THE RELATIONSHIP BETWEEN AUTHENTIC LEADERSHIP, PSYCHOLOGICAL EMPOWERMENT, WORK ENGAGEMENT AND TEAM EFFECTIVENESS

BY

THABISA SIGWELA

Thesis presented in partial fulfilment of the requirements for the degree of Master of Commerce (Industrial Psychology) in the Faculty of Economic and Management Sciences at Stellenbosch University

Supervisor: Prof Amos S. Engelbrecht

Department of Industrial Psychology

March 2020

DECLARATION

By submitting this thesis electronically, I Thabisa Sigwela, declare that the entirety of the work contained therein is my own, original work; that I am the sole author thereof (save to the extent explicitly otherwise stated); that reproduction and publication thereof by Stellenbosch University will not infringe any third-party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Thabisa Sigwela
March 2020

ABSTRACT

The purpose of the present study is to determine the relationships between authentic leadership, psychological empowerment, employee work engagement and team effectiveness. An explanatory structural model was subsequently developed and tested to explicate the manner in which authentic leadership link with psychological empowerment and employee engagement to influence team effectiveness.

The study was conducted using participants from various medium to large size organisations in the Eastern Cape: Port firms, a motor manufacturer, and public organisations. Three hundred (300) questionnaires were distributed and 210 completed questionnaires were returned. Authentic leadership was measured using the Authentic Leadership Questionnaire (ALQ) developed by Walumbwa, Avolio, Gardener, Wernsing and Peterson (2008). Psychological empowerment was measured with the 16-item Psychological Empowerment Scale (PES) that was developed and validated by Spreitzer (1995). The 17-item Utrecht Work Engagement Scale (UWES) developed by Schaufeli and Bakker (2003) was used to measure work engagement. The 21-item Team Effectiveness Scale (TES) developed by Engelbrecht (2013) was used to measure team effectiveness.

Item analyses were performed on each of the subscales using SPSS version 25. Thereafter, confirmatory factor analysis was performed on the individual latent variable measurement models and the overall measurement model. Structural equation modelling (SEM) was subsequently applied to test the structural model using the LISREL 8.80 software. The structural model also ascertained the existence of relationships among the variables.

Overall, it was found that both the measurement and structural models fitted the data reasonably well. Significant positive relationships were found between authentic leadership and psychological empowerment; authentic leadership and work engagement; authentic leadership and team effectiveness; work engagement and team effectiveness; psychological empowerment and work engagement; and psychological empowerment and team effectiveness.

The practical implications for management in organisations have been included. The limitations and direction for future studies were also outlined.

OPSOMMING

Die doel van die studie is om die verband tussen outentieke leierskap, sielkundige bemagtiging, werkstoewyding en spandoeltreffendheid te bepaal. 'n Strukturele model is gevolglik ontwikkel en getoets ten einde te verklaar hoe outentieke leierskap met sielkundige bemagtiging en werkstoewyding skakel om spandoeltreffendheid te beïnvloed.

Vir die studie is proefpersone gekies by verskeie medium to groot organisasies in die Oos-Kaap: Hawe organisasies; motorvervaardiger en publieke organisasies. Driehonderd vraelyste is versprei en 210 voltooide vraelyste is terug ontvang. Outentieke leierskap is gemeet met behulp van die "Authentic Leadership Questionnaire" (ALQ), ontwikkel deur Walumbwa, Avolio, Gardener, Wernsing en Peterson (2008). Sielkundige bemagtiging is gemeet met behulp van die 16-item "Psychological Empowerment Scale" (PES) wat deur Spreitzer (1995) ontwikkel en gevalideer is. Die 17-item "Utrecht Work Engagement Scale" (UWES), ontwikkel deur Schaufeli en Bakker (2003), is gebruik om werkstoewyding te meet. Die 21-item "Team Effectiveness Scale" (TES), ontwikkel deur Engelbrecht (2013), is gebruik om spandoeltreffendheid te meet.

Itemontledings is gedoen op elke subskaal deur gebruik te maak van die SPSS (weergawe 25) pakket. Hierna is bevestigende faktorontledings gedoen op die individuele veranderlikes se metingsmodelle asook op die algehele metingsmodel. Strukturele vergelykingsmodellering is vervolgens toegepas om die verwantskappe tussen die veranderlikes in die strukturele model te toets met behulp van die LISREL 8.8 model. Die strukturele model het ook die bestaan van verwantskappe tussen die veranderlikes bepaal.

Oor die algemeen is bevind dat beide die metings- en strukturele modelle redelik goed pas by die data. Beduidend positiewe verwantskappe is gevind tussen outentieke leierskap en sielkundige bemagtiging; outentieke leierskap en werkstoewyding; outentieke leierskap en spandoeltreffendheid; werkstoewyding en spandoeltreffendheid; sielkundige bemagtiging en werkstoewyding; sowel as sielkundige bemagtiging en spandoeltreffendheid.

Die praktiese implikasies vir die bestuur in organisasies, asook die beperkings van die studie en voorstelle vir toekomstige navorsing word ook uiteengesit.

ACKNOWLEDGEMENTS

I thank the Lord God Almighty who has given me strength and courage to start and complete this work. " I can do all things through Christ who strengthens me" (Philippians 4:13, New King James Version). Oh Lord, I wouldn't have achieved this work without you holding my hand.

To the love of my life, thank you for your support, care and love. You have always believed that I can do this. You are my source of inspiration. Your friendship keeps me going and I thank you for being considerate all this time. Ntsundu, Zondwa. Mthembu.

To my Supervisor, Prof Amos Engelbrecht, the journey has been so long, but he never gave up. Thank you for you technical advice, guidance, and patience. I am truly grateful for your unwavering support throughout this career milestone. Your contribution towards my academic excellence will never go unnoticed.

To my friend and former colleague, Prof Bright Mahembe, "hey Bright, we come long way, thank you for your support and your friendship and manuscript reviews". Your support has gone a long way. You are a Star.

Dr. Tracey Potgieter, my former manager and my career mentor. We come a long way. I know in you I have a teacher, mentor, friend and sister. Thank you for believing in my potential and cultivating my capabilities in the early days of my profession. Thank you for your wise counsel throughout my career journey. I will always be grateful for the growth opportunities you afforded me.

To my siblings, thank you for believing in me, and providing support in time of need and your prayers.

To my mother in law, I appreciate your words of encouragement, and your understanding. Gambu, Msuthu.

To my women folk prayer group…thank you for all your prayers.

TABLE OF CONTENTS

LIST OF TABLES

13

LIST OF FIGURES

CHAPTER 1: INTRODUCTION, THE RESEARCH PROBLEM AND ITS SETTING, AND OUTLINE OF THE STUDY

1.1 INTRODUCTION

As organisations restructure, downsize, and reinvent themselves to adapt to the ever-changing environment, new roles are being created and organisations are increasingly becoming flatter, leaner, and more responsive to the changes in the external environment (De Meuse, 2009). Globally, work is now compounded and virtual with flexible schedules and timeframes. Customer value and orientation is a critical success factor the 21st century world of work, while at the same time realising a positive return on investment for the organisations.

This therefore necessitates fair distribution of workload according to employee skills set relevant for the business. In order to respond to the demands of the changing external environment, teams are progressively assuming greater relevance in the 21st century workplace than in the past (Makikangas, Aunola, Seppälä, & Hakanen, 2016). Various organisations in diverse industries today apply the principle of teamwork in order to attain their goals and objectives. These are marine crews, creatives and innovation, medical, manufacturing teams and in some instances investment envoys and public sector oversight committees (De Meuse, 2009). The importance of work teams seems to gain strength with the increase of the magnitude of work, complex institutional frameworks and there is more accumulation of corporations and business units. The new age business environment and modalities of work require a collective effort and approach to work to ensure effectiveness (Costa, Passos, Bakker, Romana, & Ferrão, 2017; De Meuse, 2009; Makikangas, Aunola, Seppälä & Hakanen, 2016).

Teamwork has been documented to be linked to positive work outcomes, such as (1) enhanced product and service standards, swiftness and susceptibility; (2) great novelty; (3) reducing time taken to transmute a concept into beneficial and profitable products and (4) service improvement for customers (Glassop, 2002; Hamilton, Nickerson, & Owan, 2003). Effective teams do not simply occur. There must be proper leadership and ensuring a conducive work environment. Effective and learning organisations required knowledgeable leaders on motivation of working in teams. Furthermore, management of performance in teams is critical to ensure sucess. Leadership plays a vital role in ensuring delivery of expected performance outputs and outcomes by work teams (Mahembe & Engelbrecht, 2013). Espoused values and

defined service standards are fundamentals of effective teams (Irving & Longbotham, 2007).

Resilient and effective directors and executives, along with inspired and empowered employees create long lasting customer experiences and significant equity value. The challenges and dilemmas of today require a new set of genuine and unquestionable leaders motivated to build strong and sustainable organisations and teams. Authentic icons such as Nelson Mandela and Ronald Reagan displayed life meaningfulness, self- awareness and relational transparency. These are examples of daring icons with drive to create value for the relevant interest groups and key role players in society and in business (George, 2003).

Two decades ago, the topic and notion of authentic leadership has gained momentum and raised debate on this phenomenon. This is evident in the rise of scholarly research conducted by various institutions and individuals with a vested interest in the subject. The studies point to a correlated relationship between authentic leadership and team effectiveness (George, Sims, McLean, & Meyer, 2007; Walumba, Avolio, Gardner, Wernsing, & Peterson, 2008). Authentic leadership is regarded as a powerful thought and idea, based on sound psychological research and promotes the real self and truthfulness (Walumba et al., 2008). "Knowing oneself and being true to oneself are essential qualities to authentic leadership" (May, Chan, Hodges, & Avolio, 2003, p.248). Authenticity requires self-awareness and consistency of words with actions. Likewise, managers bear the responsibility of encouraging their employees or work teams to be aware of their true self and behave consistently. This kind of leader behaviour proves to yield desirable results at an individual and organisational performance level (Ryan & Deci, 2001; Walumba et al., 2008).

Principles and approaches of authentic leadership are applicable at theoretical and practical spheres. In all sectors of the economy there is a high need of transparent and values driven leaders in order to safeguard the lifeblood of organisations today. Corporates see value in the existing authentic leadership body of knowledge. This body of knowledge would guide the recruitment and selection of executives and managers to ensure sustainable value for money. According to Walumba, Avolio, Gardner, Wernsing, and Peterson (2008), authentic leadership is viewed as a fundamental source of courageous power for leaders to espouse authenticity behaviour.

Scholarly reviews on leadership based research reveals that an autocratic approach is replaced by more flexible, integrative approaches to promote leadership theory (Avolio, 2007; Johns, 2006; Meindl, 1995). A further call for continuous leadership development research is eminent to determine the leadership behaviour impact on collective corporate performance (Avolio, 2007).

The 'to thine self be true' principle is prevalent in the authentic leadership domain. However, leaders often neglect that one must also be true to others in order to be truly authentic (Clapp-Smith, Vogelgesang, & Avey, 2009). Luthans and Avolio (2003) view authenticity in the light of positive psychological capacities, whereas Gardner and colleagues (Gardner, Avolio, Luthans, May, & Walumba, 2005) holds that transparent relations with followers enhance trust. Early empirical findings suggest that authentic leadership on an individual level has an impact on positive psychological constructs, such as follower commitment, follower satisfaction with the leader, and follower performance (Walumba et al., 2008).

Since its conception almost five decades ago, authentic leadership has emerged as a key element in positive psychological studies and its conceptual basis enhances leadership theory and practice (Avolio & Gardner, 2005, p.315). Authentic leadership, as proposed by Luthans and Avolio (2003), and further developed by Gardner et al. (2005), and Avolio and Luthans (2006), is a process of developing self-awareness about values, motives and beliefs. These serve as a moral campus of a leader to guide thinking processes, relations with others and behaviour patterns (Avolio, Gardner, Walumba, Luthans, & May, 2004). The concern does not only centre on the authenticity of the leader, but also how others are influenced through transparent relations and consistent actions toward achieving common team objectives.

