The influence of leadership style on employee engagement in a manufacturing company in the Northwest Province of South Africa

S. Kersop

iD orcid.org 0000-0002-8970-7584

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Supervisor: Mrs EM Scholtz

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Student number: 20302029

ABSTRACT

For organisations to sustain a competitive advantage in the 21st century, organisational change is inevitable. Managers and supervisors (leaders), who are the change agents in organisations, have a significant role to play in the change process in keeping employees engaged. Johnson (2015:70) concludes that higher levels of engagement will be achieved when a leader focuses on the employee's needs and rewards them for good performance. The organisation, which was central to this study is situated in the North-West Province, South Africa. The organisation is currently undergoing managerial change which was brought on by the challenging task of identifying suitable leadership that could fulfil the role of the retiring owner who was perceived as a transformational leader. Hence, the study aimed to investigate the influence of transformational leadership on employee engagement as opposed to the influence of transactional leadership on employee engagement.

This study employed a quantitative research approach with a cross-sectional design. To explore the relationship between leadership style and employee engagement, data was collected in response to a survey. During the time of the study the organisation was involved in two resource-intensive projects; the target group was therefore working under extreme pressure to meet aggressive project deadlines. The target group consisted of individuals employed by the company for at least six months. The target population (N=43) consisted of managers and supervisors, as well as semi-skilled employees that could influence the performance and efficiency of the organisation through their level of engagement.

The study results indicate that the organisation employs predominately more transformational leaders than transactional leaders and that employees are fairly engaged. Furthermore, leadership style and employee engagement have been found to be significantly positively related, indicating that both the transformational and transactional leadership styles are able to influence the level of engagement of followers. Transactional leadership was found to be associated more strongly to employee engagement as compared to the association between transformational leadership and employee engagement. This is contradictory to the greater majority of the literature and could have been as a result of the strenuous circumstances prevailing in the company during the time of this study. It is recommended that the organisation should prioritise the development of its leaders to enhance employee engagement.

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ABBREVIATIONS

CFA   –   Confirmatory factor analysis

EFA   –   Exploratory factor analysis

ES   –   Effect sizes

HR   –   Human resources

IRERC –   Institutional Research Ethics Regulatory Committee

KMO –   Keiser-Meyer-Olkin measure

MBE –   Management by exception

NWU –   North-West University

OB   –   Organisational behaviour

RTC   –   Resistance to change

SCS   –   Statistical Consultation Services

SD   –   Standard deviation

UWES –   Utrecht Work Engagement Scale

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CHAPTER 1: NATURE AND SCOPE OF THE STUDY

1.1. INTRODUCTION

In the fast paced business environment of the 21st century, organisations need to at least keep up with the rest around the globe to stay competitive. Georgiades, (2015:9) concludes that change is fundamental to modern companies, which confronts managers with the daunting challenge to guide employees through a variety of organisational change in order to pursue the competitive edge to be sustainable in the long term. According to Bussin and Cristos (2017:36), current trends in the highly competitive global market indicate that one of the critical factors for the success of any organisation is employee engagement. According to Mone and London (2014:4) *"an engaged employee is someone who feels involved, committed, passionate, and empowered"* and reflects these feelings in work behaviour. Truss *et.al*. (2013:2659) propose that engaged workers express themselves through physical involvement, cognitive awareness and emotional connections. Disengaged employees will distance themselves from the job and disengage from any personal involvement in physical, emotional and cognitive work aspects.

With the focus on leadership, Johnson (2015:70) concludes that higher levels of engagement will be achieved when a leader focuses on the employees' needs and rewards them for good performance. Lower levels of engagement could be the effect of leaders avoiding responsibility and action. It was also observed by Mahomed (2016:64) that leadership styles is one of the primary predictors of employee engagement and that employee engagement should be emphasised in an organisation undergoing change.

Therefore this study aims to investigate the influence of transformational leadership on employee engagement as opposed to the influence of transactional leadership on employee engagement in a manufacturing company undergoing managerial change.

1.2. PROBLEM STATEMENT AND RESEARCH QUESTIONS

The problem identified to be investigated could be described as follows:

The company identified for this study is situated in the central South African North-West Province. The organisation is currently undergoing a slow change-over from being owner controlled to being controlled by a self-directed team of managers. This change was brought about by the difficulties posed in finding a leader that could fulfil the role of the transformational leader and retiring owner that have built the organisation over the past fifty-eight years.

The organisation will be facing a few challenges in the next few years and it could be vital to build a capable leadership team that will possess the optimal organisational leadership style for higher levels of employee engagement. Management will have to create an organisational culture that will continue to motivate employees and keep them engaged.

This study aims to find whether there is a difference between the impact of transactional leadership style on engagement, opposed to the impact of transformational leadership style on the engagement of employees in the company of study. Management teams have the ability to motivate employees, keep them informed, keep them interested in the job at hand, retain employees and create a satisfied workforce. On the other hand, management could demotivate employees, break the necessary trust and building dissatisfied employees that want to leave. It is thus imperative to address the different leadership styles required to create a strong, motivated and engaged workforce for the survival of the organisation as discussed in the section above.

The abovementioned problem statement leads to the core research question:

How does leadership style (transformational and transactional), relate to employee engagement in a manufacturing company undergoing management transitioning?

1.3. RESEARCH OBJECTIVES

As highlighted in the problem statement above, the aim of the study was to determine how transformational leadership style and transactional leadership style relate to employee

engagement in a manufacturing company undergoing change. The specific objectives that formed the basis for the literature review and formulation of descriptive and exploratory questions required to conduct the research, were separated into two main categories, namely primary and secondary objectives.

The primary objectives of the research were twofold; firstly to determine the perceived dominant leadership style of supervisors and managers in a specific manufacturing organisation, and secondly to assess the level of employee engagement in the same organisation. Three primary descriptive questions related to the primary objectives were developed. These questions were formulated as follows:

- *How many respondents perceive their supervisors/managers as predominantly transformational leaders?*

- *How many respondents perceive their supervisors/managers as predominantly transactional leaders?*

- *How engaged are the respondents?*

The measuring instrument was chosen and developed to answer these research questions.

As part of the organisational benefit of this study, the researcher aimed to make recommendations regarding the future of management in the organisation in terms of the impact of leadership style on employee engagement. Therefore three secondary descriptive questions were formulated relevant to the primary objective. These questions aim to determine the respondents' feelings towards the underlying dimensions of employee engagement, namely vigour, dedication and absorption.

In support of the primary objectives, a range of secondary objectives provided further reasoning for the literature review as discussed in the following chapter. The secondary objectives include the following:

- To examine the difference between transformational and transactional leadership.

- To examine the relationship between transactional leadership and employee engagement in a manufacturing organisation undergoing management transition.

- To examine the relationship between transformational leadership and employee engagement in a manufacturing organisation undergoing management transition.

- To conclude on the best leadership style to adopt and implement for higher levels of employee engagement during and post change from owner-controlled to a self-directed management team controlled organisation.

The secondary objectives are designed to investigate the relationship between the two main variables, namely leadership style and employee engagement. Therefore, a set of primary exploratory questions was developed to investigate and interpret the relationship between the variables. Also, in an attempt to recommend the best leadership style to adopt or develop in the company, a set of secondary exploratory questions were developed that were related to the secondary objectives of this study. The relationship between the variables and cross-referencing of the descriptive and exploratory questions mentioned above are discussed in Section 3.5.

1.4. RESEARCH METHODOLOGY

1.4.1. LITERATURE REVIEW

In order to understand the field of study relevant to the identified research problem, a review of existing research was necessary. Previous studies and relevant scholarly literature on the subject were identified and explored to clarify constructs and dimensions of the different variables relevant to this study. The literature review was categorised in three focus areas that form the framework of this study. These three groups are (1) the organisation, (2) the leader, and (3) the follower.

Regarding the organisation, the concept of what an organisation entails was discussed before the organisational change and problems with change were explored. Leadership was then defined and the two leadership styles related to this study were reviewed. Thereafter the follower, and more specifically employee engagement and the drivers, antecedents and consequences of employee engagement were discussed. The literature review concludes with a theoretical connection between leadership style, employee engagement and its effect on organisational change. See *Chapter 2* for a review of significant literature related to the field of study.

1.4.2. EMPIRICAL RESEARCH

Welman *et al*. (2010:5) describe the focus of research as a means to expand scientific knowledge; and in the context of business research, to gain an understanding of human behaviour in a variety of contexts.

In an attempt to answer the research questions, the target population identified forms part of the labour force of a specific manufacturing company. The unit of analysis will be all individuals employed for longer than six months at the organisation of study, and could be seen as individuals that could influence company performance by their level of engagement (N=43).

This study employed a quantitative research approach with a cross-sectional design. Data collection by means of survey questionnaires was used to explore the relationship between leadership styles and employee engagement. To ensure the validity of the measuring instrument, existing questionnaires or question sets from similar studies were used to develop the measurement instrument. The first section of the measurement instrument aimed to measure the level of employee engagement of employees in the specific setting at a given point in time. The Utrecht Work Engagement Scale (UWES) was used as a measuring tool for employee engagement. The second section of the questionnaire focused on determining the predominant leadership style of supervisors or managers as perceived by their subordinates. The questions have been constructed based on a questionnaire used by Claassen (2015:101) to determine the supervisors' leadership styles in an engineering company. Claassen's leadership questionnaires were based on the Multifactor Leadership Questionnaire (MLQ) published by Bass and Riggio in 2006.

The data collected was statistically analysed by the Statistical Consultation Services (SCS) of the North-West University, with the aid of statistical software packages such as SPSS developed by IBM (SPSS Inc., 2017). See Chapter 3 for a detailed discussion of the research methodology.

1.5. DELIMITATIONS, ASSUMPTIONS AND LIMITATIONS

1.5.1. DELIMITATIONS

This study is exploratory by nature and will focus on employees of a manufacturing organisation in central South Africa. At the time of data collection, the organisation was involved in two resource-intensive projects, with all the respondents under pressure to meet strict project deadlines. The study is therefore limited to the individuals employed by the company for at least six months before the data gathering process for this study and the target population will consist of managers, supervisors as well as semi-skilled workers that, through their levels of engagement, could influence the performance and efficiency of operations in the organisation. This target population was selected due to the relevance to the study, as well as convenience and accessibility to the researcher.

The study aims to find the relationship between different leadership styles (transactional and transformational leadership) and levels of employee engagement in a company that is currently transitioning control from sole owner to a self-directed management team.

1.5.2. ASSUMPTIONS

A list of assumptions that are relevant to the outcome of this study is seen below. It was assumed that:

- In any organisation, workplace factors or situations could affect leadership styles, but a predominant leadership style forms through repetition and practice (Gillian *et al.,* (2015) as cited by Swift, 2017:121). It is therefore assumed that supervisors and managers employed by the organisation in focus have a predominant leadership style.

- Different leadership styles have a considerable impact on employee engagement. According to Schneider's work (as cited by Anitha, 2014:311), when employees perceive work as important and meaningful, they will be interested and engaged. Authentic and supportive leadership styles could theoretically impact the engagement of employees (in terms of involvement, satisfaction and enthusiasm).

- It was assumed that participants will answer honestly. Anonymity was ensured, a consent form was handed out with each questionnaire, and the relevance to the study was adequately explained. Each participant was ensured that they have the right to not participate if the participant felt uncomfortable doing so.

- The target population will be relevant to the study and provide honest and unbiased data to conduct the study.

- Questionnaires that form part of data collection will elicit reliable responses if formulated with validity and reliability in consideration (Welman *et al*., 2010).

- The study could be replicated under the same conditions, and the results will be in correlation to this study.

- This study will take a subjectivist view of the organisation with a regulatory purpose (Bryman *et al*., 2014:20).

1.5.3. LIMITATIONS

One of the main limitations of this study was the level of education of the target population. As described in Section 3.4, the study population is a very diverse group of employees; the educational qualifications of the population range from university degrees, technicon diplomas and high school certificates. Therefore the interpretations of some questions may vary. In addition to levels of education, the questionnaires were available in English only, which might not have been representative of the preferred language of all the individuals in the target population.

The nature of the variables measured for this study is a sensitive subject in the workplace, especially perceived leadership style of the respondents' supervisors or managers. Even though anonymity was ensured, some employees might have still felt concerned about identification which could influence the truthfulness of the responses.

The third limiting factor identified is the organisational situation at the time of data collection. The organisation in study was involved in two international projects that included severe penalties if the projects are not delivered on time. With a relative small workforce employed by the organisation (±200) the respondents were under extreme pressure to meet strict project

deadlines. This might have resulted in employees that are more task-oriented than relationship-oriented at the time of data collection and might have influenced the outcomes of the study.

The last factor identified that could affect the reliability of the study is the entrenched culture of the company in general. Most respondents are employed at the specific organisation for four years and longer, impacting on the generalisability of the outcome of the study to similar manufacturing organisations undergoing managerial changes.

1.6. IMPORTANCE AND PURPOSE OF THE STUDY

The research problem as previously described attracted the interest of the researcher due to the possible impact the problem may have on the longevity and prosperity of the organisation. The findings of this study could be of great importance for future success. See below a list of possible benefits, for both the researcher and the organisation, related to the study:

- Findings of this study may serve as a guideline for HR personnel to fill future management positions.

- The outcome of the research may result in recommendations that could positively influence the company culture to be beneficial for future employee wellbeing.

- The company could structure the management team to ensure higher levels of employee engagement, following the conclusion of this study.

- The outcome of the study could aid the management transition from sole owner control to a self-directed management team-controlled organisation.

- The findings of the study could provide insight into the benefit of engaged employees on organisational performance and profitability.

1.7. CONCLUSION

Chapter 1 focused on the introduction of the nature and scope of the study. The research problem was introduced and the primary research question clearly defined. The objectives of the research were discussed in terms of a set of descriptive and exploratory questions that need to be answered in order to conclude on the influence of leadership styles on employee engagement. A brief overview of the research methodology followed the research objectives. The research

methodology was divided into two separate areas, namely the literature review and the empirical research.

The scope of the study was narrowed down in the delimitations and assumptions; possible limitations were discussed before the chapter focused on the purpose and benefits of the study.

The remainder of this document will include the literature review on transactional and transformational leadership styles, management transition challenges and employee engagement. The literature study will be followed by the research methodology, design and methods used to conduct the study. The results of the measurement instruments will be presented before the report will conclude on the findings in the final chapter.

CHAPTER 2:   LITERATURE REVIEW

2.1. INTRODUCTION

The objective of this chapter is to find theoretical insight into leadership style and how a leadership style could impact on the engagement of followers in an organisation that is undergoing management changes. The organisation being studied has been owner managed for the past five decades. As the owner is anticipating retirement, self-directed management of the organisation will be required. For the owner to hand over the reins, the leadership style and subsequent engagement of followers need to be understood to set up the organisation, and more specifically, the management team for success.

The literature review was informed by various studies, published journals, articles and printed books, which aided in the formulation of the descriptive questions, the selection of the research instrument, as well as providing the support in answering the exploratory questions and ultimately answering of the primary research question.

The literature study will be structured in the following manner:

Focus Area 1: Organisation

The first focus area aims to define organisational behaviour and explore the determinants of organisational change, together with factors affecting the outcomes of organisational change.

Focus Area 2: Leaders

The second identified focus area could be separated in different leading styles of individuals or leadership styles. This study will focus on two main opposing or complementing types of leadership style: (1) transactional leadership and (2) transformational leadership. This category will form the independent variable of the research.

Focus Area 3: Followers

The third focus area could be described as the attributes related to *followers,* specifically work or employee engagement. Theories related to this topic are widely studied and the construct are well defined.

This chapter provides an overview of key terms related to the study, a discussion of existing literature, as well as concluding remarks about the connection between the different variables.

2.2.   DEFINITION OF KEY TERMS

In order to establish contextual meaning to the research discussed in Chapter 2, below are a list of key terms and their meanings:

- *Employee engagement* – Representation of extend to which employees are satisfied, enthusiastic about and involved in their work (Woods & West, 2016:96).
- *Transformational leadership* – Leadership style that changes the organisation by *"creating, communicating and modelling a vision for the organization, […] and inspiring employees to strive for that vision"* (McShane & Von Glinow, 2010:371).
- *Transactional leadership* – Leadership style that helps organisations achieve current objectives more efficiently through rewarding employees for good performance and ensuring that all necessary resources are available for the specific job (McShane & Von Glinow, 2010:371).
- *Organisational change* – In the context of this study the term refers to the change from a company controlled by a single owner to being controlled by a team of managers.
- *Leadership* – Process by which leaders influence, motivate and enable followers to *"contribute toward the effectiveness and success of the organizations of which they are members"* (McShane & Von Glinow, 2010:360).
- *Work engagement* – A persistent, pervasive, positive and fulfilling work-related state of mind characterised by three factors: vigour, dedication and absorption (Schaufeli *et al*., 2006:702).
- *Absorption* − An underlying dimension of employee engagement refers to the individual feeling completely and happily captivated in the work at hand, to such an extent that time

seems to pass quickly and the individual finds it difficult to detach from the work. (Schaufeli *et al.,* 2002:75)

- *Dedication* – An underlying dimension of employee engagement that refers to the experience of *"significance, enthusiasm, inspiration, pride and challenge,"* as well as a strong involvement in the work (Schaufeli *et al.,* 2002:74).

- *Vigour* – An underlying dimension of employee engagement that is characterised by high energy levels, mental resilience, willingness to invest effort and persistence in difficult work-related situations (Schaufeli *et al.,* 2002:74).

2.3. THE ORGANISATION

McShane and Von Glinow (2010:4) describe organisations as groups of people working independently towards a common purpose and therefore not limited to business conducted between the four walls of an office or products manufactured in a manufacturing workshop. Organisations consist of *"people who communicate, coordinate, and collaborate with each other to achieve common objectives."*

The success of the organisation is dependent on the behaviour and subsequent performance of the employees. The influence on behaviours needs to be well understood by management and human resource (HR) practitioners. Robbins, Judge, Millet and Boyle (2013:8) define organisational behaviour as *"a field of study that investigates the impact that individuals, groups and structure have on the behaviour within organisations, for the purpose of applying such knowledge toward improving an organisation's effectiveness."* McShane and Von Glinow (2010:6) emphasise the need for studies in the field of organisational behaviour (OB) and states that knowledge in OB is beneficial to the financial health of the organisation. It could therefore be concluded that firms that have effective OB practices have higher financial gains than those who have not adopted effective OB practices.

2.3.1. ORGANISATIONAL CHANGE

Organisations of the twenty-first century are operating in a fast-paced and globally competitive environment. As a result, organisational change has become part of life and organisations need to grow in order to become more productive, effective and preferably an employer of choice

(Anderson, 2016:3). Organisations need to adapt to change and ensure that employees are supplied with the necessary information regarding the change, are able to participate and trust their leaders. These three characteristics, according to Van Dam *et al.* (2007:318), are crucial for effective guidance of employees throughout the change process.

Woods and West (2016:473) identify a list of driving forces for organisational change, including economic factors, actions from competitors, government legislation, environmental factors, demographic factors, ethics and leadership.

