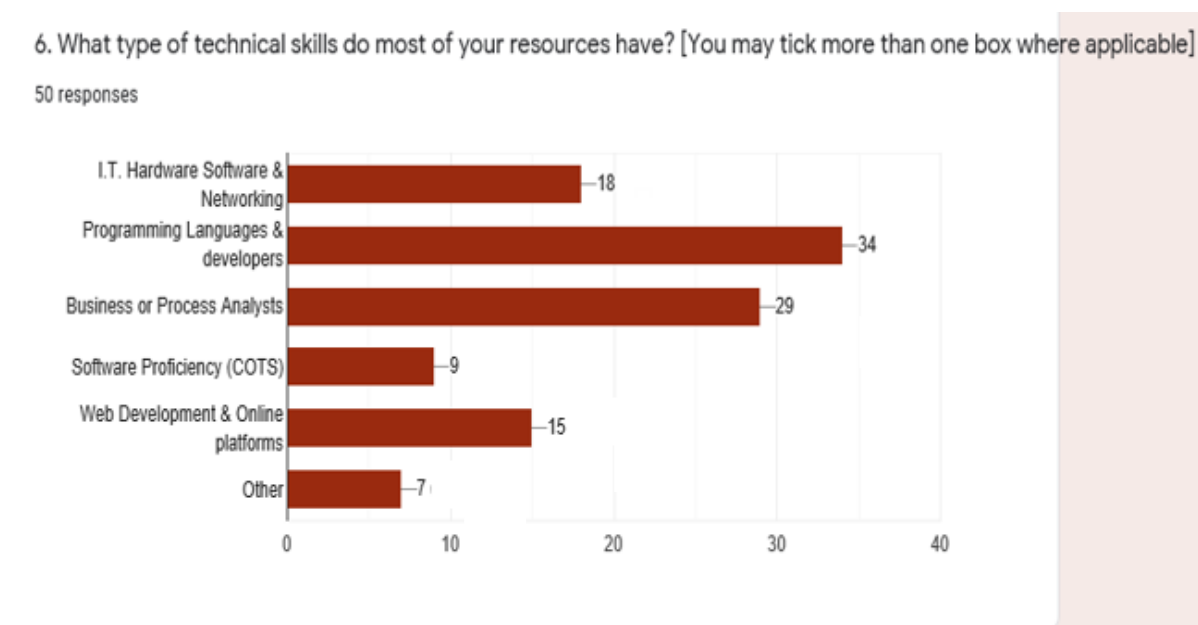


Figure 4.5: Managers' and leaders' skills under management

Although there were only 50 responses, 112 selections were made, indicating that managers and leaders are managing teams with many different skill sets. The most predominant skill sets were 30% programming languages or developers, 26% business or process analysts, 16% IT hardware and software networking skills.

Table 4.3: Specific technical skills managed

If other please explain below;
10 responses

| |
|---|
| Product development/ product lifecycle |
| Banking Platform Administration |
| System support |
| Scrum Master, QA, Architecture |
| I currently do not manage any resources |
| Product Owners |
| Project, Programme and Portfolio Management |
| Solution Architecture & Enterprise Architecture |
| N/A |

Question 7: Where is your company located?

This question was mandatory and contained 12 options, which broadly encompassed the Western Cape. This was intended to provide the researcher with the geolocation of respondents.

Results:

7. Which area in the Western Cape is your company located within?

50 responses

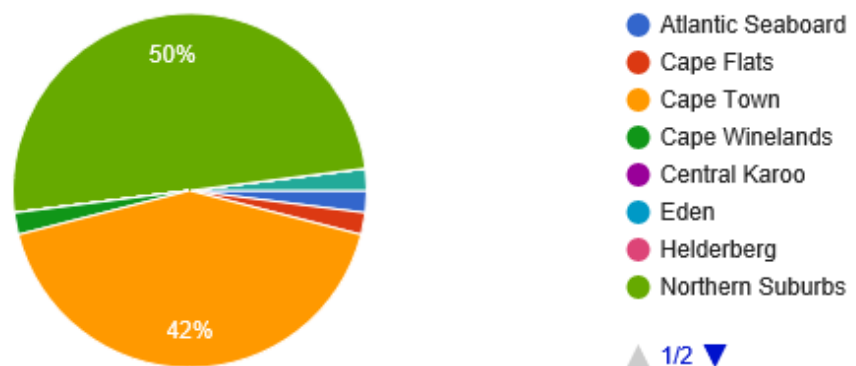


Figure 4.6: Managers', leaders' company location

The clear majority of respondent were either from the northern suburbs (50%) or from Cape Town (42%). This is in line with the researcher's expectations, as both are central business districts that house major corporation head offices.

Question 8: What does your company do within the economy?

This question was mandatory and contained 12 options to indicate the market sector in which the company operates, to provide the industry categorisation of respondents.

Response:

8. Please indicate the industry or market sector that your company operates within:

50 responses

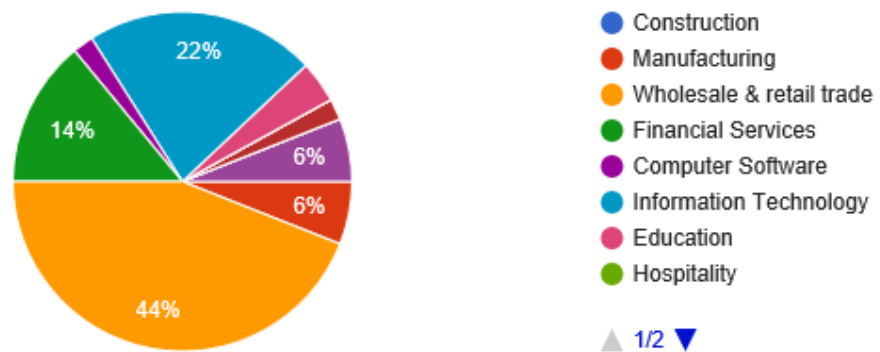


Figure 4.7: Managers', leaders' industry sector

The main markets or company sectors of respondents were indicated as wholesale and retail trade (44%), followed by construction (22%) and financial services (14%), making up 80% of respondents.

Table 4.4: Specific company contribution to economy

If other, please specify;

6 responses

| |
|--|
| Non profit sector |
| Engineering |
| While in Western Cape my role was Microsoft Engagement Manager - Role specified above is my current role which is now in Gauteng |
| All Industries |
| Retail industry |
| N/A |

4.7 Section C: Thirty multi-factor leadership questions

A statement was provided to guide the respondents in answering the questions. They were instructed to indicate how frequently each statement fit their leadership style by checking the most applicable button. The weightings were indicated from 1 to 5 on an increasing scale.

1 – Not at all, 2 – Once in a while, 3 – Sometimes 4 – Often, 5 – Almost always.

Question 1: Are you optimistic, a characteristic of inspirational motivation?

I have an optimistic and enthusiastic outlook

50 responses

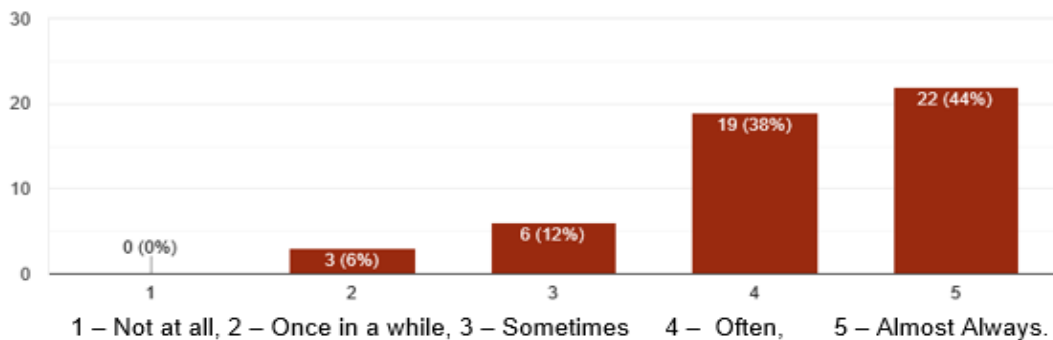


Figure 4.8: Optimism as characteristic of inspirational motivation

The majority (82%) of respondents indicated that they either almost always (44%) or often (38%) had an optimistic and enthusiastic outlook; 6% indicated having these traits sometimes. This is an important characteristic of transformational leadership, Lingat *et al.* (2019), who conducted a study in Kenya, concluded that transformational leadership has a positive influence on employee job performance among lower level managers in the Kenyan insurance industry. The 82% majority implies that optimism and an enthusiastic outlook are characteristics of transformational leadership that enhance follower performance.

Question 2: Are you willing to take risks and be bold, a characteristic of idealised influence?

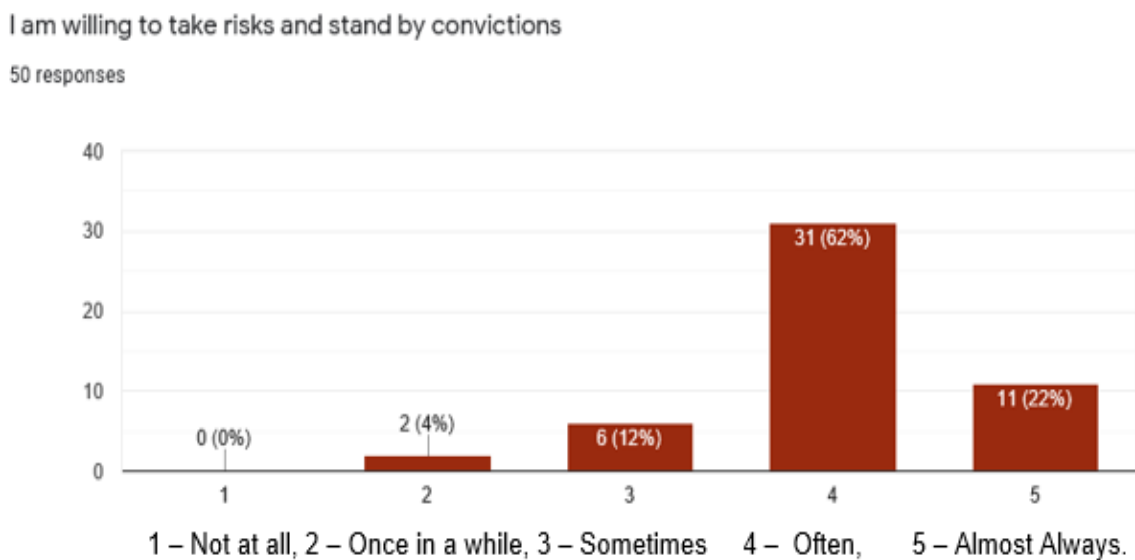


Figure 4.9: Risk-taking characteristic of idealised influence

Of the respondents, 62% indicated that they were often willing to take risks and stand by convictions. A further 22% indicated that they displayed this behaviour almost always. This implies that 84% of the surveyed population were willing to take risks, whereas 16% were more risk-averse.

Question 3: Do you know the needs of the people you manage, a characteristic of individualised consideration?

I know specifically what my followers or resources desire

50 responses

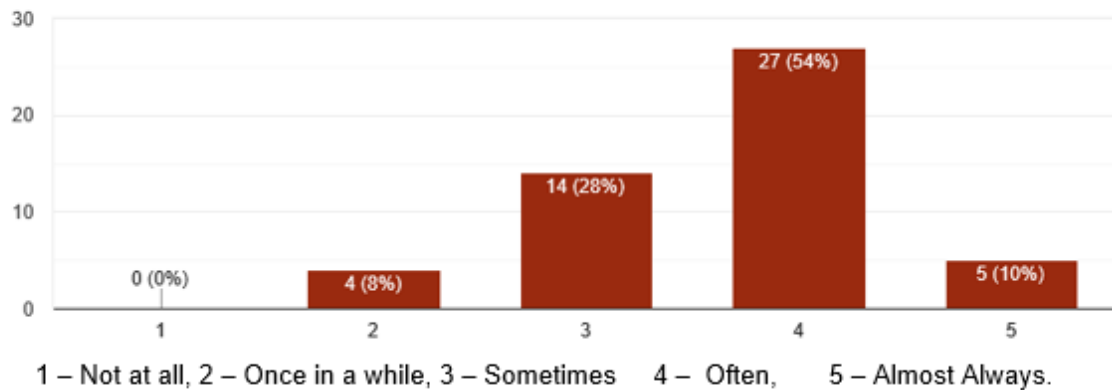


Figure 4.10: Knowledge of people's needs

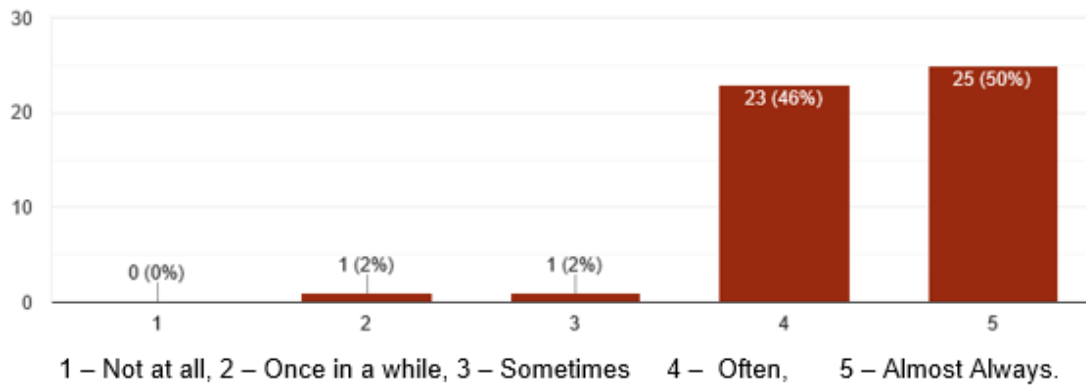
Most of the respondents (54%) indicated that they often knew specifically what their resources desired; 10% indicated that they almost always did. What is surprising is that a large portion (28%), indicated sometimes and 8% once in a while. This indicates that potentially 36% of manager and leader respondents may be out of touch with their followers' needs and display more of a laissez faire type management style.

Zacher *et al.* (2014) explored the relationship between personal wisdom and leader-follower exchange quality. They deduced that the leader's personal wisdom had an indirect effect on the quality of exchange through individualised consideration, a characteristic of transformational leadership. The survey results suggest that 64% of respondents realise the value of being in touch with followers' needs. This may further link to Questions 3 and 4 of section A, the biographical questions, which indicated that 50% had more than 11 years' experience and 54% of respondents had tertiary qualifications. Both these factors suggest the accumulation of personal wisdom.

Question 4: Do you encourage team participation in problem-solving, a characteristic of intellectual stimulation?

I involve and encourage resources to contribute to problem solving

50 responses



!

Figure 4.11: Encouragement of team participation in problem-solving

Half of the respondents (50%) indicated that they almost always encouraged resources to contribute to problem-solving and 46% indicated that they often did this. This is an overwhelming majority of 96%. Generally, in IT projects it is the technical resources that solve technical problems, therefore it is likely that the level of technical skills will have an impact on the quality of the solution, effectiveness of transformational leadership and overall project success.

Question 5: Do you incentivise staff to complete work, a characteristic of transactional leadership?

I call attention to incentives for work to be accomplished

50 responses

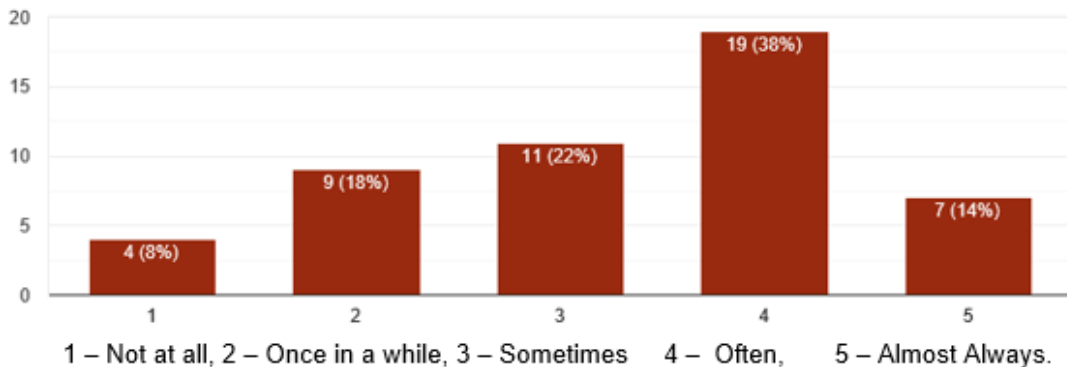


Figure 4.12: Incentivising staff to complete work

The percentage of respondents who indicated that they did not incentivise staff at all or only once in a while was 26%, while 52% indicated that they often or almost always did this; 22% were on the fence, indicating sometimes. This indicates that over half of respondents incentivised their followers to achieve goals. This result is not surprising, as all employees are generally working for a salary and not for philanthropic reasons. It also refers to the main research question, examining the relationship between transformational leadership and technically skilled resources. In conjunction with transformational characteristics, it is necessary to determine if incentives motivate skilled resources to achieve project goals and whether one type of leadership style is sufficient to inspire and incentivise people, or whether a blend of styles could yield greater success. Hamstra *et al.* (2014) posit that transformational leadership relates to followers' endorsement of mastery of goals, while transactional leadership relates to the followers' endorsement of achieving performance goals. Although in the short term both outcomes may be satisfactory, it is necessary to know which of these two styles produces the more favourable outcome in the long term or overall.

Question 6: Do you allow work to continue, a characteristic of laissez faire leadership?

I offer guidance only where it is necessary

50 responses

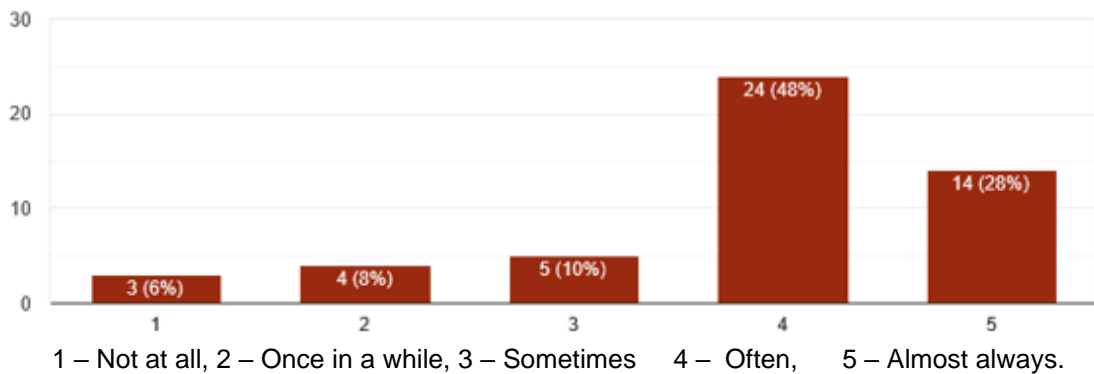


Figure 4.13: Allowing work to continue

The percentage of respondents who indicated that they offer guidance either often or almost always where necessary was 76%. Only 6% indicated that they do not offer guidance at all and 8% said they did so once in a while. This result is not surprising when managing technically skilled resources.

Question 7: How do you think you communicate? This is a characteristic of inspirational motivation.

I communicate precisely and powerfully in simple words

50 responses

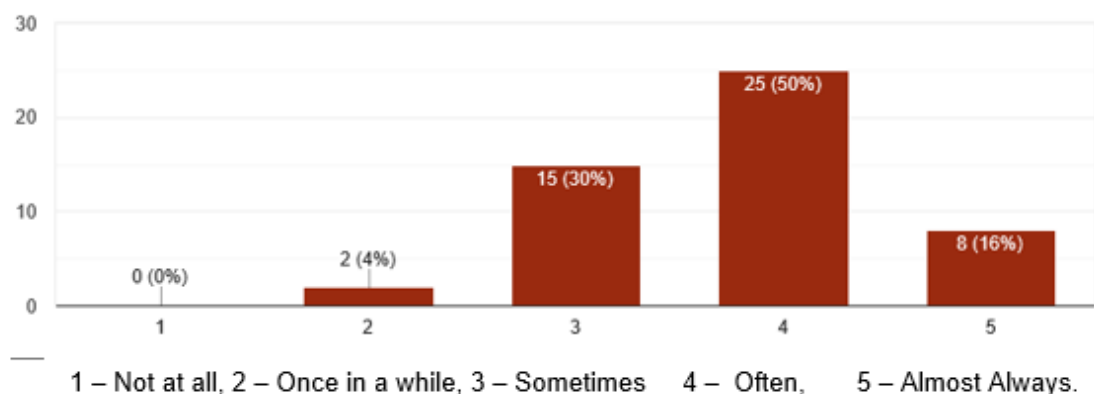


Figure 4.14: Perception of communication

Respondents who indicated that they only sometimes communicated clearly and powerfully in simple words formed 30% of the total, while 66% indicated that this was often or almost always the case. This may imply that there is room for improvement in terms of how communication is transmitted and received.

Question 8: Is building trust and confidence, which is a characteristic of idealised influence, important?

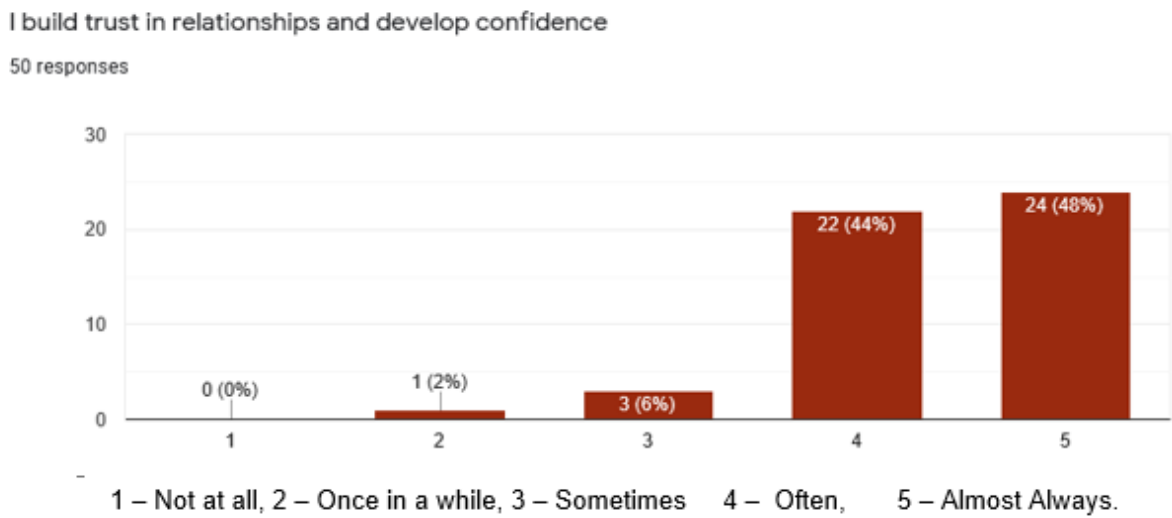


Figure 4.15: Importance of building trust and confidence

An overwhelming 92% of respondents indicated that they either often or almost always built trust in relationships and developed confidence in followers. This result indicates how important trust is to the manager, leader and follower dynamic.

Question 9: Do you consider resource feedback on performance valuable? This is a characteristic of individualised consideration.

I provide resources with feedback to let them know how I think they are performing

50 responses

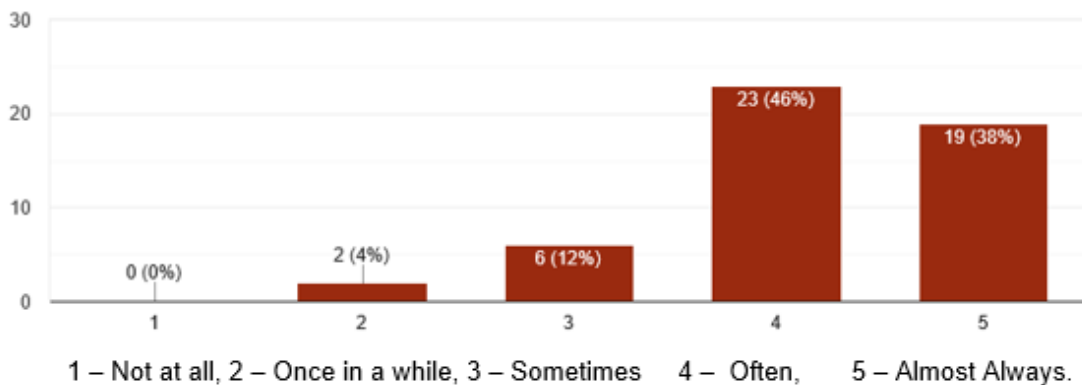


Figure 4.16: Response feedback on performance

Respondents who indicated that they either often or almost always provide feedback to followers to let them know how they were performing formed 84% of the total. This result signifies the importance of feedback on performance retrospectively and indicates one of the characteristics of transformational leadership, individualised consideration.

Question 10: Are you able to stimulate creativity and inspire resources to be innovative, a characteristic of intellectual stimulation?

I stimulate creativity and inspire resources to be innovative

50 responses

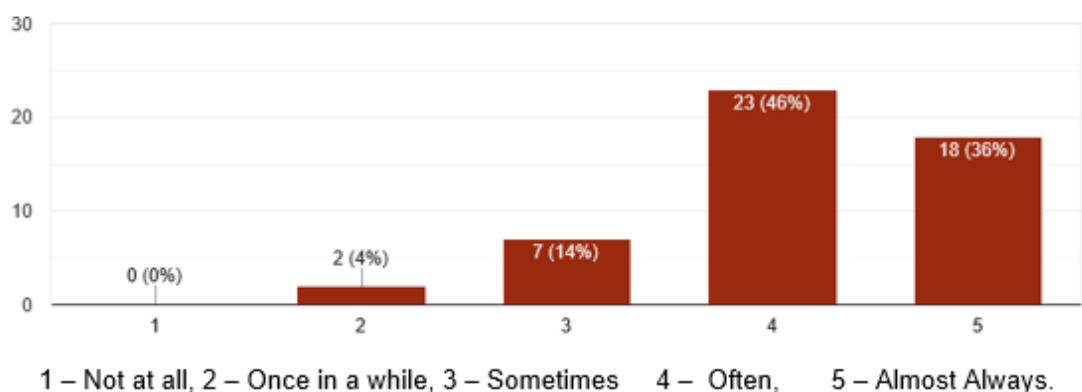


Figure 4.17: Ability to stimulate creativity and innovation

Over a third of respondents (36%) indicated that they almost always stimulated creativity and inspired resources to be innovative. A further 46% indicated that they often displayed this character trait. This equates to 84% of the sampled population. In the IT industry inability to be creative and innovative can stifle growth and performance. The application of this characteristic is related to the investigative sub-question and can improve the likelihood of successful project outcomes. Transformational leaders can be described as intellectually stimulating, challenging followers to see things from different perspectives (Hetland *et al.*, 2011).

Question 11: How do you define and measure success? This question relates to transactional leadership.



Figure 4.18: How success is measured

The results relating to this question are surprisingly evenly split: 38% of respondents indicated not at all or once in a while, 34% indicated sometimes and 28% indicated often or almost always. This issue identifies division and misalignment in terms of follower success measurement, organisational goals, rewards and penalties. The findings of Hamstra *et al.* (2014) suggest that organisations may promote transactional leadership in terms of rewards, but that leadership style plays an important role with regard to follower adoption and goal achievement.

Question 12: What is your leadership style? This question relates to laissez faire leadership.