Academic studies indicate that empowerment is a determinant of leader effectiveness, and thus leads to better organisational commitment and effectiveness (Conger, 1999; Conger & Kanungo, 1988). Research report by Liden, Sparrow, and Wayne (1997), reflect that through empowering programmes, better results are observed at an individual and organisational level.

Involving employees in the decision-making process is a good indication of leader authenticity and motivates them in doing exceptionally in their work (Zhang, 2010). When employees see their value linked to overall organisational effectiveness, they

experience sense of meaning in their work. Authentic and empowering leaders identify and acknowledge competence in their followers, appraise good performance and motivates exceptional performance. A study by Athearne, Mathieu, and Rapp (2005), confirms that empowering leaders promote employee self-efficacy. Furthermore, empowered employees are encouraged to determine how they execute their work with minimal supervision. Thus, employees feel a sense of control over their work and that their contribution gives momentum to overall organisational success. This promotes the sense of impact or influence they have in their organisation, as a result of their meaningful work. Therefore, it can be argued that a follower's perceptions of psychological empowerment has a relationship with empowering behaviours (Zhang, 2010).

A noticeable relationship between authentic leadership and psychological empowerment despite the limited empirical research on this topic (Zhang & Bartol, 2010). Ethical and authentic leaders are prepared to lead by example in their operational environments and determine a clear strategic direction for the organisation that followers can pursue. They ought to remove any obstacles that may hinder success. When leaders model good and acceptable behaviour, followers become more aware about their values and moral compass, which promotes a sense of fulfilment. It is always said that the leaders should walk the talk. It can be assumed that a conducive working environment, organisational culture and climate would foster appropriate followership (Zhu, May, & Avolio, 2004).

As indicated in various research studies, in a workplace environment, leaders have to be considerate about the developmental trajectory of their followers and assist them in finding meaning in their work and person-role fit (Zhu, May, & Avolio, 2004). The consideration of employees' needs will aid in their growth and bridging competency gaps. This may be followed by a training needs analysis and capacity development plans for each employee and quality of decision-making. Capacity building, including experiencing successes and observing others' successes, positively influence feelings and levels of self-efficacy (Bandura, 1986).

Thus, individuals and teams who are led by supervisors who demonstrate authenticity are reported to have experienced high competency levels in performing their work (Eisenberger, Fasolo, & Davis-La Mastro, 1990). Research studies indicate that organisations are likely to report higher retention rate due to higher feelings of

empowerment among employees (Kraimer, Seibert, & Liden, 1999; Sims & Kroeck, 1994). Subsequently, this leads to higher work engagement, employees performing additional tasks without necessarily claiming for overtime that they worked over and above their daily or weekly schedules. (Spreitzer, 1995). Indeed Thomas and Velthouse (1990) maintained that empowered employees show better task absorption, creativity, resilience, coordination and mastering their work with minimal supervision. This notion is supported by Wiley (1999). The positive influence of authentic leaders on greater reciprocal dedication and engagement to the organisation and work team is further supported by Stairs, Galpin, Page and Linley (2006).

The construct of employee work engagement has emerged over the past decades and is relevant to organisations today (Baikanyo & Heyns, 2019; Ishii, Shibata, & Oka, 2018; Knight, Patterson, & Dawson, 2017; Schaufeli & Bakker, 2004). In the corporate world today, effectively led employees and teams add significant value toward the overall success of the business. Greater success is eminent when working conditions are conducive to performance and employees are fully engaged in their work.

Simply put, engagement refers to determination and dedication about one's work and area of expertise. Engaged employees are enthusiastic about their jobs, they put an extra effort in ensuring that meaningful results are achieved (Truss, Soanne, Edwards, Wisdom, Croll, & Burnett, 2006). Research indicates that many definitions of employee work engagement emphasise the benefits of work engagement achieved by the organisation. Accumulated benefits by organisations cannot be refuted, such as limited focus that must be expanded to integrate gains from an employee perspective. Therefore, Stairs, Galpin, Page, and Linley (2006) define work engagement as an attitude where employees are content about their work, excel in what they do and there is mutual gain for both the individual and the employer.

Recent studies have consistently demonstrated an existing association between employee engagement and other success factors, such as organisational commitment and low turnover intention (Galphin, Stairs, & Page, 2008). Further research indicates that high levels of engagement are linked with attendance, higher retention, increased output, improved quality of work, increased profits, equity value, and reduced client disputes (Judge, Thoresen, Bono, & Patton, 2001; Purall, Kinnie, Hutchinson, Rayton, & Swart, 2003; Spector, 1997).

Engaged employees will spread good news and prospects about their employer. Harter, Schmidt, and Keyes (2003) noted that employees valued a work relationship that considers the development and growth needs of the workforce.

Studies on the relationship between psychological empowerment and team effectiveness are relatively sparse. One can infer the importance of psychological empowerment on team effectiveness through its influence on other variables, such as team performance and job satisfaction. Tetik (2016) concluded that a relationship exists between psychological empowerment, job satisfaction and team level performance of tourist guides. Team effectiveness and performance are likely to benefit from the psychological empowerment attributes such as the provision of a job with meaning, impact, and the opportunity for the employees to demonstrate their competence through their self-determination. In this respect, psychological empowerment acts as a motivational and job enrichment tool (Dzia-Uddin, 2017).

A multilevel analysis of Makikangas, Aunola, Seppälä and Hakanen (2016) found that both individual and teamwork engagement were associated with high levels of perceived team performance among Finnish educational sector employees working in 102 teams. Thus, the positive relationship between work engagement and team effectiveness were supported by some theoretical and empirical studies.

1.2. THE AIM OF THE STUDY

Conceptually, the present study therefore seeks to explore the correlations between the positive psychological constructs: authentic leadership, psychological empowerment, employee work engagement and team effectiveness. Operationally, the aim of the study was to determine whether a model of nomological relationships among the constructs could be built successfully. Thus, the aim was to explain variance in team effectiveness by focussing on three of the direct and indirect determinants of team effectiveness. The research-initiating question therefore is: What is the influence of authentic leadership on psychological empowerment, employee work engagement and team effectiveness?

1.3   RESEARCH OBJECTIVES

The study objectives are to:

- Determine the nature of the correlations among the constructs identified in the study.

- Determine the goodness of fit of the hypothesized model, depicting the way in which authentic leadership influences psychological empowerment, employee work engagement and team effectiveness.

1.4   RATIONALE OF THE STUDY

It is worth noting that over the years considerable attention has been focused on the topic of team effectiveness (Costa, Passos, Bakker, Romana, & Ferrão, 2017; Mahembe & Engelbrecht, 2013; Makikangas, Aunola, Seppälä & Hakanen, 2016). Organisations have shifted their focus from individuals as the unit of analysis, to teams in most organisations. The effective functioning of teams is not a random event; it is dependent on a number of organisational and individual person factors. This study identifies some of the organisational factors, such as the role played by authentic leadership in influencing the perceptions of psychological empowerment that is vital for the subsequent creation of work engagement. Engaged employees are likely to engage in the right behaviours for propagating both team performance and team effectiveness. The constructs identified in this research are likely to assist organisations in implementing the appropriate interventions for enhancing team-member relationships and the much sought-after teambuilding ingredients. Therefore, this knowledge will allow organisations to actively foster and develop these skills and ensure that the organisational climate is conducive to build and sustain effective teams.

The study intended to contribute to the current body of knowledge of team effectiveness, authentic leadership, psychological empowerment and work engagement broadly, and specifically on the following:

- No other known research study exploring these specific constructs has been conducted in South Africa.
- There has not been an integration of positive psychological constructs in this nature to comprehend authentic leadership and its effect on work engagement, psychological empowerment and its effect on team effectiveness.

- Quantitative methodological studies on authentic leadership have been limited. The study will explore authentic leadership from a quantitative perspective by using structural equation modelling.

- Previous research has focused mainly on what authentic leaders do and on their characteristics. This research will assess the influence of authentic leadership on team effectiveness via the mediating effect of some work attitudes in a particular work setting.

1.5   CHAPTER OUTLINE

This study consists of five chapters. All chapters begin with a brief introduction and end with a short summary (synopsis).

Chapter 1 deals with the general introduction to the whole study. It further gives background information and identified the various variables that are being investigated. It also outlines the study objectives and the rationale for investigation.

Chapter 2 focuses on reviewing the theoretical underpinnings of individual focus variables in the study: team effectiveness, authentic leadership, psychological empowerment and work engagement. In this chapter, the researcher discusses findings of prior studies on the identified variables and explores plausible relationships thereafter. Furthermore, the formulation of research propositions and the development of a theoretical model for the study were highlighted.

Chapter 3 outlines the approach and procedure used in this study. It incorporates the study design, procedures on data collection, reliability analysis, confirmatory factor analysis, and structural equation modelling using LISREL analysis.

Quantitative data analysis results, including the obtained factor structures for each of the individual constructs, are tabled in *Chapter 4.* In particular, the empirical results regarding the relationships among the latent variables are analysed.

The interpretation and discussion of the research findings and their link to the research propositions are presented and discussed in *Chapter 5*. In closing, limitations of the study and recommendations for interventions and future direction are discussed.

1.6   SUMMARY

Authentic leadership, psychological empowerment, employee work engagement, and team effectiveness have been identified as constructs that can be included in the positive organisational scholarship (POS) approach. First and foremost, this research contends to explore and investigate the relationships among these individual constructs, and as a result offers possible recommendations for the development of successful authentic leadership interventions to enhance team effectiveness in organisations.

CHAPTER 2: LITERATURE STUDY

2.1   INTRODUCTION

Team effectiveness, authentic leadership, psychological empowerment and work engagement are some of the issues that organisations and team leaders pursue to ensure productivity. Each organisation is dependent on the workforce for high productivity. Therefore, there is a need for strong leadership to develop an organisational culture that would be conducive to the psychological empowerment and work engagement of employees as well as teams to function effectively. This chapter examines these variables from the perspective of what has already been published. The literature review highlights various trends that seem to be of importance in entrenching leadership development in the workplace. The literature shared in this chapter is highlighted and further developed for context purposes. Variables discussed in this chapter are based on both theoretical and practical research outputs. Furthermore, conceptualisations of the selected variables, as well as the relationships among these variables are discussed. The chapter concludes with the research propositions and the theoretical model for the study.

2.2   DEFINITION OF TEAM EFFECTIVENESS

Various scholars in the academic literature broadly define teams and their effectiveness (Humphrey & Aime, 2014). Different notions of what 'effectiveness' means have been advanced by various researchers, hence formulation of a single definition of team effectiveness is challenging (Benders & Van Hootegem, 1999; Humphrey & Aime, 2014). Generally, a team can be defined as a unit of performance with more than two individuals who have constant interaction, with the purpose of achieving a common goal and share roles within defined boundaries in an organisational setting (Hackman, 1992; Katzenbach & Smith, 2015; Kozlowski & Bell, 2003; Kozlowski & Ilgen, 2006).

2.2.1 Conceptualising Team Effectiveness

Kirkman and Rosen (1999) define a work team as a group of employees that either work as individuals or collectively, with a common objective of carrying out a required

task. The work groups can be organised differently – some are self-managing while others are managed centrally, either by a leader or by a dedicated person supervising that group. There is evidence that teams is successful regarding quality, customer service, safety, job satisfaction, organisational commitment and productivity (Mahembe & Engelbrecht, 2013), Team effectiveness and productivity are often attributed to team empowerment.

In order to achieve team effectiveness in organisations, it is critical to allocate tasks fairly to employees in a particular work unit, especially according to organisational aims and employees' abilities and preferences. A good team spirit, coupled with opportunities for development and empowerment interventions such as training, mentorship, coaching, and performance appraisals, is highly indicative of effective team leadership (Polychroniou, 2009).

The effectiveness of a team in a work environment can be evaluated by attitude, team member behaviour, organisational culture and performance (Ross, Jones & Adams 2008). The desired performance is measured by the degree to which the results meet the customer's satisfaction in terms of quantity, quality and timeframes (Ross, et al., 2008). In ensuring effective team performance, leaders should clearly define the vision for the team's role through articulated goals, which are outcome-driven (Hackman, 2002; Irving & Longbotham, 2007).