Within an organisation, change affects the organisation as follows (Woods & West, 2016:474):

- Change requires the revision of organisational goals and strategies.
- To enable implementation of changes to goals and strategies, the organisation's structures, policies and procedures, work methods and reward systems need to be adapted.
- Social factors in addition to organisational structures and systems need to be managed and include the necessary management styles to ensure employee motivation, positive behaviours and the development of the required skills and knowledge.

Ujhelyi *et al.* (2015:1192) categorise organisational change as reactive change, pre-active change and pro-active change. Reactive change necessitates the organisation to change as a result of an effect. Pre-active change is where the organisation initiates change in anticipation of an effect. The last category, pro-active change, describes the most desirable form of change and is where organisations change in order to promote a competitive edge in their operating environment without the presence of an external cause for change.

Successful change requires effective change agents. If employees understand where the changes are coming from, why the change is needed and how the company can align itself successfully to manage the change, the change culture can be influenced (McShane & Von Glinow, 2010:462).

Managers and supervisors (leaders), who are the change agents in organisations, have a significant role to play in the change process and the outcomes thereof. According to Holten and Brenner (2015:12) *"leadership style had a significant, direct impact on followers' appraisal of*

change" and that different leadership styles are perceived to influence followers differently in the different stages of the change process.

In conclusion, organisations will not be able to operate sustainably in a business environment without adapting to changes from time to time. Some of the biggest contributors to successful change include the followers' perception of the change process and outcomes, as well as the leadership styles of the managers employed in the organisation.

2.3.2. ORGANISATIONAL CHALLENGES WITH CHANGE

One of the main concerns related to organisational change is the reaction of the employees in the organisation, predominantly employees' resistance to change (RTC). According to Appelbaum (2015:74), RTC can obstruct the change process, specifically during the initial phases of change. It is therefore crucial that managers support employees throughout the change process by placing emphasis on providing adequate information and ensuring that opportunities for participation exist (Georgalis, 2015:91). Woods and West (2016:482) add that the main challenge for leaders during change is to understand and manage change in a manner that will support the core purpose of the organisation and enable the effectiveness and flourishing of the employees that form a critical building block of any organisation.

Literature provides several reasons why employees would resist to changes in their organisations. Woods and West (2016:478) identify the main reasons for individual RTC as feelings of uncertainty and insecurity, selective perception and retention, misunderstanding and habit. Nging and Yazdanifard (2015:1131) also proposed that RTC differs between individuals as some individuals would adapt to the changes easier due to the challenges and opportunities that may arise, while others would prefer the certainty of routine that could result in more substantial resistance to change.

Furthermore, Ujhelyi *et al*. (2015:1197) found that the smaller the scale of change, the more active and supportive the perceived attitude of employees will be. Therefore, resistance to change is seen to be less when organisational change are introduced as fine tuning and incremental adaptation, rather than modular or transformational changes on large scale. Even so, regardless of the scale of the change, leaders play the most crucial part as change agents in

ensuring successful organisational change. They should therefore be aware of their strengths and weaknesses, adapt their leadership style to best suit the situation and take on different approaches to handle organisational change (Nging & Yazdanifard, 2015:1138).

2.4. THE LEADER

2.4.1. LEADERSHIP

Due to a lack of a clear understanding what leadership entails, despite millions of Google citations, and more than 80,000 books offered on Amazon, researchers still only have a few working definitions of leadership (Allio, 2012:4). Woods and West (2016:381-382) confirm this statement by indicating that a simple definition of leadership may ignore several nuances of leadership specified in previous definitions of leadership. One of these examples cited by Woods and West (2016:381-382) is Katz and Kahn's definition of leadership as *"the influential increment over and above the mechanical compliance with the routine directives of the organisation."* The authors also refer to the work of Schein in 1992 saying that leadership is *"the ability to step outside the culture. To start evolutionary change activities that is more adaptive."* Further in the discussion the authors mention that leadership is not only a specialised role, but also an influence process. Gary Yukl (2013:7) concludes that leadership *"is the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives."*

From above definitions it is clear that several experts in their respective fields have different opinions of what defines leadership. Allio (2012:4) describes the working definitions of leadership as follows:

- *"The early simplistic paradigm – leadership is good management.*
- *The semantic description – leadership is the process of leading.*
- *The transactional definition – leadership is a social exchange between leaders and followers.*
- *The situational notion – leadership is a phenomenon that precedes and facilitates decisions and actions.*

- *The esthetic concept – leadership is an art or a craft."*

Widmann (2013:38) argues that leadership consist of two elements, namely power and influence, and concludes that power is not possible without influence and vice versa. From several sources (Burns; Bass & Bass, as cited by Widmann, 2013:38), observations indicate that power could be exercised by an individual if that individual is motivated to accomplish specific goals and that compliance will be in the form of acceptance by a less powerful party of the goals set by a more powerful party. Power should also be applied by a leader with the consideration of common needs and goals of the leader and followership. Whilst power is primarily a tool to establish the relationship between a leader and a follower, influence is required to engage the two parties.

As stated previously, leadership is about influencing others. Therefore, for leaders to be effective in an organisational context, they need to influence followers to do as they are requested, to implement managerial decisions or to support proposals (Yukl, 2013:185). Yukl describes intentional influence behaviours as influence tactics and grouped them in three categories: impression management tactics, political tactics and proactive tactics. Proactive influence tactics are concerned with getting the task done when procedures need to be changed or to support a proposed change, therefore may be useful tool for leaders facilitating organisational change (Yukl, 2013:185).

Widmann (2013:40) further argues that, if non-abusive power were coupled with soft influence tactics (proactive influence tactics) such as rational persuasion and power sharing, it could be a useful tool for leaders to effectively motivate followers.

To add to the confusion on the concept of leadership, Allio (2012:5) describes leadership as complex and elusive and points out that leadership is not a phenomenon that happens at a unique specific instant, but rather develops over time. Leaders require followers to enable them to lead and leadership happens when interaction between leaders and followers takes place. This interaction is generally observed when leaders and followers work together to reach a common goal (Allio, 2012:7).

2.4.2. LEADERSHIP VS MANAGEMENT

Răducan and Răducan (2014:812) suggest that there is a distinctive difference between a manager and a leader and that not everyone could be at the same time a good manager and a good leader. Some individuals can be good managers, but not necessarily powerful leaders. The opposite could be true as well, not all powerful leaders are capable of being efficient managers. In contrast, Allio (2012:5) indicates that the reality is that managers must lead and leaders must manage. Therefore, organisations need to identify strong leadership and pair strong leaders with strong management. A manager faces complexity, while a leader faces changes. By grouping characteristic activities of management and leadership (Răducan & Răducan, 2014:812), organisations can assign subordinates under managers' authority, whereas leaders will assert influence over followers (Allio, 2012:5).

Răducan and Răducan (2014:810) highlight leadership's role in solving organisational change. Leaders will organise constructive changes, creating a future vision for the organisation, choosing the direction and implement strategies with the intention of fulfilling the future vision. This objective requires motivation, involvement and employment without neglecting the needs of the employees, their values and emotions. Managers will fulfil a leader's plan by organising production and personnel, dealing primarily with the complexity of the problem.

2.4.3. LEADERSHIP STYLE

Johnson (2015:23) points out that various definitions of leadership style exist, but the certainty persists that leadership style determine the response from followers when asked to achieve the vision required to enable organisational change. Applebaum *et al.* (2015:74-75) have identified four main types of leadership that is often referred to in modern literature; these are transactional leadership, transformational leadership, laissez-faire leadership and change-oriented leadership.

Burns has observed that leadership-follower relationship could take one of two opposing forms, namely transformational or transactional leadership (as cited by Widmann, 2013:41). Other researchers, including, Bass and Felfe *et al.* (as cited by Widmann, 2013:41) contradict these findings by arguing that the two leadership styles above are not opposing styles, but rather complimentary and that effective leaders could utilise both styles when deemed fit for the matter

at hand (as cited by Ferry, 2010:21). Breevaart *et al.* (2014:150) contribute to Bass and Felfe *et al.* by indicating that the influence of an individual may differ from day to day, as leaders may predominantly practise transformational leadership one day and the next day be perceived as predominantly transactional.

Widmann (2013:46) refers to the work of Bass, stating that leadership depends on the environment of the organisation. Transformational leadership will develop in an organisational environment of change and transactional leadership will emerge in a stable well-organised environment, however Ferry (2010:181) indicates that leaders on different organisational levels may be perceived to use different components of each of transformational and transactional leadership styles.

The following two sections will investigate the theoretical aspects of transactional and transformational leadership styles.

2.4.3.1. TRANSACTIONAL LEADERSHIP

According to Ferry (2010:19), the terms *"transactional leadership" and "transformational leadership"* was first introduced in 1978 by James MacGregor Burns. Over the past few decades, numerous researchers have been involving these two concepts in leadership research. Some of the authors that were found to be relevant to the study included Bass (1987), Yukl (2013), Xu and Thomas (2011), Bass (1999), Tims *et al.* (2011) and Breevaart *et al.* (2014).

Burns originally described transactional leaders as individuals who interact with followers for the specific purpose of exchanging valued things, or more informally, that transactional leaders *"makes skilled trade-offs between competing interests"* (Ferry, 2010:20). From Burns' theory, it is clear that the primary connection between transactional leaders and followers is a relationship of exchange, and according to Bass (1987:74) an exchange relationship could be perceived between an active transactional leader and their followers, where both parties are interested in meeting their own interests. In addition, Bass *et al.* (2003:208) recognise that followers who serve a transactional leader *"agreed with, accepted, or complied with the leader in exchange for praise, rewards and resources or the avoidance of disciplinary action."* This is consistent with the theory of Bass, which identifies and includes transactional activities as part of the

transactional leadership identity. These activities include the provision of necessary resources required by the subordinate to complete the task and achieve the desired outcome (Ferry, 2010:20).

Bass (1999:10) further observes that transactional leadership's behaviour could be grouped under three distinct dimensions of transactional leadership, namely contingent reward, management-by-exception (MBE) active and management-by-exception passive (see Table 1). Leaders showing behavioural traits relating to the first dimension will generally clearly outline it to the subordinate what needs to be accomplished in order to be rewarded. The second dimension, MBE active is where the leader would observe the subordinate's progress and would be pro-active in corrective measures if the follower fails to accomplish task-oriented goals. The last dimension, MBE passive, is where leaders would wait until the problem have occurred before taking reactive measures, or by doing nothing at all (Bass, 1999:10).

Table 1: Three dimensions underlying transactional leaders' behaviour (Bass, 1999:10)

Dimensions of Transactional Leadership	
Dimension	**Meaning**
Contingent reward	Pre-set constructive transactions/exchanges between leaders and followers Establishing rewards to motivate and shape employee performance
MBE active	Employees' behaviour monitored by leaders, problems anticipated to take corrective action before serious difficulties occur
MBE passive	Problems arise because of employee's behaviour before leaders take any action to correct mentioned problems

As stated by Ferry (2010:21-23), transactional leaders mainly focus on functionality, which results in maintaining the status quo of the organisation. Transactional leadership is extremely important in any organisation that relies on output of products as core business, due to the functionality of transactional leaders and the necessity to compete in terms of efficiency and cost effectiveness. This functionality will not primarily help the organisation's long-term plans; however, minor changes may incur under transactional leadership. These changes are incremental, as changes are mainly due to improvements on existing processes. According to Bass (1999:10), transactional leadership could be reasonably satisfying and effective in the organisational context. However, transformational leadership needs to be present for transactional leadership to make a substantial impact.

2.4.3.2. TRANSFORMATIONAL LEADERSHIP

Bass *et al.* (1987) indicate that the main difference between transformational leadership and transactional leadership is that a transformational leader *"attempts to elevate the needs of the follower in line with the leader's own goals and objectives"* and that there are three defining factors of transformational leaders, namely charisma, individualised consideration and intellectual stimulation. More than a decade later, Bass (1999:11) points out that transformational leaders have the ability to move their follower away from self-interest through the four "I's" of transformational leadership. In addition, inspiration as the fourth "I" of transformational leadership was added to individualised consideration, intellectual stimulation and idealised influence or charisma (see Table 2).

Table 2: Four key components of transformational leadership (Bass, as cited by Woods & West, 2016:399)

Key Components of Transformational Leadership	
Component	**Meaning**
Idealised influence	Leaders' admirable behaviour engender followers to identify with leaders Leaders serve as role models consistent with desired vision Leaders appeal on a rational and emotional level to the commitment and loyalty of followers
Inspirational motivation	Leaders communicate a clear appealing and inspirational vision to followers High standards are set by leaders and optimism about achievability of vision are conveyed to followers
Intellectual stimulation	Followers' creativity is stimulated and encouraged Leaders ask followers' input, challenge assumptions and encourage followers to take risks
Individualised consideration	Individual attention are given to followers Leaders act as mentors and pay attention to followers' skills and development needs

Idealised influence is related to role model behaviour in leaders (they are admired and respected). They are trusted, considerate and are consistent in terms of ethical conduct, their principles and values. **Inspirational motivation** refers to leadership actions that motivate followers to reach an appealing vision of the future, inspiring them, challenges them, providing meaning to their work and promoting optimism (Bass *et al.,* 2003:208). **Intellectual stimulation** is defined by Bass (1999:11) as "*leaders who encourage creativity, which helps followers to become more innovative.*" Bass (1999:11) concludes that the last component of transformational leadership, **individualised consideration**, relates to leaders who pay attention to the

developmental needs of individual followers, and support and coach them to encourage personal growth.

In other words, transformational leaders will form a clear long-term vision for the organisation, while influencing and motivating followers to be committed and loyal towards achieving that vision. They will stimulate followers and encourage them to be confident in challenging the status quo. Typical transformational leaders will act as mentors and will provide individualised attention to followers, catering for each individual's separate needs.

According to Golm, transformational leadership aims to meet organisational needs and evokes relationship-orientated behaviours, in contrast to transactional leadership's task-oriented relationships (as cited by Applebaum, 2015:75). Transformational leadership elevates the well-being of others, as well as the well-being of the organisation and society (Bass, 1999:11). In a more recent study Ferry (2010:19,24) indicates that transformational leadership's focus is on sustainability, long term survival and continuous adaptability of the organisation - in contrast to transactional leadership's short term functionality. Transformational leaders will inspire, trust, motivate and empower followers in order to create a high level of organisational commitment.

2.5. THE FOLLOWER

2.5.1. EMPLOYEE ENGAGEMENT

In a ground-breaking study, Kahn (1990:699-702) conceptualises a framework of personal engagement and disengagement. According to Kahn (1990:700) individuals employ certain dimensions of personal engagement during job-related tasks. Under the right conditions, *"connections to work and to others, personal presence and active, full role performances"* can be promoted when individuals convert these personal dimensions or energies into *"physical, cognitive, and emotional labours."* Kahn further added that, for an individual to be truly engaged, three psychological conditions need to be met. These are meaningfulness, safety and availability. **Meaningfulness** refers to individuals that perceive themselves as human capital and as a result return on investment comes in the form of physical, cognitive and emotional energy. **Safety** is related to the freedom to express oneself without fearing *"negative consequences to self-image, status, or career."* The last psychological condition, **availability**, refers to the

individual's personal readiness to engage in a specific moment, providing the required physical, emotional and psychological resources are perceived to be available (Kahn, 1990:703-714).

Since the inception of Kahn's framework of engagement, the concept became a popular construct for research and interest in employee engagement mushroomed and several definitions of employee engagement have been proposed (Baily *et al.*, 2017:31). One such definition is that of Schaufeli *et al.* (2006:702) where they propose that an engaged employee could be described as an employee who *"have a sense of energetic and effective connection with their work activities,"* and is generally perceived to effectively deal with job demands. Woods and West (2016:96) also define employee engagement as the level of satisfaction employees receive from doing their work, how enthusiastic they are when doing it and how actively they are involved in their work. Robbins and Judge state that highly engaged employees tend to be passionate about their work and disengaged employees will put in the time, but not the effort in their work (as cited by Woods & West, 2016:96).

According to Ferreira and Real de Oliveira (2014:236), Schaufeli *et al.*'s three-dimensional concept of engagement has been validated by various studies and it is widely used as measuring instrument of engagement. Schaufeli *et al.* (2006:702) state that work engagement is not an in-the-moment feeling, but a persistent, pervasive, positive and fulfilling work-related state of mind. Work engagement is characterised by three factors: vigour, dedication and absorption.

Vigour is characterised by high energy levels, mental resilience and willingness to invest effort and persistence in difficult work-related situations. **Dedication** refers to the experience of *"significance, enthusiasm, inspiration, pride and challenge,"* as well as a strong involvement in the work. **Absorption** refers to the individual feeling, completely and happily captivated in the work at hand, to such an extent that time seems to pass quickly and the individual finds it difficult to detach from the work (Schaufeli *et al.*, 2002:74).

Rana and Grewal (2013:285) further claim that there is a link between employee engagement and the future of the organisation, as engaged employees will form a strong emotional bond with the company that employs them, resulting in higher retention levels, productivity and lower absenteeism. Shuck *et al.* (2011a:428) also refer to a number of studies (Harter *et al.*; Saks; Rich

et al.) that have shown a positive connection between employee engagement and organisational outcomes, including job performance, productivity and organisational citizenship behaviours.

A meta-study conducted by Gallup (2017) clarifies an interesting fact. Irrelevant of industry, company size, nationality or economic climate – engaged employees provide better outcomes in their organisations than other employees. Businesses or business units that scored more than 75 per cent in employee engagement almost doubled their success rate in comparison with companies that scored below 25 per cent. However, studies conducted by Gallup found that the main hurdle for companies to engage employees is *"a misguided notion of what employee engagement actually is and what it is actually meant to do."* (Gallup, 2017)

In an attempt to shed some light on what engagement really is and what it is supposed to do, the following section will focus on literature that relates to the engagement drivers, antecedents of engagement, as well as possible consequences of employee engagement.

2.5.2. DRIVERS, ANTECEDENTS AND CONSEQUENCES OF EMPLOYEE ENGAGEMENT

Several studies have been conducted in the field of employee engagement in the past decade, but from an antecedent perspective, the works of Kahn (1990) and Schaufeli *et al*. (2006) are perceived to be the most influential. Rana *et al.* (2014:252) identify the antecedents of employee engagement as job design and characteristics, supervisor and co-worker relationships, workplace environment and human resource development practices.

Job design and characteristics focuses on the three psychological aspects of work engagement, namely meaningfulness, safety and availability as described by Kahn (1990:705). The second construct, **supervisor and co-worker relationships**, refers to Kahn's psychological safety, where an employee feel at ease to do the work *"without fearing loss of status, reputation or career."* **Workplace environment** refers to the environment where co-workers and managers, processes and regulations, resources and all other organisational components co-exist and affect the working atmosphere and ultimately employee engagement. Shuck *et al.* (2011b:319) indicate that two requirements to enhance workplace environments need to be focused upon, namely an engagement supportive culture in the workplace as well as management that provide required

resources for a safe and positive environment. **Human resource development** includes performance improvement of employees by providing access to skills and knowledge development, as well as the means to provide for improvement in efficiency and satisfaction (Beukes, 2016:19-22).