I prefer to be more hands off and allow the work to continue

50 responses

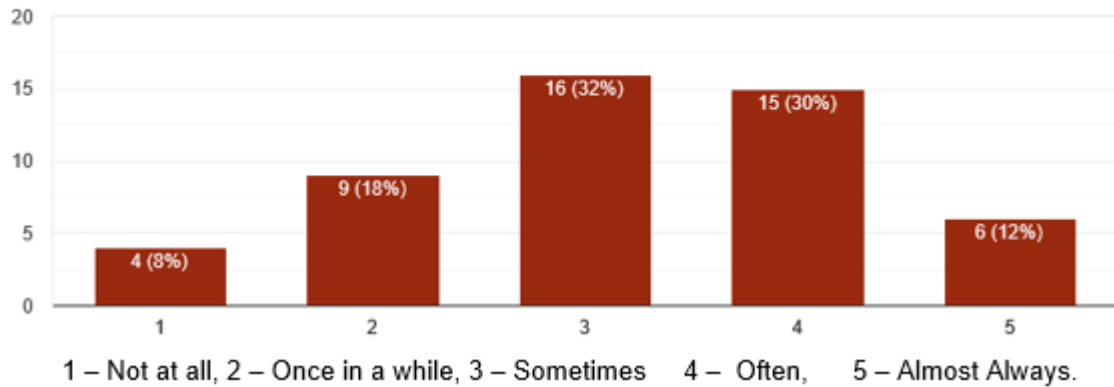


Figure 4.19: Leadership style practised

A minority of respondents (26%) indicated that they were not at all inclined to be hands-off or only operated like that once in a while, while 42% indicated that they did this often or almost always, while 32% were on the fence, indicating sometimes. This indicates quite an even split; the majority of respondents preferred to be more hands-off, while slightly less than one third of respondents preferred to be more hands-on.

Question 13: Do you seek the positive in situations, a characteristic of inspirational motivation?

I'm always able to point out the positive in situations

50 responses

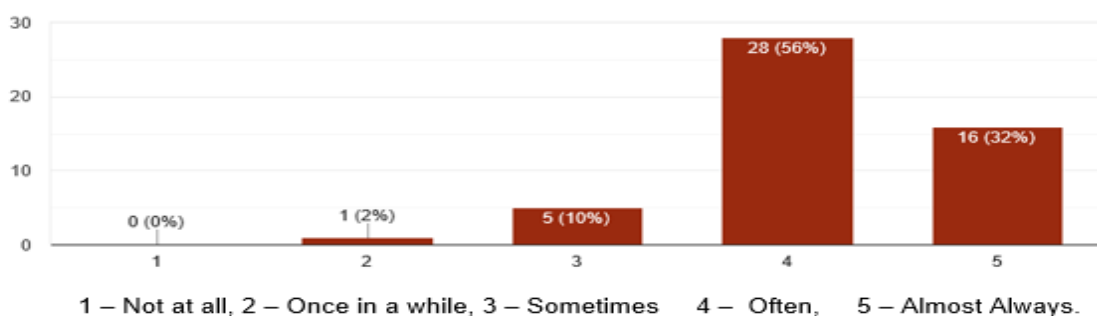


Figure 4.20: Positivity in situations

The overwhelming majority (88%) indicated that they often or almost always pointed out the positive in situations. This result resonates with one of the investigative sub-questions on characteristics of transformational leadership that enhance follower performance in projects. Zacher *et al.* (2014) hypothesised that there are no links between a leader's personal wisdom and inspirational motivation.

Question 14: Do you think that you are charismatic? This is a characteristic of idealised influence.

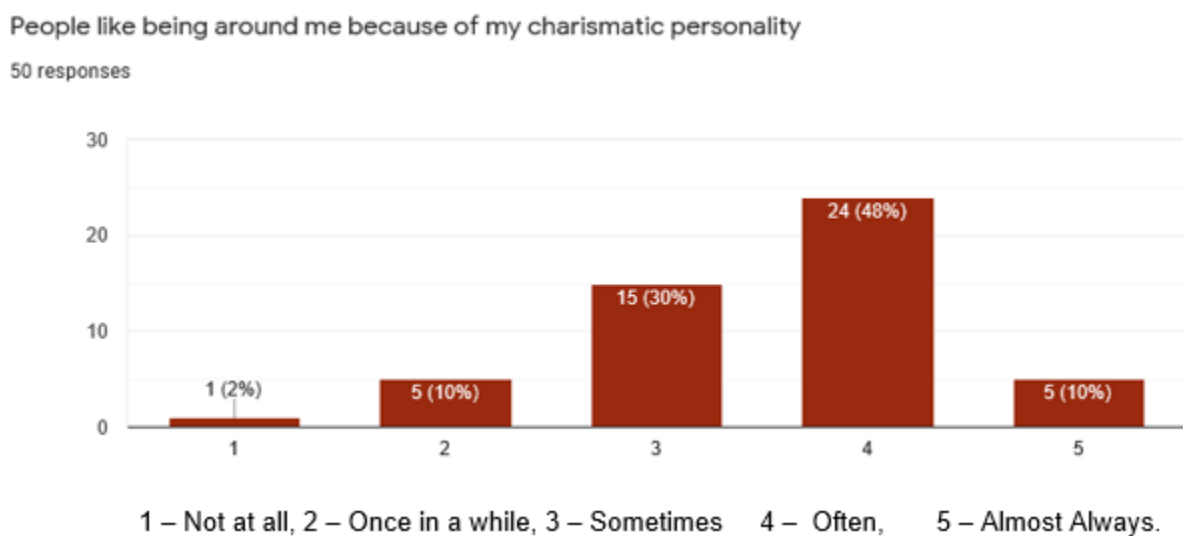


Figure 4.21: Perception of charismatic personality

Almost half (48%) of the respondents indicated that followers liked being around them often because of their charismatic personality, while 30% claimed to display this trait sometimes. In total 88% of respondents indicated that they possessed charismatic personality traits.

Question 15: Are you observant towards your followers? This is characteristic of individualised consideration.

I observe the behaviour of my followers

50 responses

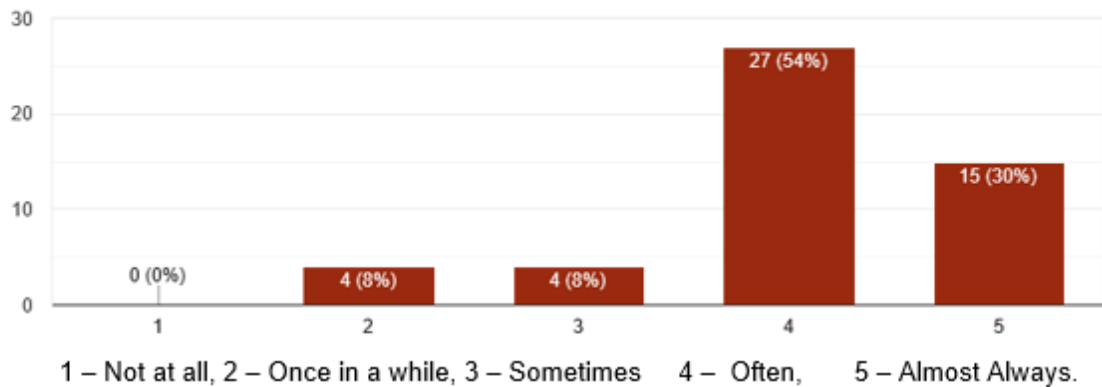


Figure 4.22: Being observant of followers

Most respondents (84%) indicated that they often or almost always observed the behaviour of their followers. These results refer to the relationship between leaders and followers; in order to maintain followership, leaders must understand the needs and wants of their people on an individual basis. The majority of respondents believed this to be an important function or characteristic of leadership.

Question 16: Do you create a safe environment for resources to be open and intellectually stimulated?

I solicit ideas from resources without criticizing

50 responses

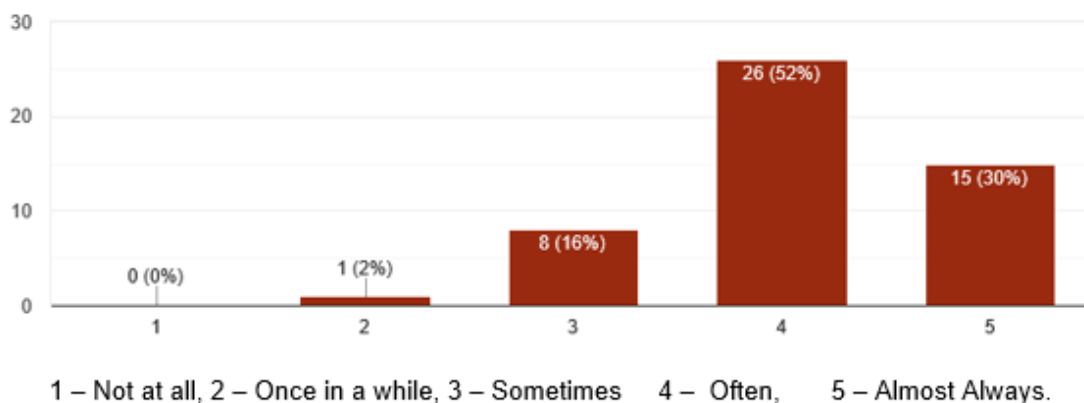


Figure 4.23: Creating safe environment for resources

The vast majority (82%) of respondents indicated that they often or almost always solicited ideas from their followers without criticism; 16% indicated that they practised this behaviour only sometimes.

Question 17: Do you conform to organisational structures and goals, a characteristic of transactional leadership?

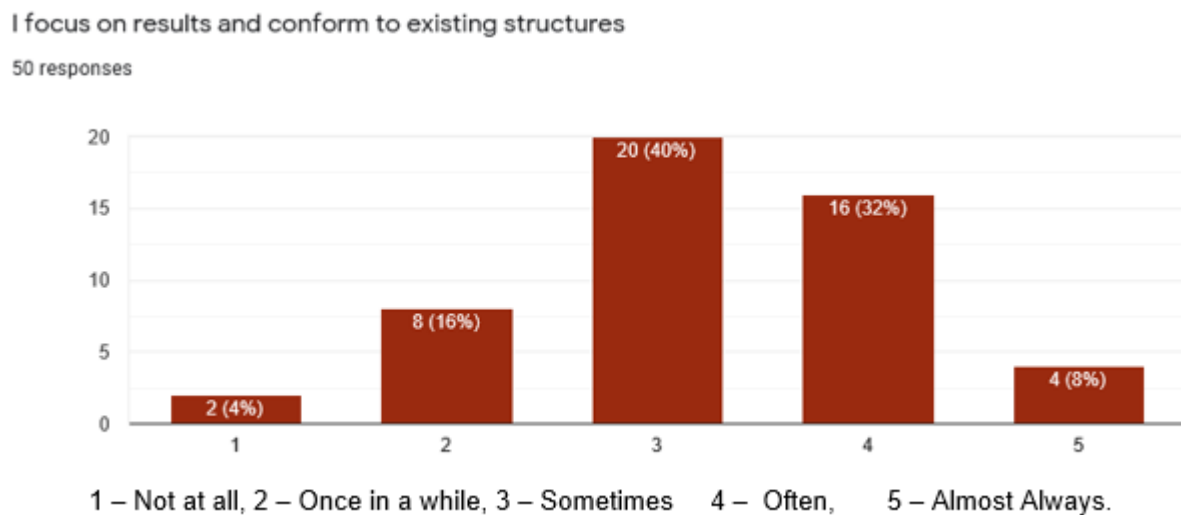


Figure 4.24: Conforming to organisational structures and goals

In respect of conforming to organisational structures and goals, 20% of respondents indicated that they did not do this at all or only once in a while, while 40% indicated that they often or almost always conformed. Another 40% indicated only conforming sometimes. This result was of interest and suggested the basis for duality. It refers directly to the main research question in examining the relationship between transformational leadership and technically skilled resources in the execution of IT projects. Hamstra *et al.* (2014) highlight the long-term differences between transactional leadership and transformational leadership in terms of followers' personal growth. They allude to organisational structures and conformance to goals. Project managers and operational managers all have line managers and are responsible for achieving company targets, service levels, goals and project objectives. In most cases followers and leaders receive monetary incentives or rewards for reaching organisational goals. This result suggests that leadership submits or conforms to company goals and implies that more than one type of leadership style

can be employed in the execution of IT projects in the Western Cape. The seniority or level of management may also have had an impact on this result; lower level managers are statistically less likely to take risks for fear of losing their employment.

Question 18: How hands-on are you? The question refers to laissez faire leadership.

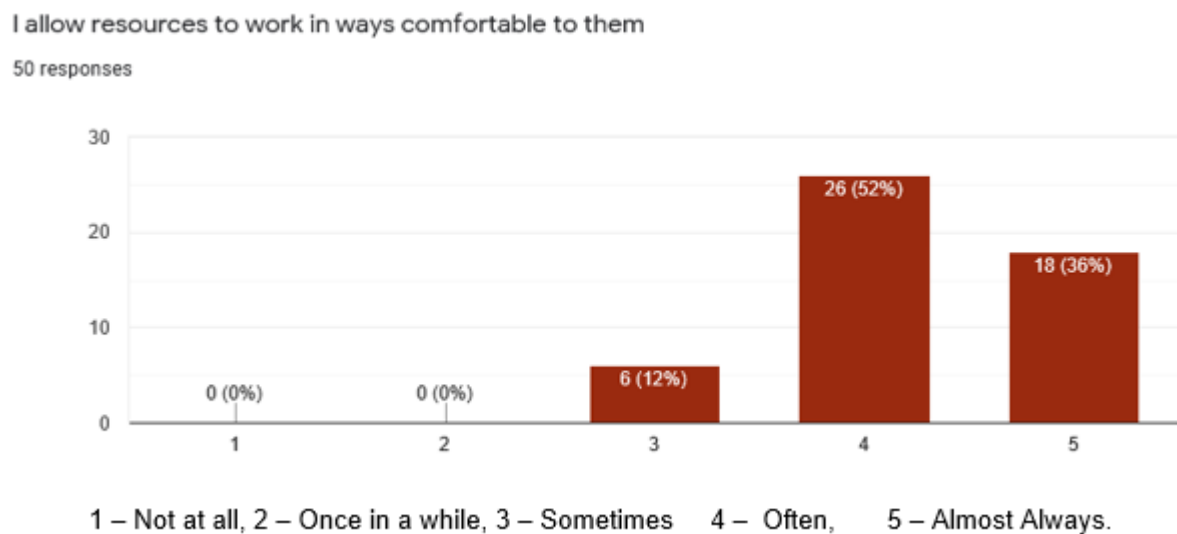


Figure 4.25: Hands-on characteristic of leadership

Most respondents (88%) answered that they were often or almost always hands-on, indicating consensus that comfort in ways of working is an important hygiene factor. This result is not surprising, as in the IT industry skilled resources are often knowledge experts in their field. As Steve Jobs said, one hires smart people, so they can tell one what to do.

Question 19: Do you value your staff and the work they do? This is a characteristic of inspirational motivation.

I assist resources to see the meaning in the work they do

50 responses

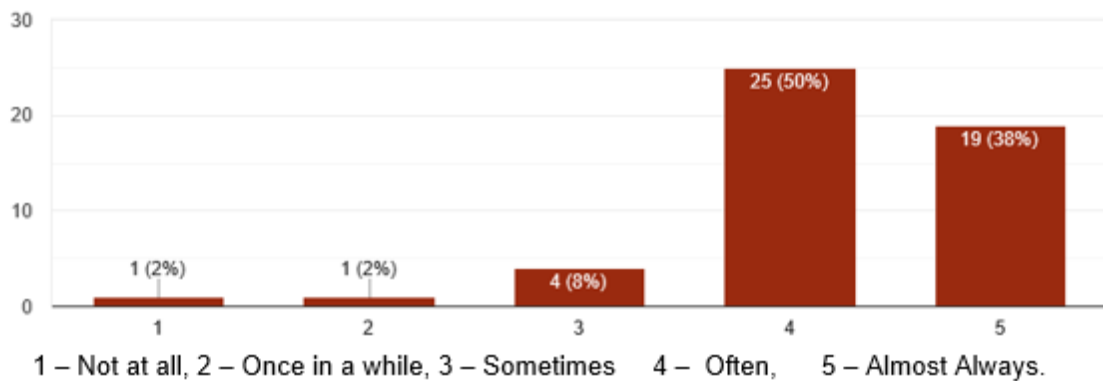


Figure 4.26: Valuing staff and the work they do

To this question, which is related to purpose, 88% of respondents replied that they often or almost always valued their staff and the work they did. Most respondents indicated that identifying meaning was an important leadership trait to followers. This is an important characteristic of transformational leadership and the overwhelming response suggests that management's awareness of the meaning behind the work being undertaken may lead to an improved likelihood of successful IT project outcomes. The findings of a study by Langat *et al.* (2019) recommend that employees should fit into the culture of an organisation, thus allowing the organisation to benefit from transformational leadership.

Question 20: Must leaders have integrity, a characteristic of idealised influence?

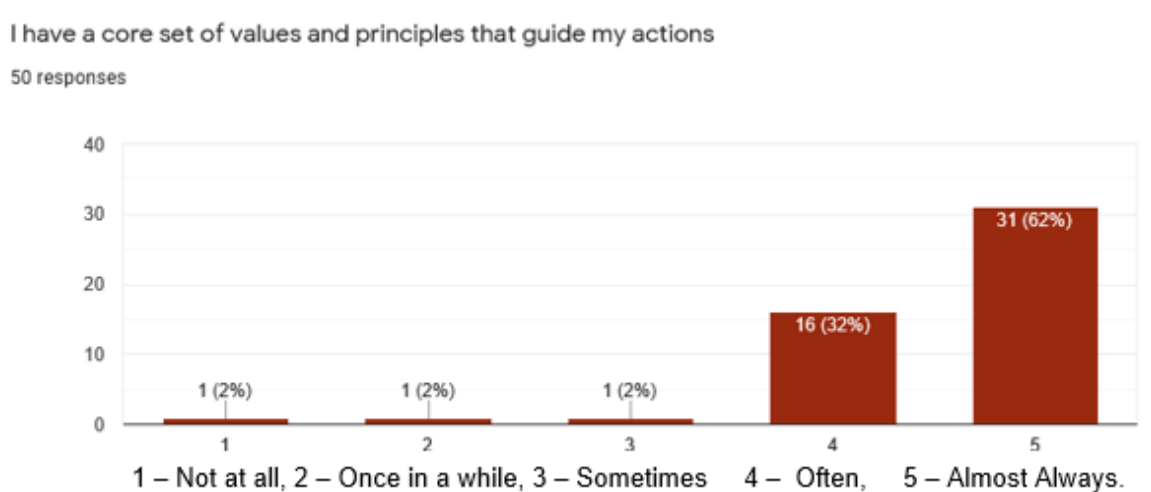


Figure 4.27: Integrity of leadership

In answer to this question, 62% of respondents indicated that it is almost always required; 32% indicated that it often is. In total 94% of respondents had a set of core values and principles guiding their actions as leaders or managers. This was an expected result referring to the characteristics of transformational leadership, namely idealised influence that enhances follower performance.

Question 21: How well do you know the needs of your resources, a characteristic of individualised influence?

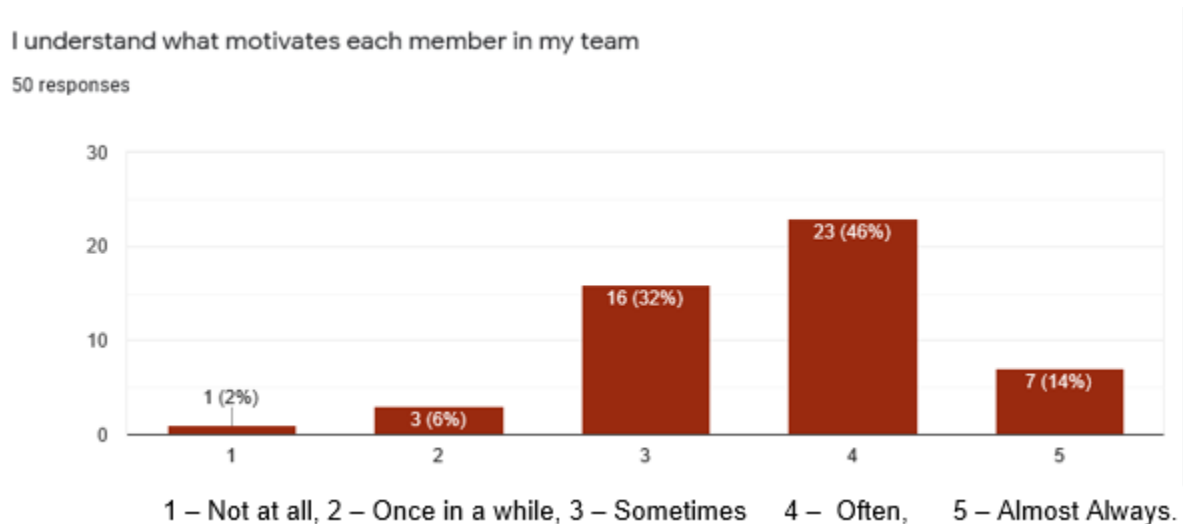


Figure 4. 28: Knowing the needs of one's resources

In terms of what motivates their teams, 46% indicated that they often knew this, while 14% indicated that they almost always did and 32% indicated that they sometimes understood what motivated each member of their teams. The result implies the importance of knowing what motivates skilled resources or followers to align them behind a common goal.

Question 22: Do you engage and challenge your followers, a characteristic of intellectual stimulation?

I challenge assumptions and solicit ideas from resources
50 responses

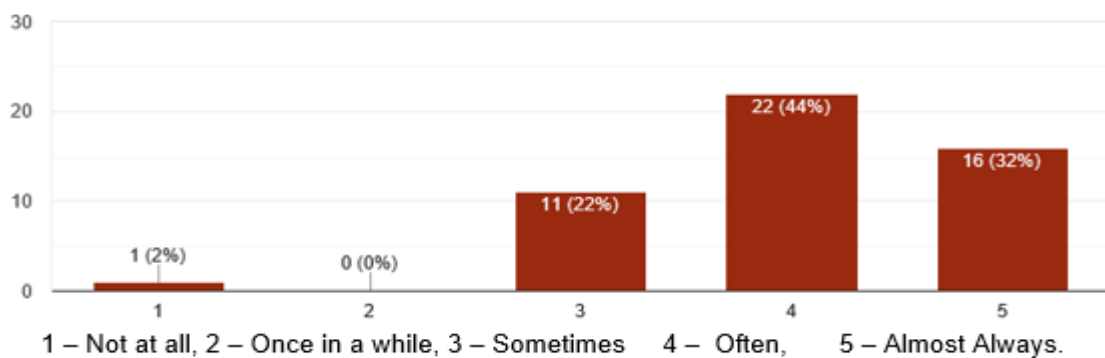


Figure 4.29: Engaging and challenging followers

Almost half of the respondents (44%) indicated that they often did this, 32% indicated almost always, while 22% said they only challenged assumption and solicited ideas from resources sometimes.

Question 23: How do you like to lead? Telling is a characteristic of transactional leadership.

I often tell my staff exactly what to do
50 responses

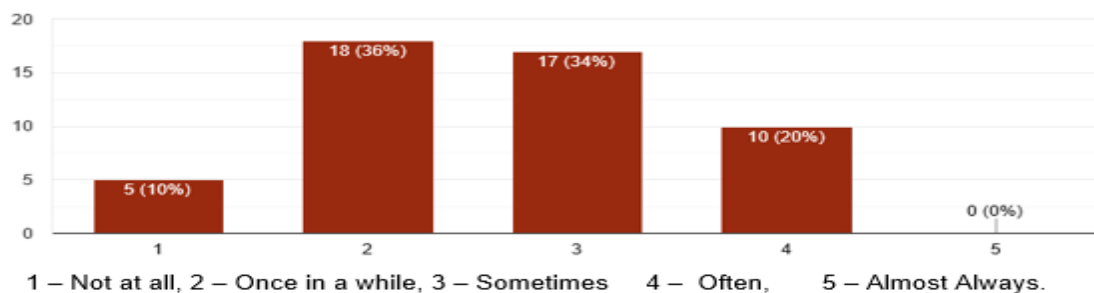


Figure 4.30: Characteristic of telling leadership

No managers or leaders indicated that they almost always told their staff what to do, 20% said they often did this and 34% that they sometimes did, while 46% indicated not at all or once in a while. This result is not surprising, as the level of guidance and direction required may depend on the skill of resources. The more skilled, the less direction or guidance is required.

Question 24: How involved are you in the day-to-day work, a characteristic of laissez faire leadership?

My followers require very little guidance from me to perform

50 responses

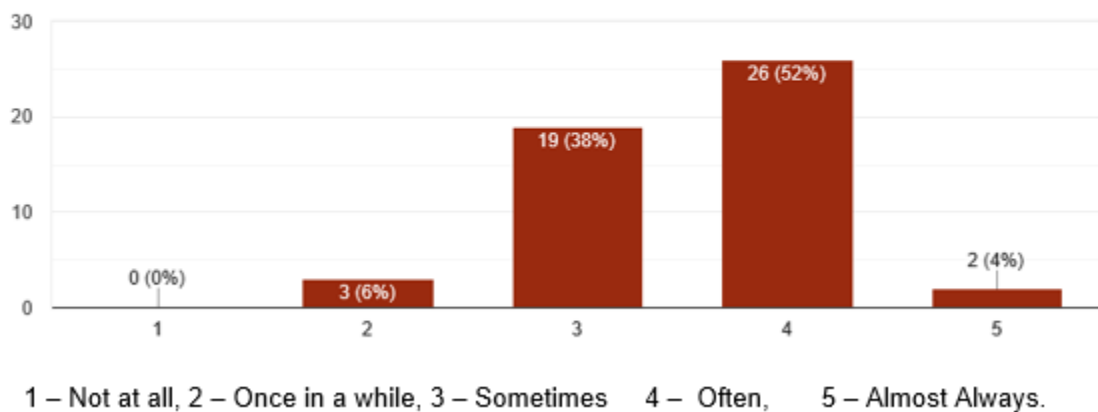


Figure 4.31: Involvement in day-to-day work

Just more than half of respondents (52%) indicated that their followers often required little guidance, while 38% indicated that this sometimes happened. This result was also expected; it is indicative of skilled resources and the IT industry in general.

Question 25: How do you seek commitment from resources? This is a characteristic of inspirational motivation.

I communicate expectations and seek firm commitment to goals

50 responses

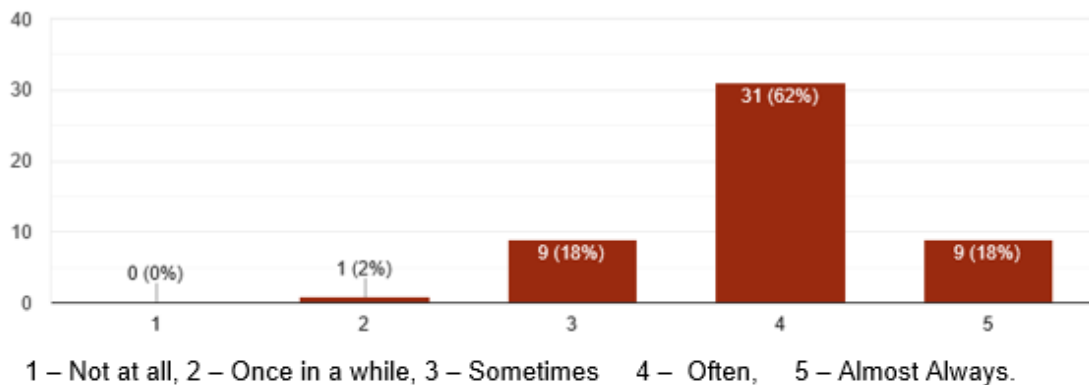


Figure 4.32: Seeking commitment from resources

Most respondents (80%) indicated that they often or almost always communicated expectations and sought firm commitment to goals. This result is related to the main research question. It implies that goal setting and commitment are important in the relationship between leaders and followers. Zhou *et al.* (2012) posit that intellectual stimulation inspires creative action by challenging practices to develop detailed strategies or plans to succeed.

Question 26: How do you think your staff feel about you? This is a characteristic of idealised influence.