Piccoli, Powell and Ives (2004), further explained that high production in the form of high-quality goods and services is expected from effective teams. The status of a team should be defined as a performing unit with traceable individual satisfaction, and contributions of team members towards the achievement of collective goals.

A great deal of research on team effectiveness has evolved over the past four decades (Bradley, 2008). Team effectiveness has been influenced by the logic of an Input-Process-Output (I-P-O) heuristic articulated by McGrath (1964). In this model, inputs comprise of individual characteristics and resource mobilisation at individual, team and organisational level. Processes refer to actions of team members – combined resources in order to resolve tasks challenges. Output has three aspects: performance evaluated by significant others outside to the team; satisfying team members' needs; and willingness of members to stay in the team (Bradley, 2008; Dickinson, Converse & Tannenbaum 1992; Gladstein, 1984; McGrath, 1964; Salas & Hackman, 1987).

Although the experiments done by McGrath are useful in an organisational setup for research on small groups, these experiments cannot be taken as applicable in a cause and effect framework of all team environments. Therefore, there is a need for a more relevant and modern approach to examining team effectiveness. This approach is discussed in the following sections. Recently there has been an appreciation of the centrality of tasks that needs to be achieved. This created an opportunity to view a team in multiple facets ranging from small groups to organisations (Kozlowski & Ilgen, 2006), where a team itself is a different entity with different behaviour from the individuals composing the team. This means there can be a reciprocated influence between the 'team entity' and 'individual entity' (Hackman, 1992; Mathieu, Hollenbeck, van Knippenberg & Ilgen, 2017). Both 'individual' and 'team' are ultimately influenced by the 'organisation entity'. This intra- and inter-hierarchical influence of these 'entities' introduces the complexity of team performance. (Kozlowski, Gully, McHugh, Salas & Cannon-Bowers, 1996; Kozlowski, Gully, Nason & Smith, 1999; Shuffler & Carter, 2018).

Effective leadership needs to proactively manage this complex social context of the individual, team and organisation to ensure increased organisational productivity (Mahembe & Engelbrecht, 2013). In the process of providing team leadership, the leader should view his/her leadership as a service to improve the effectiveness of the team (Friedrich & Ulber, 2017; Irving & Longbotham, 2007).

2.2.2 Models of Team Effectiveness

The effectiveness of teamwork is a complex phenomenon that can be evaluated through various models that are proposed in the literature. These models focus on different attributes that determine team performance ranging from group structure and interpersonal relationships, to talents and motivation of individuals within the team. These models of team effectiveness are based on research and understanding of the past couple of years. The prevalent models are:

- *T7 Model of Team Effectiveness (Lombardo & Eichinger,1995)*
- *The GRPI Model of Team Effectiveness (Rubin, Plovnic & Fry, 1977)*
- *Focusing on Team Basics (Katzenbach & Smith, 1993)*
- *Five dynamics of teamwork and collaboration (LaFasto & Larson, 2001)*

- *Team effectiveness model (Hackman, 2002)*
- *Understanding team dysfunction (Lencioni, 2006)*

(a) The T7 Model of Team Effectiveness

The T7 model is the brainchild of Lombardo and Eichinger (1995). This model represents fundamental elements that trigger or affect the performance of teams in a work environment. This model conceptualises the majority of models that were proposed in literature prior to 1995. The pioneers of this model present factors that influence a team's effectiveness. Five of these factors operate within a team and two factors function in the team environment (De Meuse, 2009). All these factors start with a 'T', which is why the model is known as the T7 Model (see Figure 2.1).

Figure 2.1: The T7 Team Effectiveness Model (Adapted from Lombardo & Eichinger,1995)

The following five factors have an influence on the team's effectiveness as observed in Figure 2.1:

- Thrust: This refers to the ownership of common purpose – team members share the same goals that need to be achieved collectively;
- Trust: Once the purpose and goals of the team have been well defined, the team members own the purpose and reason for existence, and thereby demonstrate confidence to one another in collectively achieving this purpose.
- Talent: This is the embodiment of all knowledge, attitudes and skills that individual team members have to achieve the intended objective. A team that

is well-vested with a diverse set of skills, is well positioned to perform and also collectively own the achieved results at each performance milestone.

- Teaming: This is the synergy between team members to ensure that the delivery of the task is done timeously. Every team member is expected to pull his/her weight towards a common goal, and at the same time provide support to other team members when needed.
- Task skills: Competencies the team needs to have to ensure that the task is done timeously.

Although this analysis is intra-team, there are also factors 'outside' the team that influence its effectiveness. Two of these are:

- Team-Leader Fit: The level on which the team leader satisfies the needs of his/her team members;
- Team Support: The support that the team obtains from the organisation to facilitate effective team performance.

These factors clearly demonstrate the context in which a team's effectiveness could be realised. Without organisational support and leadership competencies, team failure will be guaranteed. The T7 model of leadership was well supported in the literature (De Meuse, Tang, & Dai, 2009; Siikavirta, 2016).

(b) The GRPI Model of Team Effectiveness

One of the oldest models of team effectiveness is proposed by Rubin, Plovnick, and Fry (1977), which is referred to as the GRPI Model that stands for Goals, Roles, Processes, and Interpersonal Relationships (See Figure 2.2).
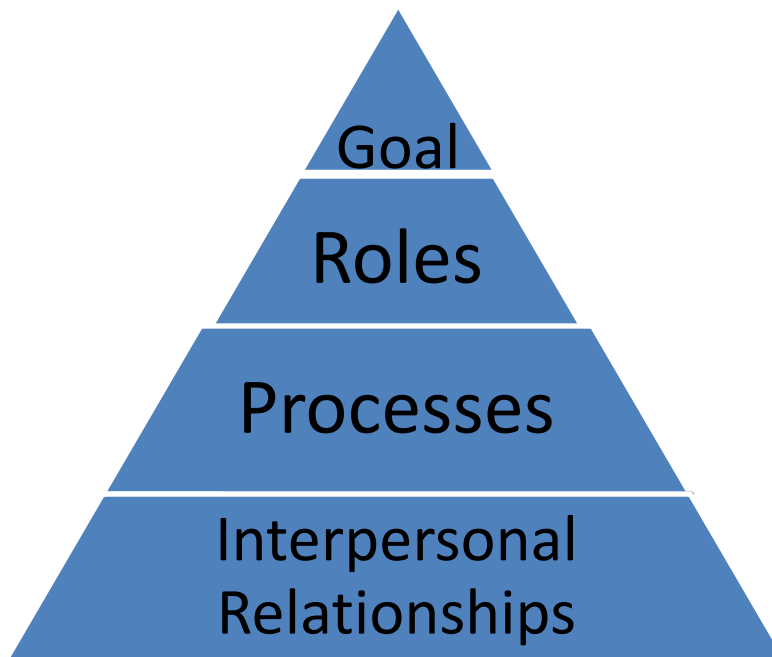
Figure 2.2: The GRPI Model of Team Effectiveness (Adapted from Rubin, Plovnick, & Fry, 1977)

This model is similar to Maslow's Hierarchy of Needs pyramid, but it starts at the top with 'team level goals' (Jelphs & Dickinson, 2016). This is the focused vision of where the team is 'heading to'. Once that strategic vision is identified, it is supported by roles and responsibilities. These are mechanisms allocated to each team member to realise the goal. The team members are then enabled with processes to ensure that their roles are mastered well. These processes are not only the foundations of the roles, but also the facilitators of collaboration between team members. At this level there is a cyclic reflection on the 'teamwork', which enables co-working amongst team members. It further facilitates the redefining of goals and responsibilities (if there were unclear aspects) and their accompanying roles. All these processes originate from the most important attribute of co-working which is interpersonal relationships. When a team works together, there will be instances of conflict and therefore conflict resolution mechanisms should be at hand. There will be instances of decision-making that needs prompt action. All these aspects need cohesion, which the team leader needs to ensure.

(c) Focusing on Team Basics model

Although there is a fair understanding what team work can achieve, Katzenbach and Smith (1993) notice a fixation on individual roles, responsibilities, and accountabilities.

In this model it is perceived that due to this fixation, it is difficult to move beyond the current level. This necessitates a focus on the basics of team work (See Figure 2.3).
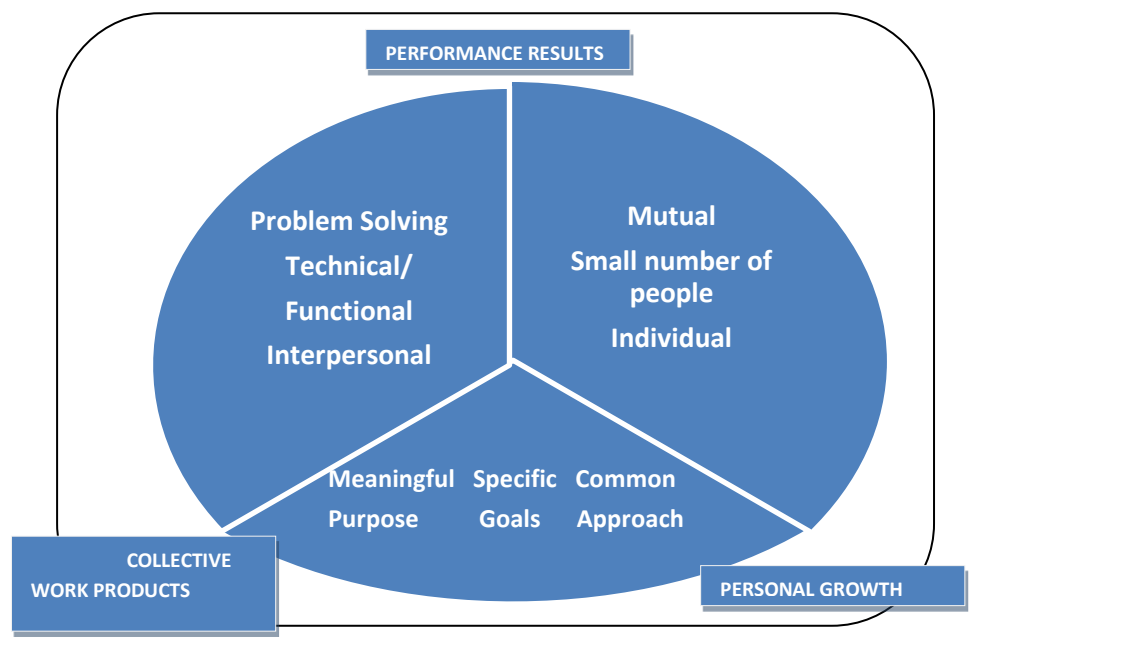
FIGURE 2.3. *Team Basics Model (Adapted from Katzenbach & Smith, 1993)*

This model is based on three overarching goals – the collective work products, personal growth and performance results. These are facilitated by commitment, skills and accountability. This will only be achieved by integrating personal and team attributes such as goals, approach and purpose. Through this mechanism, if one person wins, the team would win and this would also satisfy the personal ambitions. Such integration will only be achieved when all team members are committed to one another, because there is wisdom in focusing on the collective (Katzenbach & Smith, 1993; Katzenbach & Smith, 2015).