Shuck *et al.* (2011a:430) identify three distinct antecedents of employee engagement, as well as two outcomes. They proposed a conceptual model as shown in **Figure 1**. The conceptual model shows the three antecedents as job fit, affective commitment and psychological climate, where job fit relates to the degree in which an individual feels that their personality fits in with their current job. A good fit could result in improved job-related attitudes, which affect employee performance, as well as cognitive stimulus for employees that could have a positive impact on organisational outcomes. A good fit could also lead to employees that do their daily work more energetically and with enthusiasm. Affective commitment has to do with an individual's emotions or feelings. In the context of employee engagement this refers to the sense of belonging or the emotional bond the individual have with the organisation. The emotional bond with the organisation links back to Khan's (1990) conditions of engagement, namely meaningfulness and safety. Emotionally committed employees are more likely to be engaged and will contribute towards desirable organisational outcomes. Psychological climate refers to the perception the individual has about the work environment, relative to the *"social and physical structures of environmental cues."* According to Kahn, *"psychological climate promotes an awareness of safety and availability with work."* (as cited by Shuck *et al.*, 2011a:430-431).

Figure 1: Shuck's conceptual model of employee engagement
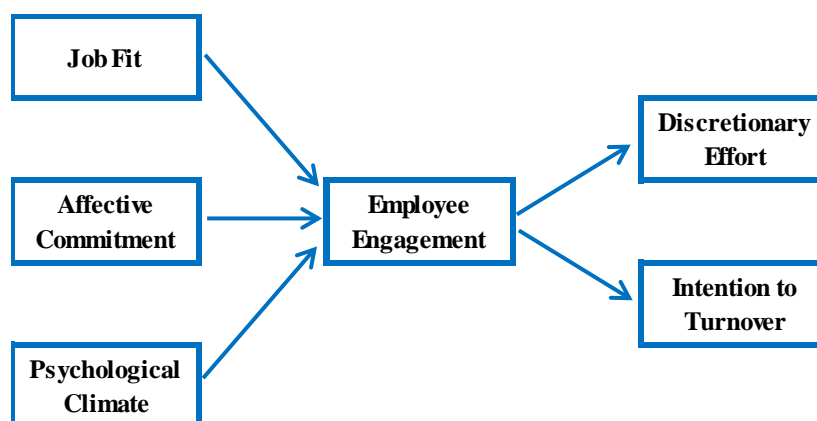
Source: Shuck *et al.* (2011a:429)

In the study conducted by Shuck *et al.* (2011a:431) on the consequences of employee engagement on organisational outcomes, discretionary effort and intention to turnover were identified. Discretionary effort refers to the willingness of the employee to do more than what is expected. Intention to turnover refers to the intention of employees to leave their current job. The study proved a significant correlation between these two consequences and employee engagement.

Anitha (2014:311) identifies seven valid determinants of employee engagement from literature that contributed to Kahn's three psychological conditions. These determinants are work environment, leadership, team and co-worker relationship, training and career development, compensation, organisational policies and workplace well-being. Anitha (2014:311) observes that when individuals perceive their workplace as meaningful and conducive for focused work and interpersonal harmony, employee engagement will increase. This is equally true for employees that perceive their leaders as inspiring, and when employees are complimented on their efforts. Anitha (2014:312) further proposes that engagement is expected to be high when employees have good relationships with their co-workers, when opportunities for growth and development are created by the organisation and when remuneration and recognition are acceptable and fair. Also, when organisational policies and procedures are favourable and senior management is interested in employees' well-being, employees will show higher levels of engagement (Towers Perrin talent report, as cited by Anitha, 2014:313). **Figure 2** provides an illustration of employee engagement determinants as proposed by Anitha (2014:311).

Figure 2: Determinants of employee engagement
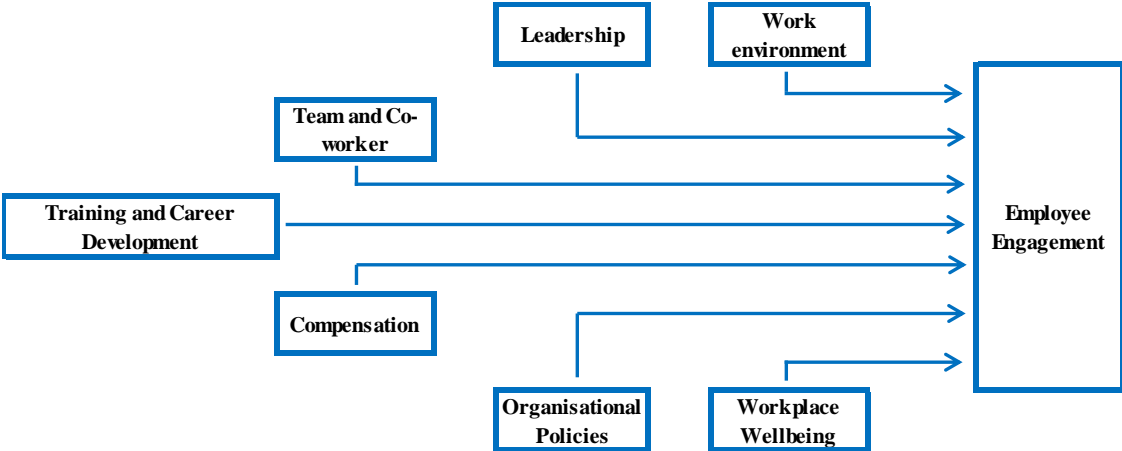
Source: Anitha, (2014:311)

In conclusion, Anitha (2014:320) confirms that a significant relationship between these determinants and employee engagement exists, adding to the understanding of Kahn's work (1990) and research conducted by Shuck *et al.* (2011a) and Beukes (2016). Therefore it can be deduced that employee engagement will be affected by various factors that could be categorised in three separate groups. The first group focuses on the physical work environment, how the employee fits in their current role and how safe and meaningful the work is. The second group could be described as the emotional aspects of the employee's work and refers to the emotional bond the employees have with the organisation and how they perceive their co-workers and leaders. The third group could be seen as the work practices related to the job, how the work is structured, what strategies they follow and how they are remunerated.

2.6. CONCLUSIONS ON LITERATURE REVIEW

According to the State of the American Workplace report, published by Gallup (2017), there are common philosophies and practices that are shared by highly engaged organisations. One example is that employee engagement is a culture that should be entrenched in the organisation from top to bottom. Typically, these organisations view employee engagement as a competitive strategic advantage and hold leaders accountable for levels of engagement and their team's performance.

Breevaart *et al.* (2014:153) concluded in a study that different types of leadership styles have a significant impact on followers' engagement. This phenomenon is supported by research conducted by Seymour (2015:119) as the research indicates that there is a positive relationship between leadership and engagement. A variety of similar studies and other literature related to employee engagement and leadership styles have confirmed that there exists a significant relationship between levels of employee engagement and leadership styles and indicated that transformational leadership style is more suited for a changing environment than transactional leadership, although transactional leadership could still be seen as the basis for any employee-leader relationship (Woods & West, 2016:401; Carasco-Saul *et al.,* 2015:57; Breevaart *et al.,* 2014:153; Seymour 2015:119).

Mahomed (2016:64) concluded that employee engagement should be emphasised in an organisation undergoing change, and that leadership styles is one of the primary predictors of

employee engagement, specifically transformational leadership as the strongest predictor. This is consistent with Holten and Brenner (2015:14), who implies that *"transformational leadership may be an effective approach to enhance followers' positive appraisal of change"* as transformational leadership includes short- and long-term positive effects and could be beneficial for the change process and outcomes.

The empirical study discussed in the next chapter will aim to find a connection between existing literature and the influence of leadership on employee engagement in a manufacturing organisation in the North-West Province of South Africa.

CHAPTER 3: RESEARCH METHODOLOGY

3.1. INTRODUCTION

Welman *et al.* (2010:5) point out that the focus of research is to expand scientific knowledge, and in the context of business research, to gain knowledge of human behaviour in a variety of contexts. The main factors that contribute to scientific knowledge are systematic observation, control and replication. The means of observation should be specific to the case without bias to support the presumptions of the study. Data collection should not be selective and be collected in a controlled manner. Data collected should also be replicable by other studies (Welman *et al.,* 2010:5,135),

This chapter will focus on the research methodology that was applied in this study. The observation method, control, replicability and ethical considerations will be discussed under various headings. The study aimed to find the impact, if any, of leadership style on employee engagement in a manufacturing company. From the data gathered the researcher aims to make recommendations related to leadership style and engagement to the company of study by means of a quantitative research methodology.

The chapter will start with an overview of the research approach, followed by the research design and a complete description of the population under consideration. A discussion of the data collection method, including the measuring instrument, validity and reliability as well as the data analysis methods will follow the description of the population. Special mention of the ethical considerations will follow before the chapter concludes with a discussion of possible limitations that might have affected the validity and reliability of the outcomes of the measuring instrument.

3.2. RESEARCH APPROACH

Creswell and Creswell (2017:34) describe research approach as the plans and procedures that are involved in the steps followed to develop the research from a broad idea and assumptions, to refined and detailed methods of data gathering, analysis, and interpretation of the results. The plan includes various decisions, the main decision being which research approach to follow. There are two primary factors that need to be considered in the decision; the research design

(discussed in the following sections), and the research method, which includes data collection, analysis and interpretation (Creswell & Creswell, 2017:34).

There are three distinct research approaches according to Creswell and Creswell (2017:34); a quantitative, qualitative and mixed methods approach. The two main approaches are not fixed or following a set of clearly defined rules; it rather is two ends of a continuum. A study generally tends to lean towards the one or the other, or a combination of the two. A qualitative research approach typically uses means of observation through open-ended questions and interviews to collect data.

A quantitative research approach is used to test theories by collecting data in a structured manner from the researcher's point of view without the researcher being actively involved with the subject. The research usually originates as a concept, whether being observed in the workplace or a social setting or hypotheses. This concept leads to the formation of research questions to test these hypotheses or concepts. Data collection and processing of said data lead to the analysis and presentation of the data to demonstrate the relationship between the variables and test them against the original research questions (Bryman *et al.,* 2014:31).

Due to the nature of the research problem, this study followed a quantitative research approach with the use of questionnaires to determine the relationship between the two factors mentioned in the research question above, namely leadership style and employee engagement. Quantitative research suits this type of study above that of qualitative research in the sense that the study was conducted in a structured and guided manner to minimise deviation and to focus on deducting a possible relationship between the specific variables, namely levels of engagement versus two leadership styles, rather than generating a theory. The researcher adopted a positivist or post-positivist view of the study, as post-positivists observe or measures reality by developing numeric measurements to test *"variables that comprise hypotheses and research questions."* (Creswell & Creswell, 2017:38).

3.3. RESEARCH DESIGN

Confusion between research methods and research design is often observed; therefore it is necessary to separate the two constructs. Research design consists of several decisions and forms

the framework for data collection and analysis. These decisions among others, include means to correlate variables or express causal connections, and whether the results from a sample can be used to make accurate assumptions about the population as a whole. The research method is the method used for data collection, including surveys, interviews, observations and questionnaires (Bryman *et al.,* 2014:100).

Creswell and Creswell (2017:44) identify three types of quantitative research designs, namely experimental designs, non-experimental designs and longitudinal designs. Bryman *et al.* (2014:101) also described experimental design, longitudinal design and cross-sectional design (associated with surveys), as different types of research design related to the quantitative research approach.

This study aims to address the correlation between leadership style of supervisors or managers in a manufacturing organisation and the level of engagement subordinate subjects have under the same circumstances at the same point in time. This indicated that a quantitative approach with a cross-sectional design was required for this study, as a cross-sectional design focuses on quantifiable data collection of a group of subjects at the same point in time, in connection with two or more variables (Bryman *et al.,* 2014:100). Creswell and Creswell (2017:211) state, in addition, that survey designs provide the means to test association among different variables. None of the variables for cross-sectional design could be manipulated. Therefore only relationships could be observed; not causality as with experimental design (Bryman *et al.,* 2014:106). Data for this study was collected through the means of a questionnaire. See Section 3.5 for more information regarding the data collection process.

3.4. PARTICIPANTS

Welman *et al.* (2010:55) describe a population as "*a group of potential participants to whom you want to generalise the results of the study.*" For the generalisation to be acceptable the sample size needs to be representative of the population. The population is the study object of the research and consists of all the units of analysis required to make unambiguous interpretations (Welman *et al*., as cited by Claassen, 2015:44).

For the purpose of this study, the population identified forms part of the labour force of a specific manufacturing organisation. The units of analysis were all individuals affecting the productivity of the organisation, employed for longer than six months at the organisation in focus. See the following two sub-sections for a more detailed description of the population regarding where the population are located, the size of the population, the representative sample size of the units of analysis as well as how they were selected.

3.4.1. TARGET POPULATION DESCRIPTION

To answer the research question, minimise variation and add relevance, a specific population was identified and defined. The research problem statement identified the location of the population as a manufacturing organisation undergoing managerial changes driven by a retiring owner. The population could be described as a specific group of individuals employed by the selected organisation that can influence the performance outcomes and productivity of the organisation. This population may serve to be representative of all manufacturing organisations in Southern Africa undergoing changes under the same conditions, even though the study aims only to describe the relationship between the variables in the identified population.

Due to the competitive nature of the manufacturing environment and the associated need for confidentiality, the organisation and the exact location of the organisation will not be discussed, but could be described as a manufacturing organisation operating from central South Africa and Gauteng, employing a range of skilled personnel, semi-skilled as well as general workers (200+ in total). The company employs a diverse group of people regarding age, gender, culture as well as language. A more detailed description of the elements included in the population will be discussed in the following sub-section.

3.4.2. UNIT OF ANALYSIS AND SAMPLING

3.4.2.1. UNIT OF ANALYSIS

The unit of analysis of a research study refers to the elements of the identified population, usually humans, groups, organisations, human products or events (Welman *et al.,* 2010:56).

For this study, the unit of analysis that makes up the population under investigation consists of the following:

- All personnel that are actively employed in decision-making roles that could influence the performance outcomes of the organisation employed for six months or more prior to data collection in the same position.

- All personnel that have the ability to influence the performance outcomes of subordinates employed in the same department employed for six months or more prior to data collection in the same position.

- All employees that have the ability to influence the performance outcomes of the organisation if not following instructions from management, employed for six months or more prior to data collection in the same position.

The data measurement instrument was handed out to employees in various departments of the organisation, including senior management, the administrative department, design office, planning and procurement department, manufacturing workshop, electrical construction departments, mechanical construction department, stores and IT department. The respondents fill several positions in the respective departments, from the general manager, top management, middle management, engineers, boilermakers, welders and semi-skilled general hands.

3.4.2.2. SAMPLING AND BIAS

Section 3.2 of this paper identified that a quantitative research approach would be employed; therefore sampling methods related to quantitative research was investigated in order to select the required sample size necessary to conduct this study.

Sampling can be separated into two groups, namely probability sampling and non-probability sampling. In the first group, all elements of the population have the same probability of being included in the sample, as they are selected purely at random. In the second group, non-probability sampling, some elements may have no chance of being selected to form part of the sample. Typical examples of non-probability samples include quota samples, purposive samples, self-selection samples, convenience samples and accidental or incidental samples (Welman *et al.,* 2010:56).

Purposive sampling, according to Bryman *et al.* (2014:186), is a type of sampling where the researcher does not select the sample on a randomised selection basis, but more to be relevant to the research question. A convenience sample is selected on the basis of availability and opportunity to the researcher. In cases where the opportunity lends itself to the outcome of a specific research question, convenience sampling methods could be used (Bryman *et al.,* 2014:178).

The target population identified for this study is relatively small (N=43); therefore the survey included the whole population as described above. The use of the whole population for this study eliminated the possibility of bias, as a biased sample is one that is not representative of the whole population (Bryman *et al.,* 2014:171) and could compromise the integrity of the study. A specific population is the target group of the study and the researcher's involvement in the target group makes for a convenient sample strategy. The measuring instrument was handed out to the target population at a convenient time when the whole population was present at the manufacturing facility of the organisation.

3.5. RESEARCH METHOD

As previously stated, the research method completes the data collection framework for the study by involving the data collection instrument, data analysis and interpretation. The nature of the study predetermined the quantitative approach considered for this study, and data was collected through the use of a questionnaire consisting of two sections. The data to be gathered with the questionnaires was identified as performance and attitude data, based on a five-point Likert scale to enable the questionnaires to be statistically analysed and interpreted. This section will focus specifically on data collection, analysis and interpretation.

3.5.1. DATA MEASUREMENT

In order to start with the data collection process, it was necessary to separate the data to be collected in different categorised variables. These variables formed the basis for the type of data collected, the means of how the data collection was conducted, as well as separation of the data into manageable groups for comparison.

Creswell and Creswell (2017:91) describe several categories of variables relevant to quantitative research. One variable generally affects the outcome of another variable, forming the basis for the measuring instrument. Typical categories are independent variables, dependent variables, predictor variables, outcome variables, intervening variables and moderating variables. The two most relevant types of variables for this study have been identified as independent or predictor and outcome variables.

This study aimed to find if the individual's direct supervisor or manager's leadership style (independent or predictor variable) influences the employee engagement level (outcome or dependent variable) of that individual.

Welman *et al.* (2010:138) identify four distinctive levels of measurement, namely nominal measurement, ordinal measurement, interval measurement and ratio measurement. Nominal measurements separate individuals by the attribute being measured, for example, if the research has to identify between male and female, this measurement level could be used by assigning the number 1 to males and the number 2 to females. Ordinal measurement assigns a number to indicate the differences between individuals, for example, to assign ascending numbers to ascending ranks in a police department. Interval measurement provides a degree of difference of individual data items within a group, for example, to measure the levels of satisfaction of customer service, ranging from highly disappointed = 1, to very satisfied = 5. Ratio measurement involves a fixed absolute zero point, where interval ratios imply, for example, in a test about a training exercise, if one employee scores 60 % and another scores only 30 % it could be assumed that the first employee learned twice as much as the second employee.

As previously discussed, the study's data collection was done with the means of a questionnaire utilising a Likert scale; therefore, an interval measurement technique was employed in both sections of the questionnaire.

3.5.2. MEASURING INSTRUMENT

The primary purpose of the measuring instruments is to provide the researcher with valid, reliable and unbiased data that will be replicable in future studies. For this study, primary data

needed to be collected relevant to the specific research question by means of a questionnaire. The questionnaire will follow the same process as a survey, as surveys provide quantitative descriptions or tests for association between variables, generally observed in a population, or a sample of that population (Creswell & Creswell, 2017:211).

The research problem, research approach and research design outlined the need for two separate research instruments. The study aimed to determine the level of employee engagement of the respondents, as well as the perceived leadership style of the respondent's direct supervisor or manager. Therefore, one instrument was identified to measure employee engagement and the other to determine the dominant leadership style of the respondent's supervisor or manager. The two instruments were combined in a survey with an informed consent form, description and relevance of the study, keywords and an assurance that the data collection method will ensure anonymity. See below sub-sections for a more in-depth discussion of the layout of the two measurement instruments.