My staff are proud to be associated with me

50 responses

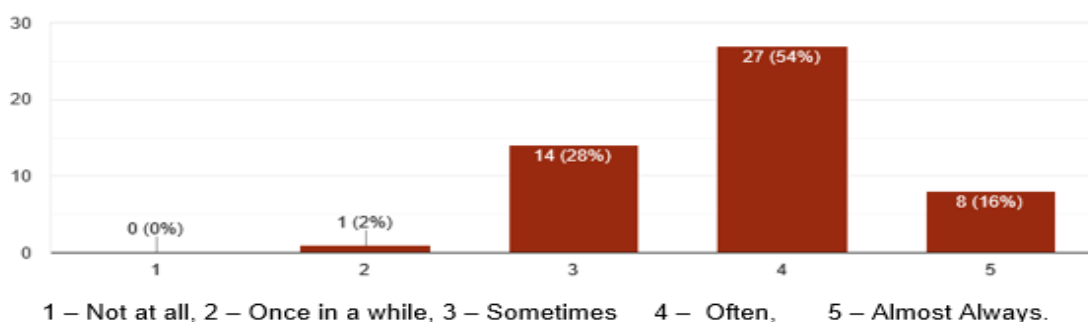


Figure 4.33: Staff's feeling towards the leader

Most of the respondents (70%) indicated that their staff were often or almost always proud to be associated with them, while 28% indicated that this was sometimes the case.

Question 27: Do you see value in coaching or personal development, a characteristic of individualised consideration?

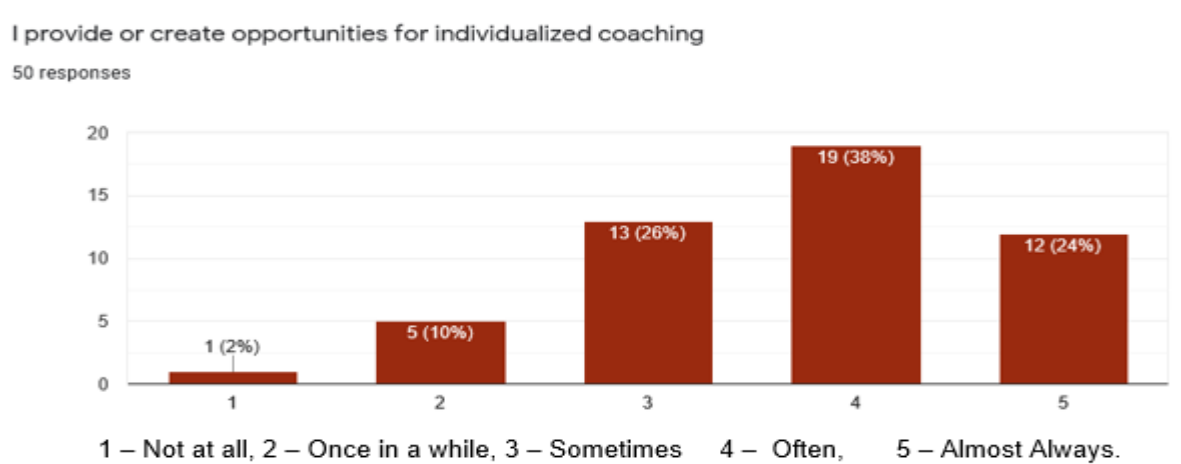


Figure 4.34: Creating opportunities for individualised coaching

Of the respondents who indicated that they created opportunities for individualised coaching, 62% said that they often or almost always did this, while 26% indicated that they sometimes did. This result is not surprising; most organisations create structures for goal-setting and performance discussions. This result refers to the main research question and validates that leaders realise the value of these interactions in building positive relationships. Snell *et al.* (2013) infer that low job satisfaction can be linked to neglect and negative slanting. This refers to managers with low individualised consideration competence.

Question 28: Do you value your resources' contributions, a characteristic of intellectual stimulation?

I help resources to see the big picture and how they contribute

50 responses

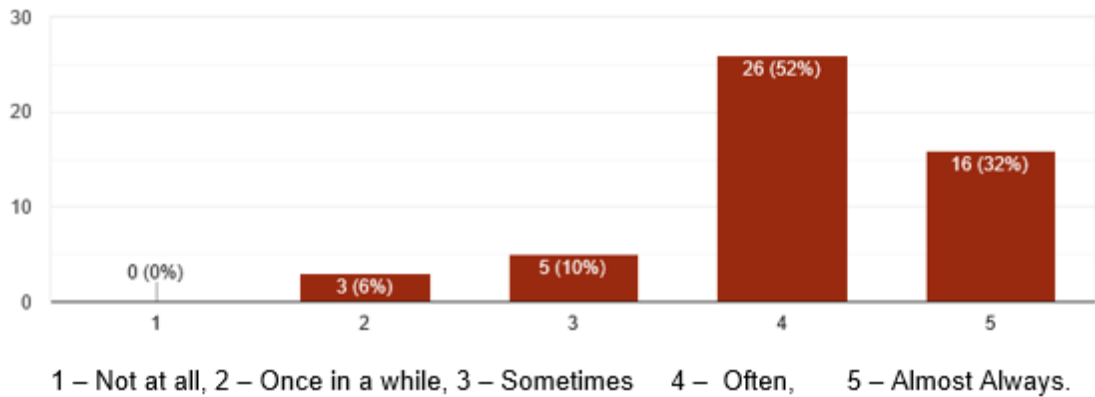


Figure 4.35: Valuing resources' contributions

Most respondents (84%) indicated that they often or almost always helped resources to see the bigger picture and the role of their contribution, while 10% indicated that they sometimes did this. This result is in line with expectations.

Question 29: How important is structure and rigidity? This is a characteristic of transactional leadership.

I must have a structured environment with clear rules, regulations

50 responses

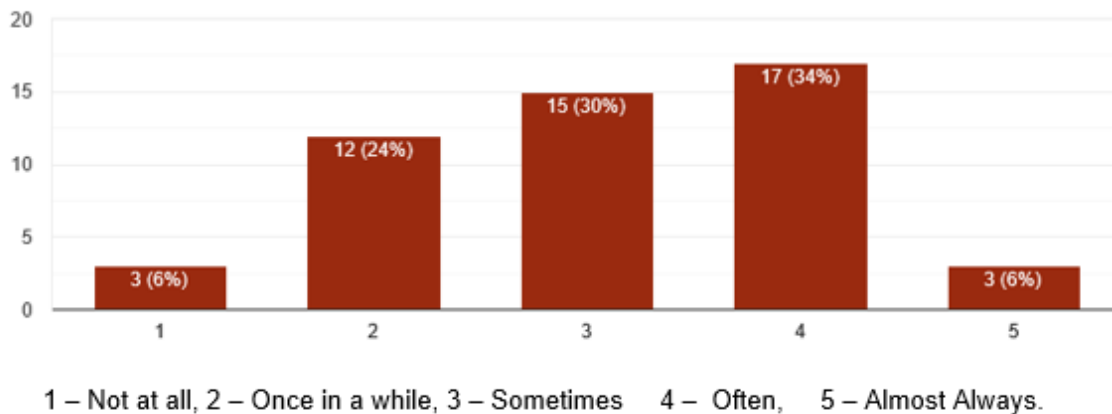


Figure 4.36: Importance of structure and rigidity

Surprisingly, there was an even split in responses to this question: 30% indicated that they did not require a structured environment with clear rules and regulations at all or

only once in a while, whereas 30% indicated that they needed it sometimes and 40% indicated that they often or almost always needed it. Companies are moving away from standard, heavy methodologies, for example PMBOK towards more agile methodologies such as scrum and DSDM. This may explain the even split between operational and project managers.

Question 30: How dependant are your resources on you? This refers to a characteristic of laissez faire leadership.

My staff are mostly self-starters and don't need ongoing feedback

50 responses

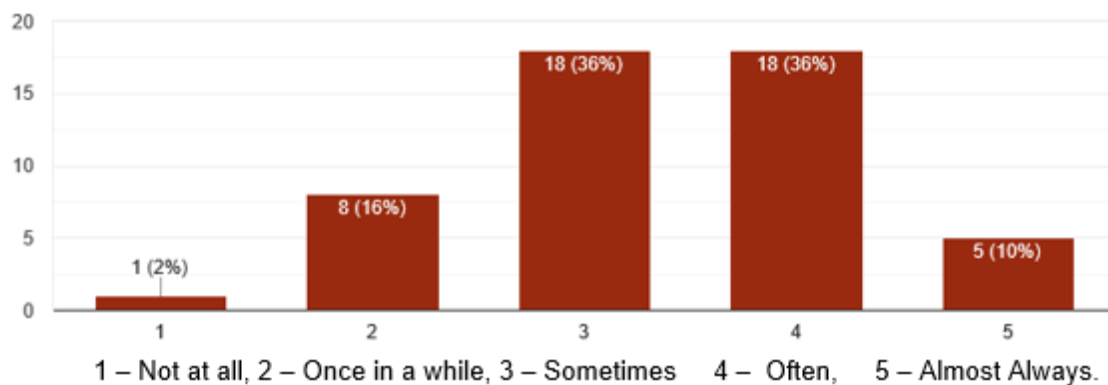


Figure 4.37: Dependence on your resources

In respect of staff not requiring constant feedback, 36% indicated that this was sometimes the case, 36% indicated that it often happened and 10% said almost always: their staff were mostly self-starters and did not require ongoing feedback. These results are in line with expectations and indicative of the relationship between leaders and followers; a certain amount of autonomy is expected although there must be an element of control.

4.8 Explanation of scoring

This questionnaire was designed to provide a description of the respondents' leadership style in relation to transformational leadership, based on six characteristics

and 30 questions. It sought to provide insight into the leadership style of managers or leaders in the execution of IT projects when leading skilled resources.

- | | |
|---------------------------------|--------------------------------|
| 1. Inspirational motivation | Questions 1, 7, 13, 19 and 25 |
| 2. Idealised influence | Questions 2, 8, 14, 20 and 26 |
| 3. Individualised consideration | Questions 3, 9, 15, 21 and 27 |
| 4. Intellectual stimulation | Questions 4, 10, 16, 22 and 28 |
| 5. Transactional leadership | Questions 5, 11, 17, 23 and 29 |
| 6. Laissez faire leadership | Questions 6, 12, 18, 24 and 30 |

The scoring works as follows:

- | | |
|---------------------------------------|-------|
| 1. Factor 1 (1, 7, 13, 19 and 25) /5 | _____ |
| 2. Factor 2 (2, 8, 14, 20 and 26) /5 | _____ |
| 3. Factor 3 (3, 9, 15, 21 and 27) /5 | _____ |
| 4. Factor 4 (4, 10, 16, 22 and 28) /5 | _____ |
| 5. Factor 5 (5, 11, 17, 23 and 29) /5 | _____ |
| 6. Factor 6 (6, 12, 18, 24 and 30) /5 | _____ |

- | | |
|---------------|------------|
| Very high | = 5 points |
| Above average | = 4 points |
| Average | = 3 points |
| Below average | = 2 points |
| Very low | = 1 point |

4.8.1 Inspirational motivation, questions 1, 7, 13, 19 and 25

To obtain the weighted average below, each percentage achieved was weighted against the score the option represented and then all were summed together to produce an average. See example below. This was done for all 30 questions.

Table 4.5: Scoring - explanation of weighted average

| Question 1 | | | | |
|------------|-----------------|-----------|-------|---------------|
| Not at all | Once in a while | Sometimes | Often | Almost always |
| 0% | 6% | 12% | 38% | 44% |
| - | 0.12 | 0.36 | 1.52 | 2.20 |
| 4.20 | | | | |

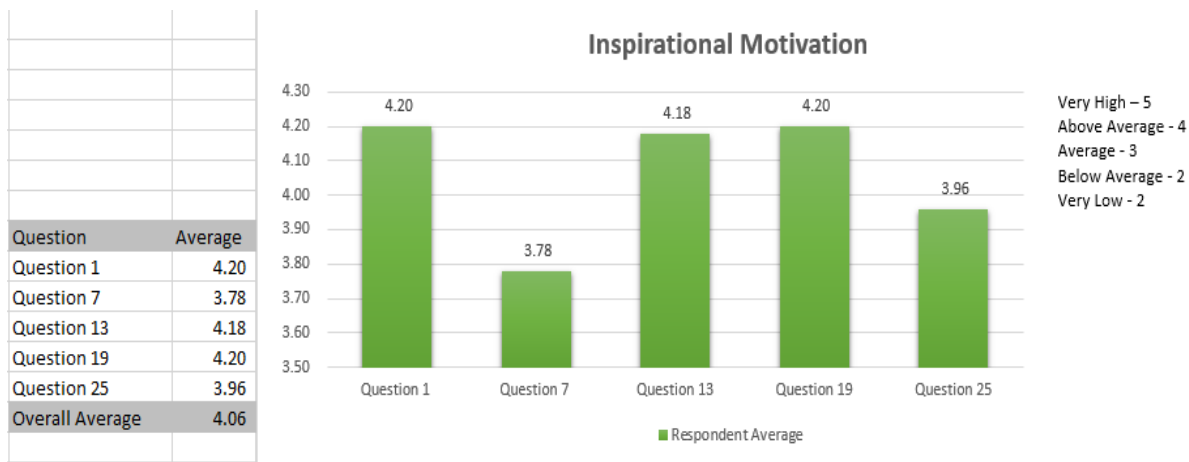


Figure 4.38: Managers and leaders - Inspirational motivation summary of results

Although questions 7 and 25 indicated the average range, overall for all inspirational motivation questions the mean was above average (4.06) for this competency. This could possibly be because Question 7 was subjective and asked the leaders to critique themselves; leaders are conditioned to believe that no one is perfect and there is always room for improvement. The result indicates positively that the surveyed population see the value of inspirational motivation when building relationships and leading skilled resources in the execution of IT projects in the Western Cape. Langat *et al.* (2013) conducted a study in Kenya to understand the impact of perceptions of supervisors' individualised consideration on employee satisfaction and concluded that inspirational motivation indeed influenced job performance among lower level managers.

4.8.2 Idealised influence, questions 2, 8, 14, 20 and 26

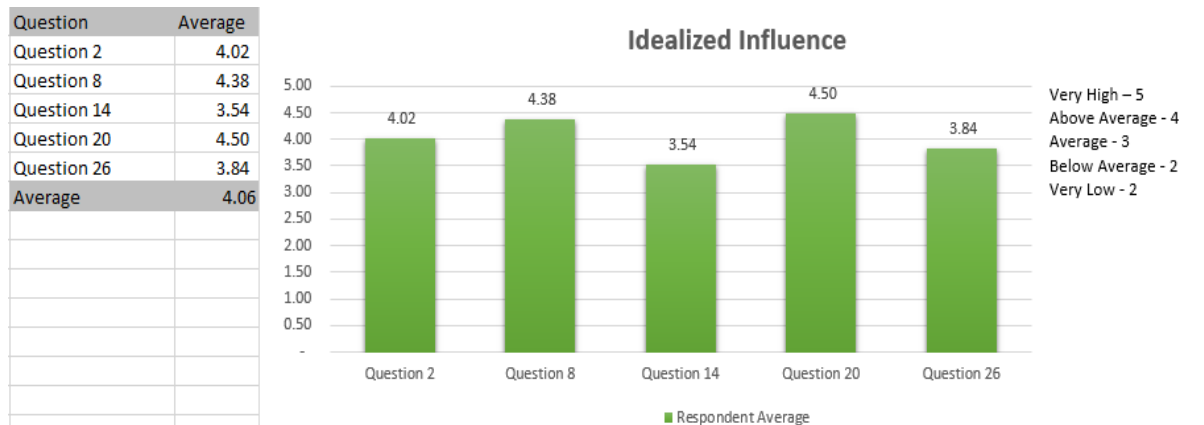


Figure 4.39: Managers and leaders - Idealised influence summary of results

Idealised influence also featured strongly, with only two questions in the average range and an overall score of 4.06, which is above average. This result is expected; Question 14 was subjective and asked respondents to comment on whether they thought their resources liked being around them because of their charisma. The majority answering very positively to this question would indicate an air of arrogance. This characteristic refers to the main research question and is an important component of the relationship between leader and follower in IT project execution. Zacher *et al.* (2014) infer that transformation leaders often possess narcissistic traits. Their findings suggested that personal wisdom could offset narcissism through an increase in idealised influence.

4.8.3 Individualised consideration, questions 3, 9, 15, 21 and 27

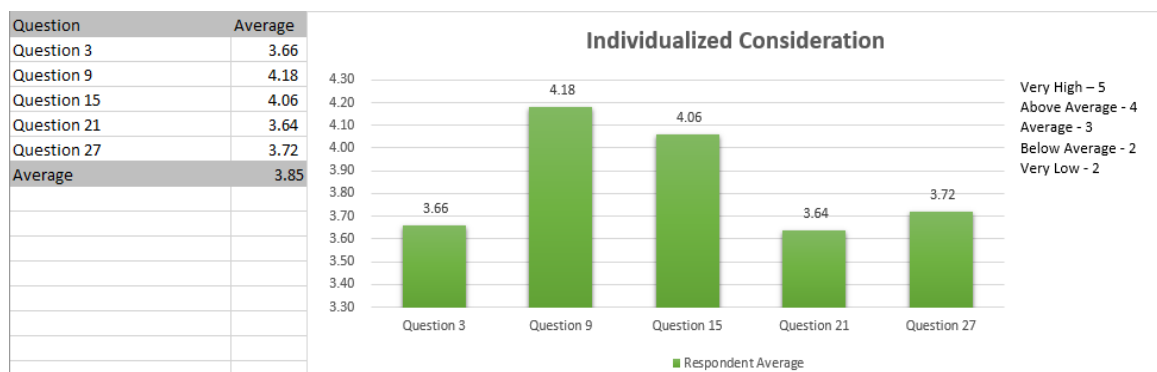


Figure 4.40: Managers and leaders - Individualised consideration summary of results

Three questions scored in the average range for individualised consideration, indicating that most managers and leaders did not see this trait as important. This could be indicative of corporate culture or an area that requires further attention. Low responses to Questions 3 and 21 indicate that leaders and managers do not understand the individual needs or what motivates the resources under their management. This result is related to the investigative sub-questions and highlights a challenge or disadvantage of transformational leadership in the execution of IT projects in the Western Cape. Snell *et al.* (2013) posit that individualised consideration can be characterised by coaching, mentoring and effective listening. Individualised consideration can be strongly inter-related to support leadership and developmental leadership.

4.8.4 Intellectual stimulation, questions 4, 10, 16, 22 and 28

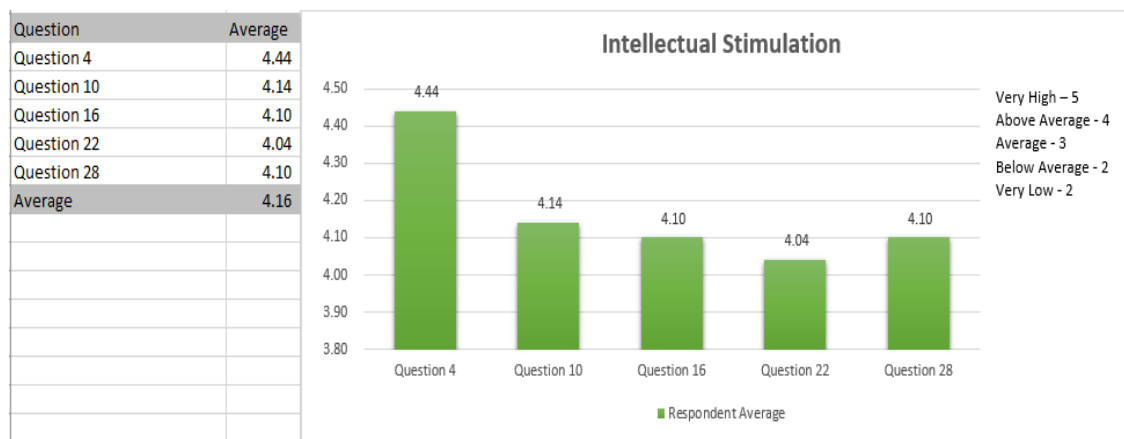


Figure 4.41: Managers and leaders - Intellectual stimulation summary of results

Five out of five questions scored an above average rating, indicating that managers and leaders were in alignment that technically skilled resources require intellectual stimulation to keep their interest. This result is not surprising, as competition between corporates is fierce in the Western Cape. Retaining resources with a high level of technical skills and consistency is key to corporate strategy and company stability.

4.8.5 Transactional leadership, questions 5, 11, 17, 23 and 29

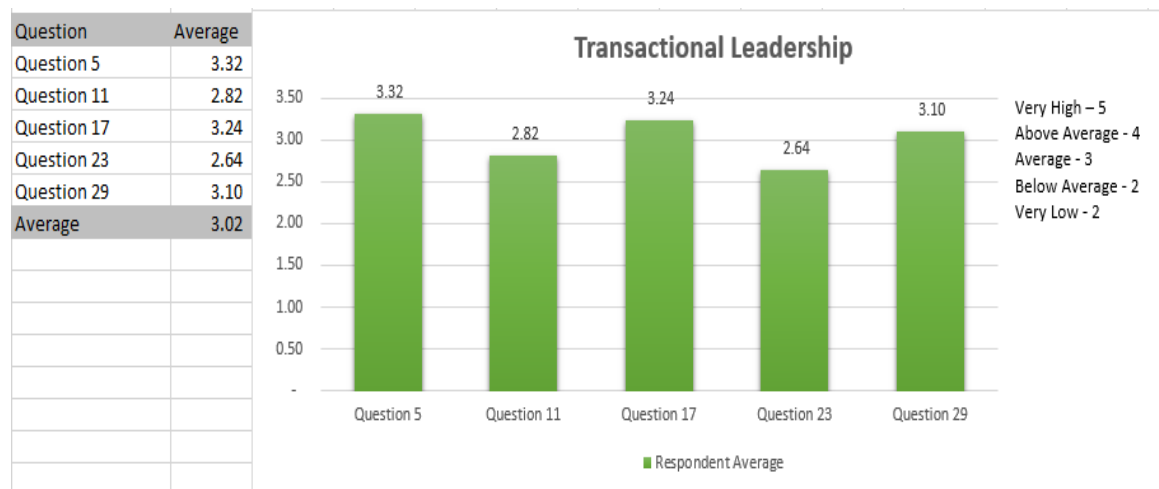


Figure 4.42: Managers and leaders - Transactional leadership summary of results

Although used as an effective tool some of the time, managers and leaders indicated average use of transactional leadership qualities, with Questions 11 and 23 scoring below average responses. Although there is definitely a transactional relationship between the organisation, management and skilled resources, the results indicate that it is not the preferred leadership style to achieve goals. The result affirms the relationship between managers, leaders and the technically skilled in IT project execution. Hamstra *et al.* (2014) infer that transactional leadership predicts performance goal attainment, while transformational leadership predicts mastery of goals, which relates to self-improvement.

4.8.6 Laissez faire leadership, questions 6, 12, 18, 24 and 30

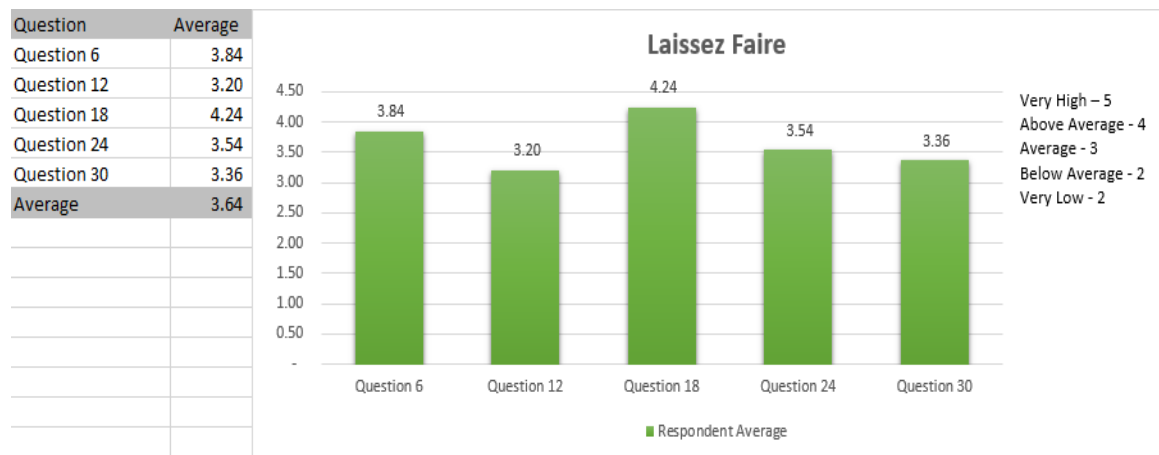


Figure 4.43: Managers and leaders - Laissez faire leadership summary of results

Four out of five questions indicated an average response, with only Question 18 eliciting an above average response. This is in line with expectations; although work is allowed to continue with some degree of autonomy, regular feedback and management control are expected to ensure project work is kept on track. This result is related to the main research question. It highlights the relationship between leadership and skilled resources in the execution of IT projects. It suggests that a level of laissez faire leadership should be expected where IT projects are concerned. Breevart *et al.* (2019) noted in their study that if leaders had a more pronounced laissez faire leadership style, this could result in decreased follower trust, which could have negative effects on the well-being of the followers.

4.8.7 Overall average of all survey respondents

To attain the average, the totals of all questions per section were added and then divided by 5.

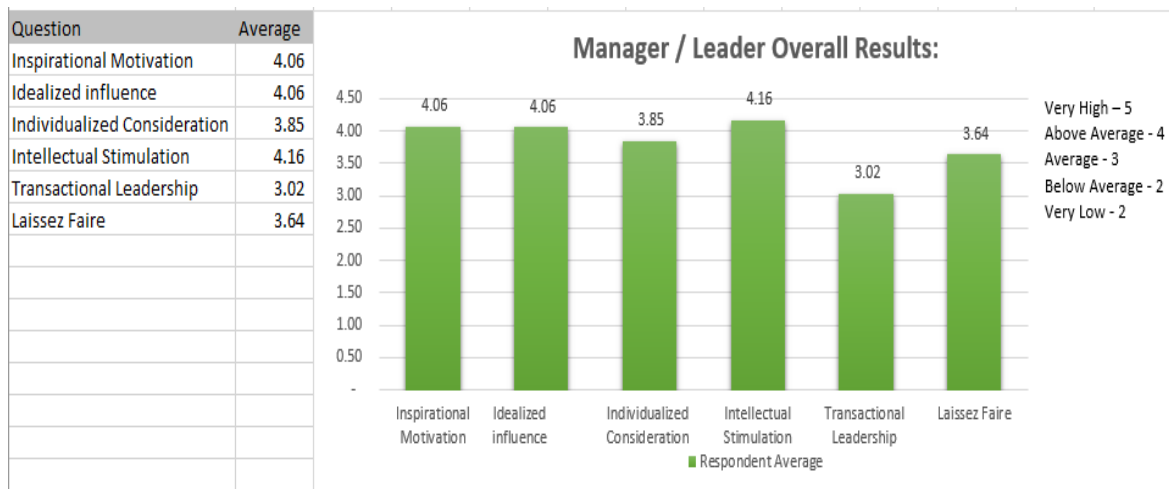


Figure 4.44: Managers and leaders - Overall summary of results

Three out of four transformational leadership characteristics produced above average responses, with individualised consideration producing a high average result of 3.85. As discussed in respect of Question 3, this could signify a gap or opportunity for leadership growth. When looking at leaders with 11 years or more experience only, the average was 3.98, which is slightly better than the overall average. These results imply that transformational leadership characteristics are being used in the execution of IT projects in the Western Cape. They also indicate that leaders and managers see more benefit in inspirational motivation, idealised influence and intellectual stimulation than in individualised consideration.

This could imply a lack of emotional intelligence among the leaders of technically skilled resources. Inspiration motivation and idealised influence had identical scores of 4.06, whereas intellectual stimulation scored highest at 4.16. This gives rise to the notion that leaders and managers believe that being intellectually stimulated in the IT industry is of the highest importance. It could be because of the hugely competitive market for skilled labour or because of the fast pace of changing technologies. Transactional and laissez faire leadership styles, however, scored lower, producing an average result. This implies that that are tools that are used in combination with transactional leadership to achieve the desired result.

4.9 Cohort 2: Skilled resources

The questionnaire for skilled resources consisted of 37 questions in total (see attached Appendix B). In hindsight the questionnaire could have been reduced to around 25 questions. It took approximately eight minutes to answer all questions, which were divided into three sections.:

- Section A – Survey consent and introductory information
- Section B – Seven biographical questions
- Section C – Thirty multifactor leadership questions.