(d) Five dynamics of teamwork and collaboration model

LaFasto and Larson (2001) conducted research to obtain their model of team effectiveness after they examined 600 teams from different industries. This model is called Five Dynamics of Team Work and Collaboration, which is founded on five fundamental aspects of increasing team effectiveness (Mahembe & Engelbrecht, 2013), and presented in Figure 2.4:
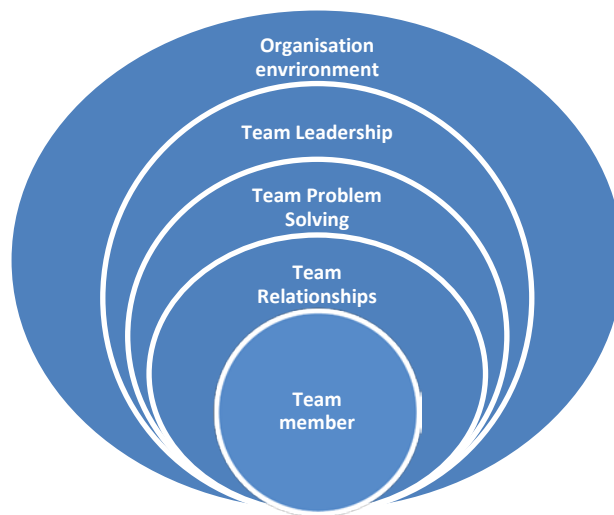
FIGURE 2.4: – Model of Teamwork and Collaboration: Five Dynamics (Adapted from LaFsto & Larson, 2001)

- Abilities and behaviours of a good team member
- Behaviours that foster effective team member relationships
- Team behaviours that lead to problem-solving – viewed from team members and team leader perspectives
- Team leader behaviours that foster team success – viewed from team member perspectives
- Organisational processes and practices that promote clarity, confidence, and commitment in a team

(e) Team effectiveness model

The graphical representation of this model is depicted in Figure 2.5.
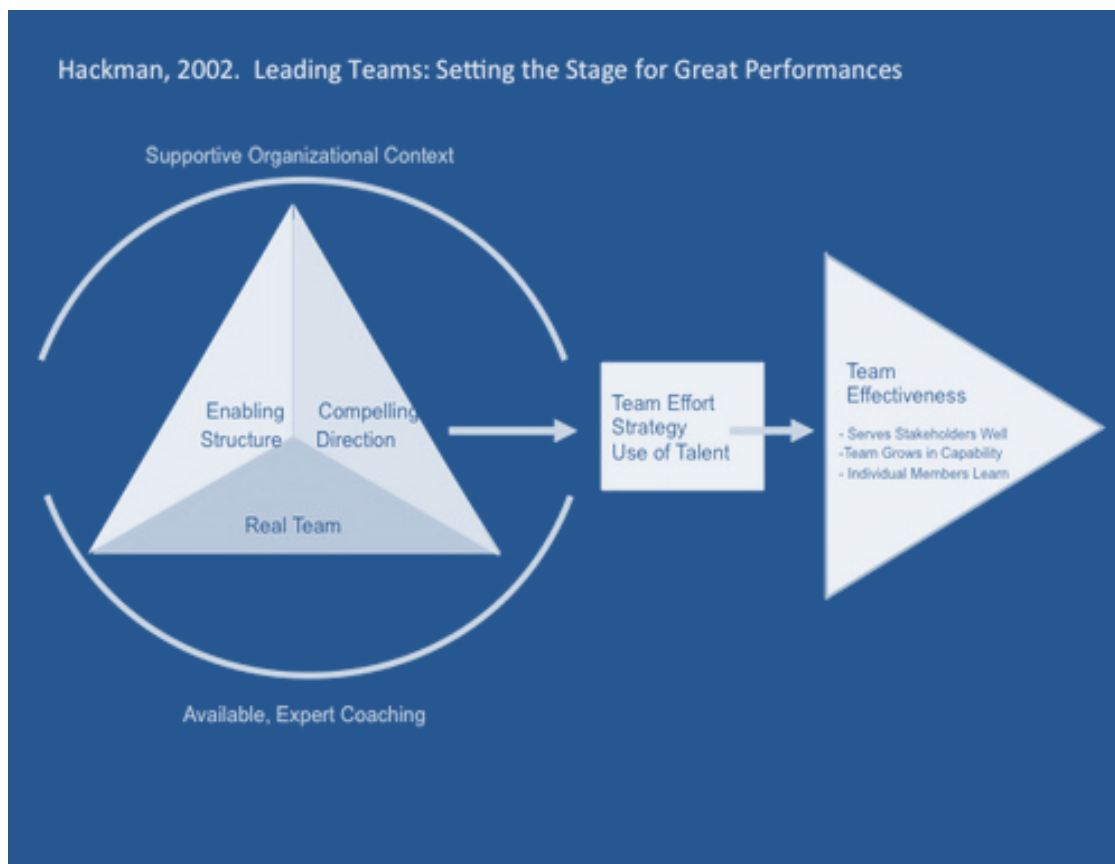
FIGURE 2.5*:* Conditions for Team Effectiveness Model (Adapted from Hackman, 2002)

The Hackman (2002) model for team effectiveness is based on a different framework:

a) A supportive organisational environment is fundamental to ensure the effectiveness of a team. This can be achieved with the team taking a clear vision and direction in order to reach its goals. Within the team there should be clearly assigned lines of authority, otherwise it will be difficult for the team and its members to make decisions as it would cause instability and ultimately a collapse in team functioning.

b) A clear and compelling direction for the team to work towards. A team needs to have a clear vision with set goals. Without these, it becomes almost impossible for the team members to envision where the team is going. The goals become a reference point that keeps the team focused on what needs to be accomplished.

c) An enabling team structure that facilitates teamwork. A team should be structured in such a way that the team's task is clear. The composition of team members is such that there is complementarity for collective support. This support is based on the norms of conduct among and within team members.

d) A supportive organisational climate in which the team operates with coaching support. Thus, a team should receive adequate resources for accomplishing the required tasks.

e) Any team needs someone who is more knowledgeable within their context of interest. These experienced individuals can provide coaching and mentoring for team members to improve their coordination and collaboration activities for obtaining a winning team.

In this context, teams that are effective, will outperform and exceed what the customer expects. It will lead to individual member growth as well as team growth.

(f) Understanding team dysfunction model

Lencioni (2006) developed an interesting model of team effectiveness. It is based on a premise of potential dysfunctionality of all teams. Its approach is to improve areas that are the cause of this dysfunctionality. This model uses a pyramid to depict the hierarchical progression of team development. Just like Rubin, Plovnick, and Fry (1977), Lencioni (2006) used a similar approach to Maslow's Hierarchy of Needs Theory (1954), with five dysfunctional levels that need to be dealt with for the team to be effective. The graphical representation of the Lencioni model is illustrated in Figure 2.6:

FIGURE 2.6: Understanding Team Dysfunction Model (Adapted from Lencioni Model)

Dysfunction 1: Absence of Trust. The absence of trust occurs when team members do not want to put themselves in a vulnerable position. It is reflected by a lack of desire to admit mistakes and weaknesses. Often in such situations, the need for help is not recognised. With these characteristics, trust is not possible among team members.

Dysfunction 2: Fear of conflict. The lack of trust compromises the ability to confront and discuss key issues. In such scenarios, team members use veiled discussions rather than articulating issues of concern clearly. This ultimately leads to inferior decisions and poor results of teamwork.

Dysfunction 3: Lack of Commitment. When team members are wary of conflict, they cannot commit to decisions. This fosters prevalence of ambiguity regarding any matter of discussion. Those that are committed to the cause of the team often get irritated and marginalised.

Dysfunction 4: Avoidance of Accountability. If a team does not commit to a clear plan of action, it could influence team members negatively. In such scenarios, even the most focused and driven team members would not perform to the best of their

abilities. As a result, they would be reluctant to interact with their peers if such interactions could be counterproductive to the harmonious relationship of the team.

Dysfunction 5: Inattention to Results. Each person in a team has career developmental objectives. Such objectives influence some people to put their personal egos ahead of the collective objectives of the team. This is often the case when team members are not held accountable. In such cases, not only the team suffers, but also the entire organisation (Lencioni (2006).

2.2.3 Summary of Models of Team Effectiveness

There is a great deal of similarity among all the discussed models. However, there are also nuances of uniqueness in each of them. Primarily in these models are motivation or thrust with which teams attempt to achieve their objectives, team member confidence amongst one another, and united and cohesive teamwork. Some of these models are highlighting the effectiveness of the team based on the individuality of team members and their respective talents. In addition, the team-leaders, together with psycho-inclined context, feature strongly in some models (De Meuse, 2009; Hansen, 2017).

All six models of team effectiveness have common attributes in the way they view team functioning. Research has indicated pointers regarding the causes of team effectiveness, which is most often attributed to team members learning to work together. This is possible if

a) the team members share the same and clear goals.
b) the members have the requisite trust and respect for one another.
c) the team members communicate often and openly with one another.
d) the team members have the necessary talent for creating and implementing ideas.
e) the team leader is suitable and 'fits' the needs of the team.
f) the team support and resources can be provided by the organisation.

Teams are a great resource that drives the functioning of organisations. The effectiveness may not be instantaneous but an evolution to a mature team. The effectiveness of the teams also requires appropriate leadership. (De Meuse, 2009).

2.3   THE VARIABLE OF AUTHENTIC LEADERSHIP: HISTORY AND NOTION

Modern trends require leaders to be adaptable to current scenarios. This adaptation requires vision, ability to change, willingness to delegate authority and responsibility. All these empower employees and create a psychological contract. The modern leader is also described by ethical behaviour and morality. In the changing and authenticity era, leaders should have an influence on their followers. This will lead to internal motivation that will be to the advantage of the organisation (Bass, 1996; Pendleton & Furnham, 2016; Van Seters & Field, 1990). A plethora of literature confirms that leadership is the bedrock of many successful and sustainable global institutions in both the private and public sectors (Hsieh & Wang, 2015). All these indicate that future research on leadership needs to take a new direction.

In the corporate environment, organisational leadership is invaluable. Based on the perceived quality of management, investors have a standard according to which they can make decisions regarding their investment. Those decisions may be advantageous to the investors themselves. The type of problems the corporate environment has today, requires leadership that has integrity and is committed to building sustainable organisations. These leaders should have a sense of purpose that should also be in line with the ethical values of the organisation (George, 2003; Katzenbach & Smith, 2015).

It is generally recognised that the concept of authenticity has its roots in ancient Greek philosophy. The source of authentic leadership is positive psychology. This relates to aspects of happiness, optimism, subjective well-being, and personal growth (Gardner, 2017; Walumba et al, 2008). These aspects can be achieved if an individual possesses self-awareness and truthfulness (May, Chan, Hodges & Avolio, 2003). Authenticity is attributed to one's personal experiences (Cameron, Dutton, & Quinn, 2003; Seligman, 2002; Snyder & Lopez, 2002). These experiences can range from thoughts to emotions, from needs to wants, and from preferences to beliefs. Therefore, genuineness requires a leader's personal experiences (emotions, values, thoughts and beliefs) to be consistent. It also requires the leader to act in accordance with one's true self by expressing what one really thinks, believes and behaves (Fortin, Baron & Renucci, 2018; Harter, 2002).

Therefore, a genuine leader must have self-awareness since each individual has strengths and weaknesses. The self-acceptance thereof will assist the leader to mitigate his/her shortcomings and to improve on relationships with followers. Authentic leadership is not only vital regarding the characteristics of the leader, but also extends and incorporates the transparent relationships with followers and colleagues (Braun & Nieberle, 2017; Gardner et al., 2005).

Research studies on leadership theory reveals that leadership is moving away from a top-down approach. Modern leadership models, therefore, are inclusive in placing the needs of followers at the centre of the relationship (Leroy, Anseel, Gardner, & Seis, 2015). In addition, leadership behaviours are hypothesised to influence organisational outcomes such as organisational effectiveness. Authentic leadership is considered to exert an influence on individual and organisational performance, with psychological empowerment, wherein people find meaning in what they do at work (Alilyyani, Wong & Cummings, 2018). In healthcare, the study and application of authentic leadership is still a new phenomenon. However, there are observable positive effects, which could be applied to improve the general quality of healthcare services. The study by Malila et al. (2018) shows that the authentic leader behaviour has effects on patient care quality, because the leader nurses are demonstrating authenticity in doing their work (Malila, Lunkka & Suhonen, 2018).

2.3.1 Definitions of Authentic Leadership

A number of authentic leadership definitions have been advanced over the years. This can be traced back to the 1960s when theories on this subject assumed the legitimacy of organisations as fostered by their leaders.