3.5.2.1. EMPLOYEE ENGAGEMENT QUESTIONNAIRE

Employee engagement was measured using the short version of the Utrecht Work Engagement Scale (UWES) questionnaire (Schaufeli *et al.*, 2006:714). The instrument was developed with an iterative process on a multi-national level (10 countries and 27 different studies) and tests the three underlying dimensions of engagement, namely vigour, dedication and absorption (Schaufeli *et al.*, 2006:714).

Factor analysis was conducted on the instrument by investigating a one-factor and three-factor model. The three-factor model met all the maximums and minimums for various fit indexes, including the normed fit index, non-normed fit index and comparative fit index. The one-factor model also provided good fit results, with the exception of the non-normed fit index; however, the three-factor model provided the best results across all the countries, and it is worth mentioning that the three factors are highly interrelated. Another critical point is the fact that the covariance and factor coefficients are not constant and differs between the ten different countries (Schaufeli *et al.*, 2006:708).

The 17-item survey used to measure employee engagement for this study combines the three underlying dimensions of employee engagement as identified by Schaufeli *et al.* (2006:703). See **Table 3** below for the dimension assignment to questions in the instrument and **Appendix A** for the survey questionnaire.

Table 3: Dimensions of employee engagement (adapted from Schaufeli *et al.*, 2006:714)

Dependent variable employee engagement: Vigour Scale	
Question No.	Question
1.1	At my work, I feel bursting with energy
1.4	At my job, I feel strong and vigorous
1.8	When I get up in the morning, I can't wait to go to work
1.12	I can continue to work for very long periods of time
1.15	At my job, I am very tough, mentally
1.17	At my job, I always continue even when things do not go well
Dependent variable employee engagement: Dedication Scale	
Question No.	Question
1.2	I find the work I do full of meaning and purpose
1.5	I am enthusiastic about my job
1.7	My job inspires me
1.10	I am proud of the work that I do
1.13	To me, my job is challenging
Dependent variable employee engagement: Absorption Scale	
Question No.	Question
1.3	Time flies when I am working
1.6	When I am working, I forget everything else around me
1.9	I feel happy when I am working intensely
1.11	I am immersed in the work that I do
1.14	I get carried away when I am working
1.16	It is difficult to detach myself from my job

According to Widmann (2013:103), the validity of this instrument has been proved in various occupations and research fields, including healthcare and nursing as well as educators and police officers (Schaufeli *et al.*, 2006:713).

3.5.2.2. LEADERSHIP STYLE QUESTIONNAIRE

The leadership style questionnaire employed in this study was based on the leadership instrument developed by Claassen (2015:45). The questionnaire was developed based on the Multifactor Leadership Questionnaire (MLQ) and initially consisted of nineteen questions to test three different leadership styles, namely transformational leadership, transactional leadership and laissez-faire leadership. For this study the questionnaire was shortened to test only for the two leadership styles relevant to this study: transactional leadership and transformational leadership.

Claassen (2015:75) commented on the reliability and validity of the original questionnaires used, by stating that the Cronbach's alpha of the constructs was all above or close to 0.7, indicating that the instruments used were reliable and confirmed the validity of the questions asked as well as the design of the instrument.

The questionnaire was set up to test only the two factors and not the underlying factors of each leadership style due to the nature of the primary research question and the objectives of this study. See **Table 4** below for the leadership style assignment to questions in the instrument and **Appendix A** for the survey questionnaire.

Table 4: Leadership style question assignment (adapted from Claassen, 2015:59)

Independent variable employee engagement: Transformational leadership	
Question No.	Question
2.1	My manager displays transformational leadership
2.3	My manager is a role model for his subordinates
2.4	My manager reassures his subordinates that obstacles will be overcome
2.5	My manager draws attention to the importance of having a shared sense of mission
2.6	My manager communicates an exciting vision of the future
2.7	My manager challenges me to think about old problems in new ways
2.8	My manager challenges others to think about old problems in new ways
2.9	My manager spends time to train his subordinates
2.10	My manager spends time to coach his subordinates
2.11	I prefer my manager's leadership style over other leadership styles
Independent variable employee engagement: Transactional leadership	
Question No.	Question
2.2	My manager displays transactional leadership
2.12	My manager set clear performance goals
2.13	My manager displays transactional leadership through rewarding good performance
2.14	My manager displays transactional leadership through disciplining bad performance
2.15	My manager specify the rewards that will be received when achieving set goals
2.16	My manager pays attention to failures to meet standards

The statements of both questionnaires were measured on a Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree in order to enable a statistical analysis process. The following section will provide an overview of the statistical analysis process followed in this study.

3.5.2.3. VARIABLES SUMMARY

According to Creswell and Creswell (2017:215), in order to visually aid the reader in understanding the relationship between the variables and the research questions, a table linking the variables to the specific questions on the instrument is useful. This method allows the reader to determine how the data collection instrument links the variables to the specific research questions. In **Table 5**, the independent variables and dependent variables are listed, as well as the relationship to be tested in order to answer the research question; the variables and specific questions are cross-referenced to the relevant items on the survey questionnaire.

Table 5: Relation of variables to research questions

Variable Name	Research Question
Independent Variable 1: Transformational Leadership	Descriptive Question 1: How many respondents perceive their supervisors/managers as predominantly transformational leaders?
Independent Variable 2: Transactional Leadership	Descriptive Question 2: How many respondents perceive their supervisors/managers as predominantly transactional leaders?
Dependent Variable 1: Employee Engagement	Descriptive Question 3: How engaged are the respondents?
Dependent Variable 1a: Employee Engagement - Vigour	Descriptive Question 4: How vigorous are the respondents?
Dependent Variable 1b: Employee Engagement - Dedication	Descriptive Question 5: How dedicated are the respondents?
Dependent Variable 1c: Employee Engagement - Absorption	Descriptive Question 6: How absorbed are the respondents?
Relating the Independent Variable 1: Transformational Leadership to Dependent Variable 1: Employee Engagement	Exploratory Question 1: Does transformational leadership have a strong positive relationship with employee engagement?
Relating the Independent Variable 1: Transformational Leadership to Dependent Variable 1a: Employee Engagement - Vigour	Exploratory Question 2: Does transformational leadership have a strong positive relationship with vigour?
Relating the Independent Variable 1: Transformational Leadership to Dependent Variable 1b: Employee Engagement - Dedication	Exploratory Question 3: Does transformational leadership have a strong positive relationship with dedication?
Relating the Independent Variable 1: Transformational Leadership to Dependent Variable 1c: Employee Engagement - Absorption	Exploratory Question 4: Does transformational leadership have a strong positive relationship with absorption?

Table 5 (continued)

Variable Name	Research Question
Relating the Independent Variable 2: Transactional Leadership to Dependent Variable 1: Employee Engagement	Exploratory Question 5: Does transactional leadership have a weaker positive relationship with employee engagement?
Relating the Independent Variable 2: Transactional Leadership to Dependent Variable 1a: Employee Engagement - Vigour	Exploratory Question 6: Does transactional leadership have a weaker positive relationship with vigour?
Relating the Independent Variable 2: Transactional Leadership to Dependent Variable 1b: Employee Engagement - Dedication	Exploratory Question 7: Does transactional leadership have a weaker positive relationship dedication?
Relating the Independent Variable 2: Transactional Leadership to Dependent Variable 1c: Employee Engagement - Absorption	Exploratory Question 8: Does transactional leadership have a weaker positive relationship absorption?

According to Bryman *et al.* (2014:313), a pre-coded questionnaire could produce different types of variables, and therefore the researcher has to classify the different types of variables that the questionnaires could generate. Five types of variables exist for quantitative data analysis methods. They are dichotomous, nominal, ordinal, interval or ratio variables. Interval variables could measure multiple items rated on a five-point Likert scale; typical variables include constructs such as job satisfaction (Bryman *et al.,* 2014:313). The measuring instrument as discussed above generated interval variables (based on five-point Likert scales) in both sections, providing for the data analysis method as discussed in the following section.

3.5.3. DATA ANALYSIS

Research studies for MBA students are more often than not conducted by students that have no or little prior knowledge in the field of business research, statistical analysis and interpretation of results. Therefore studies are conducted purely on theoretical knowledge obtained, whether sourced from textbooks or previous studies. For this study the researcher has included previous studies as part of the literature review and concluded the following observations on data analysis.

In a similar study conducted by Claassen (2015), data collection and statistical analysis were used to split the gathered data from the respondents into manageable topics, groupings and relationships. The goal of the data analysis is to understand the relationship between the different

components of the study and to determine if any patterns or relationships could be deduced (Claassen, 2015:10).

In the preceding sub-section of this chapter, all the measurable constructs of the survey questionnaire were depicted as a set of clearly defined questions to answer the main research question:

> *How does leadership style (transformational and transactional), influence employee engagement in a manufacturing company undergoing management transitioning?*

Employee engagement was tested first as a single factor against the two different leadership styles to determine if there is a relationship. The responses were divided by determining the predominant leadership style of each respondent's supervisor or manager. The study aimed to make recommendations on the influence of leadership styles on employee engagement; the influence of leadership on the three dimensions of employee engagement was tested by dividing employee engagement data into the three underlying dimensions of employee engagement.

The statistical analysis computer program used by the Statistical Consultation Services (SCS), Potchefstroom, to conduct the data analysis for this study is IBM SPSS Statistics Version 25 for Windows (SPSS Inc., 2017).

3.5.3.1. RELIABILITY AND VALIDITY ANALYSIS

Bryman *et al.* (2014:38) state that researchers often use Cronbach's alpha to test for internal reliability. The alpha coefficient ranges from zero to one, where zero means there is no consistency (i.e. no correlation between the questions), and one means perfect internal consistency. Researchers accept values around 0.7 and above as acceptable. Tavakol and Dennick (2011:54) also indicate that several factors could affect the value of Cronbach's alpha. These include the inter-relatedness of items, the number of items tested and dimensionality. In short, the value of alpha will increase when items are related, but if the number of items tested is few, the alpha value will be reduced. The more related items being tested, the higher the alpha value is likely to be. It is also worth noting that alpha values are related to a specific data set,

therefore alpha values will differ between similar tests in different settings and researchers have to measure Cronbach's alpha to test for reliability each time a study is utilising the survey instrument (Tavakol & Dennick, 2011:53).

Cronbach's alpha was therefore used to test for internal consistency of the two sections of this measuring instrument. Employee engagement was first tested on a single factor model and secondly on a three-factor model to enable the researcher to make deductions of the influence of leadership on the three underlying dimensions of employee engagement, namely vigour, dedication and absorption; also to indicate if the three dimensions are reliable enough for Confirmatory Factor Analysis (CFA). Reliability of the leadership instrument was tested on all the questions combined, as well as a two-factor model proposed in the second section of the survey questionnaire.

According to Wilson (as cited by Taherdoost, 2016:33), even though reliability is essential for a study, on its own it does not provide full assurance that a measuring instrument tests what it is supposed to test. Therefore the reliability of an instrument needs to be combined with validity.
In an attempt to ensure the validity of the measurement instrument, questionnaires were formulated by adapting questions from previous studies where the questionnaires were already validated or using an existing developed instrument such as UWES-17. Another useful tool used by researchers is exploratory factor analysis (EFA) and was used to determine the validity of Claassen's measuring instrument (2015:49) that formed the basis for the leadership measuring instrument.

To confirm the validity of the five factors that need to be measured in this study (transformational leadership, transactional leadership, vigour, dedication and absorption), CFA was conducted on the identified factors. Brown (2006:2) states that CFA is an essential tool in testing for construct validity in social and behavioural scientific research and can provide evidence of convergent and discriminant validity of theoretical constructs. Taherdoost (2016:31) provides a brief description of convergent validity by stating that this type of validity tests if different constructs that should be related according to literature, are in fact related in terms of the specific study. Exploratory factor analysis is used if the researcher has no expectation as to the nature of the factors or how many of the different items will converge under one factor,

whereas in CFA the researcher knows the exact number of items per factor as well as the nature of the factor that will be measured (Williams *et al*., as cited by Taherdoost *et al*., 2014:376).

Before factor analysis could be applied to a correlation matrix, the data should first be assessed to see if the data is suitable for factor analysis by using the Kaiser-Meyer-Olkin measure of sampling adequacy − with values above 0.5 considered to be suitable − and Bartlett's test of sphericity ₋ with p-values smaller than 0.05 to be considered suitable (Kaiser & Bartlett, as cited by Williams *et al*., 2014:5).

3.5.3.2. DESCRIPTIVE STATISTICS AND EXPLORATORY STATISTICAL TESTS

Statistical analysis of quantitative data collected using the interval measurement technique could provide the following statistics (Welman *et al*., 2010:230-231):

- The mean – also known as the average score of a group.
- Frequencies – to show if the distribution is uniform or clustered towards one end.
- Standard deviation − to show how the scores are varying around the mean.
- Pearson's product moment correlation – to measure the degree of linear association between two variables.

Welman *et al.* (2010:231) refer to descriptive statistics as the summary and/or description of the data collected from a group of individual units of analysis and if two variables are involved; it is called bivariate analysis. Bivariate analysis is employed when the researcher has to find a relationship between variables (Bryman *et al.,* 2014:320).

Typical descriptive statistics that formed part of this study's data analysis method include discussions about the mean, frequencies and standard deviation of the responses. Further descriptive statistics relevant for the study was the perception of the respondents, and a discussion of the respondents' supervisor/manager's predominant leadership style will be included in the following chapter as part of the comparison between the two leadership styles' influence on employee engagement.

According to Bryman *et al.* (2014:321), to analyse the relationship between two interval variables, Pearson's correlation coefficient is used. As stated above, Pearson's correlation

coefficient or product moment correlation is a method to determine the degree of linear association between two variables. Bryman *et al.* (2014:322) further explain that Pearson's *r* requires a broadly linear relationship between variables in order to determine the direction and strength of the relationship. The first step is to plot the data on a scatter diagram before using Pearson's *r*. The coefficient lies between -1 and +1, where a value of 0 indicates that there is no correlation, a value of -1 indicates a perfect negative linear relationship and a value of +1 a perfectly positive linear relationship. As this study requires the measurement of the relationship between two interval variables, Pearson's *r* will be used.

3.6. ETHICAL CONSIDERATION

Creswell and Creswell (2017:143) state that ethical issues in the research process lately demand increased attention and all ethical issues have to be anticipated. According to Welman *et al.* (2010:181), all research involves certain ethical considerations such as plagiarism and honesty while writing the research report, among others. Bryman *et al.* (2014:120) cited Diener and Crandall's four main areas where ethical considerations should form part of the discussion. The four areas could be identified by asking the following questions:

- Could the study induce harm to participants?

- Is there a lack of informed consent?

- Does the study invade the privacy of the respondent?

- Is there deception involved?

Adding to Diener and Crandall's four main areas, Creswell and Creswell (2017:140-143) have identified five different stages of the research process where ethical issues may occur, based on various sources, including APA, Creswell, Lincoln , Mertens and Ginsberg and Salmons. These stages are categorised as follows: (1) before the study is conducted, (2) during the beginning of the study, (3) whilst collecting the data, (4) throughout the data analysis phase, and during the last phase which is (5) reporting, sharing and storing the data. See the table below for a summary of the ethical issue occurrence stages as tabled by Creswell and Creswell (2017:140-143). A discussion related to the five areas identified by Creswell and Creswell (2017:140-143), as well as the four questions asked by Diener and Crandall will follow after **Table 6**.

Table 6: Typical stages and types of ethical issues in the research process (adapted from Creswell & Creswell, 2017:140-143)

Where in the Process of Research the Ethical Issue Occurs	Type of Ethical Issue
Prior to conducting the study	Examine professional association standards.
	Seek college/university approval on campus through an institutional review board (IRB)
	Gain local permission from site and participants
	Select a site without a vested interest in the outcome of the study
Beginning the study	Identify a research problem that will benefit participants
	Disclose purpose of the study
	Do not pressure participants into signing consent forms
	Respect norms and charters of indigenous societies
	Be sensitive to the needs of vulnerable populations (e.g., children)
Collecting data	Respect the site, and disrupt as little as possible
	Make sure that all participants receive the same treatment
	Avoid deceiving participants
	Respect potential power imbalances and exploitation of participants (e.g., interviewing, observing)
	Do not "use" participants by gathering data and leaving the site
	Avoid collecting harmful information
Analysing data	Avoid siding with participants (going native)
	Avoid disclosing only positive results
	Respect the privacy and anonymity of participants
Reporting, sharing, and storing data	Avoid falsifying authorship, evidence, data, findings, and conclusions
	Do not plagiarise
	Avoid disclosing information that would harm participants
	Communicate in clear, straightforward, appropriate language
	Share data with others
	Keep raw data and other materials (e.g., details of procedures, instruments)
	Do not duplicate or piecemeal publications

3.6.1. ETHICAL CONSIDERATION PRIOR TO THE STUDY

The policy and rules of research ethics of the North-West University (NWU, 2016) formed the basis for ethical research and served as a guideline for ethical considerations in this study. As part of the code of conduct, the researcher commit to the rules of the NWU Institutional

Research Ethics Regulatory Committee (IRERC), all applicable international policies related to the specific field of study, as well as the Singapore Statement on Research Integrity. (NWU, 2016:3)

The Code of Conduct describes four major principles of research integrity whereto the researcher have to adhere. These principles are:

- *"Honesty in all aspects of research.*
- *Accountability in the conduct of research.*
- *Professional courtesy and fairness in working with others.*
- *Good stewardship of research on behalf of others"* (NWU, 2016:3).

A proposal of this study was accepted by the North-West University's Economic and Management Sciences Research Ethics Committee and an ethical clearance letter of study was issued with accompanying ethics number. See **Appendix C** for the ethical clearance letter of study.

During the process of ethical clearance, the organisation were identified and contacted to gain permission to conduct the study on the organisation and its employees. See **Appendix B** for the organisational permission letter. Unfortunately the researcher is employed in the organisation in focus, but all measures to distance the researcher from the outcome of the study has been explored and adhered to.

3.6.2. ETHICAL CONSIDERATION AT THE COMMENCEMENT OF THE STUDY

At the beginning of the study, Diener and Crandall's (as cited by Bryman *et al.* 2014:120) first two questions formed the basis for all ethical considerations relevant at this stage of the research approach. The problem statement was formulated as a result of a real-life situation in the organisation approached in this study. The researcher intended to provide the organisation with recommendations that could benefit the participants of this study.

The consent form (see **Appendix B**) that was developed with the participants in mind provided the necessary information on the purpose of the study, as well as the possible benefits of the study. The consent form assured respondents that participation is voluntary, and stipulated the

confidentiality, anonymity and privacy of the respondents. To further ensure anonymity, by completing the survey and returning the completed form to a predetermined point, the participant gave consent to be part of the study. Therefore, no signatures were required to give consent.