4.10 Section A: Survey consent and introductory information

In this section, respondents were informed about the aim of the research, their rights and how the data would be treated and used. They were also informed about the qualifying criteria and encouraged to participate only if they met the criteria.

Skilled resources:

- Must have worked or currently work in an ICT skilled resource role.
- Must have worked or currently work in the Western Cape.

4.11 Section B: Seven biographical questions

These seven questions were constructed to provide the researcher with understanding of:

- The category of technical skill in the current role.
- The number of years of experience.
- Level of education and qualifications.
- To whom they report/report directly.
- The number of people their manager/leader oversees.
- The area in the Western Cape in which their company is located
- The industry or market sector in which their company operates.

Question 1: What is your role, defining who is responding to the survey?

This question was mandatory and only allowed the respondent to choose one of six options. One selection triggered a text box where they were allowed to specify their position if it did not closely resemble one of the first five options. This allowed the researcher to understand the respondents' position, type of skill and level of influence. It also enabled the researcher to understand who was responding to the questionnaire.

Results:

1. Which category below do your technical skills most relate to in your current role?

50 responses

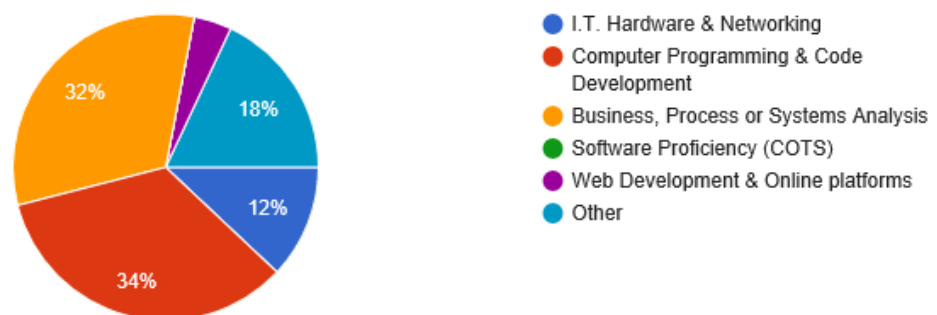


Figure 4.45: Skilled resource respondent roles

The largest group of respondents (34%) was made up of computer programmers and code developers. Another 32% were business, process or systems analysts, 12% were IT hardware or software networkers and 18% chose the 'other' option and provided role descriptions in the table below.

Table 4.6: Skilled resources respondent roles - other

| If other, please state in space below | Direct Project Team Involvement |
|--|---------------------------------|
| Business intelligence application, batch and end user support. | 1 |
| Enterprise and solution architecture and design | 1 |
| IT audit | 1 |
| Business Intelligence | 1 |

| | |
|----------------------------|------------|
| Operations support | 1 |
| All of the above | 1 |
| Solutions architecture | 1 |
| Product development | 1 |
| Scrum master/product owner | 1 |
| | |
| Total | 9 |
| Percentage | 18% |

All the respondents (100%) aligned to the desired target audience and worked on IT projects rather than operational type work every day.

Question 2: How much experience do you have in a skilled, technical role?

This question was mandatory and only allowed the respondent to choose one of four options. This enabled the researcher to quantify the respondents’ years of experience in a technically skilled role.

2. How many years have you been in a technical role?

50 responses

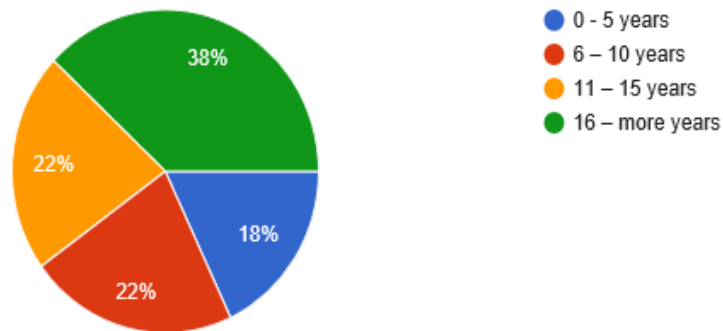


Figure 4.46: Skilled resources - experience

Results:

In terms of experience, 38% of respondents had 16 years’ or more experience and 22% had between 11 and 15 years’ experience. Overall, 60% of respondents had

more than 11 years of experience in a skilled role. This confirms that they belonged to the target population that the researcher sought to attract.

Question 3: What is your level of formal education?

This mandatory question only allowed the respondent to choose one of six options. This enabled the researcher to quantify the respondents' highest level of education.

Results:

3. What is your highest educational qualification?

50 responses

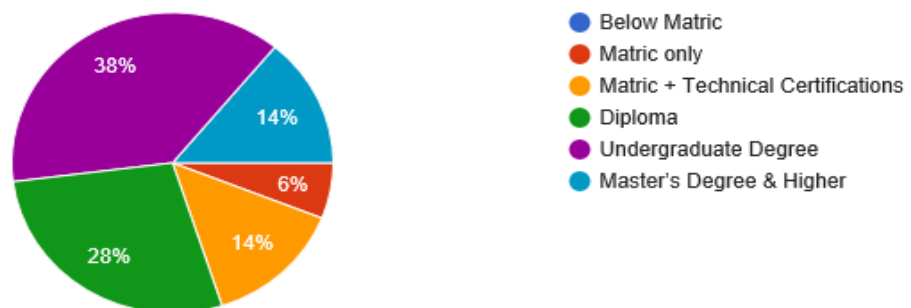


Figure 4.47: Skilled resources - educational qualifications

The largest group of respondents (38%) possessed an undergraduate degree; 14% had a master's degree or higher. None had a qualification below matric and 6% had matric only. This indicates that the majority of respondents (94%) had tertiary qualifications or were technically certified and had invested in education after secondary schooling. This result is interesting, as it identifies that leaders, managers and the technically skilled majority of respondents all gravitate towards personal development, continuation of studies and intellectual stimulation.

Question 4: Who do you report to in your organisation?

This mandatory question only allowed the respondent to choose one of six options, enabling the researcher to understand their line of report.

Results:

4. Who in your organisation do you report too? [You may tick more than one box where applicable]

50 responses

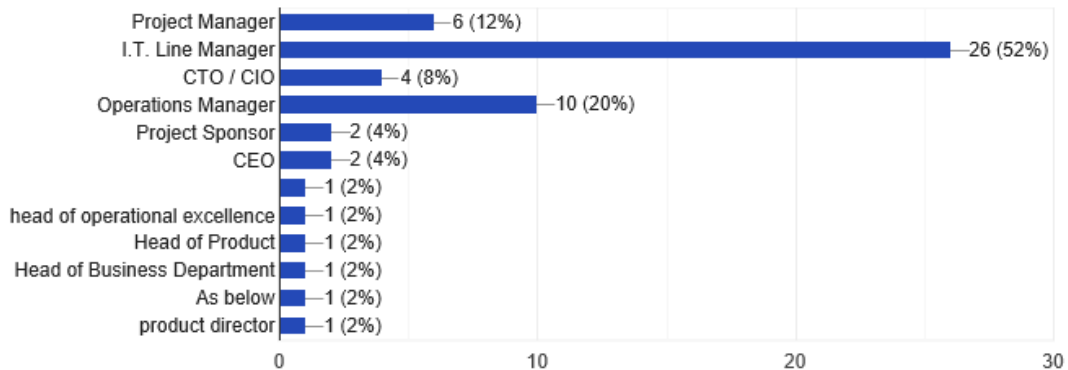


Figure 4.48: Skilled resources - line of report

Of the respondents, 52% reported to an IT line manager, 20% to an operational manager, 12% to a project manager and 8% to a Chief Technology Officer. This result is in line with expectations; most technical resources have reporting lines to team managers and submit secondary reports to projects/project managers.

If other please state in space below

5 responses

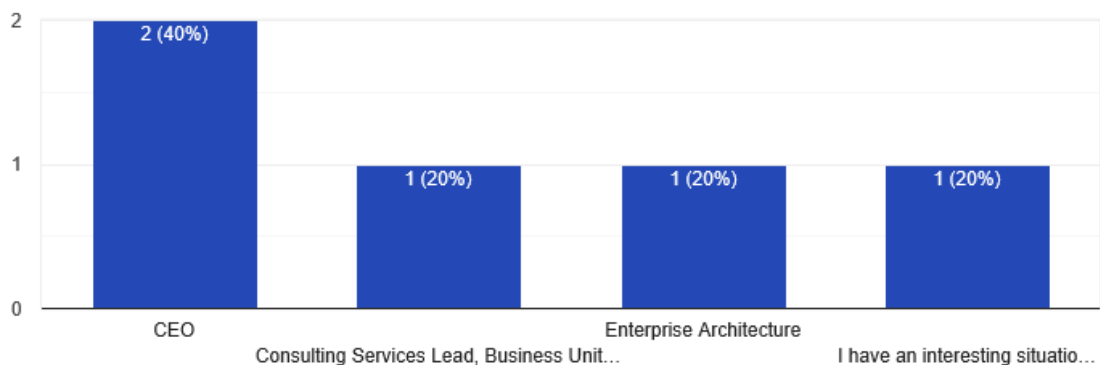


Figure 4.49: Skilled resources - other lines of reporting

Question 5: How big is your team and resources under management?

This mandatory question allowed respondents to choose one of six options. This enabled the researcher to understand the number of technically skilled resources under management.

Results:

5. How many technically skilled resources does your Manager manage? [On average across projects and or direct reports]

50 responses

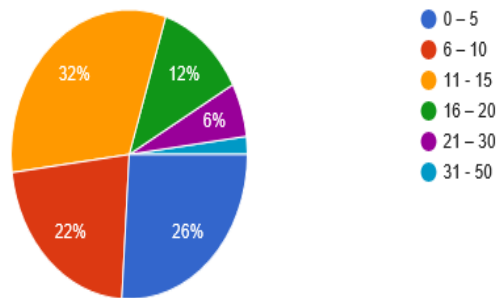


Figure 4.50: Skilled resource - team size

Teams in most cases (32%) included between 11 and 15 people; 26% of respondents indicated 0-5, and 22% 6-10 people in their teams. While agile mythologies such as DSDM indicate the optimum team size number to be around seven, plus or minus two, these results indicate that IT managers' and leaders' teams comprise more than 11 people.

Question 6: Where is your company located?

This question was mandatory and contained 12 options, which broadly encompassed the Western Cape. This was meant to provide the researcher with the geolocation of respondents and indicated where a higher concentration of IT skills was retained per area.

Results:

6. Which area in the Western Cape is your company located within?

50 responses

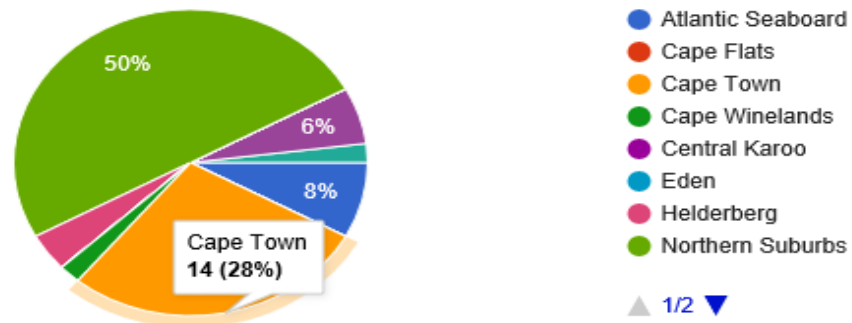


Figure 4.51: Skilled resources - company location

The clear majority of respondent were either from the northern suburbs (50%) or Cape Town 28%. This is in line with the researcher’s expectations, as both are central business districts that house major corporation head offices.

Question 7: What does your company do within the economy?

This question was mandatory and contained 12 options to indicate the market sector in which the company operated, to provide the industry categorisation of respondents.

Response:

7. Please indicate the industry or market sector that your company operates within:

50 responses

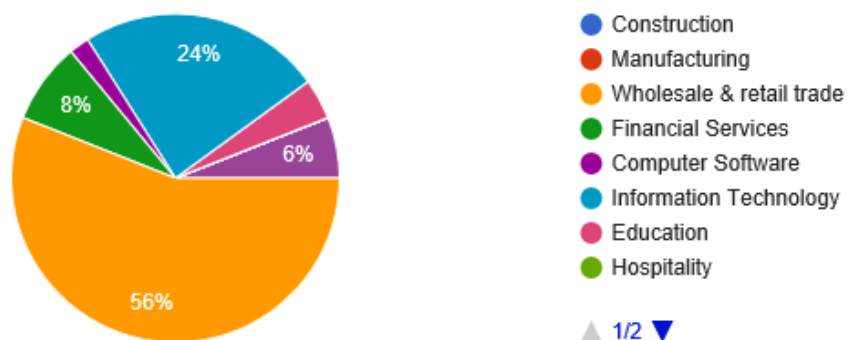


Figure 4.52: Skilled resources - market sector

The main markets or company sectors of respondents were indicated as wholesale and retail trade 56%, followed by information technology (24%) and financial services (8%), making up 88% of respondents. The Western Cape houses the head offices of a number of major retailers, including Woolworths, PnP, Shoprite, Pep, TFG and Clicks, to name a few.

4.12 Section C – Thirty multi-factor leadership questions

A statement was provided to guide the respondents in answering the questions. They were instructed to indicate how frequently each statement fit the leadership style to which they were subject by checking the most applicable button. The weightings were indicated from 1 to 5 on an increasing scale.

1 – Not at all, 2 – Once in a while, 3 – Sometimes 4 – Often, 5 – Almost always.

Question 1: Do you think leadership should be optimistic, a characteristic of inspirational motivation?

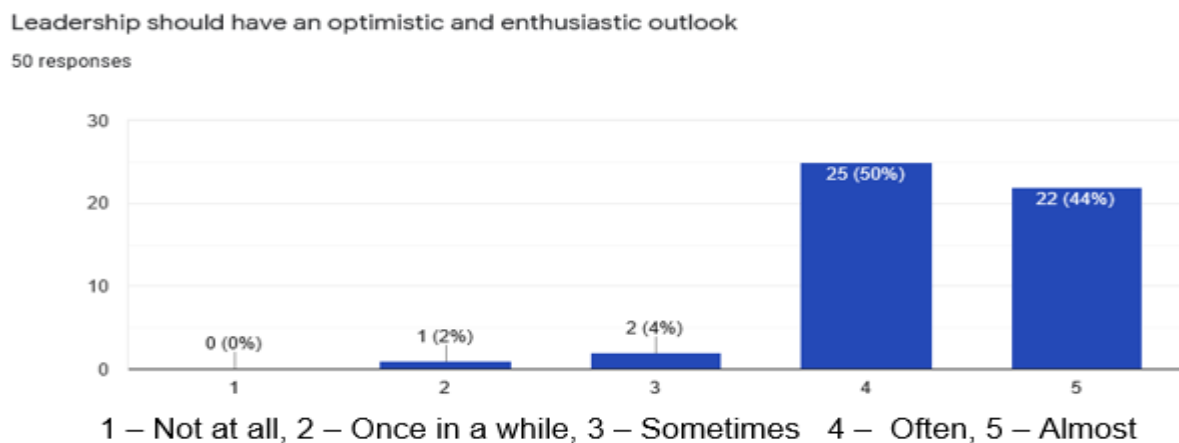


Figure 4.53: Perception of optimism

The majority (94%) of respondents indicated that leadership should almost always (44%) or often (50%) have an optimistic and enthusiastic outlook. Only 4% indicated that this trait was sometimes necessary for leadership. In contrast with managers' and leaders' results, the majority (82%) of respondents indicated that they either almost always (44%) or often (38%) had an optimistic and enthusiastic outlook. These results

indicate that leaders, managers and skilled resources respondents all believe that optimism and enthusiasm, which are characteristic of inspirational motivation, are important in their interactions or relationships.

Question 2: Do you think leadership should be willing to take risks and be bold, a characteristic of idealised influence?

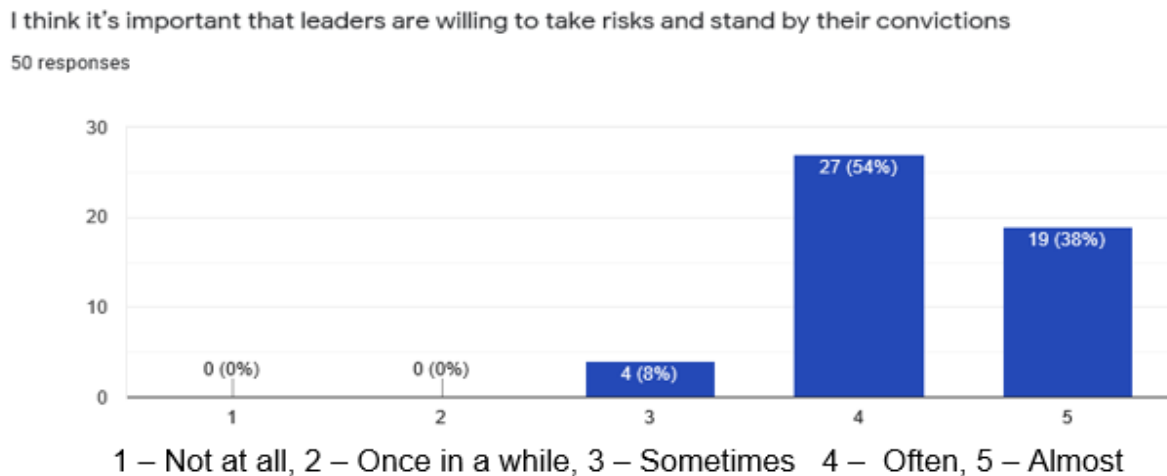


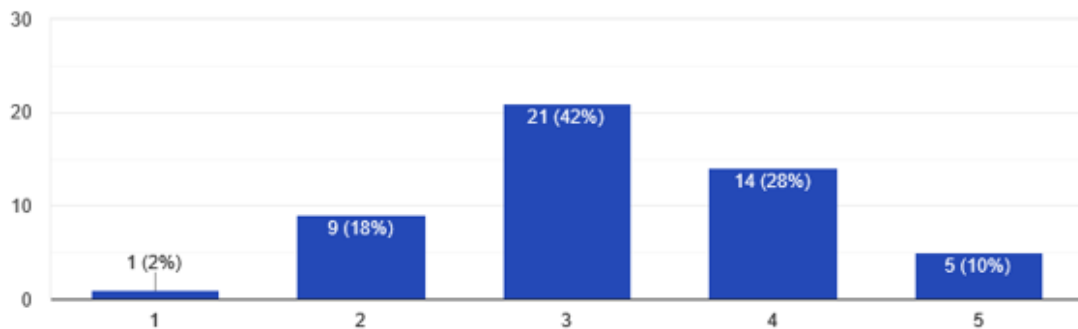
Figure 4.54: Risk-taking perceptions

More than half (54%) of respondents indicated that leaders should often be willing to take risks and stand by their convictions. A further 38% indicated that they should display this behaviour almost always and 92% indicated that they should be willing to take risks. In contrast with managers' and leaders' survey responses, 62% of respondents indicated that they were often willing to take risks and stand by convictions. A further 22% indicated that they displayed this behaviour almost always. This implies that 84% of the surveyed population were willing to take risks, whereas 16% were more risk-averse. This result demonstrates alignment of expectations between both cohorts and answers the research questions highlighting characteristics of transformational leadership that enhance followership performance.

Question 3: How well does your manager know your needs? This is a characteristic of individualised consideration.

My Manager knows specifically what I desire at work

50 responses



1 – Not at all, 2 – Once in a while, 3 – Sometimes 4 – Often, 5 – Almost Always.

Figure 4.55: Managers' knowledge of needs of workers

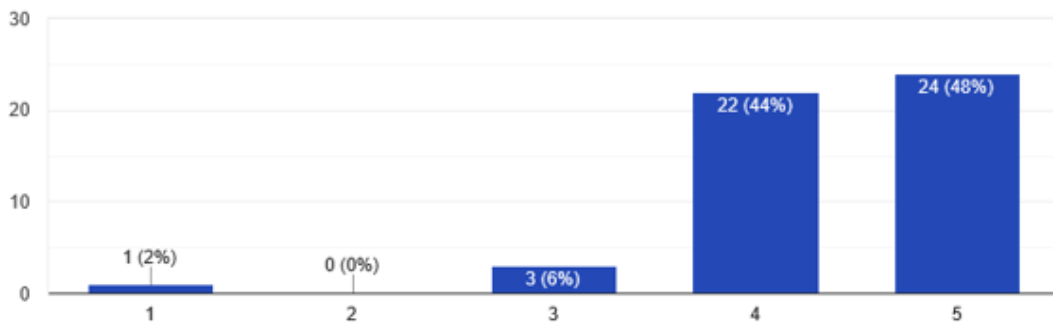
The percentage of respondents who indicated that their managers often knows specifically what their resources desired was 28%, whereas 10% indicated almost always. What is surprising is that a large portion, 42%, indicated that this was sometimes the case and 18% that it was evident once in a while. This indicates that potentially 62% of managers and leaders may be out of touch with their followers' needs.

The manager and leader survey results were similar, indicating that both parties know there is a gap. However, the managers' and leaders' results reflect less of a gap, whereas skilled resources believe the gap is larger: 54% of respondents indicated that they often knew specifically what their resources desired, 10% indicated that they almost always knew, 28% indicated sometimes and 8% once in a while. This indicates that managers and leaders are indeed more out of touch with their followers' needs than they would like to believe. de Oliveira *et al.* (2012) inferred that project performance is influenced by agility factors that are affected by individualised consideration. They posit that maximum performance is attained with leadership factors, ie individualised consideration and organisational factors are at a high level.

Question 4: Is team participation in problem-solving important, a characteristic of intellectual stimulation?

I think it important that Management involves and encourages me to contribute to problem solving

50 responses



1 – Not at all, 2 – Once in a while, 3 – Sometimes 4 – Often, 5 – Almost Always.

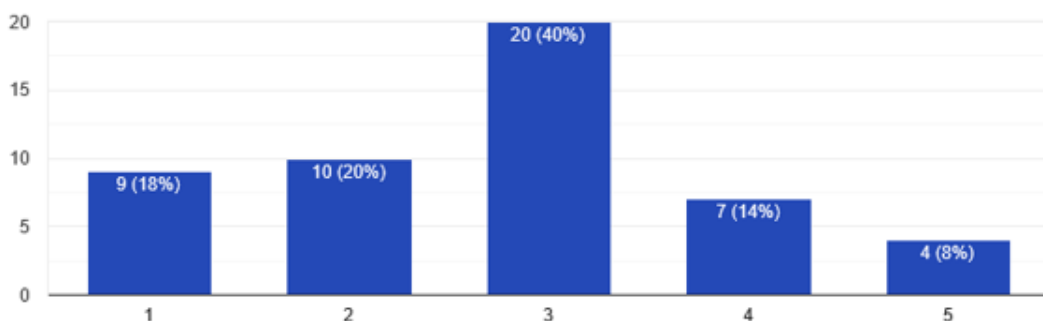
Figure 4.56: Team participation in problem-solving

Of the respondents, 48%, indicated that they almost always encouraged resources to contribute to problem-solving and 44% indicated that they often did this. This is an overwhelming majority of 92%. Similarly, managers' and leaders' results were almost identical: 50% of respondents indicated that they almost always encouraged resources to contribute to problems-solving and 46% indicated that they often did this. This is an overwhelming majority of 96%. Referring to the main research question, intellectual stimulation appears to be an important characteristic in the relationship between leaders, managers and skilled resources.

Question 5: Are you incentivised to complete work, a characteristic of transactional leadership?

My Manager calls attention to incentives for work to be accomplished

50 responses



1 – Not at all, 2 – Once in a while, 3 – Sometimes 4 – Often, 5 – Almost Always.

Figure 4.57: Incentives to complete work

A significant percentage of respondents (38%) indicated that they were not incentivised at all or only once in a while, while 22% indicated that this happened often or almost always, whereas 40% indicated sometimes. This indicates that 62% of respondents are incentivised. In contrast, 72% of managers and leaders indicated that they sometimes, often or almost always incentivised their staff. This result posits that in the relationship between leaders and followers, salary alone may not be a strong enough motivator to achieve the desired project outcomes.

Question 6: How do you perceive your leader’s leadership style? This is a characteristic of laissez faire leadership.

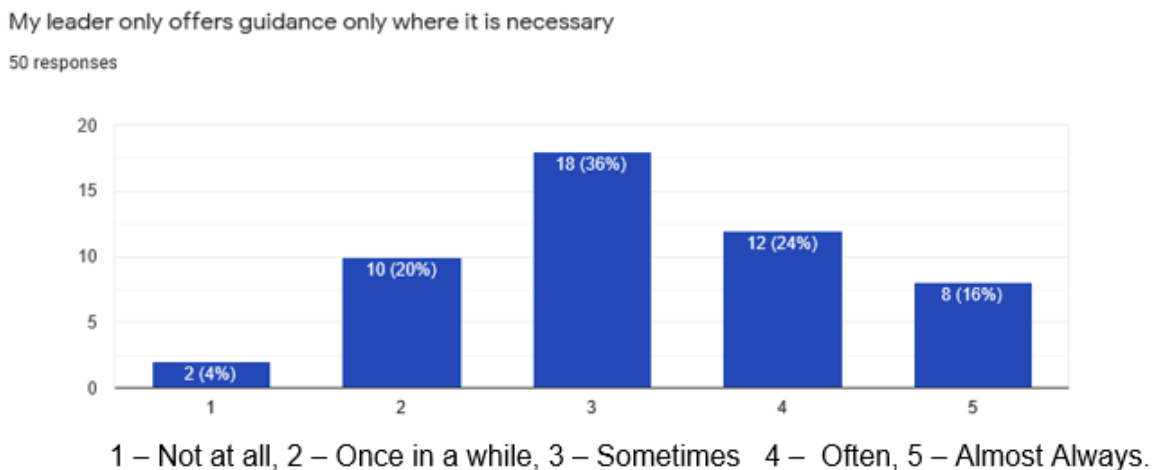


Figure 4.58: Leaders’ leadership style

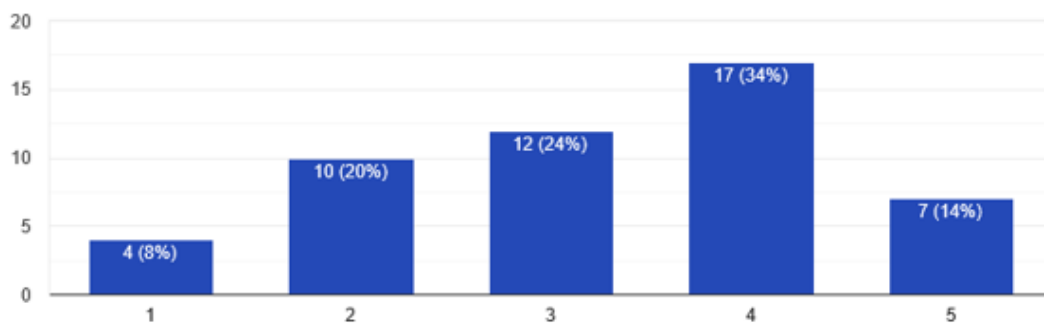
A reasonable percentage (40%) of respondents indicated that their managers offered guidance either often or almost always where necessary; 24% indicated that they did not offer guidance at all or only once in a while. Another 36% indicated that this behaviour occurred sometimes. In contrast with managers’ and leaders’ responses, 76% of respondents indicated that they were offered guidance either often or almost always when necessary, 6% indicated that they were not offered guidance at all and 8% said this happened only once in a while. There appears to be a large disconnect in results. Whereas 76% of managers and leaders perceive that they are offering guidance, only 40% of skilled resources believe they are receiving the necessary guidance. This result may indicate a challenge or disadvantage of IT projects in general, where leaders often lack the technical expertise to solve largely technical

problems or identify an area that could be improved upon to increase the chance of successful project outcomes. Breevaart *et al.* (2019) posit that transformational leadership affects followers positively, whereas laissez faire leadership affects followers negatively. Their study investigated the usage of these two styles in combination.

Question 7: How does your manager communicate? This is a characteristic of inspirational motivation.