Authentic leadership was first defined by Hoy and Henderson (1983), whose study encompasses three components, as reflected in Gardner, Cogliser, Davis and Dickens (2011):

a. the acceptance of personal and organisational responsibility for actions, outcomes and mistakes;
b. the non-manipulation of followers;
c. the salience of the self over the role requirements.

Genuine leadership has been practised for millennia (Harter, 2002). However, in terms of research, authentic leadership has only recently received attention (Clapp-Smith, Volgesang & Avey, 2009). The main definition of authentic leadership that has received significant attention in the literature is indicated in Avolio, Gardner, Walumbwa, Luthans and May (2004)**.** Authentic leadership has four components: balanced processing, internalised moral perspective, relational transparency and self-awareness (Alilyyani, Wong & Cummings, 2018; Banks, McCauley, Gardner & Guler, 2016; Leroy, Anseel, Gardner & Sels, 2015; Walumbwa, Avolio, Gardner, Wernsing & Peterson 2008). Authentic leaders understand who they are and demonstrate their true self; they lead with integrity; they are true to their self; they are genuine to their followers and support consistency between their internalised value system and their actions for mutual benefit. They lead their followers and organisations with clarity and enthusiasm towards the common vision and purpose (Hsieh & Wang, 2015).

According to Luthans and Avolio (2003) authentic leadership occurs when a leader's behaviour draws on an individual's psychological strength and a conducive ethical environment to promote self-awareness, a moral orientation, a balanced processing of information, and transparent communication that fosters genuine leader-follower relations to achieve common goals (Hsieh & Wang, 2015; Luthans & Avolio, 2003).

Balanced processing is another important component to consider and it refers to the objectivity of the leader in analysing all relevant information to make informed decisions. This balancing involves various components from analysing information to an internalised moral perspective. It should be borne in mind that the information the leaders receive may be contradictory to that which they already have. Most importantly though, it may be opposed to the leader's viewpoint. 'How' a leader handles information, is a very important aspect of leadership. Often this information processing is strongly influenced by the moral standards and the values of the leader (Liu, Fuller, Hester, Bennett & Dickerson, 2018; Northouse, 2018).

Relational transparency means transparency about the leader's values, ethics and behaviour (contrary to a distorted and false self) portrayed to others. Therefore, self-awareness signifies profound attainment of one's gifts and shortcomings (Gardner, Avolio, Luthans, May & Walumbwa, 2005; Hargrove, 2017; Walumbwa, Avolio, Gardner, Wernsing & Peterson, 2008). This can be achieved by self-evaluation, which could be acquired from feedback from his colleagues (equals) and his subordinates.

Thus, from the literature it is clear that authentic leaders are guided by sound ethical convictions and that they act according to their intrinsic values. These fundamental characteristics of leadership should exist even when a leader is under pressure and – displaying their values under normal working conditions, as well as in turbulent times – being consistent in their action and as well as fairness towards their followers. Most importantly, leaders should be able to identify their strengths and weaknesses through introspection. They should be clearly aware of the impact of their actions and responses to those they lead (Avolio, Walumbwa & Weber, 2009). They need to display an authentic style of leadership without fear or favouritism, treating and responding fairly towards their followers (Hewlin, Dumas & Burnett, 2017; Yammarino, Dione, Schriesheim & Dansereau, 2008).

According to Bhindi and Duignan (1997), authentic leadership comprises of four aspects: authenticity, intentionality, spirituality and sensibility. Authenticity is about the 'self' – the meaningful way a leader relates within the organisational structures and processes. It is the way the leader supports organisational values. Intentionality means a leader does not lead by circumstances or accident, but he/she must have the intention to take the right direction for the leadership. The leader guides the followers towards a particular vision for well-articulated reasons. Spirituality refers to the emotional framework of a person. The leader needs to understand the attitudes of the followers – what makes them happy, what excites them and what drives their motivation. This will ensure happy and dedicated followers. Sensibility refers to the way the leader is being considerate towards the feelings of the followers, and how he/she incorporates their aspirations into the personal progression of an individual. This is especially necessary, considering that most modern organisations work in multicultural settings in a global context.

George (2003) recognises talent as crucial for authentic leaders, although they acknowledge areas of shortcomings through self-awareness, and they strive to overcome them. Authentic leaders lead with meaningfulness, purpose and moral standards. This approach to leadership ensures a long-lasting and strong relationship with people. Authentic leaders have a strong 'self' in terms of discipline and consistency. They stand for what is just and true. They constantly improve their leadership skills. Authentic leadership results in leaders displaying different behaviours (Walumba, Avolio, Gardner, Wernsing, & Peterson, 2008).

Shamir and Eilam (2005, p.36) apply a dictionary explanation for the word authentic to identify four crucial features. The first is that authentic leaders do not fake their leadership; instead, they lead as a demonstration of their 'true' self. The second is that they lead according to their convictions. These convictions are mostly based on their internal values. Thirdly, they do not try to mimic other leaders – they are original (p. 397). There is congruence between what they do and what they say, because they take actions based on their convictions. This is classical authentic ethical behaviour where a leader's values and moral intentions are transparent (Zhu, May, & Avolio, 2004). Without authenticity, leaders are not credible to motivate followers (Morrison, 2001). This is because followers want to be treated authentically as well as fairly and with respect (Lucas, 2000; Sekoere, 2015).

True leaders are transparent and truthful to themselves and to their moral attitudes. This approach attracts the employees to trust and to be committed to authentic leaders, because they can rely on such leaders (Maxwell, 2018; May, Chan, Hodges & Avolio, 2003). This, in turn, will motivate the employees to experience psychological safety (Cottrill, Denise Lopez, & Hoffman, 2014; Kahn, 1990; May et al., 2004).

2.4   THE VARIABLE OF PSYCHOLOGICAL EMPOWERMENT

Over fourty years ago, Kanter (1977) introduced the concept of employee empowerment, which has a major impact on management practice. Studies have shown that more than 70% of organisations implement empowerment of the workforce (Gee, 2018; Lawler, Mohrman, & Benson, 2001). Although there is this interest, it becomes important to have a better understanding of the nature of empowerment. There are also multiple factors that lead to employees feeling empowered. Organisational leaders might think that they have empowered the employees, but if the employees do not feel empowered, the expected positive results would not materialise (Seibert, Wang & Courtright, 2011; Yu, Vaagaasar, Müller, Wang & Zhu, 2018).

2.4.1 Definition of psychological empowerment

Psychological empowerment is enablement on a personal level (Zimmerman, 1995). This is a combination of the ability of an individual to be creative and to be in control of what is happening. It further enables the individual to be proactive. In a work environment, psychological empowerment will incorporate methods of improving the individual's skills that would yield to observable change (Park & Hassan, 2018).

Spreitzer refers to psychological empowerment as intrinsic feelings of motivation and experience of control regarding work and an active attitude towards one's job. These are manifested in four cognitions: meaning, self-determination/choice, competence, and impact.

Meaning encapsulates a state of congruency between the job requirements as well as one's beliefs and one's value profile (Hackman & Oldham, 1980; Muduli & Pandya, 2018; Spreitzer, 1995; Spreitzer, 2008).

Satisfaction is vital to the work environment. In modern times, people no longer look for money, security and prestige only. For employees, fulfilment and shared responsibility are now vital. Enablement and a sense of achievement are some of the key motivating factors for employees. These new trends should be used to build organisations and they need to feature greatly in the organisational strategy of development. Therefore, it rests on the shoulders of leaders and managers to ensure that their employees find meaning in what they do at work. Using an inclusive approach when managers allocate roles and responsibilities can improve meaningful work and job satisfaction (Conger & Kanungo, 1988; Gee, 2018; Spreitzer, 2008).

Self-determination refers to choices and control of behaviour. Choice is the experience of autonomy in initiating and controlling work and it reflects the degree of self-determination in work behaviours and processes. For an individual to have intrinsic motivation, he/she should have a choice of what to do with issues that lead to learning. Furthermore, they should have a choice regarding interests and resilience in the face of adversity (Wang & Lee, 2009). When a person has a choice, he/she has a responsibility for his/her actions. When that happens, a person's behaviour is perceived as self-determined. Therefore, they can in no way blame other people, because whatever happens in their lives is determined by their own actions (Becker & Yukl, 2006). In order for employees to be psychologically empowered, it is necessary

that their leaders and managers convey to them a feeling of responsibility and accountability (Northouse, 2018).

The outcomes of what employees do could be either positive or negative. This knowledge should be entrenched in the psychic of employees. Once this is done, they will make wise decisions. Decision-making and making choices is another powerful tool of psychological empowerment (Somsriruen, Chavez & Tayko, 2018).

Competence refers to a perceived capability to succeed in performing one's work. The perceived knowledge, skills, and ability will be exposed through employees' experiences of competence in their work activities.

An authentic leader should have an *impact* on his/her followers. This will affect tactical, managerial, or operational activities in a work environment. Once these are properly aligned, they will have positive results in the work team (Abramson, Seligman, & Teasdale, 1978; Ashforth, 1989; Bandura, 1989; Deci, Connell & Ryan, 1989; Lawler, 1973; Spreitzer, 1995; Thomas & Velthouse, 1990). Once there are more employees that are content in their work and by their activities, the more contagious such a feeling will be throughout the whole organisation. This will self-motivate the entire organisation and it will improve results (Kim, Beehr & Prewett, 2018). If a leader approaches his/her leadership skills in this way, he/she will have an impact on the employees and also on the direction the organisation is taking regarding activities and policy framework (Becker & Yukl, 2006; Maxwell, 2018).

2.4.2 Antecedents and consequences of Psychological Empowerment

There are two major perspectives on the empowerment phenomenon that emerge in the literature (Spreitzer, 2008). The socio-structural approaches and the socio-political approach. The socio-structural approach refers to structures, guidelines, and activities intending to decentralise decision-making. The decentralisation enables followers' voice to be recognised and heard. Conger and Kanungo (1988) were the first scholars to introduce this psychological perspective on empowerment. Thomas and Velthouse (1990) expanded upon the work done by Conger and Kanungo (1988), presenting a more complete theoretical framework for psychological empowerment.