3.6.3. ETHICAL CONSIDERATION DURING DATA COLLECTION

As part of the agreement between the researcher and the organisation, the researcher made it clear to all respondents that participating in the study may not interfere with the respondent's productivity. Respondents were given three days to complete the survey in order to ensure that sufficient time is available for the completion of the survey. Respondents were ensured that the participation is voluntary and arrangements were made to ensure anonymity, such as placing a container in an unoccupied office where respondents had to return the surveys. Respondents were also made aware that the researcher would be available at any time if any questions related to the survey might have arisen and that all respondents would be treated equally.

According to Creswell and Creswell (2017:148), there need to be some mutual benefit for both the researcher and the participants. Participants were therefore ensured that the final documentation of the study would be made available to them upon request.

Furthermore, no sensitive or harmful questions were asked in the survey, protecting the researcher of any ethical issues that may arise as a result thereof.

3.6.4. ETHICAL CONSIDERATION DURING DATA ANALYSIS

As the title of this study indicates, the influence of one variable on another was examined; therefore the researcher adopted an objective view of the data collected, without favouring one outcome over another. In order to avoid the disclosing of only positive results, the interpretation of statistical data was confirmed by the Statistical Consultation Services (NWU, Potchefstroom). The assured anonymity of the participants as discussed previously eliminated possible ethical issues related to the privacy of the participants.

3.6.5. ETHICAL CONSIDERATION FOR REPORTING, SHARING AND STORING DATA

As previously stated, all the results of the findings were discussed with professionals at the Statistical Consultation Services (SCS), as well as the supervisor for this study to ensure honest and ethical reporting. To further ensure ethical practices during reporting, in an attempt to avoid plagiarism, all the sources of existing literature were referenced using the appropriate formats stipulated in the NWU Referencing Guide (NWU, 2012).

All data collection instruments will be kept safe for five years and will be made available to relevant institutions upon request and the data obtained will not be used for similar or other studies in the future. A copy of the final report will be provided to the organisation in focus, and electronic copies to any stakeholder will be available upon request. Credit to all stakeholders of this study is given in the Acknowledgement section of this document.

3.7. RESEARCH METHODOLOGY CONCLUSION

In this chapter, the research methodology was discussed in depth; a quantitative research approach was identified with a cross-sectional design. The participants were identified with regards to the target population description, sample size and bias. In Section 3.5, the research method was outlined, providing the reader with the necessary information regarding the data measurement, the measuring instrument and the data analysis process. Special consideration was given to the descriptive and exploratory questions that need to be answered through the research method, as well as the statistical methods and packages required to analyse the raw data. The chapter ended with a clear identification of the ethical considerations that have to be adhered to throughout the research process. The following chapter will present the results obtained from the statistical analysis previously outlined.

CHAPTER 4: RESULTS

4.1. INTRODUCTION

This chapter will provide an overview of all the results that were obtained from the process as described in the preceding chapter. All the data were processed and verified by the North-West University's Statistical Consultation Services (SCS). SCS conducted the analysis of the data with the use of IBM's SPSS Statistics 24 for Windows (SPSS Inc., 2017).

Firstly, the reliability of the measurement instrument and internal consistency were tested using Cronbach's alpha and factor analysis. The next section of this chapter will present the results of the internal consistency and reliability, followed by the response rates. Before concluding on the results obtained, the empirical research in terms of the descriptive statistics and exploratory statistics will be presented.

4.2. INSTRUMENT INTERNAL CONSISTENCY, RELIABILITY AND VALIDITY

In this sub-section the internal consistency and reliability of the measuring instrument will be discussed. The two separate sections were first tested in its entirety, thereafter employee engagement was divided into its underlying dimensions and tested. Leadership style was also divided into transactional leadership and transformational leadership and tested for internal consistency and reliability. Cronbach's alpha was applied to test for reliability and internal consistency.

4.2.1. RELIABILITY TESTS FOR EMPLOYEE ENGAGEMENT QUESTIONNAIRE

The reliability of the employee engagement survey was first tested on all the questions related to employee engagement and then on the underlying dimensions of employee engagement as an isolated measure. **Table 7** presents the value of Cronbach's alpha for the employee engagement survey as a whole.

Table 7: Employee engagement instrument reliability

Reliability Statistics	
Cronbach's Alpha	**N of Items**
0.866	17

Hair *et al.* (as cited by Claassen, 2015:75) state that a Cronbach alpha coefficient between 0.6 and 0.7 indicates a moderate strength of association, an alpha value between 0.7 and 0.8 shows good strength of association and a coefficient between 0.8 and 0.9 shows very good strength of association. The alpha value for the employee engagement section of the survey is 0.866, therefore acceptable, indicating that the UWES questionnaire used in this study is reliable.

To test the reliability of the underlying dimensions of employee engagement the same test was conducted on the questions related to the sub-dimensions of employee engagement, namely vigour, dedication and absorption. **Table 8** presents the Cronbach alpha values of the underlying factors of employee engagement.

Table 8: Employee engagement instrument's underlying dimension's reliability

Dimension of Employee Engagement	Cronbach's Alpha	N of Items
Vigour	0.756	6
Dedication	0.731	5
Absorption	0.654	6

As stated earlier, a Cronbach alpha values between 0.7 and 0.8 indicates a good strength of association, therefore underlying dimensions, vigour and dedication, are acceptable, but absorption only shows moderate strength of association with an alpha value of 0.654. Tavakol and Dennick (2011:54) attribute a low alpha value to several factors, including a low number of items tested or inadequate inter-relatedness between items being tested. **Table 9** displays the inter-item correlations for the sub-dimension absorption and it is evident that Question 1.3 poorly correlates with the rest of the questions.

Table 9: Inter-item correlation matrix of the absorption scale

Inter-Item Correlation Matrix						
	Q1.3	Q1.6	Q1.9	Q1.11	Q1.14	Q1.16
Q1.3	1.000					
Q1.6	0.080	1.000				
Q1.9	-0.038	0.458	1.000			
Q1.11	0.029	0.265	0.199	1.000		
Q1.14	0.228	0.345	0.074	0.202	1.000	
Q1.16	0.126	0.473	0.383	0.346	0.194	1.000

Therefore, upon further investigation through an Item total statistics table on SPSS (see **Table 10**) it is seen that if Question 1.3 is removed from the instrument, Cronbach's alpha will increase to nearly the acceptable 0.7 value.

Table 10: Item total statistics absorption

Questions	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q1.3	19.35	9.669	0.138	0.069	0.680
Q1.6	20.05	6.459	0.568	0.382	0.530
Q1.9	19.58	8.507	0.382	0.262	0.615
Q1.11	19.70	8.369	0.350	0.148	0.623
Q1.14	20.23	8.076	0.336	0.180	0.629
Q1.16	20.23	6.640	0.521	0.314	0.553

The survey instrument was revised and a decision was made to exclude Question 1.3 (*Time flies when I am working)* from the study due to poor correlation and to improve the reliability of the absorption scale. See Section 4.2.3 for revised reliability tests on the employee engagement measuring instrument.

4.2.2. RELIABILITY TESTS FOR LEADERSHIP STYLE QUESTIONNAIRE

Reliability of the leadership style questionnaire was approached in the same manner as the employee engagement questionnaire. The leadership style section of the survey with all questions included (16-item survey) was first tested for reliability before the reliability of the

separate question sets, related to the two leadership styles, was tested. Both reliability tests were done with the use of Cronbach's alpha. The following table (**Table 11**) indicates the reliability of the questionnaire in its entirety. As previously mentioned, values above 0.7 indicate good strength of association, but Hair *et al.* (as cited by Claassen 2015:75) reveal that values above 0.95 should be inspected to see whether items were not formulated in such a manner that they seek the same result. Tavakol and Dennick (2011:54) also suggest that, if an alpha value is too high, duplication of questions might have occurred, albeit differently formulated, and can be seen as redundant. The instrument was therefore re-assessed to evaluate the individual questions.

Table 11: Leadership style instrument internal reliability

Reliability Statistics	
Cronbach's Alpha	**N of Items**
0.951	16

Considering the exclusion of only one item from the questionnaire revealed only a small change in Cronbach's alpha. As **Table 12** indicates, the biggest change will be seen when Question 2.1, 2.3, 2.6, 2.7, 2.8, 2.9, 2.10, 2.13 or 2.15 are excluded.

See **Table 12** on the following page.

Table 12: Item total statistics leadership questionnaire

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q2.1	54.15	166.951	0.794	0.946
Q2.2	55.40	187.631	0.058	0.961
Q2.3	54.18	165.738	0.779	0.946
Q2.4	54.13	173.958	0.775	0.948
Q2.5	54.25	166.449	0.765	0.947
Q2.6	54.40	166.092	0.851	0.945
Q2.7	54.28	167.589	0.848	0.945
Q2.8	54.45	165.177	0.820	0.946
Q2.9	54.60	162.451	0.783	0.946
Q2.10	54.65	163.977	0.801	0.946
Q2.11	54.30	165.549	0.769	0.947
Q2.12	54.18	167.225	0.758	0.947
Q2.13	54.78	163.410	0.825	0.945
Q2.14	54.85	174.541	0.588	0.950
Q2.15	55.35	163.823	0.788	0.946
Q2.16	54.33	173.507	0.655	0.949

The primary objective of the leadership style questionnaire was to measure the two independent variables, namely transformational leadership and transactional leadership. Therefore, it was necessary to test the instrument's sub-sections' internal consistency and reliability. **Table 13** displays the Cronbach's alpha values for the questions related to transactional leadership and transformational leadership respectively. An alpha value of 0.843 for transactional leadership indicates that the questions related to the leadership style are reliable.

Table 13: Transformational and transactional leadership style's reliability

Dimension	Cronbach's Alpha	N of Items
Transformational Leadership	0.958	10
Transactional Leadership	0.860	6

In comparison, transformational leadership's alpha value is above 0.95, indicating that two or more questions might have been formulated to ask the same question. Upon further reflection it became clear, as seen in **Table 14**, that any one of the questions 2.6, 2.7, 2.8, 2.10 & 2.11 can be

deleted for the most significant change in Cronbach alpha values, however, the changes are relatively small and alpha values will still be slightly above 0.95. This motivated a more thorough review of the questions being asked.

Table 14: Item total statistics transformational leadership

	Item-Total Statistics				
Question	**Scale Mean if Item Deleted**	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
Q2.1	38.10	93.015	0.817	0.805	0.955
Q2.3	38.13	92.522	0.779	0.707	0.956
Q2.4	38.08	98.430	0.797	0.699	0.957
Q2.5	38.20	92.985	0.768	0.794	0.957
Q2.6	38.35	92.849	0.851	0.856	0.954
Q2.7	38.23	93.922	0.851	0.873	0.954
Q2.8	38.40	91.682	0.843	0.869	0.954
Q2.9	38.55	88.972	0.830	0.826	0.955
Q2.10	38.60	90.349	0.842	0.850	0.954
Q2.11	38.25	91.064	0.832	0.807	0.954

Closer inspection of the questions asked revealed that Question 2.7 (*My manager challenges me to think about old problems in new ways*) and Question 2.8 (*My manager challenges others to think about old problems in new ways*) might have been interpreted by the respondents as asking the same question about the manager or supervisor. This is also true for Question 2.9 (*My manager spends time to train his subordinates*) and Question 2.10 (*My manager spends time to coach his subordinates*). From the inter-item correlation matrix displayed below (**Table 15**), it is evident that the responses for the questions mentioned above follows the same trend.

Table 15: Inter-item correlation matrix of transformational leadership questionnaire

	Q2.1	Q2.3	Q2.4	Q2.5	Q2.6	Q2.7	Q2.8	Q2.9	Q2.10	Q2.11	Q2.12
Q2.1	1.000	0.740	0.635	0.572	0.706	0.704	0.678	0.708	0.783	0.821	0.566
Q2.3	0.740	1.000	0.648	0.569	0.735	0.592	0.609	0.735	0.705	0.729	0.566
Q2.4	0.635	0.648	1.000	0.659	0.690	0.665	0.699	0.681	0.659	0.745	0.701
Q2.5	0.572	0.569	0.659	1.000	0.850	0.785	0.789	0.640	0.564	0.604	0.572
Q2.6	0.706	0.735	0.690	0.850	1.000	0.787	0.799	0.718	0.651	0.657	0.618
Q2.7	0.704	0.592	0.665	0.785	0.787	1.000	0.902	0.654	0.721	0.672	0.725
Q2.8	0.678	0.609	0.699	0.789	0.799	0.902	1.000	0.638	0.713	0.698	0.652
Q2.9	0.708	0.735	0.681	0.640	0.718	0.654	0.638	1.000	0.849	0.765	0.629
Q2.10	0.783	0.705	0.659	0.564	0.651	0.721	0.713	0.849	1.000	0.752	0.696
Q2.11	0.821	0.729	0.745	0.604	0.657	0.672	0.698	0.765	0.752	1.000	0.609
Q2.12	0.566	0.566	0.701	0.572	0.618	0.725	0.652	0.629	0.696	0.609	1.000

Therefore, a decision was taken to remove Question 2.8 and Question 2.9 from the data interpretation process due to the high inter-item correlation with Question 2.7 and Question 2.10 respectively. In support of the decision, the formulation of the specific questions under consideration further motivated the removal of the mentioned questions from further statistical analysis. The revised alpha values and exploratory factor analysis for validity of the questionnaires will be presented in the following sub-sections.

4.2.3. RELIABILITY TESTS FOR REVISED EMPLOYEE ENGAGEMENT INSTRUMENT

The decision to exclude Question 1.3 from the data set affected the reliability of the questionnaire in its entirety. The questionnaire will change to a 16-item instrument, with only five questions measuring the sub dimension *absorption*. **Table 16** presents the Cronbach's alpha for the revised employee engagement questionnaire. Reliability of the employee engagement questionnaire only slightly improved to 0.867, compared to a change in the absorption scale from 0.654 to 0.68. In order to answer the primary research question, alpha values close to, and above 0.7 were perceived as acceptable and indicated that the revised questionnaire was reliable to measure the levels of employee engagement and the underlying dimensions thereof.

Table 16: Reliability of revised employee engagement questionnaire

Dimension	Cronbach's Alpha	N of Items
Employee Engagement (Revised)	0.867	16
Vigour	0.756	6
Dedication	0.731	5
Absorption (Revised)	0.680	5

4.2.4. RELIABILITY TESTS FOR REVISED LEADERSHIP INSTRUMENT

The leadership style questionnaire's high value for Cronbach's alpha indicated that some of the questions related to the questionnaire may be redundant, motivating the exclusion of two questions from the transformational leadership section as previously discussed.

Table 17: Reliability of revised leadership style questionnaire

Dimension	Cronbach's Alpha	N of Items
Leadership Style (Revised)	0.940	14
Transformational Leadership (Revised)	0.945	8
Transactional Leadership	0.843	6

In **Table 17** the revised values for Cronbach's alpha for the questionnaire with 14 items improved to a value of 0.94, and transformational leadership questions' alpha value improved to 0.945. Both the revised values are below the high value of 0.95, indicating that the questionnaire is reliable and statistical analysis can further be conducted on the revised questionnaire for leadership styles.

4.2.5. VALIDITY OF THE MEASURING INSTRUMENTS

Before any valid statistical results were interpreted, confirmatory factor analysis was conducted on the five different factors. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were employed to test the data for suitability for factor analysis. In **Table 18** all the values are presented as analysed on SPSS with the assistance of the SCS of the North-West University. The two sections of the measurement instrument presented KMO values of 0.688 for employee engagement and 0.888 for leadership styles, with significance (p-values)

below 0.05. The values indicate that both data sets are suitable for factor analysis. Furthermore, the five known factors (vigour, dedication, absorption, transformational leadership style and transactional leadership style) were analysed separately, returning all values above 0.6, indicating that all the factors related to the primary and secondary objectives of the study are suitable for factor analysis.

Table 18: Suitability tests for factor analysis

KMO and Bartlett's Test		Employee Engagement	Vigour	Dedication	Absorption	Leadership	Transformational Leadership	Transactional Leadership
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.688	0.642	0.757	0.698	0.861	0.888	0.691
Bartlett's Test of Sphericity	Approx. Chi-Square	370.992	72.100	76.110	30.276	491.743	277.842	144.194
	df	120	15	10	10	91	28	15
	Sig.	0.000	0.000	0.000	0.001	0.000	0.000	0.000

Confirmatory factor analysis was therefore applied on the different data sets. A correlation matrix was drawn for all the factors, as this is one of the most used statistical techniques to determine relationships between variables, according to Henson and Roberts (as cited by Taherdoost *et al.,* 2014:377). Factor loadings are categorised by Hair *et al.,* as cited by Williams *et al.* (2014:5) as follows:

- Around 0.3 – minimal significance
- Around 0.4 – important significance
- Around 0.5 and above – practical significance

Comrey and Lee (as cited by MacCallum *et al*., 1999:84) indicate that a sample size of less than n=100 is poor for factor analysis. However, CFA was applied to confirm if factors can be extracted, but contradictions to the literature may be as a result of the small sample of

respondents in this study. A cut-off value of 0.4 was chosen for factor loadings for this study to ensure that correlations have at least important to practical significance.

Items Q2.1, Q2.3, Q2.4, Q2.5, Q2.6, Q2.7, Q2.10 and Q2.11 were loaded onto the transformational leadership style factor and all the items display factor loadings of above 0.8, with the lowest factor loading being 0.81 (Q2.5) and the highest being 0.89 (Q2.6). Communalities for the items were also all above 0.6, with the minimum communality being 0.66 (Q2.5) and the maximum communality 0.79 (Q2.6). Percentage of variance explained for factor 1 was 73.2 %. Transactional leadership factor included items Q2.2, 2.12, 2.13, 2.14, 2.15 and 2.16, with the lowest factor loading 0.41 (Q2.2) and the highest (Q2.13). Item Q2.2 has also shown the minimum communality of 0.17, with the rest of the factors' communalities resulted in values above 0.58 (Q2.12). The maximum communality was 0.8 (Q2.13), and percentage of variance was 62 % for factor 1 of the transactional scale, indicating that construct validity of all the factors was confirmed through the CFA method.

For the underlying factors of employee engagement, *vigour* loaded variables on two factors through the Principal Component Analysis (PCA), but all the variables was also loaded on factor 1 with the lowest value of 0.4 (Q1.17) and the highest value of 0.87 (Q1.8). *Dedication* also revealed favourable factor loadings, with only one item (Q1.13) not having important significance. The rest of the items (Q1.2, Q1.5, Q1.7 and Q1.10) all have factor loadings between 0.55 (Q1.10) and 0.914 (Q1.7). The last dimension of employee engagement – *absorption* – also have factor loadings between 0.48 (Q1.14) and 0.8 (Q1.6). The confirmatory factor analysis provided the necessary assurance that the items are indeed grouped under the different factors and is perceived as suitable for the purpose of recommendations to the organisation in study. Due to the nature of the research question, employee engagement as a single construct was required to be valid for the study. The UWES-17 questionnaire was validated in numerous studies (Bakibinga *et al.,* as cited by Baily *et al.,* 2017:34).