My manager communicates precisely and powerfully in simple words

50 responses



1 – Not at all, 2 – Once in a while, 3 – Sometimes 4 – Often, 5 – Almost Always.

Figure 4.59: Management communication perception

Of the respondents, indicated 24% that managers only sometimes communicated clearly and powerfully in simple words, while 48% indicated that this was often or almost always the case. However, 28% indicated that this trait was only evident once in a while or not at all. When reviewing manager and leader results, 30% of respondents indicated that managers only sometimes communicated clearly and powerfully in simple words, while 66% indicated that this was often or almost always the case. These results imply that there is a misalignment. Managers and leaders believe they communicate better than followers indicate. There is room for improvement and this may concern a characteristic of transformational leadership that enhances follower performance.

Question 8: Does your manager work to build trust and confidence, a characteristic of idealised influence?

Management works to build trust in relationships and develop confidence

50 responses

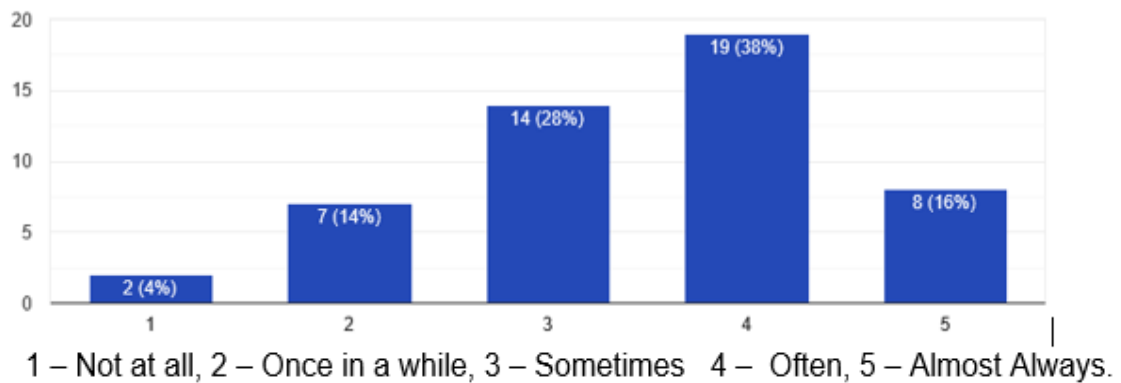


Figure 4.60: Managers work to build trust and confidence

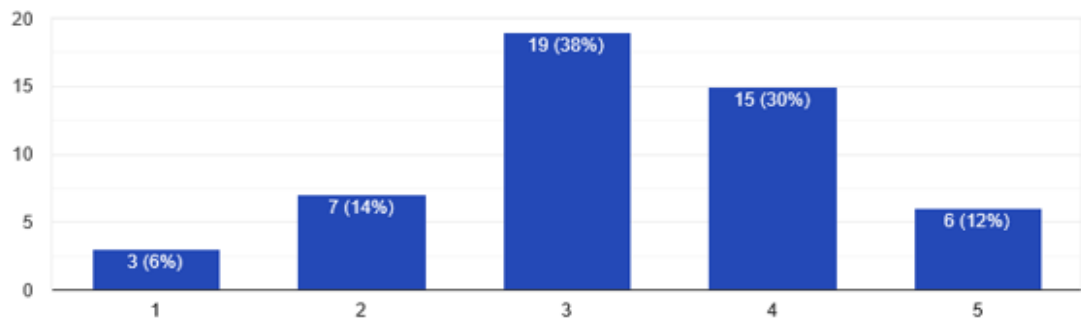
Of the respondents, 54% indicated that their managers either often or almost always built trust in relationships and developed confidence, whereas 28% said that this happened sometimes and 18% said once in a while or not at all.

An overwhelming 92% of manager and leader respondents indicated that they either often or almost always built trust in relationships and developed confidence in followers. This result indicates a large misalignment, reflecting a difference of 38%. It would seem that skilled resources do not feel that enough trust and confidence are developed by leadership. de Oliveira *et al.* (2012) posit that a high idealised influence in combination with other factors can have a positive impact on project performance.

Question 9: Do you receive regular feedback on your performance? This is a characteristic of individualised consideration.

I am provided with feedback to let me know how I am performing

50 responses



1 – Not at all, 2 – Once in a while, 3 – Sometimes 4 – Often, 5 – Almost Always.

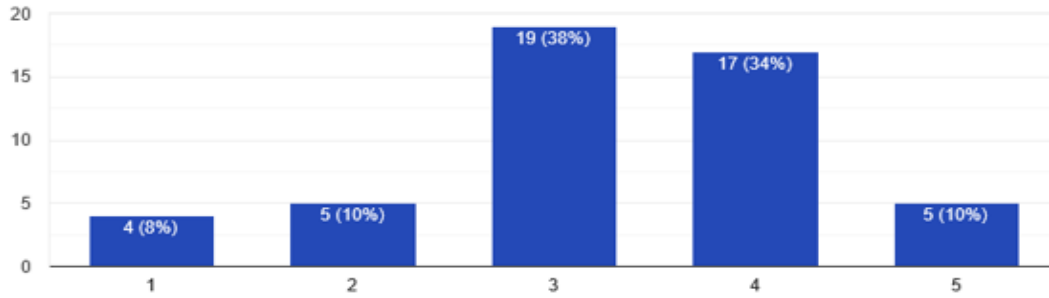
Figure 4.61: Receiving feedback on performance

While 42% of respondents indicated that they either often or almost always received feedback on performance, 38% indicated that this happened sometimes, and 20% that it happened once in a while or not at all. In contrast, 84% of manager and leader respondents indicated that they either often or almost always provided feedback to followers to let them know how they were performing. This result implies a gap of 42% between what leaders believe they provide and how skilled resources feel. It identifies an area where there is definitely room for improvement. It relates to the main research question and highlights the importance of individualised consideration in the relationship between leader and follower.

Question 10: Do you feel that you are stimulated and inspired, a characteristic of intellectual stimulation?

I feel management stimulates creativity and inspires me to be innovative

50 responses



1 – Not at all, 2 – Once in a while, 3 – Sometimes 4 – Often, 5 – Almost Always.

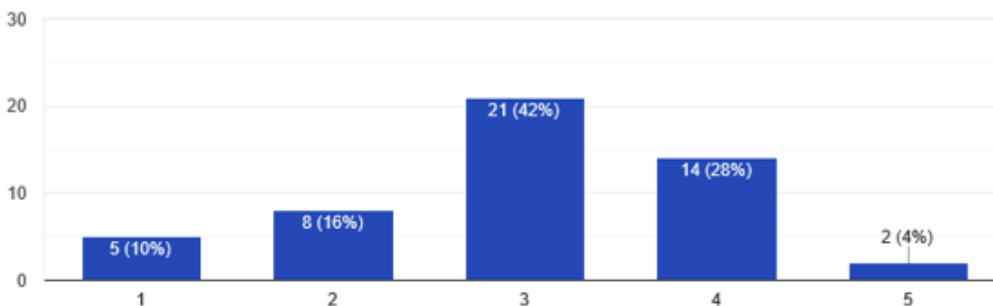
Figure 4.62: Stimulation and inspiration from management

While 44% of respondents indicated that they are inspired by leadership either often or almost always, 38% indicated that this happened sometimes, and 18% indicated that it happened once in a while or not at all. Results from managers and leaders were similar, indicating alignment.

Question 11: Do you like the way in which your success is measured by the organisation? This question relates to transactional leadership.

I like that my success is measured according to the organisations rewards and penalty system

50 responses



1 – Not at all, 2 – Once in a while, 3 – Sometimes 4 – Often, 5 – Almost Always.

Figure 4.63: Perceptions of how success is measured

According to 32% of respondents they liked the way in which success was measured either often or almost always, while 42% indicated that they sometimes liked it, and 26% said they were satisfied once in a while or not at all.

Results for managers and leaders were quite similar. It points to division and misalignment in terms of overall success measurement relating to organisational goals, rewards and penalties. This identifies an opportunity for organisations to apply individualised consideration and inspirational motivation better, set personalised goals and measure performance.

Question 12: What type leadership style do you prefer? This question relates to laissez faire leadership.

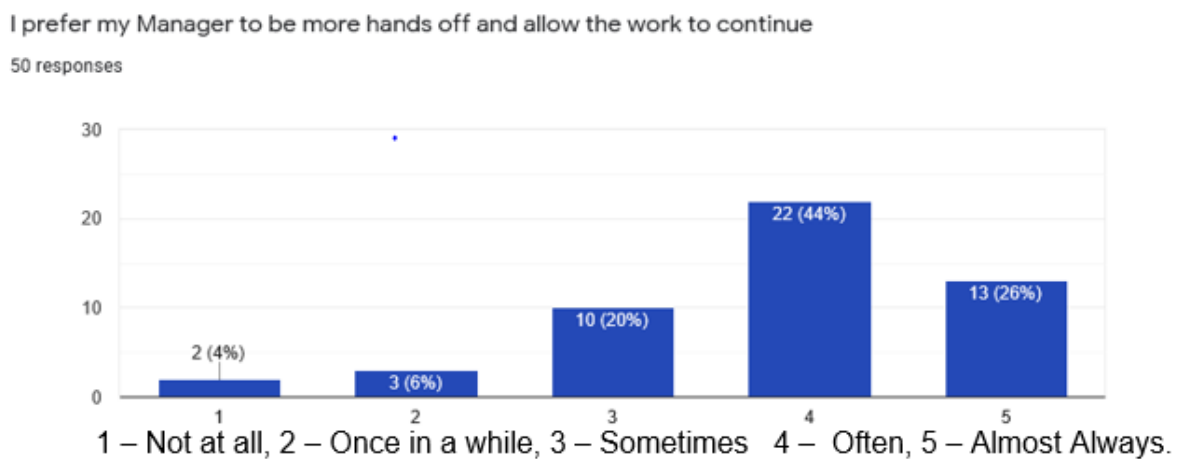


Figure 4.64: Preferred leadership style

In terms of leadership style, 10% of respondents indicated that they were not at all or once in a while in favour of their managers being hands-off, and 20% preferred this sometimes. The majority, 70%, indicated that they preferred their managers to be more hands-off and allow the work to continue often or almost always.

In comparison, 42% of managers and leaders indicated this choice often or almost always and 32% indicated it sometimes. These results are aligned and both cohorts see the benefit of adopting this type of style. The researcher believes that this translates into trust between follower and leader, highlighting an important characteristic in their relationship in the execution of IT projects.

Question 13: Does your leader point out the positive in situations, a characteristic of inspirational motivation?

Leadership is always able to point out the positive in situations

50 responses

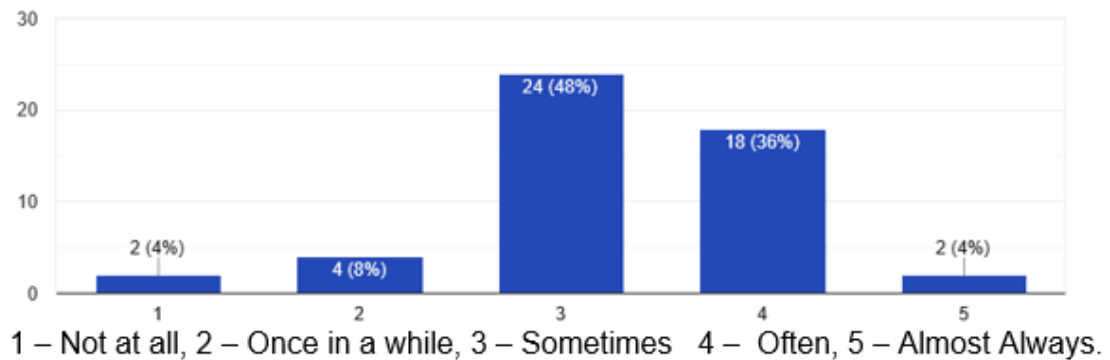


Figure 4.65: Managers pointing to positives in situations

A percentage of 40% indicated that managers often or almost always pointed out the positive in situations, 48% said they did so sometimes and 12% of respondents indicated that this did not happen at all or only once in a while.

The overwhelming majority (88%) indicated that managers often or almost always pointed out the positive in situations. Although the result indicates that the behaviour does occur, it highlights misalignment. Leaders believe they point out the positive 48% more often than followers have indicated. Luring *et al.* (2017) hypothesised that inspirational motivation could compensate for deficient inclusiveness in global virtual teams, which is a growing phenomenon in IT projects. Their study concluded that there is evidence that inspirational motivation can compensate for the lack of inclusive attitudes by aligning behind a common goal.

Question 14: Do you think that your manager is charismatic? This is a characteristic of idealised influence.

I like being around my Manager because of his charismatic personality

50 responses

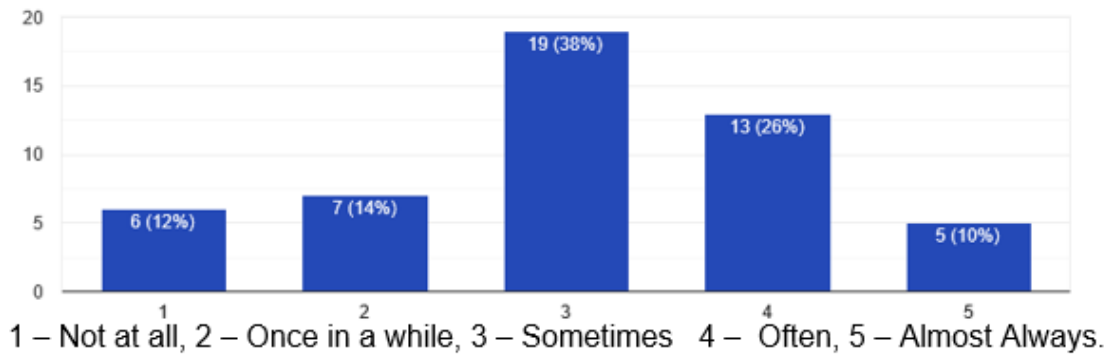


Figure 4.66: Perception of manager charisma

Bojović *et al.* (2020) infer that the role of a transformational leader is essentially motivational. While 36% of respondents indicated that they liked being around their managers because of their charismatic personalities often or almost always, 38% indicated this trait sometimes and 26% of respondents indicated that it was not evident at all or only once in a while. In contrast, 48% of managers and leaders indicated that followers often or almost always liked being around them often because of their charismatic personalities, and 30% indicated this trait sometimes. While these results confirm the existence of charismatic traits, they point out that leaders may believe they are more charismatic than they really are. These results are related to characteristics that enhance follower performance, but perhaps also an area that can be improved upon to nurture more effective leaders.

Question 15: Should a leader be observant of his followers? This characteristic relates to individualised consideration.

A leader should observe the behaviour of his followers

50 responses

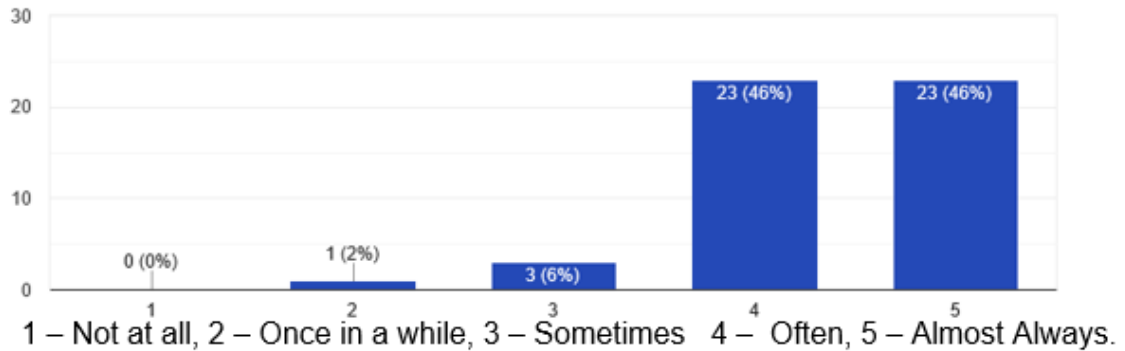


Figure 4.67: Perception of observant leaders

Most respondents (92%) indicated that their managers should often or almost always be observant of the behaviour of their followers.

A majority of 84% of leader and manager respondents indicated that they often or almost always observed the behaviour of their followers. These results are closely aligned and highlight an important dynamic between leaders and followers in the execution of IT projects. It is important to allow the work to continue but observe the behaviour of one's followers. Perhaps doing this better could have an impact on the scores for Questions 9 and 13.

Question 16: Does your leader or manager solicit ideas, a characteristic of intellectual stimulation?

Leadership solicits my ideas without criticism

50 responses

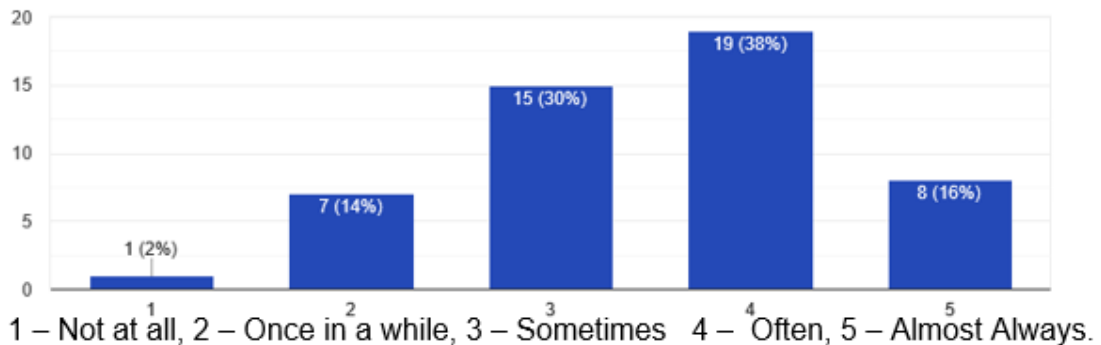


Figure 4.68: Managers' solicitation of ideas

Regarding leaders seeking to determine the ideas of their followers, 54% of respondents indicated that this happened often or almost always, while 30% indicated that it happened sometimes and 16% indicated that it did not happen at all or only once in a while. In contrast, 82% of managers and leaders indicated that they solicited ideas from their followers without criticism often or almost always; 16% indicated this behaviour occurring sometimes. Although over half of skilled resource responses indicate that this behaviour happened, there is misalignment, as managers believe this is happening 28% more often than followers have indicated. It confirms that intellectual stimulation is an important characteristic, but also implies either a challenge or area where there is room for improvement. Langat *et al.* (2013) infer that inspirational motivation has the ability to influence employee job performance. This implies that it could do the same in the execution of IT projects in the Western Cape.

Question 17: Does your manager conform to existing structures? This is a characteristic of transactional leadership.

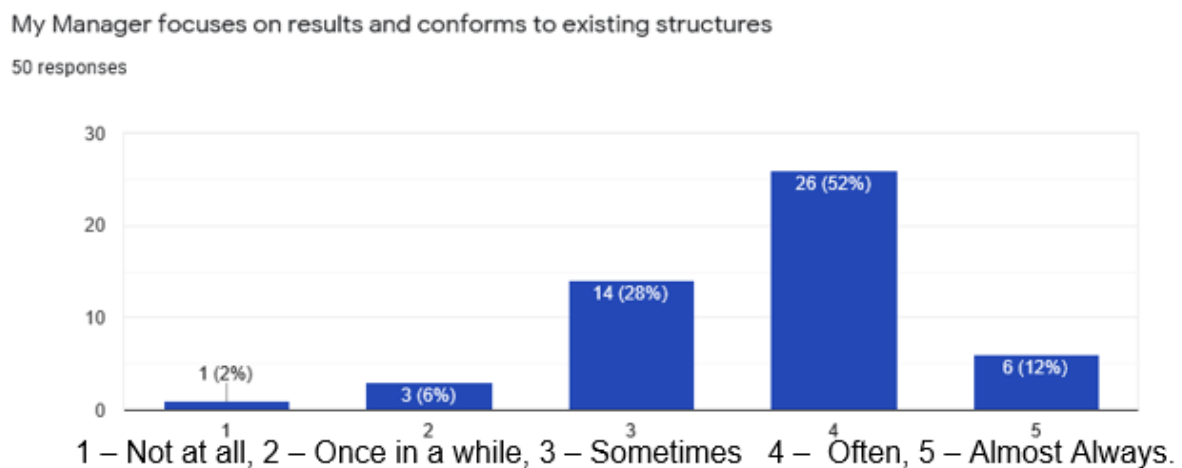


Figure 4.69: Managers conforming to existing structures

The majority of respondents (64%) indicated that managers often or almost always conformed to existing structures, while 28% indicated that this happened sometimes and 8% said it did not happen at all or only once in a while. In contrast, 40% of leaders and managers indicated that it often or almost always happened and 40% indicated that it sometimes happened. While there is some alignment, skilled resources indicated more often that managers conformed to existing structures than managers

did. This is no doubt indicative of any large corporate company. Policies are set by the group or board and translated and carried down through management and governance structures.

Question 18: Can you decide how the work should be done? This question refers to laissez faire leadership.

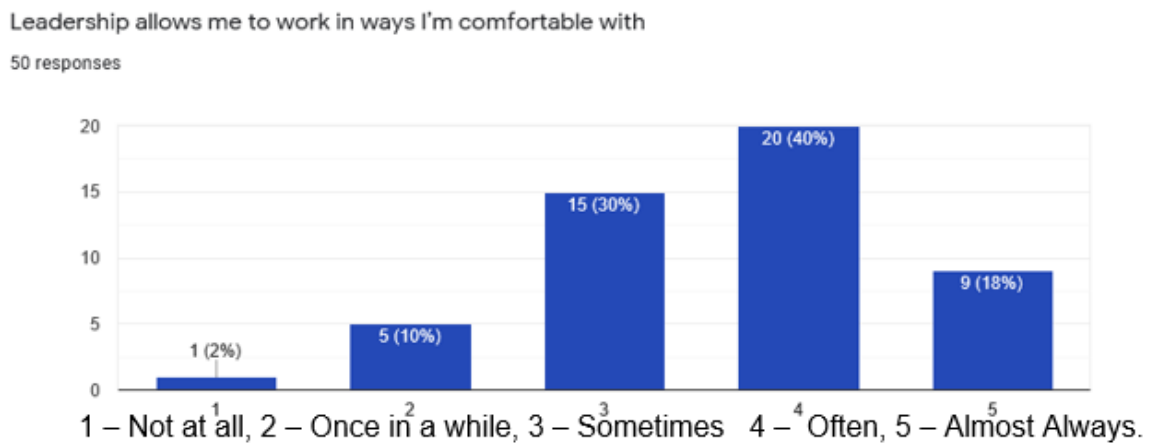


Figure 4.70: Skilled workers' ability to decide on work to be done

Regarding decisions on work to be done, 58% of respondents said that they could often or almost always decide on what was to be done, while 30% indicated that this was sometimes true and 12% believed that it was not true at all or only possible once in a while.

Since 88% of leaders and managers indicated that this happened often or almost always, these results show alignment and are related to the characteristics of project execution, but also highlight misalignment in that managers indicate it happens more often than followers do. This could also identify an area that could be improved upon.

Question 19: Do your manager help you to see the value that you add? This is a characteristic of inspirational motivation.

I think it important that my Manager aids me to see the meaning in the work I do

50 responses

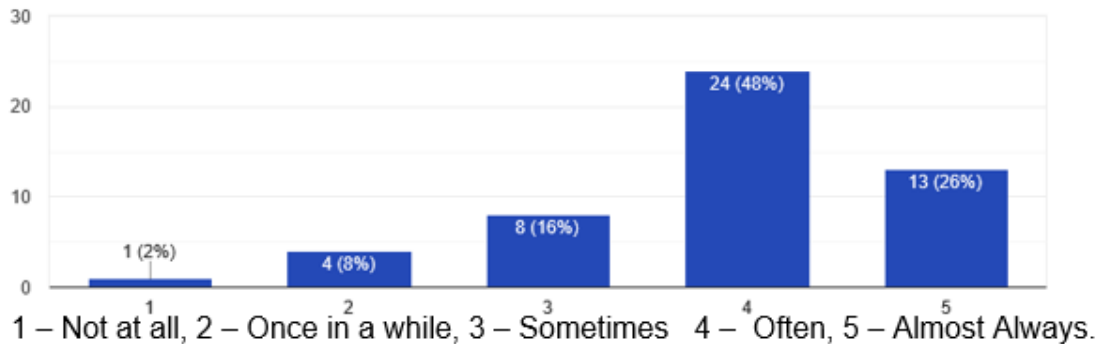


Figure 4.71: Managers help skilled workers to see value they add

In terms of value adding, 74% of respondents answered that managers often or almost always helped them to see the value they added, while 16% responded that they sometimes did. In contrast, 88% of managers and leaders indicated that they often or almost always did this. This result indicates alignment and confirms that all employees like to be told that they are adding value through the work they are doing.

Question 20: Does your leader display values and principles, a characteristic of idealised influence?

I think it important to have a core set of values and principles that guide my actions

50 responses

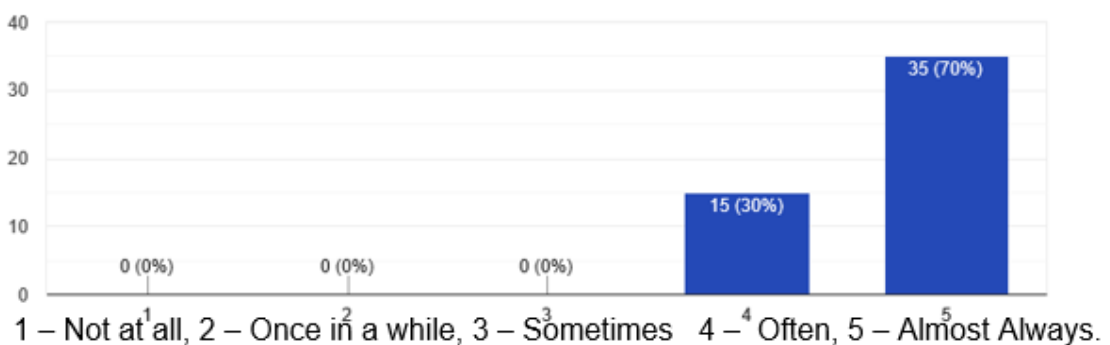


Figure 4.72: Leaders display values and principles

When asked about leaders displaying values and principles, 30% of respondents indicated that this was often evident and 70% indicated that it was almost always evident. In contrast, 32% of managers and leaders claimed that they often did this and 62% indicated that they almost always did. This result shows great alignment and confirms the importance of integrity in the leaders and followers dynamic. One could say that it is the foundation of the relationship and a crucial transformational leadership characteristic. It implies the wholeness and connectedness of the values, principles and ethics (Malan *et al.*, 2010).

Question 21: Does your manager know what motivates you? This is a characteristic of individualised influence.

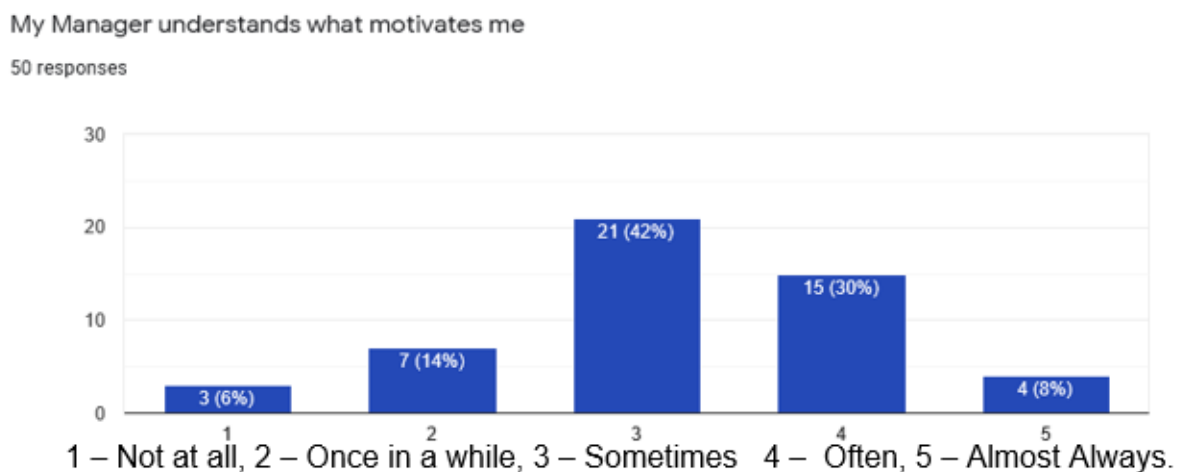


Figure 4.73: Managers’ knowledge of what motivates workers

Reporting on manager’s knowledge of what motivates workers, 38% indicated that managers often or almost always showed awareness of this, while 42% indicated that they sometimes did and 18% said that it was only evident once in a while or not at all. In contrast, 60% of managers and leaders indicated that they often or almost always had this knowledge and 32% said they sometimes had it. Although the results show that a third of managers are in touch with their followers, the responses highlight that another third think they know, but they do not, and the last third definitely do not know. This result identifies a challenge of transformational leadership in that being unavailable to followers or unable to understand what motivates them could lead to

stifled performance and lack of engagement. In terms of the research findings, this implies that a lack of motivation can affect project performance.