Kanter (1977; 1983) examined social-political support as an important contextual empowerment approach. Various researchers following this approach (Kark, Shamir, & Chen, 2003; Kirkman & Rosen, 1999; Kraimer, Seibert, & Liden, 1999; Liden, Wayne, & Sparrowe, 2000; Walumbwa, Muchiri, Misati & Meiliani, 2018), examined leadership and work design characteristics as additional context. Such a context enables employees' psychological empowerment. This is the same for team-level empowerment (Chen, Kirkman, Kanfer, Allen, & Rosen, 2007; Kirkman & Rosen, 1999) (See Figure 2.7).
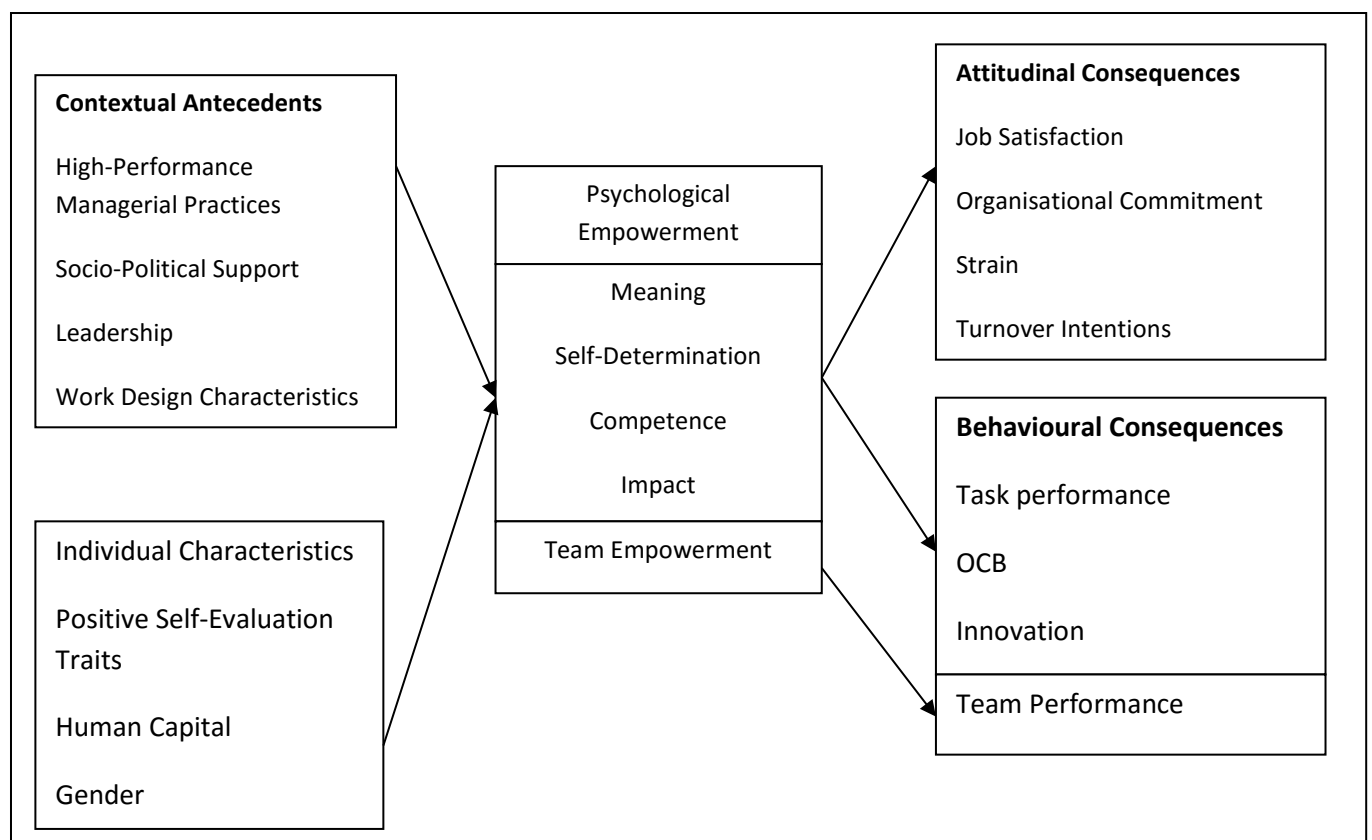
Figure 2.7: Integrated Individual and team empowerment framework (Seibert, Wang & Courtright, 2011)

Figure 2.7 shows major determinants of psychological empowerment on both team and individual level. As shown, a series of attitudinal and behavioural results have been linked with psychological empowerment (Amundsen & Martinsen, 2015; Seibert, Wang & Courtright, 2011; Spreitzer, 1995, 2008). Hackman and Oldham (1980), believe that employees who are empowered psychologically, are considered to experience higher levels of intrinsic motivation and a sense of growth in their work.

What this theory proposes is that psychological empowerment will not only be linked to job attitudes but also to positive outcomes of job performance. It is based on the premise that the more psychologically empowered the employees; the more successful they will be in their work (Spreitzer, 1995, 2008). The model also relates team empowerment to team performance as indicated in Figure 2.7. This framework thus integrates over thirty years of theory and empirical research on empowerment.

Spreitzer (1996) and other researchers (Liao, Toya, Lepak & Hong, 2009; Patterson, West & Wall, 2004) view high-performance managerial practices to be likely to enhance higher levels of psychological empowerment. This is because they affect all four psychological empowerment cognitions. The employees will perceive their work as personally meaningful, since they understand how their job fits into the holistic goals and strategies of the organisation. It will also enable employees to better decide for themselves what to do, therefore increasing experiences of self-determination (Muduli & Pandya, 2018). Furthermore, the enhanced knowledge, skills, and ability resulting from high-performance managerial practices will be revealed in employees' experiences of competence in their work activities (Muduli & Pandya, 2018). The greater level of input and control linked with high-performance managerial practices, is translated to a greater impact that workers have on the organisation.

The socio-political support is a type of approval, endorsement and legitimacy received from various areas within the political networks of an organisation. It is the extent to which material, social, and psychological resources are provided to employees (Spreitzer, 1996). An individual that belongs to a support network has a greater sense of interdependence with important organisational constituents than those who do not belong to such a network. This, in turn, will enhance the individual's experience of personal power (Cavalieri & Almeida, 2018; Kirkman & Rosen, 1999). Improved personal power would likely lead to more competence and impact on the individual level (Northouse, 2018; Spreitzer, 2008; Thomas & Velthouse, 1990).

Social support provides employees with feelings of self-determination. Valued members of the organisation is appropriate to determine their own work objectives and strategies. The greater the availability of the material resources, power, and influence needed to achieve tasks and work-related objectives, the more it will enhance employees' feelings of task competence and impact (Seibert et al., 2011). This

theoretical model is one of the foundations to motivate employees psychologically to experience fulfilment and meaning in their work.

Spreitzer (2008) concluded that a supportive, transparent relationship with one's leader is an important context of psychological empowerment. If leaders provide sufficient information about strategic or functional goals, it will enhance the employee's meaningfulness, since it allows employees to see the value of their work. Leaders may also permit their subordinates greater participation and autonomy that will increase their feelings of self-determination and impact. This implies that leaders can act as role models to employees and followers by providing feedback and coaching opportunities (Bandura, 1997; Stronge, 2018).

Leadership should focus on key factors that promote self-efficacy (Bandura, 1997; Northouse, 2018). This will be realised if one has an impact on one's work team. It depends on whether one has the opportunity to make choices regarding methods to master important tasks in an organisation. An important objective of empowerment should be to release the positive potential within employees (Block, 1987; Battilana, Sengul, Pache & Model, 2015; Randolph, 1995). This will be possible if this is in agreement with the motivation to be creative (Ambile, 1988; Kanter, 1983; Spreitzer, 1995; Tanner, 2015). Psychological empowerment deals a lot with self-determination. Competency and impact enhance performance. Therefore, psychological empowerment will be positively linked to job performance (Amundsen & Martinsen, 2015; Seibert et al., 2011).

2.5   THE VARIABLE OF WORK ENGAGEMENT

For a long time, work engagement has been a focus area for executives, since there is increasing confirmation that work engagement relates to individual, group, and organisational effectiveness in the fields of employee turnover, customer service, loyalty and productivity. Engagement comprised of rational and emotional involvement. Rationally it is mainly about receiving sufficient compensation and development opportunities to advance meaningfulness for employees in the work environment. Emotional involvement is the ever-elusive dedication to one's work and loyalty to one's leader and organisation (Ketter, 2008; Kompaso & Sridevi, 2010; Smythe, 2017). Research has proven that the emotional element of engagement is

actually four times more compelling than the rational facet when driving important business initiatives. Essentially this is employees who want to remain with the organisation and sustain employee performance. Engagement is about creating a condition where employees do not feel manipulated and exploited (Nor, Ismail, & Puteh, 2017).

According to Schaufeli and Bakker, work engagement is an encouraging, rewarding, work-related state of mind that is characterised by vigour, devotion, and absorption. Vigour refers to energetic and mental flexibility in work activities. It is revealed by high energy and determination in times of difficulty. Devoted employees have a sense of importance, passion, motivation, pride and challenge. Absorption refers to being totally immersed in work and not to be aware of other surrounding circumstances (Bakker & Schaufeli, 2004; 2008). It has been noticed that high-quality work output and performance results are associated with an engaged workforce (Hsieh & Wang, 2015).

Work engagement is one of the buzzwords of the day. With work engagement, employees will become work motivated, loyal and highly productive. Employees who are disengaged are more likely to miss targets, be careless, make mistakes, and cause accidents, because they are not committed and alert in their work since they are physically present but emotionally absent. For example, it is known that management and leadership in the healthcare industry are challenging and stressful. Yet, there are employees who flourish on these challenges and complexities. There are also those who disappear gradually and absolutely give up too soon. Such complex businesses cannot grow stronger, unless companies recruit and uphold a group of engaged and committed leaders who are optimistic and can create a vision of excellence (Bekker & Demerouti, 2008; Harter, Scmidt & Hayes, 2002; Hsieh & Wang 2015; Kerfoot, 2007; Menguc, Auh, Fisher & Haddad, 2013).

It is difficult for employees to be engaged unless the leader is engaged. Employees tend to assume the characteristics and behaviour of their leaders. An ambience of friendliness, commitment to the work, and satisfaction in the team/organisation are usually a manifestation of the behaviour of the manager. Leaders create organisational energy by empowering their employees, but leaders can also demoralise and immobilise employees. In reality, the work of leadership can become a difficult task, which will lead to disengagement. When leaders do not develop interesting and

meaningful cultures, the routine of work may become enormous (Kerfoot, 2007; Reina, Rogers, Peterson, Byron & Hom, 2018).

In order to attract, acquire and retain human capital, organisations across the globe use a number of competitive interventions. This diversity of strategies enables organisations to maintain high levels of engagement among their employees. In developing economies such as Asia, employees tend to be strongly influenced by the availability of sufficient opportunities for developing and learning, when deciding on career and or job-related offers. On a global scale, employees are much more concerned about the prospects for growth and development. Academic literature confirms that the aspirations and learning potential of employees present an opportunity to acquire skills in the modern world of work. This has been found to motivate employees to achieve higher levels of engagement in their work, which leads to improved levels of productivity (Gebauer, 2006; Turner, 2018).

Perrin (2005) conceptualises work engagement as employees' ability and initiative to play a meaningful role in accomplishing assigned tasks and responsibilities; exceeding the expectations by going the extra mile in delivering the results with minimum supervision. The effects of highly- engaged workers are observed in sales volume growth and it is reported that such organisations are performing above the average compared to their counterparts. The production costs of these organisations are normally below the average of the industry. On the other hand, disengaged workers tend to remain in organisations where sales growth is under par and where production costs surpass the industry norm (Bush, 2018).

Kahn (1990, 1992) considers work engagement as a relatively stable psychological state affected by employee behaviour at work. Engaged employees are committed to achieving set goals and objectives and they adopt high levels of efforts into meaningful work roles. Engagement may not be viewed as either commitment or involvement as these are different concepts (Bush, 2018). Commitment primarily refers to the intended behavioural aspect whereas work engagement means action-oriented behaviour. Involvement can be viewed as an interaction between the employee and the organisation, where an employee contributes to the organisation by meaningful and impactful work in exchange for compensation and benefits. The rewards provided by the organisation include cognitive and behavioural elements, but they fall short of the affective aspect of engagement (Gould, 1979; Kim & Park, 2017).

Work engagement may simply mean love and passion for one's job (Truss, Soane, Edwards, Wisdom, Croll & Burnett, 2006). Engaged employees demonstrate a good and constructive sentiment, passion for their work and a willingness to go the extra mile to accomplish desired outcomes (Herzberg, 2017). On the one hand, the view of Stairs, Galpin, Page and Linley (2006) is that such a confined opinion distorts other individual benefits of increased levels of work engagement. Hence, engagement is viewed as the degree to which employees prosper at work, are committed to their employer, and are motivated to perform for their own and for the advantage of their organisation. An experience of flourishing should not be restrained to hours after work, but it should also be well established in the organisational culture and values, which leaders of the organisation are committed to implement.

It can be deduced that work engagement is considered meaningful when employees are able to translate their work input into the organisation's performance results. The results can be observed in financial and non-financial indicators. Thus, employees with a sense of work engagement are willing to go the extra mile in achieving the set goals, and this induces a feeling of self-fulfilment. On the other hand, when employees feel disengaged from the work goal, there is no commitment to attain organisational and work unit objectives (Gebauer, 2006).

Employees' relationship with their line manager is usually one of the most important aspects of the working context. The study conducted by Galpin et al. (2008) revealed that decreased levels of engagement were mostly as a result of employees' poor relationships with their managers. Manager-employee relationships can really aid employees' drive for meaning in their work and to sustain sound team spirit in pursuit of common work goals (Whittington, Meskelis, Asare & Beldona, 2017).