4.3. RESPONSE RATES AND MISSING DATA

The population targeted for the purpose of this study is relatively small (N=43), provided the opportunity to include the full population in the data collection process. In total, 43 questionnaires were handed out to the identified participants. They were given three days to

complete the survey and by the end of the period, 41 respondents completed the survey, resulting in a 95.3 % response rate.

Only two of the surveys that were returned were incomplete, leaving the number of surveys without any missing data at thirty nine, resulting in an adapted response rate of 90.7 %. In the descriptive statistics analysis, all missing data were excluded and percentages in the frequency tables are presented as the valid percentages only.

4.4. DESCRIPTIVE STATISTICS

In this section, the researcher aims to extract the relevant results to answer the descriptive questions asked in **Table 5** (Section 3.5.2). The descriptive questions are related to the two independent variables namely transformational leadership and transactional leadership, as well as the dependent variable, employee engagement. Descriptive statistics such as frequencies, means and standard deviations will be presented in this section, starting with die two independent variables, namely transformational leadership and transactional leadership.

4.4.1. DESCRIPTIVE STATISTICS FOR LEADERSHIP STYLES

The leadership style survey was based on a similar study conducted by Claassen (2015:59) and originally consisted of 16 items as discussed in Chapter 3, but due to reliability concerns items Q2.8 and Q2.9 were excluded from the statistical results. The revised questionnaire has only 14 items, where Q2.1, Q2.3, Q2.4, Q2.5, Q2.6, Q2.7, Q2.10 and Q2.11 aimed to measure transformational leadership style and questions Q2.2, Q2.12, Q2.13, Q2.14, Q2.15 and Q2.16 intended to measure transactional leadership style.

In order to present the necessary results for the leadership survey, the two descriptive questions first needed to be answered. The primary objective was to determine the predominant leadership styles of the respondents' managers or supervisors and the questions were formulated as follows:

- *Descriptive Question 1:* How many respondents perceive their supervisors/managers as predominantly transformational leaders?

- *Descriptive Question 2:* How many respondents perceive their supervisors/managers as predominantly transactional leaders?

The predominant leadership style of each respondent's supervisor or manager was based upon the higher average mean between the two sub-dimensions of the leadership questionnaire. A graphic illustration of the results (**Figure 3**) of each sub-dimension revealed that 22 % of the respondents perceived their managers as predominantly transactional leaders and 78 % of respondents' managers are perceived to be predominantly transformational.
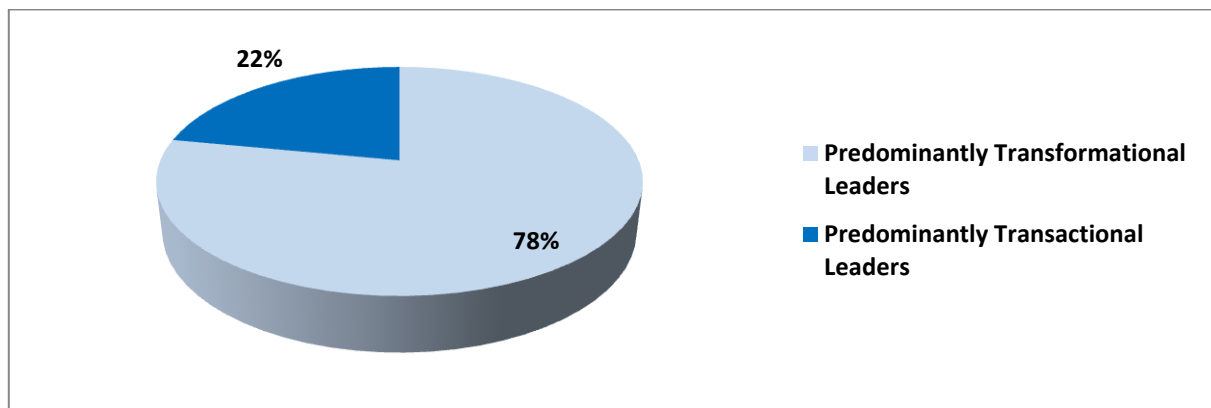

Figure 3: Perceived leadership style of respondent's supervisor or manager

Table 19 presents the frequencies in percentage, the average means and standard deviations of the empirical survey on leadership styles.

See **Table 19** on the following page.

Table 19: Leadership style descriptive statistics

Leadership Style Measuring Instrument Items		Scale Dimension Score	Frequency (%)					N		Mean	Std. Deviation
			Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Valid	Missing		
			1	2	3	4	5				
Transformational leadership											
Q2.1	My manager displays transformational leadership		2	10	15	32	41	41	0	4.00	1.10
Q2.3	My manager is a role model for his subordinates		5	7	17	24	46	41	0	4.00	1.18
Q2.4	My manager reassures his subordinates that obstacles will be overcome		0	2	22	44	32	41	0	4.05	0.80
Q2.5	My manager draws attention to the importance of having a shared sense of mission		2	15	12	32	39	41	0	3.90	1.16
Q2.6	My manager communicates an exciting vision of the future		2	10	27	29	32	41	0	3.78	1.08
Q2.7	My manager challenges me to think about old problems in new ways		2	10	12	46	29	41	0	3.90	1.02
Q2.10	My manager spends time to coach his subordinates		5	22	15	32	27	41	0	3.54	1.25
Q2.11	I prefer my manager's leadership style over other leadership styles		7	7	12	37	34	40	1	3.85	1.21
	Transformational Leadership Average									3.88	1.10
Transactional leadership											
Q2.2	My manager displays transactional leadership		15	29	29	15	12	41	0	2.80	1.23
Q2.12	My manager set clear performance goals		2	12	12	29	44	41	0	4.00	1.14
Q2.13	My manager displays transactional leadership through rewarding good performance		7	20	20	32	22	41	0	3.41	1.24
Q2.14	My manager displays transactional leadership through disciplining bad performance		5	12	39	32	12	41	0	3.34	1.02
Q2.15	My manager specify the rewards that will be received when achieving set goals		20	20	29	20	12	41	0	2.85	1.30
Q2.16	My manager pays attention to failures to meet standards		0	10	24	37	29	41	0	3.85	0.96
	Transactional Leadership Average									3.38	1.15

The average means for transformational leadership presented means of 3 or higher for all items, with the lowest being Q2.10 with a mean of 3.54. Items Q2.1, Q2.3 and Q2.4 are all averaging above 4, with the largest mean being 4.05 (Q2.4). The difference between the highest and lowest mean is 0.51, meaning that the means of all items are clustered around a common mean and

responses are relatively similar with regards to transformational leadership. The common mean are calculated as 3.83, presiding between neutral and agree, with a strong tendency towards the *agree* scale.

The highest standard deviation (SD) for the transformational leadership dimension is 1.25 (Q2.10) and the lowest standard deviation is 0.80 (Q2.8) indicating that the responses of Q2.8 are more concentrated around the high mean of 4.05 than the responses of item Q2.10. The difference between the highest and lowest SD is 0.44 indicating a relatively similar spread of all the items; however, the standard deviations are relatively high, indicating that the respondents significantly differ regarding the perception of their manager's leadership style.

The low percentages of respondents that strongly disagrees with items measuring transformational leadership are worth noting. The majority of respondents strongly agree that their manager is a role model for others (Q2.3) sharing the highest frequency with the number of respondents agreeing that their manager challenges them to think about old problems in new ways.

Transactional leadership notably presented lower means than transformational leadership; with a high mean of 4.00 (Q2.12) and a low mean of 2.80 for item Q2.2. The difference between the high and low mean is 1.2, showing that the means are not clustered around a common mean, but rather more spread out than that of transformational leadership. The average mean of all the items related to transactional leadership is 3.38 fitting in between neutral and agree, but leaning more towards the neutral range.

The difference in standard deviations for the transactional leadership dimension is 0.33, with the highest SD being 1.3 (Q2.15) and the lowest 0.96 (Q2.16); indicating firstly that respondents significantly differ in their perception of rewards being specified if they reach their goals, and secondly that they feel similar about their managers' attention to failures in the pursuit of meeting standards.

Another noteworthy observation from **Table 19** is the relative high percentage of respondents that disagree or strongly disagree with items measuring transactional leadership. Two items (Q2.2 and Q2.15) both have means between disagree and neutral, indicating that fewer respondents perceive their managers as predominantly transactional leaders, as also highlighted

in **Figure 3**. The majority of respondents strongly agree that their managers set clear performance goals while most of the respondents are neutral on the statement that their manager disciplines bad performance.

4.4.2. DESCRIPTIVE STATISTICS FOR EMPLOYEE ENGAGEMENT

The employee engagement survey is based on the UWES-17 as discussed in Chapter 3. The survey originally consisted of 17 questions to measure employee engagement of the respondents. Questions Q1.1, Q1.4, Q1.8, Q1.12, Q1.15 and Q1.17 measured the sub-dimension *vigour* of employee engagement; questions Q1.2, Q1.5, Q1.7, Q1.10 and Q1.13 measured the second sub-dimension *dedication,* whereas questions Q1.3, Q1.6, Q1.9, Q1.11, Q1.14 and Q1.16 measured the last sub-dimension of employee engagement, namely *absorption.* In order to improve the reliability of the absorption scale, a decision was made to exclude item Q1.3 from the statistical data analysis as discussed in Section 4.2.1.

This sub-section aims to present the results from the empirical research conducted on employee engagement of the respondents. The primary objective of the employee engagement questionnaire was to determine the level of engagement of the respondents. The primary descriptive question related to the independent variable was formulated as follows:

- *Descriptive Question 3:* How engaged are the respondents?

In an attempt to simplify the interpretation of results, the descriptive statistics outcomes of the employee engagement measuring instrument are tabulated in **Table 20**.

See **Table 20** on the following page.

Table 20: Employee engagement descriptive statistics

Employee Engagement Measuring Instrument Items		Scale Dimension	Frequency (%)					N		Mean	Std. Deviation
			Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Valid	Missing		
		Score	1	2	3	4	5				
Vigour Scale Questions											
Q1.1	At my work I feel bursting with energy		0	5	27	32	37	41	0	4.00	**0.92**
Q1.4	At my job, I feel strong and vigorous		0	2	20	37	41	41	0	4.17	0.83
Q1.8	When I get up in the morning I can't wait to go to work		3	5	33	43	18	40	1	**3.68**	**0.92**
Q1.12	I can continue to work for very long periods of time		0	5	10	50	35	40	1	4.15	0.80
Q1.15	At my job, I am very tough, mentally		0	0	37	44	20	41	0	3.83	0.74
Q1.17	At my job I always continue even when things do not go well		0	0	7	49	44	41	0	**4.37**	**0.62**
							Vigour Average			4.03	0.81
Dedication Scale Questions											
Q1.2	I find the work I do full of meaning and purpose		0	5	7	32	56	41	0	4.39	0.83
Q1.5	I am enthusiastic about my job		0	2	7	39	51	41	0	4.39	0.74
Q1.7	My job inspires me		3	3	10	44	41	39	2	4.18	0.91
Q1.10	I am proud of the work that I do		0	0	3	30	68	40	1	**4.65**	**0.53**
Q1.13	To me, my job is challenging		5	5	23	28	40	40	1	**3.93**	**1.14**
							Dedication Average			4.31	0.83
Absorption Scale Questions											
Q1.6	When I am working, I forget everything else around me		5	10	10	54	22	41	0	3.78	1.06
Q1.9	I feel happy when I am working intensely		0	3	10	48	40	40	1	**4.25**	**0.74**
Q1.11	I am immersed in the work that I do		0	3	20	40	38	40	1	4.13	0.82
Q1.14	I get carried away when I am working		3	13	18	58	10	40	1	3.60	0.93
Q1.16	It is difficult to detach myself from my job		2	15	27	34	22	41	0	**3.59**	**1.07**
							Absorption Average			3.87	0.93
							Employee Engagement Average			4.07	0.85

The means of overall employee engagement of all the responses are 4.07 as graphically depicted in **Figure 4**, well above the neutral range, between agree and strongly agree, leaning towards the

agree range. The highest mean is 4.65 (Q1.10) and the lowest is 3.59 (Q1.16). The difference between the highest and lowest means are 1.06, showing that means are not condensed around the common mean of 4.07. Something that is worth noting in **Figure 4** is the similarity in means of items Q1.11, Q1.12, Q1.4, Q1.7, and also between items Q1.2, Q1.5 and Q1.17.
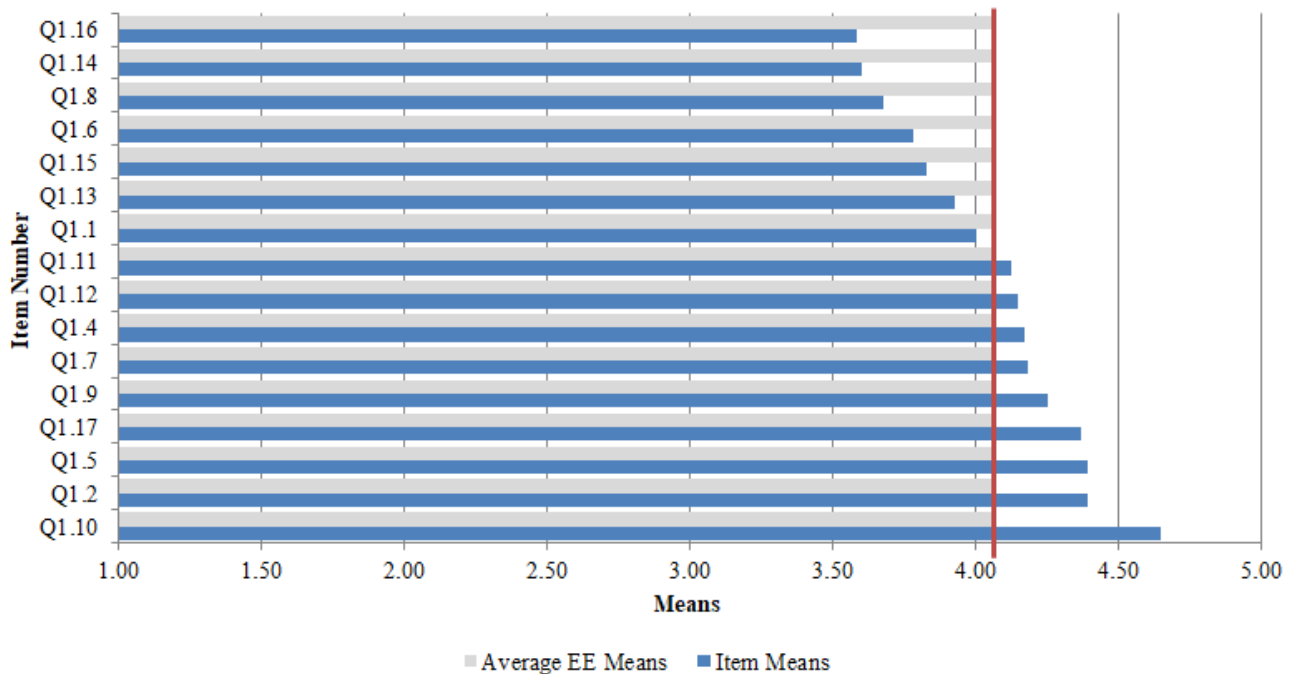
Figure 4: Employee engagement means

Standard deviations for employee engagement appear to be lower than standard deviations of the leadership instrument, with the highest variation being item Q1.13 with a standard deviation of 1.14, indicating that the responses differ significantly in terms of how challenging the respondents' jobs are.

The smallest deviation is observed in Q1.10, with a standard deviation of only 0.53, showing that respondents feel relatively similar about how proud they are of the work that they do. The difference between the highest and lowest standard deviation is 0.61, which are almost twice the difference of the high and low standard deviation of transactional leadership. However, as seen in **Figure 5**, the mean of Q1.10 is significantly lower than the second and third lowest means, the same could be observed for the higher means of items Q1.6, Q1.16 and Q1.13.
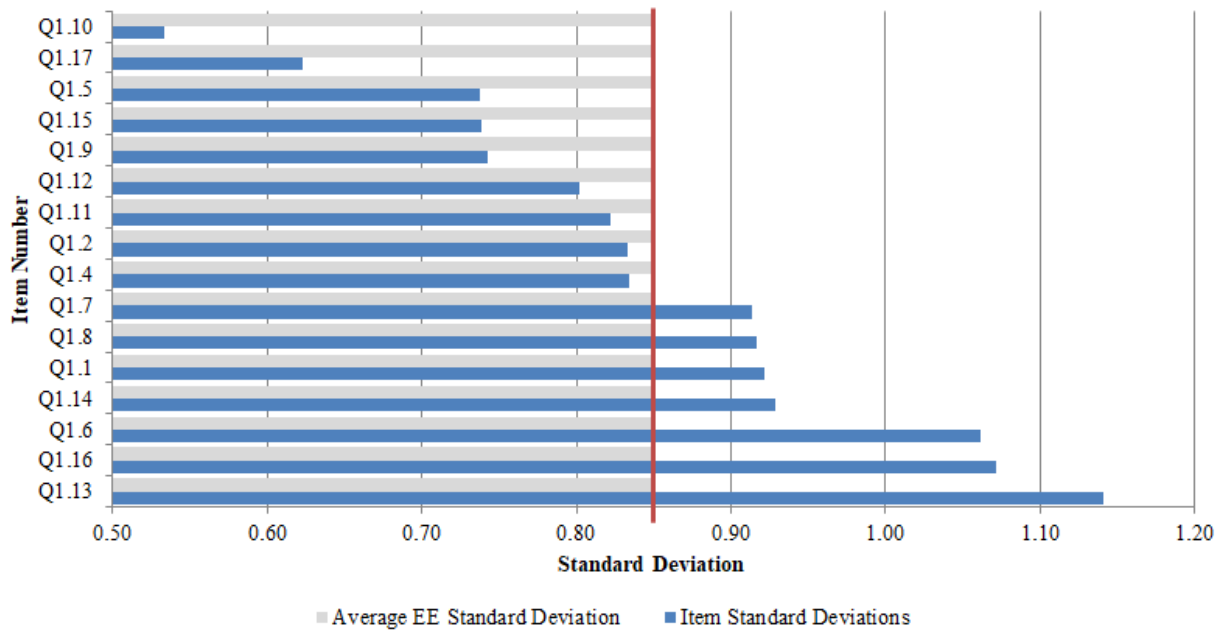
Figure 5: Employee engagement standard deviations

In addition to the primary descriptive question related to the independent variable, a set of secondary descriptive questions was also formulated. The objective of the secondary descriptive questions was to measure the underlying dimensions of employee engagement, namely vigour, dedication and absorption. The secondary descriptive questions are formulated as follows:

- *Descriptive Question 4:* How vigorous are the respondents?
- *Descriptive Question 5:* How dedicated are the respondents?
- *Descriptive Question 6:* How absorbed are the respondents?

From the descriptive statistics in **Table 20**, it is clear that on average the sub-dimension *dedication* provided the highest means, with an average of 4.31. *Dedication* is the only sub-dimension scoring above the average of employee engagement, with *vigour* in second place with an average mean of 4.03 and *absorption* scoring the lowest with an average mean of 3.87.