Question 22: Does your manager challenge your assumptions and solicit ideas? This is a characteristic of intellectual stimulation.

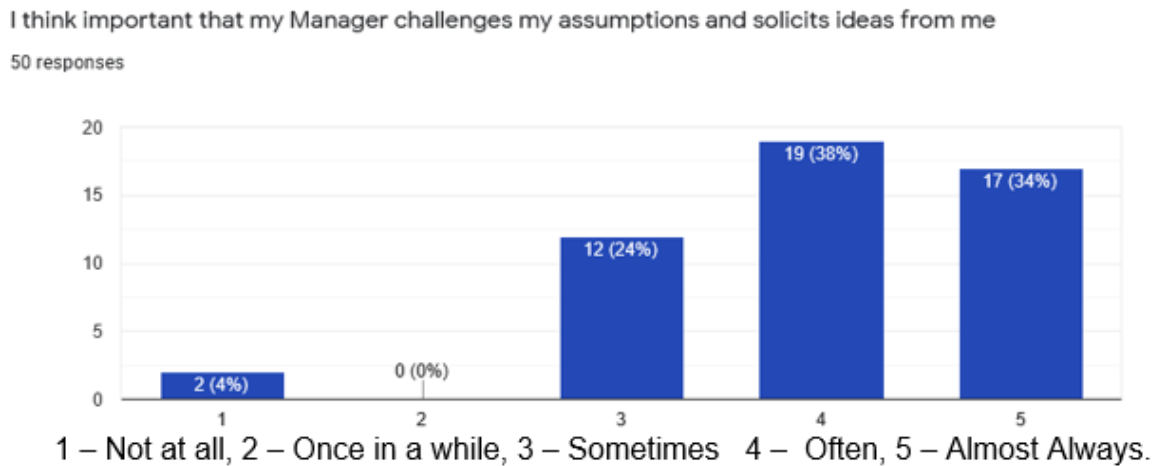


Figure 4.74: Managers challenging assumptions and soliciting ideas

Significant groups said that this happened often (38%) or almost always (34%), while 24% said that their managers only challenged assumptions and solicited ideas sometimes. The views of managers and leaders results were similar and in line with expectations.

Question 23: Does your manager tell you what to do? Telling is a characteristic of transactional leadership.

My Manager will often tell me exactly what to do

50 responses

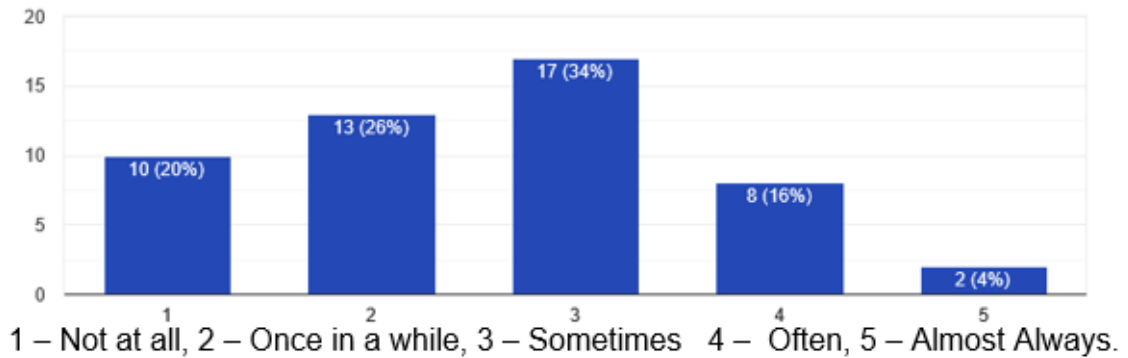


Figure 4.75: Managers telling skilled workers what to do

While 4% of respondents indicated that they were almost always told what to do, 16% said this often happened, 34% said it happened sometimes, and 46% claimed that it did not happen at all or only once in a while. Leaders' results were similar and in line with expectations, indicating that telling is a disadvantage and not a welcomed characteristic of the relationship between followers and leaders. This highlights an important relational construct: just under 50% do not tell, but let skilled resources inform them how to solve technical problems of projects.

Question 24: Does your leader provide guidance? This is a characteristic of laissez faire leadership.

My Leader provides very little guidance for me to perform

50 responses

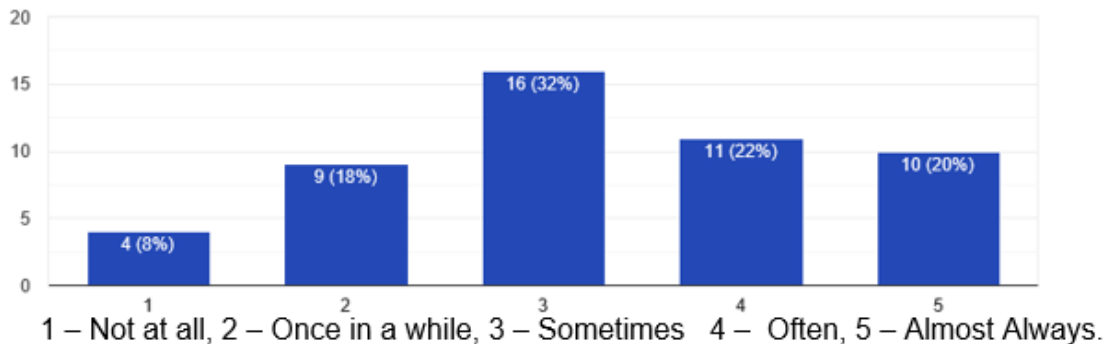


Figure 4.76: Leader providing guidance

Regarding guidance, 42% of respondents said that leaders often or almost always provided guidance, while 32% indicated that they sometimes did and 26% indicated that they did once in a while or not at all. Leaders' results were similar and in line with expectations, confirming that this behaviour is indicative of skilled resources and the IT industry in general.

Question 25: Does your manager set goals, communicate expectations and seek firm commitment? This is a characteristic of inspirational motivation.



Figure 4.77: Managers communication of expectations

The majority (60%) of respondents indicated that leaders often or almost always communicated expectations and sought firm commitment to goals, while 24% indicated that they sometimes did and 16% said they did once in a while or not at all.

Among managers and leaders, 80% of respondents indicated they often or almost always communicated expectations and sought firm commitment to goals. This result is related to the main research question; it implies that goal setting and commitment are important in the relationship between leaders and followers in the execution of IT projects.

Question 26: Are you proud to be associated with your manager? This is a characteristic of idealised influence.

I am proud to be associated with my Manager

50 responses

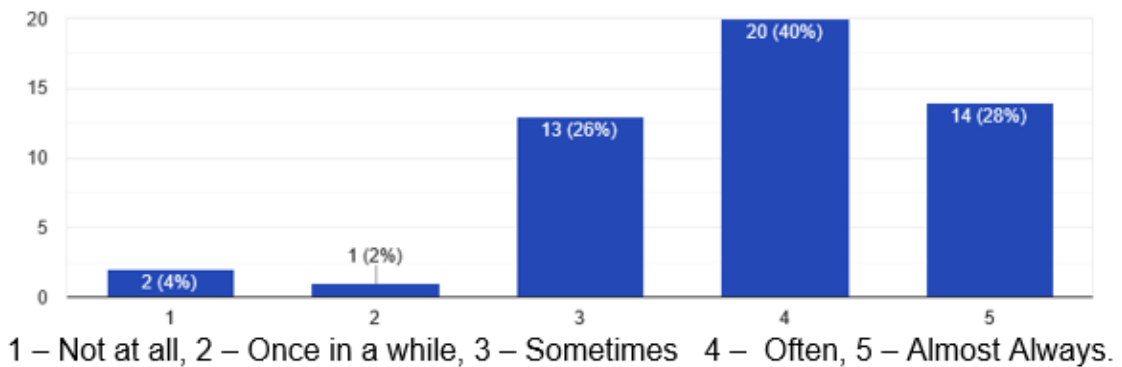


Figure 4.78: Perceptions of association with managers

Asked about their feelings about being associated with their managers, 68% of respondents said that they were often or almost always proud of the association, while 26% indicated that their staff were sometimes proud to be associated with their manager.

Among leaders, 70% of respondents indicated that their staff were often or almost always proud of the association, while 28% indicated that their staff were sometimes proud to be associated with them. These results show alignment between cohorts.

Question 27: Do you receive individualised coaching, a characteristic of individualised consideration?

I think it important to provide opportunities for individualized coaching

50 responses

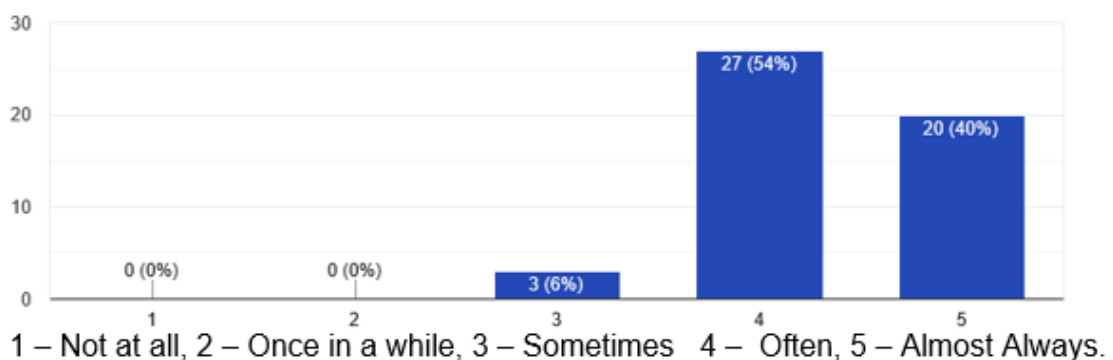


Figure 4.79: Receiving individualised coaching

On individualised coaching, 94% of respondents indicated that they often or almost always received this, while 6% indicated that they sometimes thought it important to provide individualised coaching.

Most manager and leader respondents 62% indicated that they often or almost always provided individualised coaching, while 26% indicated that they sometimes created opportunities for individualised coaching. This contrast is surprising; followers believe coaching happens about 30% more than managers indicate. It refers directly to the relationship and the main research question. It highlights an important characteristic in terms of mentoring and coaching on an individual level. Law (2013) states that reflection on education is an important part of the learning process and essential in leadership development.

Question 28: Does your manager help you see the big picture? This is a characteristic of intellectual stimulation.

My Manager helps me to see the big picture and how I contribute

50 responses

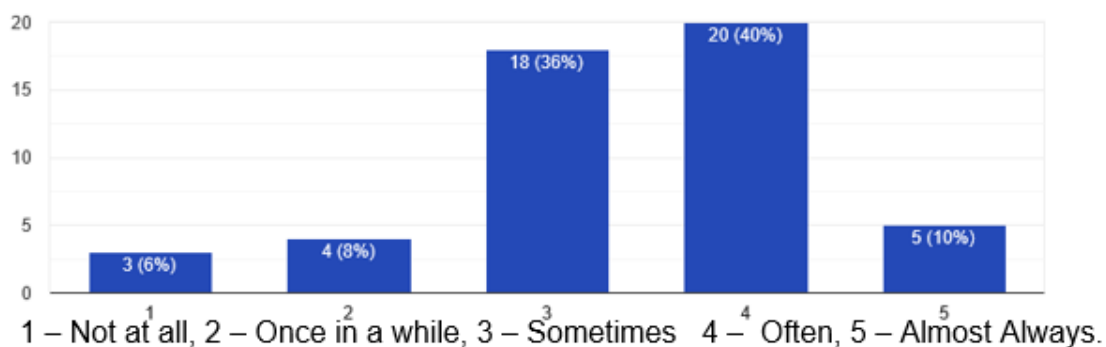


Figure 4.80: Managers help to see the big picture

On being helped to see the big picture, 50% of respondents indicated that managers often or almost always helped with this, while 36% indicated that they sometimes did and 14% indicated that it happened only once in a while or not at all.

In contrast, 84% of manager and leader respondents indicated that this happened often or almost always, while 10% indicated that it sometimes did. The result highlights

some misalignment and perhaps an area that can be improved upon to increase intellectual stimulation. It implies that skilled resources see value in seeing the bigger picture and how their efforts contribute to it.

Question 29: How important is structure and rigidity? This is a characteristic of transactional leadership.

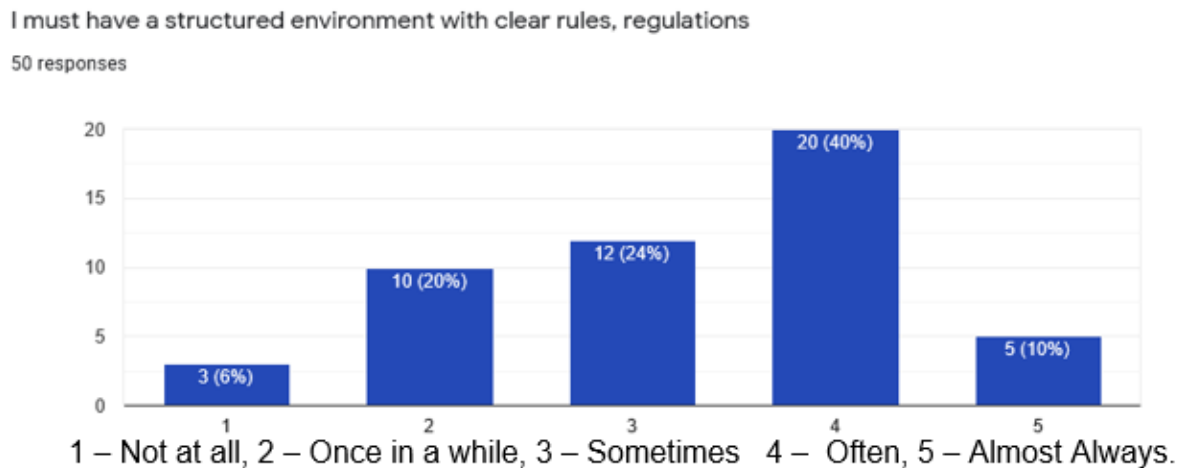


Figure 4.81: Importance of structure and rigidity

Half (50%) of respondents indicated that they often or almost always needed a structured environment, while 24% required this sometimes and 26% only once in a while or not at all.

In contrast, 40% of managers and leaders indicated that they often or almost always needed structure, 30% indicated that they sometimes did and 30% indicated that they did not need it at all, or only once in a while. Surprisingly, there was quite an even split across both cohorts. Looking at the respondents' industries or market segment, construction, education and financial services would be more rigid, with higher governance, legislation and regulation. However, IT, retail and software development may be less regulated and allow more freedom.

Question 30: Do you require ongoing feedback? This characteristic refers to laissez faire leadership.

I'm a self-starter and don't need ongoing feedback

50 responses

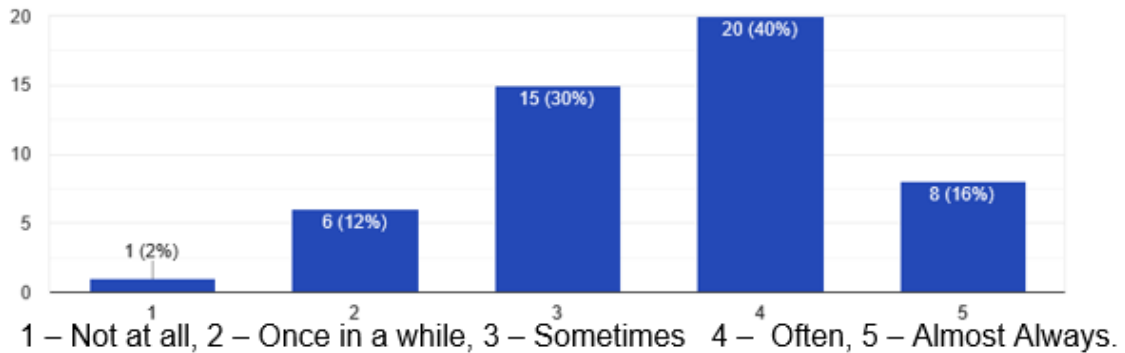


Figure 4.82: Requirement of ongoing feedback

On feedback, 56% of respondents said that they often or almost always required it, while 30% indicated that they sometimes wanted it and 13% indicated that they needed it once in a while or not at all.

In contrast, 46% of managers and leaders indicated a need for feedback often or almost always, 36% indicated they sometimes needed it and 18% indicated that they did not require it at all, or only once in a while. These results are in line with expectations and indicative of the relationship between leaders and followers. A certain amount of autonomy is expected; however there must be an element of control.

4.13 Explanation of scoring

This questionnaire was designed to provide a description of the respondent's leadership style in relation to transformational leadership based on six characteristics and 30 questions. It sought to provide insight into managers' or leaders' leadership style in the execution of IT projects when leading skilled resources.

- | | |
|---------------------------------|--------------------------------|
| 7. Inspirational motivation | Questions 1, 7, 13, 19 and 25 |
| 8. Idealised influence | Questions 2, 8, 14, 20 and 26 |
| 9. Individualised consideration | Questions 3, 9, 15, 21 and 27 |
| 10. Intellectual stimulation | Questions 4, 10, 16, 22 and 28 |

11. Transactional leadership

Questions 5, 11, 17, 23 and 29

12. Laissez faire leadership

Questions 6, 12, 18, 24 and 30

The scoring works as follows:

7. Factor 1 (1, 7, 13, 19 and 25) /5

8. Factor 2 (2, 8, 14, 20 and 26) /5

9. Factor 3 (3, 9, 15, 21 and 27) /5

10. Factor 4 (4, 10, 16, 22 and 28)/5

11. Factor 5 (5, 11, 17, 23 and 29)/5

12. Factor 6 (6, 12, 18, 24 and 30)/5

Very high

= 5 points

Above average

= 4 points

Average

= 3 points

Below average

= 2 Points

Very low

= 1 Point

4.13.1 Inspirational motivation, questions 1, 7, 13, 19 and 25

To obtain the weighted average below, each percentage achieved was weighted against the score for the option represented and then all were summed together to produce an average. See example below. This was done for all 30 questions.

Table 4.7: Scoring - explanation of weighted average

| Question 1 | | | | |
|------------|-----------------|-----------|-------|---------------|
| Not at all | Once in a while | Sometimes | Often | Almost always |
| 0% | 2% | 4% | 50% | 44% |
| - | 0.04 | 0.12 | 2.00 | 2.20 |

4.36

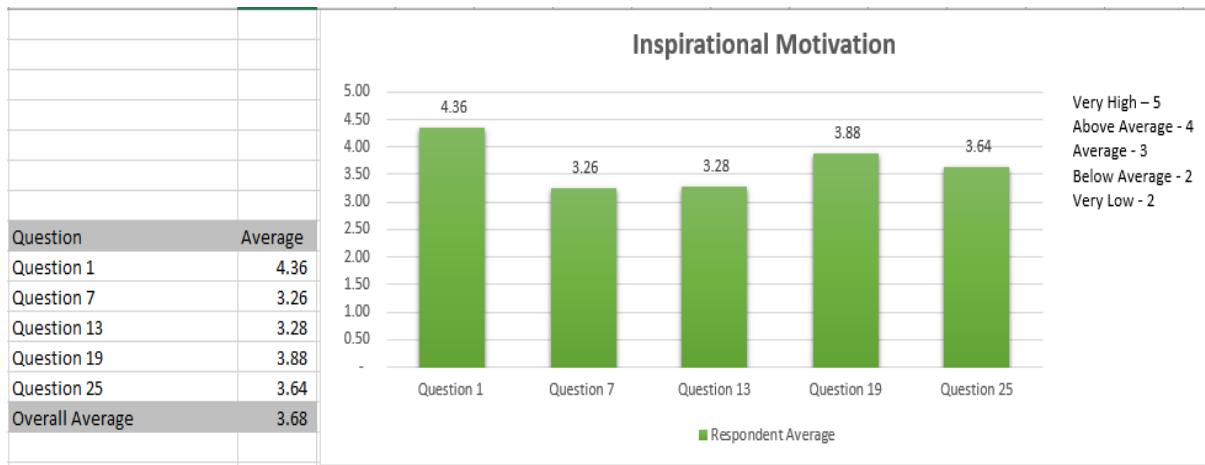


Figure 4.83: Skilled resources - Inspirational motivation summary of results

Question 1 related to management having an optimistic and enthusiastic outlook, a unanimously above average response (4.63) indicated that this is a trait people believe should be present. Questions 19 and 25 scored in the high average bracket, indicating that not all managers help resources to see the value that they add and set goals, communicate expectations or seek commitment. The results infer that there is room for improvement and that this should happen more regularly.

Questions 7 and 13 scored in the lower average range; they related to how skilled resources thought their managers communicated and asked if management was able to point out the positive in situations. Although both were subjective questions, the responses demonstrated without doubt that there was room for improvement and emphasised the importance of communicating clearly.

Overall, for inspirational motivation questions, the respondents' mean reached a high average of 3.68 for this competency. These results imply that inspirational motivation is a characteristic that exists in the day-to-day running of projects in the surveyed population. The responses confirm that leaders and followers both see the value of this trait within their relationship and apply it in IT project execution in the Western Cape.

4.13.2 Idealised influence, questions 2, 8, 14, 20 and 26

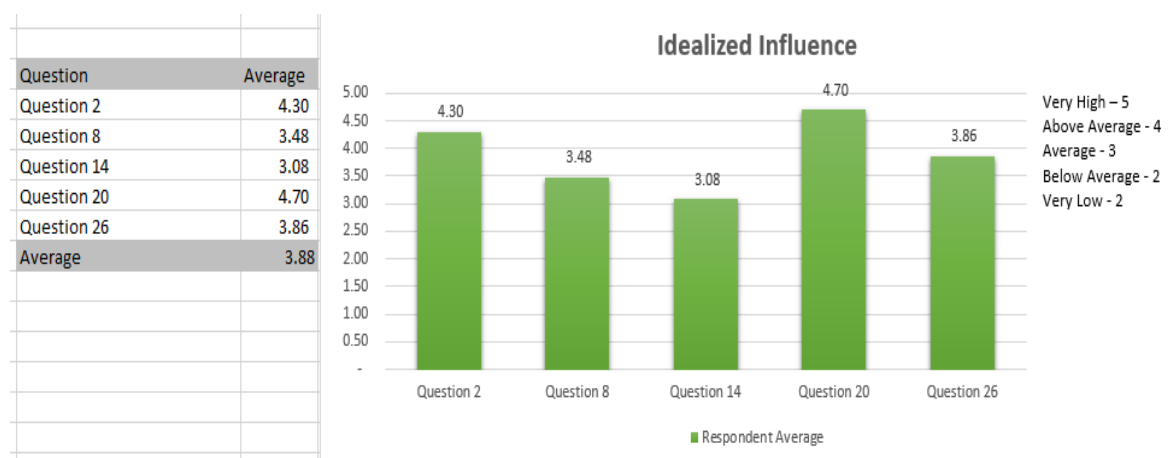


Figure 4.84: Skilled resources - Idealised influence summary of results

Idealised influence proved to be the strongest of all characteristics measured, with an overall average of 3.88. Questions 2 and 20 scored in the above average range, indicating that followers believed that leaders should have a core set of values and principles guiding actions and that leadership should be willing to take risks. The results indicated that followers held both characteristics in high regard and that these traits inspired them to follow leaders. This implies that leaders must serve as role models and followers must hold their leaders in high regard to emulate their principles and ideals. Questions 8 and 12 scored moderately high, implying that managers work to build trust and confidence, but there is room for improvement though followers are proud to be associated with their managers.

Question 14 scored lowest; it was largely subjective and was related to whether followers thought their leaders were charismatic. It identified that those characteristics were present but that there was room for leaders to improve. These overall results indicated that skilled resources valued this transformational leadership characteristic above all others.

4.13.3 Individualised consideration, questions 3, 9, 15, 21 and 27

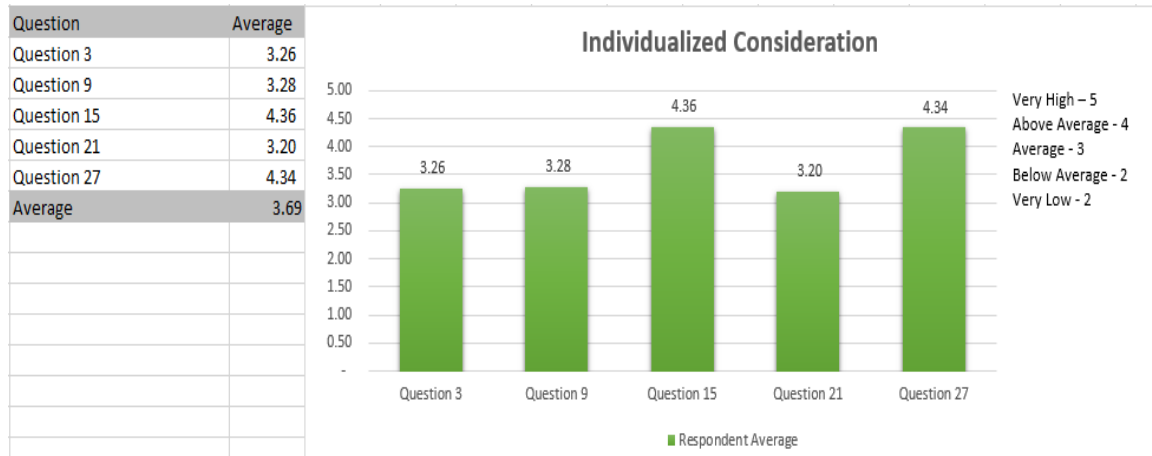


Figure 4.85: Skilled resources - Individualised consideration summary of results

Two questions, 15 and 27, scored in the above average range for individualised consideration, indicating that respondents felt that leaders should be observant of their followers and that receiving individualised coaching was important. Individualised consideration refers to the fostering of supportive relationships, sharing of ideas and having a unique relationship with followers. The results highlight uniqueness as an important characteristic in the transformational leadership-follower dynamic. It implies that skilled resources hold this characteristic in high regard. Areas that scored in the average range indicated that not all leaders were in touch with the needs of followers or provided regular feedback on performance and that they did not fully understand what motivated their followers. These should be noted as areas that can be improved upon, according to Manning and Roberson (2016) who argued that leaders and followers are inextricably linked. One cannot fully understand leadership or the style of leadership that is most effective without also having an understanding of followership, the audience that is to be led.