Work is viewed as an important aspect of life and is driven by purpose and a sense of self-actualisation and fulfilment. The review of recent research suggests organisations need to focus on intrinsic motivation for driving work engagement, rather than just external drivers. Twenty-first century organisations need to investigate and adopt progressive interventions that are globally competitive in order to advance the work engagement phenomenon. For example, recruitment strategies and processes may be utilised in order to assess potential and capacity of an employee to engage in work, by detecting early warning signs when they enter the organisation (Galpin et al., 2008; Mitchell, 2017, Wong, 2017).

2.6 RELATIONSHIP BETWEEN WORK ENGAGEMENT AND TEAM EFFECTIVENESS

Organisational effectiveness is related to a positive psychological culture. This culture is dependent on creating a work context designed to increase employees' work motivation and job attitudes. This knowledge is important in the context of challenges of human capital management that business organisations are facing currently. Organisations have employee retention problems since employees have many job options available. Employee retention can be achieved by organisations that allow employees to be proactive and creative (Kataria, Garg & Rastogi, 2013).

The study by Bailey et al. (2017) reveal that organisational performance is associated with high levels of employee work engagement. When employees are highly engaged in their work they are cognitively, emotionally and physically engaged in their personal work and foster an active positive state of mind – vigour, dedication and absorption that is reinforced in their work. It can thus be deduced that positive effects in work activities may also be experienced collectively on a team level. The results further reveal that the work engagement outcomes can also be reflected in team performance and this can be applied in the healthcare sector (Bailey, Madden, Alfes & Fletcher, 2017; Lawler, Mohrman, & Ledford, 1995; Manz & Sims, 1993; Wellins, Wilson, Katz, Laughlin, Day & Price, 1990).

Research findings conducted by Costa et al. (2017) reveal that the more the work teams are engaged, the higher the level of work output. The teams with high levels of engagement were also found to be vibrant, passionate and energetic in their work, thus empowering such teams to resolve conflicts better and to remain motivated in their work (Costa, Passos, Bakker, Romana, & Ferrão, 2017).

Research on work engagement indicates that engaged employees show higher productivity in what they do and they feel much healthier and more satisfied (Schaufeli & Bakker, 2004). The study conducted by Van Bogaert, Wouters, Willems, Mondelaers and Clarke (2013) on work engagement and nurse workforce stability and quality of care at team level analysis in psychiatric hospitals, also supports this relationship. Another study by Spence, Laschinger, Wilk, Cho, & Greco (2009) confirms that work engagement has a positive effect on team effectiveness as well as on organisational effectiveness. The results in this study hold that the strength derived from a healthier

relationship between the supervisor and the employee, yield better-engaged employees who report better success and effectiveness in their work. Both experienced and graduate nurses reported higher levels of effectiveness in their work when experiencing higher levels of engagement. This is much needed in the nursing profession in order to equip employees better in this sector to deal with heavy work pressure and the stressful work environment, as a result of the burden of patient illnesses on a daily basis.

Vigour, dedication and absorption are nurse attitudes that create positive team level experiences. These can be linked to the reasons why an employee is satisfied with the job. Workers that are in a nursing environment are generally persuaded to stay in that nursing context. This, in turn, may provide favourable ratings of quality of care in the work team. All this is based on the premise that the more engaged employees are, the better the work teams perform. Thus, it can be postulated that:

Hypotheses 1: Work engagement has a positive influence on team effectiveness.

2.7   RELATIONSHIP BETWEEN PSYCHOLOGICAL EMPOWERMENT AND TEAM EFFECTIVENESS

Organisations need to ensure that employees thrive in the workplace. This can be achieved by enabling employees to have positive feelings about their work experiences (Wagner & Harter, 2006). This means the psychological connection between workers and their work and organisation is important. It will provide employees with a sense of wellness. This sense of wellness can improvise and help the organisation to flourish which will have a great influence on organisational performance.

There is a theoretical association between psychological empowerment and team effectiveness (Chen, Kirkman, Kanfer, Allen, & Rosen, 2007). Psychologically empowered employees who experience meaningful work, achieve higher levels of team effectiveness. That will enable them to possess a higher degree of discretion in deciding how they carry out their team tasks. This means psychological empowerment is a similar process for individuals as well as for the team. An empowering work environment was also identified as a motivator for work effectiveness among

professional nurses (Chen et al., 2007; Jain, 2017; Kirkman, & Rosen, 1997; Spence Laschinger, Wilk, Cho, & Greco 2009).

Frequently cited standards of team effectiveness involve quality, safety, low costs, job satisfaction, organisational commitment, and productivity (Kirkman & Rosen, 1999). A distinction is made between productivity and attitudinal consequences, linked with psychological empowerment. Empowerment has been linked with performance on both the individual and team levels of analysis (Spreitzer, 1995; Thomas, & Tymon, 1994). Gorn and Kanungo (1980) found that when workers participate in decision-making, they become productive. Conger and Kanungo (1988) supported this result. Guzzo and colleagues (1991) found the same principle applied on a team level. Therefore, the more the team members experience team empowerment, the more effective the team becomes.

There is a constant association between the use of work teams and high levels of quality and customer service. Psychologically empowered teams take responsibility for handling customer complaints directly (Masoud & Yazdi, 2017). Guzzo and his associates also found that team effectiveness provides higher levels of internal and external customer satisfaction (Guzzo et al., 1991; Shea & Guzzo, 1987). Therefore, it can be postulated that:

Hypotheses 2: Psychological empowerment has a positive influence on team effectiveness.

2.8   RELATIONSHIP BETWEEN AUTHENTIC LEADERSHIP AND TEAM EFFECTIVENESS

Authentic leadership has been a subject of growing interest in the literature since the early 2000s (Walumba, Avolio, Gardner, Wernsing, & Peterson, 2008). One of the reasons for this interest is the status that authentic leadership has in the general body of knowledge. Looking at the amount of research demonstrating the positive influence that authentic leadership has on team effectiveness (George, Sims, McLean, & Meyer, 2007; Walumba, Avolio, Gardner, Wernsing, & Peterson, 2008), it is clear that authentic leadership is a powerful concept. The literature also points to the leadership style of supervisors as another defining factor for team effectiveness. Many factors

define leadership styles of supervisors, one of which is the organisational culture. Multiple and long-term trends within an organisation end up creating norms which ultimately become the culture of the organisation. Even though the uniqueness of each individual person's beliefs may have an effect on the leadership style, organisational culture may be caused by values of the organisation and interpersonal competencies within that organisation. All these create an overall style of leadership, which often is adopted by the organisation (Polychroniou, 2009). A study by Meng, Cheng, and Guo (2016) reveal that authentic leadership behaviour has a role to play in the positive team atmosphere. This positive atmosphere is linked to team effectiveness. The atmosphere of knowledge sharing and trust is instrumental in employee creativity. When leader behaviour is congruent with their deeply held moral values, the employees tend to trust the actions of their leader and are reported to be motivated and focused on their work tasks (Meng, Cheng, & Guo, 2016).

Whatever the organisational culture is, leadership styles within the organisation should facilitate optimum and effective functioning of the entire organisation. Leadership in a team is a fundamental process of enhancing team effectiveness (Morgeson, DeRue, & Karam, 2010). It is vital in team satisfaction, which is another critical component of team success.

Although the discussion thus far reflects on the role of team leadership on team effectiveness, an interesting perspective reflects on team motivation. That means a team's success has a positive effect of elevating the team's enthusiasm, which augments the positivity in the team. When team members are committed to the leader, they tend to adopt the goals and procedures directed by that leader. Ultimately, the team as well as the organisation benefit (Tuuli, Rowlinson, Fellows, & Liu, 2012).

All points that were discussed, reflect the positive role of authentic leadership, which means that the absence of authentic leadership in the team may have a negative effect on the team. The worse scenario would be when team leadership neutralises the positive relationships within the team. Once that happens, the goals will probably not realise. Such a team will not have goal commitment, which later negatively reflects as an indifference to the task at hand.

A team that does not have confidence in itself will lack motivation and probably lack capabilities of reaching any set goals (Locke et al., 1988). Clapp-Smith et al. (2009)

who discuss the relationship between authentic leadership and employee performance further confirm this. Various research findings reveal that authentic leadership behaviour has been linked to team performance (Lyubovnikova, Legood, Turner, & Mamakouka, 2017). Hence, it can be postulated that:

Hypotheses 3: Authentic leadership has a positive influence on team effectiveness.

2.9 RELATIONSHIP BETWEEN PSYCHOLOGICAL EMPOWERMENT AND WORK ENGAGEMENT

Authentic leadership has been discussed in the context of team performance. Team performance is also influenced by psychological empowerment and work engagement of individuals within that team. Individuals that experience work engagement will be better involved in their work and are more engaged in organisational activities. Work engagement also has positive feedback loops resulting in greater job satisfaction and increased organisational effectiveness (Laschinger, Wilk, Cho, & Greco, 2009).

Spence, Laschinger, Wilk, Cho, and Greco (2009) reported that the more professional nurses experienced higher levels of empowerment, the higher the levels of work engagement they demonstrated.

A study by De Klerk and Stander (2014) revealed a positive correlation between psychological empowerment and work engagement. The study revealed that a psychologically empowered workforce tend to demonstrate high levels of competence in the job and they experience meaning in what they do. The results showed that feelings of psychological empowerment lead to engagement and engaged employees are seen to be physically, cognitively and emotionally connected with their organisations. Such levels of engagement predict better individual and team performance, thus leading to better organisational performance. Consequently, it can be postulated that:

Hypotheses 4: Psychological empowerment has a positive influence on the work engagement of employees.

2.10 RELATIONSHIP BETWEEN AUTHENTIC LEADERSHIP AND WORK ENGAGEMENT

Luthans and Avolio (2003) define authentic leadership as a process based on positive psychological attributes and a highly developed organisational context leading to self-awareness and self-controlled positive behaviour. Walumba, Avolio, Gardner, Wernsing, and Peterson (2008) adapted Luthans and Avolio's (2003) initial definition of authentic leadership by adding internalized moral perspective, balanced processing of information, and relational transparency by leaders working with subordinates, enhancing positive self-growth.

Gardner, Avolio, Luthans, May, and Walumbwa (2005) view authentic leadership to extend beyond the authenticity of the leader as a person who has a relationship with his/her subordinates. This means the focus of the leader should not only be on his/her qualities, but also on helping the followers to achieve their own authenticity. It is, therefore, important that the relationship between leaders and subordinates be genuine (Gardner et al., 2005; Walumbwa et al., 2010).

Authentic leadership and work engagement are theoretically linked (Gardner et al. 2005) and there is some empirical support for this positive relationship (Gardner, 2017; Walumbwa et al., 2010). Employees, who are fully engaged in their job, often accomplish high-quality behaviour and performance. The positive investment of employees that are engaged in the job outcomes is often attributed to employees trying to reward supervisors or leaders. This can be attributed to loyalty or benefits received. Authentic leaders are likely to treat employees fairly and with respect. This interactional justice facet plays an important role in work engagement (Karam, Gardner, Gullifor, Tribble, & Li, 2017).

All these discussions point to the reality of the role of leadership in employee work engagement. Authentic leaders inspire their followers through value-based leadership. They strive to achieve openness and truthfulness in their relationships with their followers. Such a leadership style accomplishes high levels of engagement among the workers (Hsieh & Wang, 2015).

The study by Wong et al. (2010) report that nurses' level of work engagement was linked to authentic leader behaviour. Giallonardo, Wong, and Iwasiw (2010) supported this finding.

Hsieh and Wang (2015) reported that the employee work engagement is highly influenced by the perceived leader authenticity. The leader's authenticity is espoused by high moral standards, genuineness, transparency and accountability for actions. This authentic behaviour encourages employees to identify with the leader, show willingness to cooperate with the leader and to achieve organisational goals. The study further reveals that when leaders are transparent and true to their self, it is much easier for the employees to trust their vision and they tend to be aligned with their work.

The study conducted by Malila, Lunkka, and Suhonen (2018) analysed the construct of authentic leadership in a healthcare context. The study revealed that the healthcare industry poses, among others, psychological challenges, due to the stressful nature of the sector. In order to uphold the work ethic, professionals and leaders in this industry need to be developed in being authentic and to thrive beyond the challenges. Authentic leadership was found to have positive effects on these nurses, leading to their increased work engagement.