The majority of respondents agree about items measuring the sub-dimension absorption, with 58 % of the responses falling in the agree range of item Q1.14 and 54 % in the same range of item Q1.6. Under the *dedication* sub-dimension, 68 % of respondents strongly agree that they feel proud of the work that they do (Q1.10) and 56 % of the respondents strongly agree that the work that they do are full of purpose and meaning (Q1.2). As observed under the *absorption* sub-dimension, the majority of responses fall in the agree range of the sub-dimension vigour, with

half of the respondent agreeing that they can continue to work for long periods of time and 49 % of respondents agree that they will persevere, even when things do not go according to plan.

4.5. EXPLORATORY STATISTICS

In this section, the focus will be on the exploratory statistics results as processed in SPSS. Correlational analysis was conducted to examine the relationship between leadership styles and employee engagement, including engagement's underlying dimensions. The results of the correlation between transformational leadership and employee engagement will first be presented, accompanied by the results of the correlation between transformational leadership and the dimensions of employee engagement, namely vigour, dedication and absorption. Thereafter, the results of the correlation between transactional leadership and employee engagement, including its underlying dimensions, will be presented.

4.5.1. CORRELATION BETWEEN TRANSFORMATIONAL LEADERSHIP AND EMPLOYEE ENGAGEMENT

The results of the Pearson correlations between transformational leadership and employee engagement are presented in **Table 21**. The primary objective of this section is to present results related to the first four exploratory questions formulated in **Table 5.** The questions under consideration are formulated as follows:

- *Exploratory Question 1:* Does transformational leadership have a strong positive relationship with employee engagement?
- *Exploratory Question 2:* Does transformational leadership have a strong positive relationship with vigour?
- *Exploratory Question 3:* Does transformational leadership have a strong positive relationship with dedication?
- *Exploratory Question 4:* Does transformational leadership have a strong positive relationship with absorption?

According to Cohen (1988:79-80) effect sizes (ES) of the Pearson product-moment correlation coefficient (*r*) can be categorised in three groups. The groups are categorised as a small effect

size ($r = 0.1$), medium effect size ($r = 0.3$) and large effect size $r = 0.5$). Interpretation of the correlation coefficients presented in **Table 21** and **Table 22** are based on Cohen's definitions of ES as Pearson's correlation range from -1 (strong negative correlation) to +1 (strong positive correlation). An effect size of 0.3 was set for practical significance for the purpose of this study.

Table 21: Pearson correlation between employee engagement and transformational leadership

		VI	DE	AB	EE	TF
VI	Pearson Correlation	1				
	Sig. (2-tailed)					
DE	Pearson Correlation	.66**	1			
	Sig. (2-tailed)	0.000				
AB	Pearson Correlation	.70**	.47**	1		
	Sig. (2-tailed)	0.000	0.002			
EE	Pearson Correlation	.92**	.82**	.84**	1	
	Sig. (2-tailed)	0.000	0.000	0.000		
TF	Pearson Correlation	.32*	.49**	0.28	.42**	1
	Sig. (2-tailed)	0.043	0.001	0.080	0.007	
N=41						

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

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

As seen in **Table 21,** there is a significant positive relationship between all the relevant variables as discussed above, with almost all the variables being practically significant, with the exception of *absorption* (r=0.28, small effect).

To provide the necessary statistical support in answering Exploratory Question 5, transformational leadership positively correlates with employee engagement (r=0.42, medium effect). The lowest correlation between transformational leadership and employee engagement's underlying dimensions was the correlation with *absorption* (r=0.28, small effect). This was also the factor identified with the lowest Cronbach's alpha (α=0.68) after revision of the measurement instrument's questions. Both the other two dimensions *vigour* and *dedication* are positively correlated with transformational leadership (r=0.37, medium effect; r=0.42, medium effect).

It is also worth noting from **Table 21** that employee engagement is strongly correlated, as expected, with vigour (r=0.92, large effect), dedication (r=0.82, large effect), and with absorption (r=0.84, large effect).

4.5.2. CORRELATION BETWEEN TRANSACTIONAL LEADERSHIP AND EMPLOYEE ENGAGEMENT

The results of the Pearson correlations between transactional leadership and employee engagement are presented in **Table 22**. The primary objective of this section is to present results related to the last four exploratory questions formulated in **Table 5**. The questions under consideration are formulated as follows:

- *Exploratory Question 5:* Does transactional leadership have a weaker positive relationship with employee engagement?

- *Exploratory Question 6:* Does transactional leadership have a weaker positive relationship with vigour?

- *Exploratory Question 7:* Does transactional leadership have a weaker positive relationship with dedication?

- *Exploratory Question 8:* Does transactional leadership have a weaker positive relationship with absorption?

The results presented in **Table 22** indicates that all the variables are practically and statistically significant and that employee engagement is surprisingly strongly correlated with transactional leadership ($r=0.53$, large effect). Furthermore it is seen that transactional leadership is strongly correlated with vigour ($r=0.50$, large effect), dedication ($r=0.45$, medium effect), and with absorption ($r=0.42$, medium effect).

See **Table 22** on the following page.

Table 22: Pearson correlation between employee engagement and transactional leadership

		VI	DE	AB	EE	TS
VI	Pearson Correlation	1				
	Sig. (2-tailed)					
DE	Pearson Correlation	.66**	1			
	Sig. (2-tailed)	0.000				
AB	Pearson Correlation	.70**	.47**	1		
	Sig. (2-tailed)	0.000	0.002			
EE	Pearson Correlation	.92**	.82**	.84**	1	
	Sig. (2-tailed)	0.000	0.000	0.000		
TS	Pearson Correlation	.50**	.45**	.42**	.53**	1
	Sig. (2-tailed)	0.001	0.004	0.006	0.000	
N=41						

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

4.5.3. SUMMARY OF CORRELATIONS

The following schematic (**Figure 6**) allows for a simplistic visualisation of the relationships between the various leadership styles and employee engagement and its underlying dimensions.
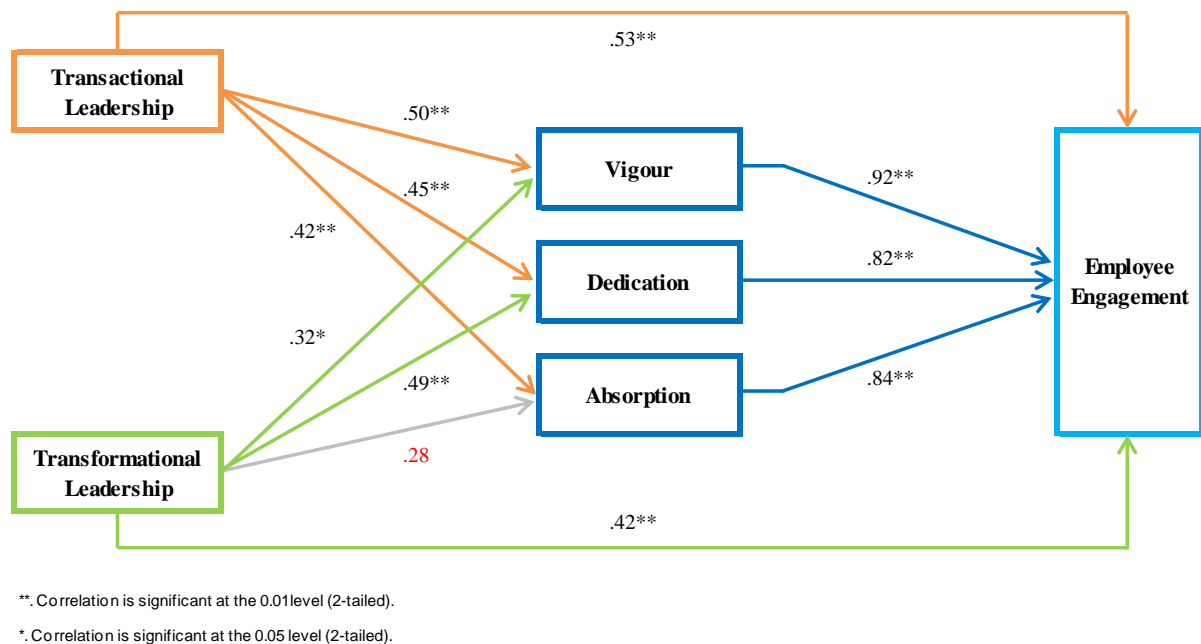

**. Correlation is significant at the 0.01 level (2-tailed).

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

Figure 6: Correlation model between leadership style, employee engagement's dimensions and employee engagement

The high positive relationship between vigour (0.92), dedication (0.82) and absorption (0.84), and employee engagement is seen on the right, with the relationship between transactional leadership (0.53) and employee engagement is indicated with the orange line at the top of the schematic, and the relationship between transformational leadership (0.42) and employee engagement with the green line at the bottom. The relationships between transactional leadership and the underlying dimensions of employee engagement are indicated by the orange lines connecting the leadership styles to the three dimensions. This is the same with the relationship between transformational leadership and the underlying dimensions of employee engagement, with the exception of the practically insignificant relationship between transformational leadership and absorption, indicated by the grey line in the schematic.

4.6. CONCLUSION

This chapter presented the relevant statistical results of the data analysed and tested with the aid of the statistical software package, SPSS (SPSS Inc., 2017) and with the help of SCS (Statistical Consultation Services of the NWU, Potchefstroom Campus). The reliability and validity of the measurement instrument were tested by calculating Cronbach's alpha and confirmatory factor analysis. Some inconsistencies were identified and problematic items were excluded from further statistical analysis to improve reliability. Response rates were discussed before the descriptive analysis results were presented in terms of means, standard deviations and frequencies. The chapter ended with the correlation analysis results needed to answer the primary and secondary exploratory questions. The following chapter will provide a more detailed discussion of the results obtained in this chapter.

CHAPTER 5:   CONCLUSION AND RECOMMENDATIONS

5.1. INTRODUCTION

Considering all the findings in the literature review and the results of the empirical study presented in the previous chapter, this chapter will aim to answer the research problem presented in **Chapter 1:** *How does leadership style (transformational and transactional), influence employee engagement in a manufacturing company undergoing management transitioning?*

As highlighted in the research question above, the aim of the study was to determine the influence of organisational leadership style on employee engagement in a manufacturing organisation undergoing change. A thorough literature review formed the basis for the empirical study employing a quantitative approach. The measuring instrument was handed out to 43 individuals employed by the organisation in study. Of the 43 possible participants, 41 individuals agreed to be part of the study.

The main purpose of the measuring instrument was to identify the level of engagement of participants at the time of data collection, as well as how they perceive their direct supervisor or manager's predominant leadership style; either as predominantly transformational or predominantly as transactional. The secondary objective was firstly to find the relationship between transformational leadership, employee engagement and the underlying dimensions of employee engagement *vigour, dedication* and *absorption,* and secondly to find the relationship between transactional leadership and employee engagement, including the relationship between transactional leadership and the underlying dimensions of employee engagement.

Ethical research practice was ensured throughout all the different stages of the study, as discussed in **Chapter 3**. The respondents were guaranteed that all possibilities of harm have been eliminated and anonymity was ensured as far as possible.

The main findings will first be discussed in terms of the descriptive and exploratory questions developed in the opening chapter of this study. From the results thereof, recommendations will be proposed and limitations discussed before the chapter will end with suggestions for further studies in the field.

5.2. DISCUSSION OF MAIN FINDINGS

5.2.1. DESCRIPTIVE QUESTIONS

The results presented in **Chapter 4** found that employees in the organisation of study perceive their direct manager as either predominantly transformational or predominantly transactional. To answer the first two primary descriptive questions (as formulated in **Table 5**), it is seen that, based on the mean scores of the respondents' perception of leadership in the organisational context, more than 75 per cent of the respondents perceive their supervisor to be predominantly transformational. The perception that the company prefer managers with a predominantly transformational leadership style is consistent with literature that has identified transformational leadership as the preferred leadership style for a predictor of success during organisational change (Mahomed, 2016:64; Middleton *et al.*, 2015:162). The results presented in **Table 19** show that the majority of respondents agree or strongly agree that their manager or supervisor provide the necessary assurance that obstacles will be overcome and is perceived to be a role model, confirming the result that most of the respondents see their managers as predominantly transformational. The slightly lower means resulted from the transactional leadership questions is another indication of the higher number of predominantly transformational managers employed in the company, even though a large number of respondents agree that their managers set clear goals. Ferry (2010:21) notes that the similarity between the results of transformational leadership and transactional leadership might be attributed to the effectiveness of leaders in the organisation, based on the observations made by Bass and Felfe *et al.* (as cited by Ferry, 2010:21), as well as Breevaart *et al.*(2014:150), that effective leaders could utilise both styles as required by the situation and may be perceived predominantly transactional one day and predominantly transformational the next.

The third primary descriptive question measured the level of engagement in the specific context of the organisation in study. From the results it is seen that the level of employee engagement of the respondents are relatively high, even within the context of organisational change, demonstrating a preliminary conclusion that the literature suggesting transformational leadership enhances employee engagement (Popli & Rizvi, 2016:969; Seymour, 2015:115; Jordan 2016:80; Johnson, 2015:65), which in turn predicts the success of the change process and outcomes

(Middleton *et al.*, 2015:158; Holten & Brenner, 2015:12) may be perceived as true in the context of this study.

The secondary descriptive questions aimed to measure how vigorous, dedicated and absorbed the respondents were at the time of data collections. The reason for the secondary descriptive questions was to make recommendations to the organisation regarding the underlying dimensions of employee engagement, and how engagement can be promoted. As seen in **Table 20**, based on the average means of each of the dimensions, research results indicated that the respondents are relatively dedicated, meaning that they are proud of their work, are enthusiastic about what they do and felt that their work is full of meaning and purpose, even though some respondents felt neutral or disagrees about how challenging their daily tasks are. This result may be due to the repetitive nature of some of the respondent's work. The results also indicated that the employees were fairly vigorous at the time of data collection, with the majority of the respondents agreeing that they can persevere, even when the work environment gets tough. It is worth noting that this characteristic may serve to be a strong characteristic during the change process, and could be recommended for further investigation. The last dimension of employee engagement, absorption, resulted in the weakest dimension of the employees in the organisation in study. Even though the majority of respondents agreed that they get carried away when they are working, and forget everything around them, a significant number of responses disagreed about being able to detach themselves from their work. From the results of the three dimensions, it is confirmed that the underlying dimensions of employee engagement are a good predictors of employee engagement.

The following sub-section will provide a thorough discussion regarding the relationship between the variables as proposed in **Table 5**.

5.2.2. EXPLORATORY QUESTIONS

The secondary objectives were formulated as a guideline to answer the research question proposed in the opening chapter of this study. In order to meet the secondary objectives, a set of exploratory questions was formulated to explore the relationship between the leadership style and employee engagement in the organisation of study. A discussion of the results will be discussed below.

Exploratory Question 1: Does transformational leadership have a strong positive relationship with employee engagement?

From the results obtained in this study, it can be concluded that there is a positive relationship between transformational leadership and employee engagement, confirming the results of a majority of studies conducted on the subjects. Literature revealed that transformational leaders enthuses, inspires and motivates employees (Popli & Rizvi, 2016:975), are concerned with the relationships with employees (Johnson, 2015:65), and inspires a sense of ownership in the organisation amongst their followers (Mahomed, 2016:54). In a changing environment, enthusiasm, inspiration, motivation, good relationships between leaders and followers, and sense of ownership, may be perceived as factors conducive to change outcome success.

Exploratory Questions 2, 3, 4: Does transformational leadership have a strong positive relationship with vigour, dedication, and absorption?

From the schematic model presented in Figure 6, it was observed that transformational leadership's relationship with vigour, dedication, and absorption was parallel to the findings discussed above. Transformational leadership and dedication provided the strongest relationship, indicating that transformational leaders have the ability to influence the follower's *"sense of significance, enthusiasm, inspiration, pride and challenge,"* as identified by Schaufeli *et al.* (2006:702). A positive relationship between transformational leadership and vigour was established, albeit on the weaker side but still relevant. No significant relationship between absorption and transformational leadership could be established in this study.

Exploratory Question 5: Does transactional leadership have a weaker positive relationship with employee engagement?

Contrary to several studies identifying transactional leadership as having a weaker relationship with employee engagement than transformational leadership, or no significant relationship at all (Jordan, 2016:73; Breevaart *et al.*, 2014:149; Tims *et al.*, 2011:122), the results obtained from this study shows a stronger positive relationship between employee engagement and transactional leadership than between employee engagement and transformational leadership.

Suggesting that in the context of this study, there is the significant statistical proof that transactional leaders will also be able to influence the engagement of their subordinates.

The stronger positive relationship could be explained in the context of this specific organisation, where the focus at the time of data collection was to meet organisational objectives including deadlines on two projects, confirming that transactional leadership focuses on short term oriented tasks and not on the long term alignment of the company (Weichun *et al.,* as cited by Seymour, 2015:36). This outcome is consistent with the outcomes of recent studies conducted by Johnson (2015:64), and Popli and Rizvi (2016:975) who established a strong relationship between employee engagement and transactional leadership.

Exploratory Question 6, 7, 8: Does transactional leadership have a weaker positive relationship with vigour, dedication and absorption?

The results obtained in this research regarding the relationship between the three underlying dimensions of employee engagement and transactional leadership are parallel to the strong relationship observed between transactional leadership and employee engagement. All three dimensions showed a significant positive relationship with transactional leadership in this specific context. The strongest correlation was between vigour and transactional leadership, indicating that transactional leaders have the ability to influence how energised followers are and how willing they are to invest effort in their tasks (Schaufeli *et al.,* 2006:702). Both dedication and absorption of followers are perceived to be influenced by transactional leaders, with the biggest difference between transformational leaders and transactional leaders being the strong relationship observed between transactional leadership and absorption. Establishing that transactional leaders in this context have the ability to influence how engrossed followers are in their work, how concentrated they are and how time flies when they are at work (Schaufeli *et al.,* 2006:702).

5.3. SUMMARY OF MAIN FINDINGS

By comparing the research results with the literature discussed in **Chapter 2**, the organisation in study is seen to employ more predominantly transformational leaders than predominantly transactional leaders. The study also confirmed that employees are fairly vigorous, dedicated and

absorbed in their work, indicating that the individuals employed by the organisation are highly engaged. The study further established that leadership style and employee engagement are significantly positively related, indicating that both leadership styles are able to influence followers' level of engagement, with transactional leadership stronger associated to employee engagement in an organisation undergoing change. This is in contradiction with the majority of literature related to the field, but specific organisational situations might have played a part in the results of the research, limiting the findings to the organisation in study, as discussed in Section 5.5. **Table 23** present a summary of the main findings related to this study, as discussed above.