4.13.4 Intellectual stimulation, questions 4, 10, 16, 22 and 28

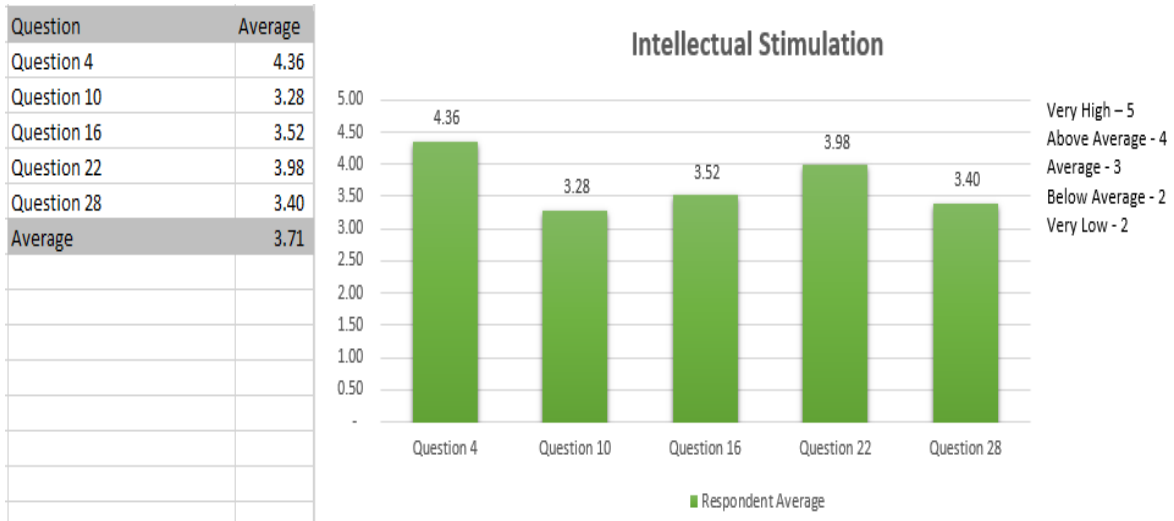


Figure 4.86: Skilled resources - Intellectual stimulation summary of results

This characteristic scored second highest, Questions 4 and 22 indicating that managers encourage followers to participate in problem-solving, solicited ideas and challenged assumptions. Transformational leaders should challenge the status quo and encourage team participation in creative problem-solving. IT projects are essentially all about breaking new ground and creating opportunities for learning and growth. Responses to Questions 10, 16 and 28 indicated that followers believed that they were stimulated and inspired, felt that their ideas were solicited, and that leaders helped them to see the bigger picture, but there was room for improvement in these areas.

With most questions scoring in the high average band, this implies that managers and leaders understand that technically skilled resources require intellectual stimulation to keep their interest and retain skills in this competitive market.

4.13.5 Transactional leadership, questions 5, 11, 17, 23 and 29

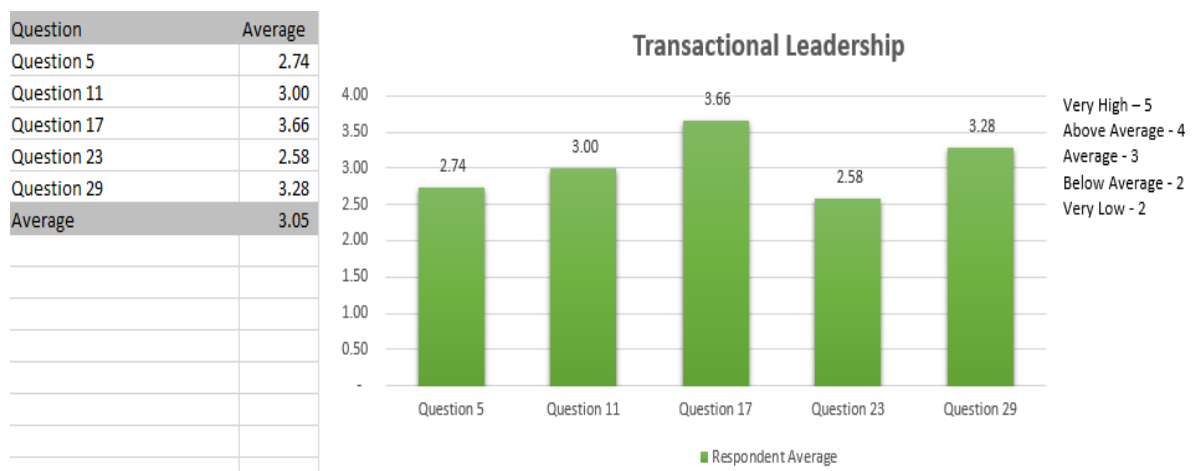


Figure 4.87: Skilled resources - Transactional leadership summary of results

It was previously discussed that corporate organisations use transactional leadership or offer rewards within their performance, incentive and bonus structures to align staff to common goals and ensure a certain level of employee performance. Questions 11, 17 and 29 scored in the average range, implying that most but not all skilled resources liked their performance to be measured against the organisation’s reward and penalty system. Managers focussed on results, conformed to existing structures and ensured that they had a structured environment with clear rules and regulations. Although these characteristics measured in the average range, they did not score as highly or proved to be as important as the transformational leadership characteristics discussed above.

Questions 5 and 23 scored in the below average range, indicating that around half of skilled resources were not incentivised over and above their salaries to complete project goals and most managers did not tell their resources exactly what to do. The results confirm the presence of transactional leadership, and imply that no one leadership style exists in a vacuum.

Evans *et al.* (2014:646), as discussed above, stated that while transformational leadership may increase follower motivation levels and performance, effective leaders use a combination of both transformational and transactional leadership styles in different situations to elicit the desired response.

4.13.6 Laissez faire leadership, questions 6, 12, 18, 24 and 30

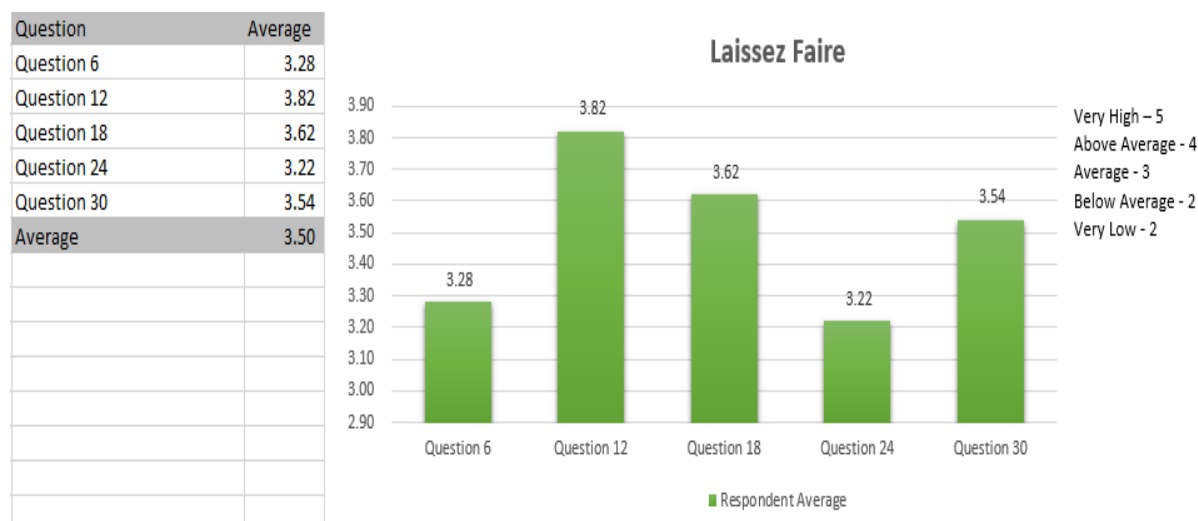


Figure 4.88: Skilled resource - Laissez faire leadership summary of results

Questions 12, 18 and 30 scored in the above average range, indicating that skilled resources prefer managers to be more hands-off and allow the work to continue. They want to be allowed to work in ways with which they are comfortable and most indicated that they are self-starters and do not require ongoing feedback. The results for Question 30 are, however, complementary to those regarding individualised consideration addressed in Question 27, where followers indicated the importance of individualised coaching, and Questions 9, stating that feedback is not received regularly enough. The result implies that while the preference is to receive feedback, if it is not received, since they are self-starters they will nevertheless get on with the work at hand.

Questions 6 and 24 scored in the lower average range, indicating that leaders are missing cues to offer guidance when necessary and that skilled resources require very little in the way of guidance from leadership to perform their technically skilled roles.

4.13.7 Overall average

To attain the average, the totals of all questions per section were added and then divided by 5.

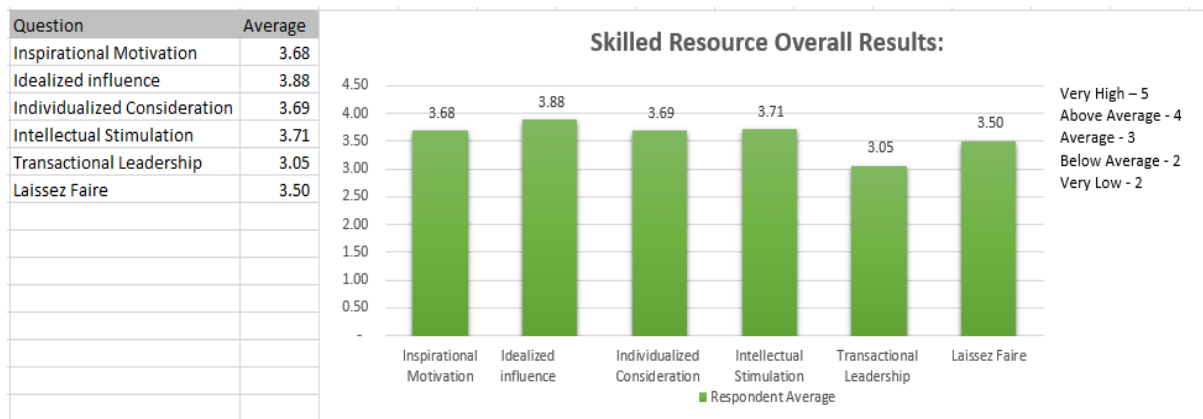


Figure 4.89: Skilled resources - Overall summary of results

All four transformational leadership characteristics produced high average responses within close range of one another. Idealised influence yielded the highest result (3.88), which implies that skilled resources want a supportive relationship with open communication, exchange of ideas and direct recognition above all else. Surprisingly, laissez faire leadership also scored in the high average range, but slightly lower than the other characteristics. Transactional leadership scored lowest at 3.05, indicating that skilled resources favoured this type of leadership style least and required more to warrant engagement. Smiedt, as cited by Kappelman *et al.* (2006:33), noted that leaders may not possess the required leadership ability or understanding of the followers to be led. The results of the current study for both leaders and followers note that understanding the needs and what motivates skilled followers is lacking in IT project leadership. The researcher posits that this trait could lead to low morale, under-performance, team retention and ultimately affect project performance negatively.

CHAPTER FIVE

SUMMARY OF RESULTS

5.1 Introduction

The purpose of this research was to determine the relationship between transformational leadership and technically skilled resources in the execution of IT projects in the Western Cape. All discussions below are based on the analysis of survey results and the answers to questions that were discussed in Chapter 4. Although the primary research question was answered by the results, some of the secondary research question results remain inconclusive, without sufficient evidence to draw direct conclusions.

5.2 Summary of study

5.2.1 Chapter 1

In Chapter 1 the researcher explored the background to the study and described the problem that exists and its significance. The researcher described the primary and secondary objectives of the study, defined the research methodology, delineation and research process and provided an outline of future chapters.

5.2.2 Chapter 2

In Chapter 2 the researcher explored the history of transformational leadership. Many varying opinions were discussed by SMEs on the pros and cons of leadership based on relevant literature under review. The author provided the reader with insights into why projects fail, the characteristics of transformational leadership, business objectives, IT in the Western Cape and the relevance of the study. The role of followership was explored and the interdependent relationship between leaders and followers discussed.

5.2.3 Chapter 3

Chapter 3 explored the research design and outlined the chosen methodology, processes and controls that were applied to ensure that the data collected was independent and verifiable. The use of multi-factor questionnaires, limitations, constraints, sample size calculations and the way in which answers to questions will provide insights into the research questions were discussed as well.

5.2.4 Chapter 4

In Chapter 4 the researcher explored the data, the results of MLQs conducted for both cohorts, skilled ICT resources, managers and leaders. The information was analysed, providing insights and information on the research questions discussed in Chapter 1 and enabling the researcher to examine the relationship between transformational leadership and technically skilled resources in the execution of IT projects in the Western Cape. The method of data collection, tools, process and analysed results were discussed as well.

5.2.5 Chapter 5

In Chapter 5 the researcher reviews the purpose of the research and provides an outline of all chapters and their content. The results from Chapter 4 are discussed in detail, providing an outline of implications for theory and IT project leadership. Primary and secondary objectives are discussed and the scope for future research is outlined.

5.2.6 Chapter 6

Chapter 6 is the final chapter; it presents the conclusion for this research and proposes recommendations, thereby concluding this study.

5.3 Discussion of results

The study set out to determine the relationship between transformational leadership and skilled resources in the execution of IT projects in the Western Cape. This was in

hopes of understanding the follower and leader dynamic better to increase the likelihood of successful project outcomes.

The results discussed in Chapter 4, sections 4.8.1.7 and 4.13.1.7 reveal that there is great alignment between leaders and followers surveyed. It also confirms that transformational leadership, its qualities and characteristics are preferred and in some cases being employed in the execution of IT projects in the Western Cape. All the transformational leadership characteristics across both cohorts scored higher than laissez faire or transactional leadership styles, as seen below in the overall comparison diagram.

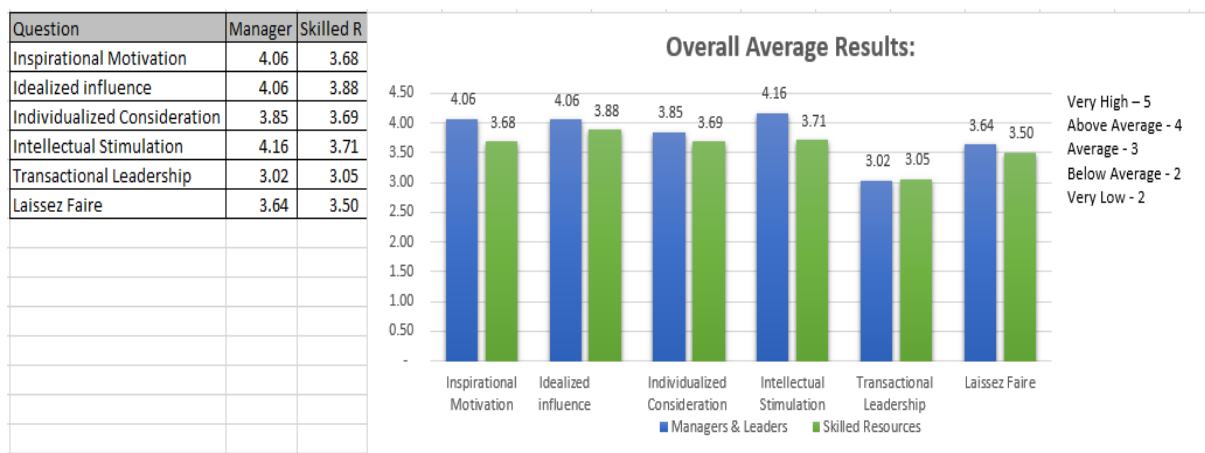


Figure 5.1: Managers and leaders and skilled resource overall results comparison

Managers’ and leaders’ average results in all but one category, transactional leadership, were higher than those of skilled resources. This implies that there is gap, either relating to the levels at which leaders would like teams to perform (4.8.1.4) or more likely in relation to skilled resource responses, indicating areas that leaders and managers could improve upon to be more effective leaders, as discussed in sections 4.8.7 and 4.13.7

Both cohorts shared the same sentiments with regard to the use of the laissez faire leadership style within the follower-leader dynamic in the execution of IT projects. This highlights an important point: that managers must allow the work to continue but remain in touch and control of their followers, as discussed in sections 4.8.6 and 4.13.6.

5.3.1 Theoretical implications

The objective of the research was to determine the relationship between transformational leadership and skilled resources, with the aim of contributing to the followership body of knowledge by gaining insight into leadership characteristics that evoke or motivate followership within the skilled resource population in the Western Cape.

As discussed in Chapter 1, section 1.2, in followership, the acceptance or rejection of leadership is dependent on the characteristics of the group of followers and the reciprocal or complementary leadership style adopted. The findings in Chapter 4, section 4.8.4 highlight that intellectual stimulation is the most important surveyed characteristic to managers and leaders. It has been defined by involving resources in problem-solving, stimulating creativity, inspiring innovation, soliciting ideas, challenging assumptions and inclusive big picture thinking. While keeping skilled resources intellectually stimulated to ensure engagement and retention is important, it was ranked as the number two characteristic by the skilled resource population.

Idealised influence, discussed in section 4.13.2, which is characterised by charisma, risk-taking, building trust and confidence, values, principles, pride and modelling, was ranked as the number one characteristic that skilled resources desired from their managers and leaders.

The results of this research suggest that while there may be some misalignment in the ranked order of importance between both cohorts, as seen below, the four top-scoring characteristics all related to transformational leadership. These insights shed light on the followership body of knowledge and imply evocation of followership by employing transformational leadership characteristics.

Table 5.1: Transformational leadership characteristics ranking

| Section | Ranked | Manager | Ranked | Skilled R |
|------------------------------|--------|---------|--------|-----------|
| Inspirational Motivation | 2 | 4.06 | 4 | 3.68 |
| Idealized influence | 3 | 4.06 | 1 | 3.88 |
| Individualized Consideration | 4 | 3.85 | 3 | 3.69 |
| Intellectual Stimulation | 1 | 4.16 | 2 | 3.71 |
| Transactional Leadership | 6 | 3.02 | 6 | 3.05 |
| Laissez Faire | 5 | 3.64 | 5 | 3.50 |

The results further develop one's understanding of the power and influence of transformational leadership in the execution of IT projects by shedding light on areas that need attention. These are discussed in section 4.12.1 relating to Questions 7 and 13 that highlight areas where managers should apply more focus or be more realistic about their efficacy, as reflected in section 4.12, Questions 8 and 9. Managers believe they are doing enough to build trust and confidence and provide regular feedback, whereas results from skilled resources do not share the same sentiments.

Table 5.2: Transformational leadership characteristics comparison

| Inspirational Motivation: | | | | Idealized Influence: | | | |
|-------------------------------|-------------|-------------|---------------|---------------------------|-------------|-------------|-------------|
| Questions | Manager | Skilled R | Difference | Questions | Manager | Skilled R | Difference |
| Question 1 | 4.20 | 4.36 | - 0.16 | Question 2 | 4.02 | 4.30 | - 0.28 |
| Question 7 | 3.78 | 3.26 | 0.52 | Question 8 | 4.38 | 3.48 | 0.90 |
| Question 13 | 4.18 | 3.28 | 0.90 | Question 14 | 3.54 | 3.08 | 0.46 |
| Question 19 | 4.20 | 3.88 | 0.32 | Question 20 | 4.50 | 4.70 | - 0.20 |
| Question 25 | 3.96 | 3.64 | 0.32 | Question 26 | 3.84 | 3.86 | - 0.02 |
| Overall Average | 4.06 | 3.68 | 0.38 | Average | 4.06 | 3.88 | 0.17 |
| Individualized Consideration: | | | | Intellectual Stimulation: | | | |
| Questions | Manager | Skilled R | Difference | Questions | Manager | Skilled R | Difference |
| Question 3 | 3.66 | 3.26 | 0.40 | Question 4 | 4.44 | 4.36 | 0.08 |
| Question 9 | 4.18 | 3.28 | 0.90 | Question 10 | 4.14 | 3.28 | 0.86 |
| Question 15 | 4.06 | 4.36 | - 0.30 | Question 16 | 4.10 | 3.52 | 0.58 |
| Question 21 | 3.64 | 3.20 | 0.44 | Question 22 | 4.04 | 3.98 | 0.06 |
| Question 27 | 3.72 | 4.34 | - 0.62 | Question 28 | 4.10 | 3.40 | 0.70 |
| Average | 3.85 | 3.69 | 0.16 | Average | 4.16 | 3.71 | 0.46 |

The study confirms that no one type of leadership style exists in a vacuum; the presence of laissez faire and transactional leadership has been detected. The results indicate that followers prefer transformational leadership characteristics but favour a certain amount of laissez faire type leadership in the approach to task execution, as discussed in sections 4.8.6 and 4.13.6.

5.3.2 Implications for transformational leadership in IT projects

The overall results of the study confirm the existence of transformational leadership in the execution of IT projects from not only the perspective of managers and leaders, but also that of skilled resources. Their responses provide much insight into the desired leadership formula that creates an environment in which skilled resources can

be motivated. For example, the technically skilled indicated that with regard to inspirational motivation, section 4.13.1, they value managers who are optimistic and help them to see the value that they add.

Leaders' and followers' survey results outline the profile or blueprint for effective leadership of skilled resources and identify the transformational leadership characteristics that are most desired by followers. While these characteristics have been identified, and can be said to improve followership or engagement, links to enhanced project performance or improved probabilities of successful project outcomes have been inferred but not proven.

Follower survey results were divided into two groups based on years of experience to determine if the level of skill had an impact on the effectiveness of transformational leadership. These groups were divided into followers with 0-10 and 11+ years of experience. When examined, the results were very similar, with less than 0.05 difference between most answers. What was particularly interesting was that out of 20 transformational leadership questions, only three were out of or beyond the 0.05 tolerance. This indicates that experienced and less experienced skilled resources are in alignment. It implies that level of skill is not a factor in the effectiveness of transformational leadership. The three questions below posit that more experienced resources with 11+ years of service believe managers' communication is not clear or is insufficient and that they could do more to build trust and confidence. It also indicates the less experienced resources with between one and nine years' experience feel that managers do not understand what motivates them as strongly as the more experienced resources do.

Table 5.3: Skilled resources - skill level analysis exceptions

| | Inspirational Motivation | Idealized Influence | Individualised Consideration |
|------------|--|---|--|
| | My manager communicates precisely and powerfully in simple words | Management works to build trust in relationships and develop confidence | My Manager understands what motivates me |
| 11+ Years | 2.87 | 3.33 | 3.27 |
| 1-9 years | 2.93 | 3.38 | 3.21 |
| Difference | -0.06 | -0.05 | 0.06 |
| | | | |

Surprisingly, most of the misalignment between cohorts came from the transactional leadership questions. Four out of five questions had variance greater than 0.05. Less experienced resources with between one and nine years' experience indicated that management offered them more incentives to accomplish work and that management conformed to existing structures, whereas more experienced resources with 11+ years' experience believed that managers often told them what to do and they preferred a more structured environment with rules and regulations than their less experienced counterparts.

Table 5.4: Skilled resource - skilled level analysis - transactional leadership

| | Transactional Leadership | | | |
|------------|--|---|--|--|
| | My Manager calls attention to incentives for work to be accomplished | My Manager focuses on results and conforms to existing structures | My Manager will often tell me exactly what to do | I must have a structured environment with clear rules, regulations |
| 11+ Years | 2.77 | 3.63 | 2.50 | 3.17 |
| 1-9 years | 2.83 | 3.69 | 2.41 | 3.10 |
| Difference | -0.06 | -0.06 | 0.09 | 0.06 |
| | | | | |

Regarding laissez faire leadership questions, less experienced resources with between one and nine years' experience indicated that they required less guidance to perform their tasks and considered themselves to be self-starters needing less ongoing feedback than more skilled resources. This may be attributed to millennial characteristics; millennials are known for being ambitious, confident and achievement-oriented.

Table 5.5: Skilled resource - skill level analysis - laissez faire

| | Laissez Farie | |
|------------|---|--|
| | My Leader provides very little guidance for me to perform | Im a self-starter and do not need ongoing feedback |
| 11+ Years | 3.10 | 3.60 |
| 1-9 years | 3.17 | 3.69 |
| Difference | -0.07 | -0.09 |
| | | |

5.4 Scope for future research

It was anticipated that the study would be able to link the application of transformational leadership to improving the likelihood of successful IT project outcomes. Although skilled resources who are motivated, coached, intellectually stimulated and aspire to greater success may imply greater possibility of success, this was not supported by the data. More focused research would be required to understand this dynamic better and examine the relationship.

The level of follower skill was examined and indicated similar results between less skilled and more skilled resources, while the results indicated that both preferred transformational leadership characteristics. The results did not indicate whether the level of follower skill has an impact on project success. This may be attributed to a failure in design of the research questions to elicit the desired response. More direct or targeted questions relating to this subject is required to provide greater insights.

The challenges of transformational leadership that were uncovered were discussed in the findings. Some of these noted the lack of individualised coaching, inspirational motivation, feedback on performance and charisma. While these relate to the application of transformational leadership in IT project execution, it was established that leadership does not happen in a vacuum. Leaders sometimes use a laissez faire style with regard to execution and organisations make use of transactional leadership to create structures for incentives and bonuses and drive organisational standards. While this is important for operational organisations, it has an impact on projects, which are essentially temporary structures created to support business objectives. Further research can be done to understand the impact of transactional leadership structures on transformational leadership in the execution of IT projects to understand the challenges or disadvantages better.

CHAPTER SIX

RECOMMENDATIONS AND CONCLUSION

6.1 Introduction

In this chapter the researcher discusses the primary and secondary research objectives and whether they have been addressed. Recommendations relative to the findings are shared and a conclusion to the study is provided. The research objectives will be referred to hereunder and closing remarks will be provided to conclude this study.

Remarks will be posited for both primary and secondary research objectives outlined in Chapter 1.

6.2 Research conclusion

6.2.1 To determine the relationship between transformational leadership and technically skilled resources in the execution of IT projects in the Western Cape

The data led to the conclusion that leaders and managers are applying transformational leadership in the execution of IT projects in the Western Cape. The results confirm leaders' and managers' preference for transformational leadership and its characteristics, such as intellectual stimulation, inspirational motivation, idealised influence and individual consideration, over other traditional styles such as transactional and laissez faire leadership.

Findings denote the existence of a reciprocal relationship between followers and leaders. The results of analysis of data supplied by followers who are skilled resources indicate that they too favour transformational leadership over transactional or laissez faire leadership styles, with the primary focus on idealised influence and intellectual stimulation. In contrast, leaders and managers indicated a primary focus on intellectual stimulation and inspirational motivation.

Results indicated that while transformational leadership is preferred by both surveyed cohorts, transactional and laissez faire leadership styles were also evident in certain circumstances. Skilled resources confirmed that incentives or rewards were sometimes offered for work and goal completion. In task execution skilled resources showed a preference for managers and leaders to be more hands-off and allow the work to continue.

Results derived from skilled resources, leaders and managers demonstrate broad alignment in terms of preference, but identify a variance or gap in measured response. This gap is between how well managers perceive their leadership is being received and skilled resources who are the recipients of their leadership. This indicates that leaders are somewhat out of touch with their followers; they do not fully understand followers' needs and what motivates them.

The answers to questions on individualised consideration highlight uniqueness as an important characteristic in the transformational leadership, manager and follower dynamic. These replies imply that skilled resources hold this characteristic in the highest regard and encourage a unique supportive relationship and sharing of ideas.

Intellectual stimulation scored highest with leaders and managers and second highest with skilled resources. This highlights an important characteristic of the leader-follower dynamic. It indicates that participation in problem-solving, soliciting of ideas and challenging of assumptions are welcomed by both parties. This result makes sense, as project work is undertaken to find creative solutions to business problems. These unique situations can be used to create opportunities for exponential learning and growth.

6.2.2 Investigative sub-questions

6.2.2.1 Does the application of transformational leadership improve the likelihood of successful IT project outcomes?

The results of the study indicate that where transformational leadership is applied, followers are more likely to be motivated and inspired to follow. The study was,

however, unable to link these characteristics to improved likelihood of favourable IT project outcomes. This may be a result of the MLQ questions not being specific enough to elicit the desired response.

6.2.2.2 Determine if the level of skill of followers and workers affects the effectiveness of the transformational leadership style and the ultimate project outcomes

Cross-tabulation of follower's level of skill and years of experience, when examined, led to the conclusion that it does not have an impact on leadership adoption or the effectiveness of transformational leadership and does not appear to be a factor in terms of followership. Optimism and enthusiasm were indicated as important leadership traits by both skilled resources and leaders. The study was, however, unable to confirm the relationship between the skilled resource skill level and successful IT project outcomes.

6.2.2.3 What are the characteristics of transformational leadership that enhance follower performance in IT projects?

The characteristics of transformational leadership that are important to skilled resources are ranked in order of importance and indicated as:

1) Idealised influence

- Managers have a core set of values and principles that guide people's actions.
- Leaders are willing to take risks and stand by their convictions.
- There is pride in managers and leaders.

2) Intellectual stimulation

- Management involves and encourages subordinates to contribute to problem-solving.
- Managers challenge subordinates' assumptions and solicits ideas from them.
- Leadership solicits ideas without criticism

3) Individualised consideration

- Opportunities for individualised coaching are available.
- Leaders should observe the behaviour of their followers.
- Managers understand what motivates subordinates.

4) Inspirational motivation

- Leadership should have an optimistic and enthusiastic outlook.
- Managers communicate expectations and firm commitment to goals.
- Managers help subordinates to see the meaning in the work they do.

6.2.2.4 Identify the challenges or disadvantages of transformational leadership in the execution of IT projects

The characteristics of transformational leadership that are challenges or disadvantages are ranked (5.3.1) in order of importance and indicated as:

1) Idealised Influence: (4.8.2 and 4.13.2)

- While the study showed evidence of management having charisma, it identified that not all managers, leaders particularly, do well in this area.
- Skilled resources indicated that building trust in relationships and developing confidence are challenging and an area management could improve upon.

2) Intellectual stimulation (4.8.4 and 4.13.4)

- The study revealed that management can do more to stimulate creativity and inspire innovation.
- Managers can do more to help skilled resources see the big picture and how they contribute.

3) Individualised consideration (4.8.3 and 4.13.3)

- Feedback on performance remains a challenge; skilled resources want to know how they are performing.
- Skilled resources indicate that their managers do not know specifically what they desire at work.

4) Inspirational Motivation (4.8.1 and 4.13.1)

- Followers indicated that managers do not communicate clearly and powerfully in simple words. Communication has been indicated as a challenge and an area that can be improved upon.
- The ability of leadership to point out the positive in situations was noted as an area in need of improvement.

6.3 Recommendations

The recommendations below are based on the research outcomes and the findings of the researcher:

- 1) The study has confirmed the preference for transformational leadership and its characteristics among both leaders and followers in the execution of IT projects in the Western Cape. It is therefore recommended that transformational leadership be used as the primary style of leadership in the execution of IT projects and that this be subjected to further research.
- 2) Project managers and projects in large organisations are often governed and supported by Project Management Office (PMO) structures. The researcher therefore recommends that managers and leaders receive a similar type of support. Structures should be created to help managers and leaders through a defined leadership syllabus to develop and hone their leadership abilities.
- 3) Introspection is an important part of leadership, to close the gap between what leaders believe and how followers experience leadership. It is recommended that independent surveys be conducted annually to allow followers to share feedback with leaders. It is leaders' responsibility to address the feedback and build stronger relationships with followers.
- 4) It is recommended that managers and leaders seek the services of mentors or life coaches to inspire them to achieve greater success, stay focused and grounded in the goals and objectives they have undertaken.

6.4 Future research

- 1) It is recommended that future research be conducted to understand the link between transformational leadership and the likelihood of successful IT project outcomes.

- 2) It is also recommended that future research be conducted to understand the link between followers' skill level and successful IT project outcomes.

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APPENDICES

Appendix A: University Ethical Clearance Certificate



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| | |
|--|--|
| Office of the Chairperson Research Ethics Committee | Faculty: BUSINESS AND MANAGEMENT SCIENCES |
|--|--|

The Faculty's Research Ethics Committee (FREC) on **17 October 2019**, ethics **Approval** was granted to **Bruce Sherman (215034082)** for research activities of **M Tech: Business Administration in Project Management** at Cape Peninsula University of Technology.

| | |
|---------------------------------------|--|
| Title of dissertation/thesis/project: | The impact of transformational leadership on I.T. projects execution within the Western Cape Lead Supervisor (s): S Fore |
|---------------------------------------|--|

Comments:

Decision: Approved

| | |
|---|-------------------------|
|  | 260 October 2019 |
| Signed: Chairperson: Research Ethics Committee | Date |

Clearance Certificate No | 2019FOBREC721

Appendix B: Questionnaire – Leaders/Managers

SECTION A: Survey Consent

The research being conducted is intended to determine the impact of transformational leadership on IT projects' execution in the Western Cape.

Please note that your views/responses will be handled with respect, honesty and confidentiality. Your responses and the name of your organisation will be kept anonymous. Filling in the questionnaire is an indication that you consent to participate in the research and you may withdraw at any time, should you decide to do so.

Participation is voluntary; please only continue if you meet the qualifying criteria below:

Manager/leader

- Must have worked or currently work in an IT leadership role.
- Must have worked or currently work in the Western Cape.

The process involves filling in an online survey that will take approximately 10 minutes. Your responses will be confidential, and the researcher will not record any personal identifying details. The results of the study will be used for scholarly purposes and no reward is offered for participation.

QUESTIONNAIRE – LEADERS/MANAGERS

Measuring management perceptions about leadership of technically skilled resources in the execution of IT projects.

Is there a link between transformational leadership and the performance of technically skilled employees in the successful execution of IT projects in the Western Cape?

This academic exercise seeks to identify management perceptions about leadership in the execution of IT projects. Please do not write down your name or that of your firm – it is not required for this research.

SECTION B: BIOGRAPHY

Please put a cross in the applicable boxes

1. What is your current position in your organisation?

| | | | | | |
|-----------------|-------------------|-------------------|--------------------|-----------------|-------|
| Project Manager | Programme Manager | IT Manager or CIO | Operations Manager | Project Sponsor | Other |
|-----------------|-------------------|-------------------|--------------------|-----------------|-------|

2. If other, please state in space below

.....

3. How many years have you been in a management or leadership role?

| | | | |
|-------------|--------------|---------------|-----------------|
| 0 - 5 years | 6 – 10 years | 11 – 15 years | 16 – more years |
|-------------|--------------|---------------|-----------------|

4. What is your highest educational qualification?

| | | | | | |
|--------------|-------------|--------------------------------|---------|----------------------|----------------------------|
| Below matric | Matric only | Matric + technical certificate | Diploma | Undergraduate degree | Master's degree and higher |
|--------------|-------------|--------------------------------|---------|----------------------|----------------------------|

5. How many technically skilled resources do you manage? [On average across projects or direct reports]

| | | | | | |
|--------|---------|---------|---------|---------|---------|
| 0 – 5, | 6 – 10, | 11 - 15 | 16 – 20 | 21 – 30 | 31 - 50 |
|--------|---------|---------|---------|---------|---------|

6. What type of technical skills do most of your resources have? [You may tick more than one box where applicable]

| | | | | | |
|--------------------------------------|--------------------------------------|------------------------------|-----------------------------|--------------------------------------|-----------------|
| IT Hardware, Software and Networking | Programming Languages and Developers | Business or Process Analysts | Software Proficiency (COTS) | Web Development and Online Platforms | Other – Specify |
|--------------------------------------|--------------------------------------|------------------------------|-----------------------------|--------------------------------------|-----------------|

If other, please explain below;

.....

7. In which area in the Western Cape is your company located?

| | | | |
|-------------------|------------|-----------|----------------|
| Atlantic Seaboard | Cape Flats | Cape Town | Cape Winelands |
|-------------------|------------|-----------|----------------|

| | | | |
|---------------|-----------------|------------------|------------------|
| Central Karoo | Eden | Helderberg | Northern Suburbs |
| Overberg | South Peninsula | Southern Suburbs | West Coast |

8. Please indicate the industry or market sector in which your company operates:

| | | | |
|--------------|--------------------|----------------------------|-----------------------------|
| Construction | Manufacturing | Wholesale and Retail Trade | Financial Business Services |
| Tourism | Computer Software | Information Technology | Education |
| Hospitality | Telecommunications | Transport | Other – Specify |

9. If other, please specify;

.....

10. If there is anything you want to mention in relation to the above; please state it below:

.....

SECTION C: MULTIFACTOR LEADERSHIP QUESTIONNAIRE

Please see the statements below and indicate how frequently each statement fits your leadership style by putting a cross in the most applicable box. The weightings are; 1 to 5 on an increasing scale (1 – Not at all, 2 – Once in a while, 3 – Sometimes 4 – Often, 5 – Almost always.)

| | | | | | | |
|--|---------------------------------|------------|-----------------|-----------|-------|---------------|
| | LEADERSHIP QUESTIONNAIRE | Not at all | Once in a while | Sometimes | Often | Almost always |
|--|---------------------------------|------------|-----------------|-----------|-------|---------------|

| | | | | | | |
|----|--|---|---|---|---|---|
| 1 | I have an optimistic and enthusiastic outlook | 1 | 2 | 3 | 4 | 5 |
| 2 | I am willing to take risks and stand by convictions | 1 | 2 | 3 | 4 | 5 |
| 3 | I know specifically what my followers or resources desire | 1 | 2 | 3 | 4 | 5 |
| 4 | I involve and encourage resources to contribute to problem-solving | 1 | 2 | 3 | 4 | 5 |
| 5 | I call attention to incentives for work to be accomplished | 1 | 2 | 3 | 4 | 5 |
| 6 | I offer guidance only where it is necessary | 1 | 2 | 3 | 4 | 5 |
| 7 | I communicate clearly and powerfully in simple words | 1 | 2 | 3 | 4 | 5 |
| 8 | I build trust in relationships and develop confidence | 1 | 2 | 3 | 4 | 5 |
| 9 | I provide resources with feedback to let them know how I think they are performing | 1 | 2 | 3 | 4 | 5 |
| 10 | I stimulate creativity and inspire resources to be innovative | 1 | 2 | 3 | 4 | 5 |
| 11 | I measure success according to the organisation's rewards and penalty system | 1 | 2 | 3 | 4 | 5 |
| 12 | I prefer to be more hands-off and allow the work to continue | 1 | 2 | 3 | 4 | 5 |
| 13 | I am always able to point out the positive in situations | 1 | 2 | 3 | 4 | 5 |
| 14 | People like being around me because of my charismatic personality | 1 | 2 | 3 | 4 | 5 |
| 15 | I observe the behaviour of my followers | 1 | 2 | 3 | 4 | 5 |
| 16 | I solicit ideas from resources without criticising | 1 | 2 | 3 | 4 | 5 |
| 17 | I focus on results and conform to existing structures | 1 | 2 | 3 | 4 | 5 |
| 18 | I allow resources to work in ways comfortable to them | 1 | 2 | 3 | 4 | 5 |
| 19 | I assist resources to see the meaning in the work they do | 1 | 2 | 3 | 4 | 5 |
| 20 | I have a core set of values and principles that guide my actions | 1 | 2 | 3 | 4 | 5 |
| 21 | I understand what motivates each member in my team | 1 | 2 | 3 | 4 | 5 |
| 22 | I challenge assumptions and solicit ideas from resources | 1 | 2 | 3 | 4 | 5 |
| 23 | I often tell my staff exactly what to do | 1 | 2 | 3 | 4 | 5 |
| 24 | My followers require very little guidance from me to perform their tasks | 1 | 2 | 3 | 4 | 5 |
| 25 | I communicate expectations and seek firm commitment to goals | 1 | 2 | 3 | 4 | 5 |
| 26 | My staff are proud to be associated with me | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|----|---|---|---|---|---|---|
| 27 | I provide or create opportunities for individualised coaching | 1 | 2 | 3 | 4 | 5 |
| 28 | I help resources to see the big picture and how they contribute to it | 1 | 2 | 3 | 4 | 5 |
| 29 | I must have a structured environment with clear rules, regulations | 1 | 2 | 3 | 4 | 5 |
| 30 | My staff are mostly self-starters and do not need ongoing feedback | 1 | 2 | 3 | 4 | 5 |

THANK YOU FOR PARTICIPATING IN THIS RESEARCH.

Explanation of scoring

This questionnaire has been designed to provide a description of your leadership style in relation to transformational leadership, based on six factors and 30 questions. It seeks to provide insight into the leadership style of the project leader, manager or sponsor in the execution of IT projects while leading skilled resources.

- | | |
|---------------------------------|--------------------------------|
| 1. Inspirational motivation | Questions 1, 7, 13, 19 and 25 |
| 2. Idealised influence | Questions 2, 8, 14, 20 and 26 |
| 3. Individualised consideration | Questions 3, 9, 15, 21 and 27 |
| 4. Intellectual stimulation | Questions 4, 10, 16, 22 and 28 |
| 5. Transactional leadership | Questions 5, 11, 17, 23 and 29 |
| 6. Laissez faire leadership | Questions 6, 12, 18, 24 and 30 |

The scoring works as follows:

Factor 1 (1, 7, 13, 19 and 25)

Factor 2 (2, 8, 14, 20 and 26)

Factor 3 (3, 9, 15, 21 and 27)

Factor 4 (4, 10, 16, 22 and 28)

Factor 5 (5, 11, 17, 23 and 29)

Factor 6 (6, 12, 18, 24 and 30)

| | |
|---------------|------------------|
| Very high | = 20 – 25 points |
| Above average | = 15 – 20 points |
| Average | = 10 – 15 points |
| Below average | = 5 – 10 points |
| Very low | = 0 – 5 points |

Appendix C: Questionnaire - Skilled Resources

SECTION A: Survey Consent

The research being conducted is intended to determine the impact of transformational leadership on IT projects' execution in the Western Cape.

Please note that your views/responses will be handled with respect, honesty and confidentiality. Your responses and the name of your organisation will be kept anonymous. Filling in the questionnaire is an indication that you consent to participate in the research and you may withdraw at any time, should you decide to do so.

Participation is voluntary; please continue only if you meet the qualifying criteria below:

Skilled resources

- Must have worked or currently work as a technically skilled IT resource.
- Must have worked or currently work in the Western Cape.

The process involves filling in an online survey that will take approximately 10 minutes. Your responses will be confidential, and the researcher will not record any personal identifying details. The results of the study will be used for scholarly purposes and no reward is offered for participation.

QUESTIONNAIRE – SKILLED RESOURCES

Measuring skilled resources' perceptions about leadership in the execution of IT projects.

Is there a link between transformational leadership and the performance of technically skilled employees in the successful execution of IT projects in the Western Cape?

This academic exercise seeks to identify skilled resources' perceptions about leadership in the execution of IT projects. Please do not write down your name or that of your firm – it is not required for this research.

SECTION B: BIOGRAPHY

Please put a cross in the applicable boxes

11. To which category below do your technical skills relate most in your current role?

| | | | | | |
|--|---|--|-----------------------------------|---|--------------------|
| IT Hardware Software and Networking | Programming Languages and developers | Business, Process or Systems Analysts | Software Proficiency (COTS) | Web Development and Online Platforms | Other – Specify |
|--|---|--|-----------------------------------|---|--------------------|

12. If other, please state in space below

.....

13. How many years have you been in a technical role?

| | | | |
|-------------|--------------|---------------|-----------------|
| 0 - 5 years | 6 – 10 years | 11 – 15 years | 16 – more years |
|-------------|--------------|---------------|-----------------|

14. What is your highest educational qualification?

| | | | | | | |
|-----------------|----------------|------------------------------------|---|---------|-------------------------|-------------------------------------|
| Below matric | Matric only | Matric technical certificate | + | Diploma | Undergraduate degree | Master's degree and higher |
|-----------------|----------------|------------------------------------|---|---------|-------------------------|-------------------------------------|

15. To whom in your organisation do you report? [You may tick more than one box where applicable]

| | | | | | | |
|--------------------|---------------|------|---------|-----------------------|--------------------|-------|
| Project Manager | IT Manager | Line | CTO/CIO | Operations Manager | Project Sponsor | Other |
|--------------------|---------------|------|---------|-----------------------|--------------------|-------|

If other, please explain below:

.....

16. How many technically skilled resources does your manager manage? [On average across projects and direct reports]

| | | | | | |
|--------|---------|---------|---------|---------|---------|
| 0 – 5, | 6 – 10, | 11 - 15 | 16 – 20 | 21 – 30 | 31 - 50 |
|--------|---------|---------|---------|---------|---------|

17. In which area in the Western Cape is your company located?

| | | | |
|-------------------|-----------------|------------------|------------------|
| Atlantic Seaboard | Cape Flats | Cape Town | Cape Winelands |
| Central Karoo | Eden | Helderberg | Northern Suburbs |
| Overberg | South Peninsula | Southern Suburbs | West Coast |

18. Please indicate the industry or market sector in which your company operates:

| | | | |
|--------------|--------------------|----------------------------|-----------------------------|
| Construction | Manufacturing | Wholesale and Retail Trade | Financial Business Services |
| Tourism | Computer Software | Information Technology | Education |
| Hospitality | Telecommunications | Transport | Other – Specify |

19. If other, please specify:

.....

20. If there is anything you want to mention in relation to the above; please state it below:

.....

SECTION C: MULTIFACTOR LEADERSHIP QUESTIONNAIRE

Please see the statements below and indicate how frequently each statement fits your perception of how you would like to or are being led as a technical resource by putting a cross in the most applicable box. The weightings are 1 to 5 on an increasing scale (1 – Not at all, 2 – Once in a while, 3 – Sometimes 4 – Often, 5 – Almost always.)

| LEADERSHIP QUESTIONNAIRE | | Not at all | Once in a | Sometimes | Often | Almost |
|---------------------------------|--|------------|-----------|-----------|-------|--------|
| 1 | Leadership should have an optimistic and enthusiastic outlook | 1 | 2 | 3 | 4 | 5 |
| 2 | I think it is important that leaders are willing to take risks and stand by their convictions | 1 | 2 | 3 | 4 | 5 |
| 3 | My manager knows specifically what I desire at work | 1 | 2 | 3 | 4 | 5 |
| 4 | I think it important that management involves and encourages me to contribute to problem-solving | 1 | 2 | 3 | 4 | 5 |
| 5 | My manager calls attention to incentives for work to be accomplished | 1 | 2 | 3 | 4 | 5 |
| 6 | My leader only offers guidance where it is necessary | 1 | 2 | 3 | 4 | 5 |
| 7 | My manager communicates clearly and powerfully in simple words | 1 | 2 | 3 | 4 | 5 |
| 8 | Management works to build trust in relationships and develop confidence | 1 | 2 | 3 | 4 | 5 |
| 9 | I am provided with feedback to let me know how I am performing | 1 | 2 | 3 | 4 | 5 |
| 10 | I feel management stimulates creativity and inspires me to be innovative | 1 | 2 | 3 | 4 | 5 |
| 11 | I like my success being measured according to the organisation's rewards and penalty system | 1 | 2 | 3 | 4 | 5 |
| 12 | I prefer my manager to be more hands-off and allow the work to continue | 1 | 2 | 3 | 4 | 5 |
| 13 | Leadership is always able to point out the positive in situations | 1 | 2 | 3 | 4 | 5 |
| 14 | I like being around my manager because of his/her charismatic personality | 1 | 2 | 3 | 4 | 5 |
| 15 | A leader should observe the behaviour of his followers | 1 | 2 | 3 | 4 | 5 |
| 16 | Leadership solicits my ideas without criticism | 1 | 2 | 3 | 4 | 5 |
| 17 | My manager focuses on results and conforms to existing structures | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|----|--|---|---|---|---|---|
| 18 | Leadership allows me to work in ways with which I am comfortable | 1 | 2 | 3 | 4 | 5 |
| 19 | I think it important that my manager aids me to see the meaning in the work I do | 1 | 2 | 3 | 4 | 5 |
| 20 | I think it important to have a core set of values and principles that guide my actions | 1 | 2 | 3 | 4 | 5 |
| 21 | My manager understands what motivates me | 1 | 2 | 3 | 4 | 5 |
| 22 | I think it is important that my manager challenges my assumptions and solicits ideas from me | 1 | 2 | 3 | 4 | 5 |
| 23 | My manager will often tell me exactly what to do | 1 | 2 | 3 | 4 | 5 |
| 24 | My leader provides very little guidance for me to perform my tasks | 1 | 2 | 3 | 4 | 5 |
| 25 | My manager communicates expectations and seeks firm commitment to goals | 1 | 2 | 3 | 4 | 5 |
| 26 | I am proud to be associated with my manager | 1 | 2 | 3 | 4 | 5 |
| 27 | I think it important to provide opportunities for individualised coaching | 1 | 2 | 3 | 4 | 5 |
| 28 | My manager helps me to see the big picture and how I contribute to it | 1 | 2 | 3 | 4 | 5 |
| 29 | I must have a structured environment with clear rules, regulations | 1 | 2 | 3 | 4 | 5 |
| 30 | I am a self-starter and do not need ongoing feedback | 1 | 2 | 3 | 4 | 5 |

THANK YOU FOR PARTICIPATING IN THIS RESEARCH

Explanation of scoring

This questionnaire has been designed to provide a description of the leadership style applied or sought from skilled resources in relation to transformational leadership. It is based on six factors comprising 30 questions and seeks to provide insight into the current managers' or leaders' style being employed in the execution of IT projects.

In each of the six factors relating to transformational leadership questionnaire, three of the questions refer to the current leadership style employed and two questions attempt to determine whether the skilled resources believe these qualities are important to them. Answers from each section should provide data on what style is currently being applied and whether it is important to participants that it should be applied.

Factor 1: Inspirational motivation, questions 1, 7, 13, 19 and 25

| No. | Question: | Skilled Resource Preference | Measure of Transformational Leadership |
|-----|--|------------------------------|--|
| | | | |
| 1 | Leadership should have an optimistic and enthusiastic outlook | Refers to desired leadership | |
| 7 | My manager communicates clearly and powerfully in simple words | | Refers to current leadership |
| 13 | Leadership is always able to point out the positive in situations | | Refers to current leadership |
| 19 | I think it important that my manager aids me to see the meaning in the work I do | Refers to desired leadership | |
| 25 | My manager communicates expectations and seeks firm commitment to goals | | Refers to current leadership |

Factor 2: Idealised influence, questions 2, 8, 14, 20 and 26

| No. | Question: | Skilled Resource Preference | Measure of Transformational Leadership |
|-----|-----------|-----------------------------|--|
| | | | |

| | | | |
|----|---|------------------------------|------------------------------|
| 2 | I think it is important that leaders are willing to take risks and stand by their convictions | Refers to desired leadership | |
| 8 | Management works to build trust in relationships and develop confidence | | Refers to current leadership |
| 14 | I like being around my manager because of his/her charismatic personality | | Refers to current leadership |
| 20 | I think it important to have a core set of values and principles that guide my actions | Refers to desired leadership | |
| 26 | I am proud to be associated with my manager | | Refers to current leadership |

Factor 3 - Individualised consideration, questions 3, 9, 15, 21 and 27

| No. | Question: | Skilled Resource Preference | Measure of Transformational Leadership |
|-----|---|------------------------------|--|
| | | | |
| 3 | My manager knows specifically what I desire at work | | Refers to current leadership |
| 9 | I am provided with feedback to let me know how I am performing | | Refers to current leadership |
| 15 | A leader should observe the behaviour of his followers | Refers to desired leadership | |
| 21 | My manager understands what motivates me | | Refers to current leadership |
| 27 | I think it important to provide opportunities for individualised coaching | Refers to desired leadership | |

Factor 4 - Intellectual stimulation, questions 4, 10, 16, 22 and 28

| No. | Question: | Skilled Resource Preference | Measure of Transformational Leadership |
|-----|--|------------------------------|--|
| | | | |
| 4 | I think it important that management involves and encourages me to contribute to problem solving | Refers to desired leadership | |
| 10 | I feel management stimulates creativity and inspires me to be innovative | | Refers to current leadership |
| 16 | Leadership solicits my ideas without criticism | | Refers to current leadership |
| 22 | I think it is important that my manager challenges my assumptions and solicits ideas from me | Refers to desired leadership | |
| 28 | My manager helps me to see the big picture and how I contribute | | Refers to current leadership |

Factor 5: Transactional leadership, questions 5, 11, 17, 23 and 29

| No. | Question: | Personal Preference | Manager / Leader |
|-----|---|-------------------------------|------------------------------------|
| | | | |
| 5 | My manager calls attention to incentives for work to be accomplished | | Indicates current leadership style |
| 11 | I like my success to be measured according to the organisation's rewards and penalty system | Indicates resource preference | |
| 17 | My manager focuses on results and conforms to existing structures | | Indicates current leadership style |

| | | | |
|-----------|--|-------------------------------|------------------------------------|
| 23 | My manager will often tell me exactly what to do | | Indicates current leadership style |
| 29 | I must have a structured environment with clear rules, regulations | Indicates resource preference | |
| | | | |

Factor 6: Laissez faire leadership, questions 6, 12, 18, 24 and 30

| No. | Question: | Personal Preference | Manager / Leader |
|------------|---|-------------------------------|------------------------------------|
| | | | |
| 6 | My leader only offers guidance only when it is necessary | | Indicates current leadership style |
| 12 | I prefer my manager to be more hands-off and allow the work to continue | Indicates resource preference | |
| 18 | Leadership allows me to work in ways with which I am comfortable | | Indicates current leadership style |
| 24 | My leader provides very little guidance for me to perform well | | Indicates current leadership style |
| 30 | I am a self-starter and do not need ongoing feedback | Indicates resource preference | |

Explanation of scoring:

This questionnaire has been designed to provide a description of your leadership style in relation to transformational leadership based on six factors and 30 questions. It seeks to provide insight into the leadership style of the project leader, manager or sponsors in the execution of IT projects while leading skilled resources.

| | |
|---------------------------------|--------------------------------|
| 7. Inspirational motivation | Questions 1, 7, 13, 19 and 25 |
| 8. Idealised influence | Questions 2, 8, 14, 20 and 26 |
| 9. Individualised consideration | Questions 3, 9, 15, 21 and 27 |
| 10. Intellectual stimulation | Questions 4, 10, 16, 22 and 28 |
| 11. Transactional leadership | Questions 5, 11, 17, 23 and 29 |
| 12. Laissez faire leadership | Questions 6, 12, 18, 24 and 30 |

The scoring works as follows:

Factor 1 (1, 7, 13, 19 and 25)

Factor 2 (2, 8, 14, 20 and 26)

Factor 3 (3, 9, 15, 21 and 27)

Factor 4 (4, 10, 16, 22 and 28)

Factor 5 (5, 11, 17, 23 and 29)

Factor 6 (6, 12, 18, 24 and 30)

| | |
|---------------|------------------|
| Very high | = 20 – 25 points |
| Above average | = 15 – 20 points |
| Average | = 10 – 15 points |
| Below average | = 5 – 10 Points |
| Very low | = 0 – 5 Points |

Appendix D: Poster advertisement for academic survey



ACADEMIC SURVEY

BE PART OF A STUDY TO EXPLORE THE IMPACT OF TRANSFORMATIONAL LEADERSHIP ON I.T. PROJECTS EXECUTION WITHIN THE WESTERN CAPE. YOUR VALUABLE INPUT IS REQUIRED!

PARTICIPATION IS VOLUNTARILY, PLEASE COMPLETE THE SURVEY IF YOU MEET THE BELOW **QUALIFYING CRITERIA** AND FEEL FREE TO SHARE WITH COLLEAGUE'S, FRIENDS & FAMILY.

Manager / Leader:

- Must have worked or currently work in an ICT leadership role.
- Must have worked or currently work in the Western Cape.

Skilled ICT Resource:

- Must have worked or currently work as a Technically Skilled ICT resource.
- Must have worked or currently work in the Western Cape.

Scan the QR code:



Or

Scan the QR code:



THE PROCESS INVOLVES FILLING IN AN ONLINE SURVEY THAT WILL TAKE APPROXIMATELY 8 MINUTES. YOUR RESPONSES WILL BE **STRICTLY CONFIDENTIAL**, AND **WE WILL NOT RECORD ANY PERSONAL OR IDENTIFYING DETAILS**. THE RESULTS OF THE STUDY WILL BE USED FOR **SCHOLARLY PURPOSES** AND THERE IS NO REWARD OFFERED FOR COMPLETION.

Appendix E: Language editor certificate

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DECLARATION ON EDITING

Client: Mr B. Sherman

Date: 2020/08/29

Document submitted for editing

Dissertation: **Impact of transformational leadership on execution of information technology projects in the Western Cape**

The above dissertation (excluding the list of references) was submitted to me for language editing, which was completed on 29 August 2020.



M.B. BRADLEY (MA) - Language editor

Appendix F: Turnitin similarity index report



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File size: **3.62M**
Page count: **166**
Word count: **30,870**
Character count: **172,543**
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Impact of transformational leadership on execution of information technology projects in the Western Cape

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