Table 23: Empirical research outcomes

Research Question	Outcome
Exploratory Question 1: Does transformational leadership have a strong positive relationship with employee engagement?	A moderate positive relationship between employee engagement and transformational leadership have been established – indicating that transformational leadership have the ability to influence employee engagement
Exploratory Question 2: Does transformational leadership have a strong positive relationship with vigour?	A weak to moderate positive relationship between vigour and transformational leadership have been established
Exploratory Question 3: Does transformational leadership have a strong positive relationship with dedication?	A weak to moderate positive relationship between vigour and transformational leadership have been established
Exploratory Question 4: Does transformational leadership have a strong positive relationship with absorption?	A weak positive relationship between vigour and transformational leadership have been established
Exploratory Question 5: Does transactional leadership have a weaker positive relationship with employee engagement?	A strong positive relationship between employee engagement and transactional leadership have been established– indicating that transactional leadership have the ability to influence employee engagement
Exploratory Question 6: Does transactional leadership have a weaker positive relationship with vigour?	A strong positive relationship between vigour and transactional leadership have been established
Exploratory Question 7: Does transactional leadership have a weaker positive relationship with dedication?	A moderate to strong positive relationship between dedication and transactional leadership have been established
Exploratory Question 8: Does transactional leadership have a weaker positive relationship with absorption?	A moderate to strong positive relationship between vigour and transactional leadership have been established

5.4. MANAGERIAL RECOMMENDATIONS

As this research has indicated, leadership affects employee engagement. Furthermore, engagement was identified as a predictor for the success of the change process and the desired outcomes of organisational change (Mahomed, 2016:64). As effective leadership requires leaders to utilise both transactional and transformational leadership styles (Breevaart *et al*., 2014:150), the organisation of study has to promote leadership development to provide management with the necessary theoretical support to keep their subordinates engaged during organisational changes.

Rao (2017:129) proposes a list of tools and techniques that can be used to enhance employee engagement in the organisational context. In the context of the organisation of study, leaders can start by ensuring that followers feel positive and that their work contributes to the organisation's goals. It is the responsibility of the leaders to initiate and develop a company culture that is encouraging employee engagement, creativity and innovation, providing employees the assurance that they are heard, valued and appreciated. Leaders could also focus on empowering their employees, giving them freedom to express themselves and providing the opportunity for growth (Rao, 2017:129).

Most organisations will probably confirm that talent management is a costly exercise, particularly for small to medium enterprises that do not have investors providing the necessary support for employee development. Gutermann *et al*. (2017:309) propose that organisations can overcome this obstacle through the multiplier effect of manager training. This implies that managers should be trained in employee engagement and relationship building, among others, and then lead by example to influence employees.

With regards to the secondary exploratory questions, management should focus on developing transformational leaders in order to enhance the sub-dimension absorption, and as a result, employee engagement of their followers. Even though respondents are perceived to be relatively engaged, there is always room for improvement. Self-assessment questionnaires could prove to be a useful tool for HR to identify predominant leadership styles of individuals in management positions. Each leadership style's strengths and weaknesses could serve as a building block for employee engagement development programmes.

5.5. LIMITATIONS

In **Chapter 1**, four possible limitations were presented that could influence the outcomes of the study. They were the level of respondents' education, the possibility of identification, specific organisational situation and company culture. The limitation of the questionnaire which only was available in English might have had an impact on the understanding of specific constructs presented in the measuring instrument. The measuring instrument did include definitions of key constructs. Nonetheless some of the respondents still indicated that some of the constructs were unknown to them, and that they had to consult a dictionary or internet sources to understand the questions. This indicates that the understanding of certain questions might have varied among the respondents.

The sensitivity regarding the possibility of identification should have been eliminated with the assurance of anonymity, but individuals might have doubted the process, which could have influenced the truthfulness of the responses related to leadership in particular.

The contradictory results regarding transformational leadership and employee engagement obtained from the study may be as a result of the specific situation, at the specific time, in the organisation in study. As described in **Chapter 1**, at the time of data collection, the organisation was under severe pressure to reach critical deadlines in two separate resource intensive projects. It is of the researcher's perception that organisational situations may serve as a requirement for different leadership styles under different conditions, providing the need for further research in this regard. Transactional leaders may serve to be more effective in conditions of extreme pressure, as employees generally have to be more short-term task oriented than long-term success oriented. In addition to further studies related to organisational situations or conditions, the study could further be expanded into a longitudinal study for a better understanding of the influence of leadership styles on employee engagement over time.

The last factor that was presented that could affect the reliability of the study is the entrenched culture of the company in general. Most respondents are employed at the specific organisation for four years and longer, impacting on the generalisability of the outcome of the study. Therefore, the objective of the study was to explore the relationship between perceived leadership style and employee engagement in the specific organisation only and results presented

may not be suitable for generalisability to other manufacturing companies undergoing organisational change.

One limitation that has been identified during the data analysis process was the questions asked in the leadership questionnaire. To improve the reliability of the study it should be advised that a pilot study has to be conducted to determine that all of the questions measure what it is supposed to and that separate items do not ask the same thing in a different manner. The research approach could also be changed to take a mixed methods approach to understand how individuals feel about perceived leadership in an organisational context.

5.6. SUGGESTIONS FOR FUTURE RESEARCH

In order to conclude on the influence between leadership styles and employee engagement, this study employed a quantitative approach with a cross-sectional design to explore the relationship between two leadership styles and employee engagement. As proposed above, specific conditions in the organisation at the time of data collection might have impacted on the outcomes of the study. Therefore, a longitudinal design could be beneficial to provide a better understanding on the influence of leadership styles on employee engagement over time in the organisation of study. From the perspective of the strong relationship between transactional leadership and employee engagement, the study could be replicated in other similar organisations to see if the results could be generalised in the context of the South African manufacturing industry.

This study was very broadly defined in terms of the different variables to be measured. In order to expand the knowledge of leadership styles and employee engagement, laissez-faire leadership and servant leadership, among others, as well as other dimensions of employee engagement could be explored as well.

To understand the perception of leadership style from an individual's level of education, management level, work area (administration, management, workshop) and culture, the survey should be expanded to include a demographics section. It is also suggested that the data collection method should include qualitative interviews to provide a better understanding as to

what predicts individual level of engagement and how respondents feel about their supervisor or manager's leadership style.

Lastly, to understand the causality of leadership style on employee engagement, an experiment could be conducted where one variable is changed to measure the effect on another variable (Creswell & Creswell, 2017:90), where dimensions of leadership could be controlled to measure the effect on employee engagement, or underlying dimensions thereof.

5.7. CONCLUDING REMARKS

This chapter provided a conclusion of the results presented in **Chapter 4**. The descriptive and exploratory questions discussed in Section 5.2 showed that a significant relationship exists between the two leadership styles − transformational and transactional leadership − and employee engagement. The empirical research, combined with an understanding gained from existing literature, provided the necessary support to answer the primary research question:

How does leadership style (transformational and transactional) influence employee engagement in a manufacturing company undergoing management transitioning?

The positive relationship established between both styles and employee engagement led to the conclusion that both leadership styles are able to influence followers' employee engagement in the specific manufacturing organisation in central South Africa. Research results indicated that transactional leadership is slightly stronger associated with engagement, contradicting the findings of the majority of similar studies. The reason suggested for this contradiction was the perception that external conditions influencing the organisation of study may require different leadership styles for employees to be engaged.

This chapter also provided recommendations to the organisation as a result of the findings of this study, as well as relevant literature, before the chapter ended with limitations identified during the study, as well as suggestions for future research.

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APPENDIX A

- Data collection instrument(-s) -

Table 24: Employee engagement questionnaire

The following statements are related to the way you feel at work at this moment. Please mark the block that best describe how you feel about the statement. If you do not feel that way at all in your job please mark the "*1*" block. If the statement describes precisely how you feel please mark the "*5*" block underneath each statement. If you do not have an opinion regarding the statement, please mark "*3*" or "*2*" if you only disagree or "*4*" if you agree.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Section 1: Employee Engagement

1.1	At my work I feel bursting with energy			
1	2	3	4	5

1.2	I find the work I do full of meaning and purpose			
1	2	3	4	5

1.3	Time flies when I am working			
1	2	3	4	5

1.4	At my job, I feel strong and vigorous			
1	2	3	4	5

1.5	I am enthusiastic about my job			
1	2	3	4	5

1.6	When I am working, I forget everything else around me			
1	2	3	4	5

1.7	My job inspires me			
1	**2**	**3**	**4**	**5**

1.8	When I get up in the morning I can't wait to go to work			
1	**2**	**3**	**4**	**5**

1.9	I feel happy when I am working intensely			
1	**2**	**3**	**4**	**5**

1.10	I am proud of the work that I do			
1	**2**	**3**	**4**	**5**

1.11	I am immersed in the work that I do			
1	**2**	**3**	**4**	**5**

1.12	I can continue to work for very long periods of time			
1	**2**	**3**	**4**	**5**

1.13	To me, my job is challenging			
1	**2**	**3**	**4**	**5**

1.14	I get carried away when I am working			
1	**2**	**3**	**4**	**5**

1.15	At my job, I am very tough, mentally			
1	2	3	4	5

1.16	It is difficult to detach myself from my job			
1	2	3	4	5

1.17	At my job I always continue even when things do not go well			
1	2	3	4	5

Source: Adapted from Schaufeli *et al.*, 2006:714

Table 25: Leadership style questionnaire

The following statements are related to the way you perceive your direct manager (the person giving you orders at the moment). Please mark the block that best describe how you feel about the statement. If you do not feel that way at all in your job please mark the "*1*" block. If the statement describes precisely how you feel please mark the "*5*" block underneath each statement. If you do not have an opinion regarding the statement, please mark "*3*" or "*2*" if you only disagree or "*4*" if you agree.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Section 2: Leadership Style

2.1	My manager displays transformational leadership			
1	2	3	4	5

2.2	My manager displays transactional leadership			
1	2	3	4	5

2.3	My manager is a role model for his subordinates			
1	2	3	4	5

2.4	My manager reassures his subordinates that obstacles will be overcome			
1	2	3	4	5

2.5	My manager draws attention to the importance of having a shared sense of mission			
1	2	3	4	5

2.6	My manager communicates an exciting vision of the future			
1	2	3	4	5

2.7	My manager challenges me to think about old problems in new ways			
1	2	3	4	5

2.8	My manager challenges others to think about old problems in new ways			
1	2	3	4	5

2.9	My manager spends time to train his subordinates			
1	2	3	4	5

2.10	My manager spends time to coach his subordinates			
1	2	3	4	5

2.11	I prefer my manager's leadership style over other leadership styles			
1	2	3	4	5

2.12	My manager set clear performance goals			
1	2	3	4	5

2.13	My manager displays transactional leadership through rewarding good performance			
1	2	3	4	5

2.14	My manager displays transactional leadership through disciplining bad performance			
1	2	3	4	5

2.15	My manager specify the rewards that will be received when achieving set goals			
1	2	3	4	5

2.16	My manager pays attention to failures to meet standards			
1	2	3	4	5

<u>The end</u>

Source: Adapted from Claassen, 2015:75

APPENDIX B

- Informed consent form -

Informed Consent Form

FIELD OF STUDY: HUMAN RESOURCES

NORTH-WEST UNIVERSITY

RESEARCHER: MR. S. KERSOP

Tel.: 0829295754

kersopf@gmail.com

Dear respondent,

Thank you for agreeing to participate in the study titled:

The influence of leadership style on employee engagement in a manufacturing company in the Northwest Province of South Africa

The purpose of this study is:

- To find the relationship between leadership styles (transformational vs transactional) and employee engagement in a manufacturing organisation undergoing managerial changes

The procedure to be followed is a quantitative research approach paired with a cross sectional research design. The method of data collection is a questionnaire in the form of two sets of closed ended questions that provides the respondent to answer each question with the means of a 5-point Likert-scale. Respondents will be briefed on the topic and given ample time to answer the questionnaire. The questionnaire will take approximately 30 minutes to complete.

The benefits of the research will be:

- To better understand managerial team structures that could be beneficial to the organisation's performance
- To better understand the relationship between leaders and followers in terms of how followers perceive their direct leaders
- To make recommendations regarding management structures and company culture that could benefit organisational performance in the long run.

Participation is not compulsory, but absolutely voluntary and the respondent may end his/her participation at any time during the questionnaire if feeling uncomfortable answering the questions.

Confidentiality, anonymity and privacy of participants are guaranteed. No names are required and participants will submit filled-in questionnaires at an agreed-upon location without any identification required.

A copy of the final thesis will be made available on request if participants wish to see the results of the findings.

By completing and submitting the questionnaire, the participant gives consent to the researcher that the information obtained from the questionnaire may be used for research purposes.

Sincerely,

Stephanus Kersop

Cell: 0829295754

FIELD OF STUDY: HUMAN RESOURCES

NORTH-WEST UNIVERSITY

RESEARCHER: MR. S. KERSOP

Tel.: 0829295754

kersopf@gmail.com

To whom it may concern,

Thank you for agreeing for the following study to be conducted in your organisation:

The influence of leadership style on employee engagement in a manufacturing company in the Northwest Province of South Africa

The purpose of this study is:

- To find the relationship between leadership styles (transformational vs transactional) and employee engagement in a manufacturing organisation undergoing managerial changes

The procedure to be followed is a quantitative research approach paired with a cross sectional research design. The method of data collection is a questionnaire in the form of two sets of closed ended questions that provides the respondent to answer each question with the means of a 5-point Likert-scale. Respondents will be briefed on the topic and given ample time to answer the questionnaire. The questionnaire will take approximately 30 minutes to complete.

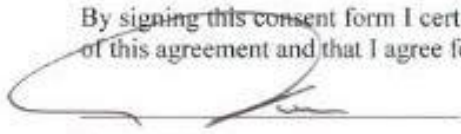The benefits of the research will be:

- To better understand managerial team structures that could be beneficial to the organisation's performance
- To better understand the relationship between leaders and followers in terms of how followers perceive their direct leaders
- To make recommendations regarding management structures and company culture that could benefit organisational performance in the long run.

Participation is not compulsory, but absolutely voluntary and the respondent may end his/her participation at any time during the questionnaire if feeling uncomfortable answering the questions.

Confidentiality, anonymity and privacy of participants are guaranteed. No names are required and participants will submit filled-in questionnaires at an agreed-upon location without any identification required.

A copy of the final thesis will be made available on request if the organisation wishes to see the results of the findings.

By signing this consent form I certify that I E SELEKA (agree to the terms of this agreement and that I agree for the researcher to conduct the study at this organisation.

11 MAY 2011

(Signature)   (Date)

Figure 7: Organisational permission letter

APPENDIX C

- Ethical clearance –

Private Bag X6001, Potchefstroom,
South Africa, 2520

Tel: (018) 299-4900
Faks: (018) 299-4910
Web: http://www.nwu.ac.za

Research Ethics Regulatory Committee

Tel: +27 18 299 4849

Email : Ethics@nwu.ac.za

ETHICAL CLEARANCE LETTER OF STUDY

Based on the approval by the **Economic and Management Sciences Research Ethics Committee (EMS-REC) on 31/05/2018** after being reviewed at the meeting held on **18/05/2018**, the North-West University Research Ethics Regulatory Committee (NWU-RERC) hereby **approves** your project as indicated below. This implies that the NWU-RERC grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the project may be initiated, using the ethics number below.

Project title: The influence of leadership style on employee engagement in a manufacturing company in the North West Province of South Africa.

Project Leader/Supervisor: R Scholtz
Student: S Kersop

Ethics number:

N	W	U	-	0	0	4	2	4	-	1	8	-	A	4
Institution				Project Number						Year			Status	

Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation

Application Type:

Commencement date: 2018-05-18   **Expiry date:** 2021-05-17   **Risk:**   Low risk

Special conditions of the approval (if applicable):

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following:

- *The project leader (principle investigator) must report in the prescribed format to the NWU-RERC via EMS-REC:*
  - *annually (or as otherwise requested) on the progress of the project, and upon completion of the project*
  - *without any delay in case of any adverse event (or any matter that interrupts sound ethical principles) during the course of the project.*
  - *Annually a number of projects may be randomly selected for an external audit.*
- *The approval applies strictly to the protocol as stipulated in the application form. Would any changes to the protocol be deemed necessary during the course of the project, the project leader must apply for approval of these changes at the EMS-REC. Would there be deviated from the project protocol without the necessary approval of such changes, the ethics approval is immediately and automatically forfeited.*
- *The date of approval indicates the first date that the project may be started. Would the project have to continue after the expiry date, a new application must be made to the NWU-RERC via EMS-REC and new approval received before or on the expiry date.*
- *In the interest of ethical responsibility the NWU-RERC and EMS-REC retains the right to:*
  - *request access to any information or data at any time during the course or after completion of the project;*
  - *to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process.*
  - *withdraw or postpone approval if:*
    - *any unethical principles or practices of the project are revealed or suspected,*
    - *it becomes apparent that any relevant information was withheld from the EMS-REC or that information has been false or misrepresented,*
    - *the required annual report and reporting of adverse events was not done timely and accurately,*
    - *new institutional rules, national legislation or international conventions deem it necessary.*

The RERC would like to remain at your service as scientist and researcher, and wishes you well with your project. Please do not hesitate to contact the RERC or EMS-REC for any further enquiries or requests for assistance.

Yours sincerely

Prof Bennie Linde
Chair NWU Economic and Management Sciences Research Ethics Committee

Figure 8: Ethical clearance letter

APPENDIX D

- Confirmation of Statistical Analysis –

Private Bag X6001, Potchefstroom
South Africa 2520

Tel: (018) 299-1111/2222
Web: http://www.nwu.ac.za

Statistical Consultation Services
Tel: (018) 299 2180
Fax (018) 299 2557
E-Mail: faans.steyn@nwu.ac.za

11 October 2018

Re: Mr Stephanus Kersop

I hereby confirm that I have assisted Mr Stephanus Kersop, student number 20302029, with the statistical planning, data-processing and statistical interpretation of his mini-dissertation for his Master's degree in Business Administration at the Potchefstroom Campus of the North-West University, with title: The influence of leadership style on employee engagement in a manufacturing company in the Northwest Province of South Africa

Kind regards,

Prof Faans Steyn (PhD, Pr. Sci. Nat)

Statistical consultant

APPENDIX E

- Proof of Language Editing -

RENTIA MYNHARDT

BCom (UNISA)

SA Translators' Institute (SATI)
Membership number: 1002605
PO Box 6986, FLAMWOOD 2572
*Cellphone: 082 7717 566 * E-mail: rmynhardt@vodamail.co.za*

Reference number:	FK1
Date:	2018/11/18

To whom it may concern,

LANGUAGE EDITING

This letter serves as proof that the following document was submitted for language editing in November 2018:

Author:	Fanie Kersop
Document type:	Mini-Dissertation: MBA
Title:	*THE INFLUENCE OF LEADERSHIP STYLE ON EMPLOYEE ENGAGEMENT IN A MANUFACTURING COMPANY IN THE NORTH-WEST PROVINCE OF SOUTH AFRICA*

I applied all reasonable effort to identify errors and made recommendations about spelling, grammar, style and punctuation.

I attempted to be consistent regarding language usage and presentation.

The bibliography was also checked and corrections were made where necessary.

I confirmed the content as far as possible, but cannot be held responsible for this as all facts could not be confirmed. This remains the responsibility of the author.

Thank you very much.

Kind regards.

Rentia Mynhardt