Alilyyani et al. (2018) agree that through authentic leadership, leaders are able to create high-quality relationships with the followers, leading to the engagement of employees in the work teams. The study confirms that the authenticity of the leader improves the engagement of nurses in their work.

Various research findings reveal that authentic leadership has been linked with work engagement in different industries (Lyubovnikova, Legood, Turner, & Mamakouka, 2017). Thus, it can be postulated that:

Hypotheses 5: Authentic leadership has a positive influence on the work engagement of employees.

2.11 RELATIONSHIP BETWEEN AUTHENTIC LEADERSHIP AND PSYCHOLOGICAL EMPOWERMENT

Authentic leadership is a positive psychological construct, which has been well studied in recent years, in order to resolve ethical dilemmas occurring in corporates today (Malila, Lunkka, & Suhonen, 2018). Authentic leadership is premised on awareness of one's cognitive and emotional constructs. It is embedded in knowledge and appreciation of values and moral grounding, which tend to influence one's paradigm and actions. Authentic leaders understand their selves, are viewed as custodians of moral and upright behaviour, and are expected to demonstrate ethical and consistent behaviour, even in adverse circumstances. These authentic leaders influence organisational culture through values, integrity and fairness (Joo & Jo, 2017; Malila, Lunkka & Suhonen, 2018; Zhu, May & Avolio, 2004).

Authentic leaders view and process information available to them holistically from a bird's eye view. In the world of work, authentic leaders are likely to consult widely when considering matters regarding decision-making. This is an open, transparent and participatory process where interested and affected parties are duly consulted. It is an objective process of considering information and facts about a phenomenon. This kind of approach to decision-making strengthens psychological empowerment of employees since they feel much more involved in the decision-making process (Zhu, May & Avolio, 2004). This view is also confirmed by Walumbwa, Wang, Wang, Schaubroek, & Avolio (2010) in a study that linked authentic leadership with psychological processes on follower behaviour.

Leader authenticity also involves transparency about the leader's values and ethics. Relational transparency drives honest and truthful relations when leading. It is also important to take followers into confidence when leading to change. It has a psychological impact on followers to know that their inputs and feelings do matter in an organisation. Employees who are not involved in decision-making processes, may tend to be aloof and disempowered and thus this may have long-term effects in their future leadership success and authenticity. Hence, leaders are always encouraged to lead and act consistently and to be aware that their followers are observing their behaviour and learning. Thus, employees should perceive that they are treated fairly and justly (Ilies et al., 2005; Walumbwa et al., 2010; Zhang, Song, & Liu, 2018; Zhu, May, & Avolio, 2004).

Authentic leaders lead with integrity and there is a consistency between their internalised values and their actions. This means that authentic leader behaviour is guided by established moral standards, and therefore they are able to resist the leadership pressures and winds of change. Authentic leaders practice what they believe in at all times. Therefore, the consistency in their actions triggers followers psychologically to also act authentically. Thus authentic leaders can be viewed as having a positive effect on the psychological empowerment of employees (Garder et al., 2005; Harter, 2002; Marič, Miglič, & Jordan, 2017; Walumbwa et al., 2010; Zhu, May, & Avolio, 2004).

Psychological empowerment is an important variable that deals with internalised motivation and a sense of control over one's work in order to derive meaning. Meaning is very important in achieving one's purpose in life. Everyone believes that they live to have a meaningful life and this is the reason that motivates humankind to be engaged in work in order to fulfil human needs such as self-esteem and self-actualisation. This fact was also confirmed in an empirical study conducted by Joo and Jo (2017), which examined the role of psychological empowerment as a mediator for the effect of authentic leadership on organisational behaviour. Also, in an authentic leadership environment, employees are driven by self-determination, they are better engaged in their work, determined to pursue what is viewed as meaningful work, and they are driven to reach their goals competently (Marič et al., 2017; Spreitzer, 1995; Thomas & Velthouse, 1990; Walumbwa et al., 2010; Xhang, Song & Wang, 2018; Zhu, May & Avolio, 2004).

Research conducted in the past decade reveals that in a leadership environment that is psychologically empowering, employees are afforded an opportunity to use their discretion and take initiative regarding their work (Zhang, Song, & Wang, 2018). These psychologically empowered employees do not only wait for instructions from their leaders and supervisors, but are given time and space to be their true selves in order to accomplish their aspirations, which benefits both the individual and the organisation they work for. The psychologically empowered employees will tend to take responsibility and accountability for their actions – these include their achievements as well as their losses. Employees, who are authentically led, are involved in decision-making and are likely to experience higher levels of psychological empowerment

(George, 2003; Ilies et al., 2005; Joo & Jo, 2017; Marič, Miglič, & Jordan, 2017; Spreitzer, 1995; Walumbwa et al. 2010; Zhang, Song & Wang, 2018).

When considering psychological empowerment, it is of critical importance to look at the impact aspect. Impact refers to the extent to which an employee feels that his or her work contribution will add value in achieving organisation-wide goals. It has been found that autonomy at work fosters psychological empowerment and employees are determined to achieve their work goals utilising their capability in terms of knowledge, skills and experience. The higher the level of input, the greater the chances of high performance. Thus, the impact of psychological empowerment is likely to be observed in the operational environment and on a performance level. The impact is also noticed on realisation of the strategic goals of an organisation, for example, these goals can be the achievement of policy mandates and of improved financial performance (Joo & Jo, 2017; Marič et al., 2017; Spreitzer, 1995; Thomas & Velthouse, 1990; Zhang, Song, & Wang, 2018; Zhu, May, & Avolio, 2004).

Therefore, it can be postulated that:

Hypotheses 6: Authentic leadership has a positive influence on the psychological empowerment of employees.

2.12   THEORETICAL MODEL

A model, integrating the relationships between the variables was developed from the literature study. The present study will attempt to validate the theoretical model by analysing the relationships among the variables selected for the study. The proposed relationships between the four constructs are represented in the model below (See Figure 2.9.).
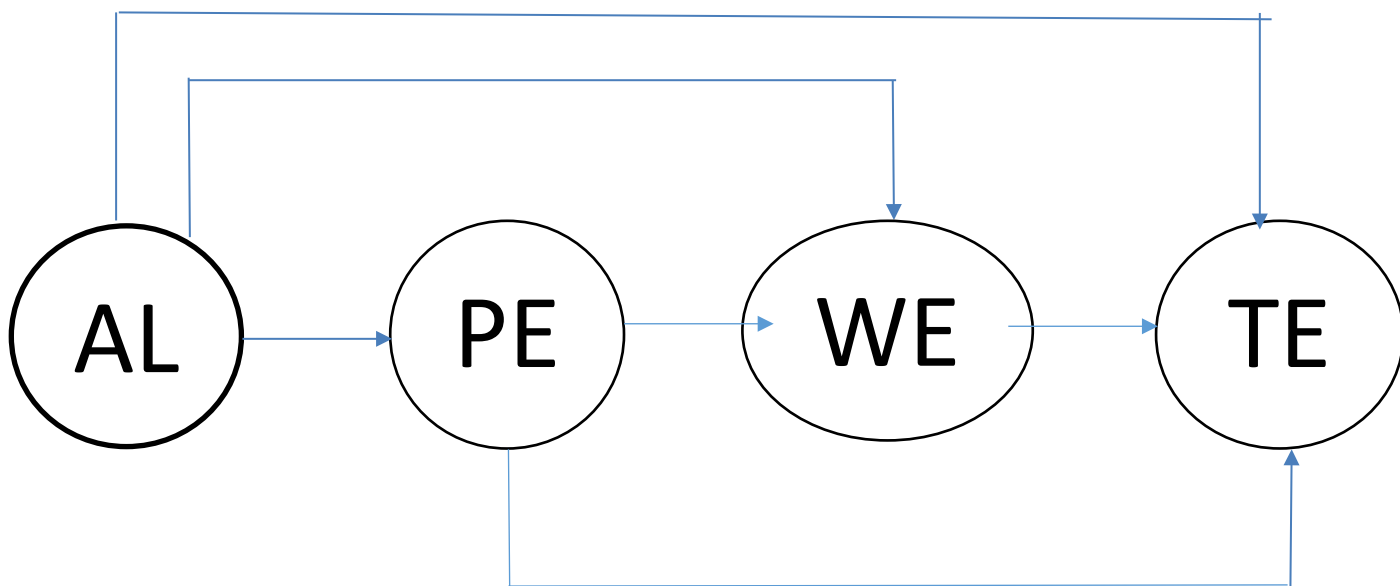
Figure 2.9. The proposed model representing the expected relationships among team effectiveness (TE), psychological empowerment (PE), work engagement (WE) and authentic leadership (AL).

2.13   SUMMARY AND CONCLUSION

In today's global and complex business environment that is now geared towards the 'Fourth Industrial Revolution', authentic leaders are much needed for the future, in order to create effective and sustainable organisations that can compete with international counterparts.

When leaders exhibit such authenticity in leading their organisations, there is a great probability for employees to follow the behaviour and actions of the leaders. This provides a compelling environment for the employees to engage willingly in their work, and thus producing quality work in their work teams, which may enhance organisation-wide effectiveness.

The history, conceptualisation and models of team effectiveness, authentic leadership, psychological empowerment and employee work engagement were discussed in this chapter. The focus was on theoretical and empirical evidence supporting the causal relationships among the selected constructs within the field of positive organisational behaviour.

The relationships among the variables were also analysed with regard to antecedences of team effectiveness. Evidence found will support the development of interventions to develop effective teams in high-performance-oriented organisations and the authenticity-based leadership style. Furthermore, it is proposed that authentic leadership, psychological empowerment and work engagement will lead to team effectiveness, as shown in Figure 2.9.

Chapter 3 will focus on the proposed research methodology to validate and empirically measure the proposed relationships.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

The empirical basis of this research is to determine whether a significant relationship exists among the following psychological constructs: authentic leadership, psychological empowerment, work engagement, and team effectiveness. Research questions were developed to guide an empirical answer to this research problem. When conducting a social inquiry, it is essential to decide on appropriate research design in order to arrive at so much needed answers systematically. The selection of population samples, procedures of collecting data, and different measuring scales are outlined. The chapter will detail the research design, methods of sampling, methodology, and statistical techniques employed to assess the research postulations stated in chapter 2.

This chapter also presents sample demographics. Thus Chapter 3 presents the substantive research hypotheses. The test of an explanatory structural model developed in the previous chapter t determine the model fit, strength and the paths of anticipated hypotheses is reported. Holistically, the methodology used in answering the research question under investigation is outlined.

3.2 RESEARCH DESIGN

Designing a research study seeks to verify and develop probable propositions to describe a phenomenon or construct to explain causal relationships. In quantitative research, relationships among variables are advanced and postured as questions or hypotheses. Objectivity is essential in a research inquiry and therefore through various techniques, subjectivity and bias must always be in check. For example, in studies that are quantitative in nature, it is crucial to ensure validity and reliability (Creswell, 2003). The word methodology comes from the word method, which refers to procedures or ways of doing things in an orderly manner. Various researchers (Babbie, 2015; Mouton, 1996; 2005; Tuckman & Harper, 2012) argue that the methodological dimensions refer to the understanding of how things are done or the means to end employed by academic community in achieving their goal of sound knowledge base.

The research design simplifies the collection of data from large samples. Surveys are using in collecting large numbers of numerical data. In the selection of an appropriate research design it must clearly articulated which statistical techniques will be used to test the empirical evidence. The study blueprint must make provision for the testing of a model's theoretical potential to predict the responding variable. Considering the research proposition discussed in the literature study section, the most appropriate study design is a combination of a survey and a statistical modelling study (Babbie, 1998; De Vellis, 2016; Kerlinger & Lee, 2000; Mouton, 2001; Newman, 1997; Yin, 2013).

The study blueprint must ascertain that accurate data is obtained and can be interpreted to determine if the six research hypotheses set for this study can be confidently accepted or rejected. Mainly, a quantitative research approach was used to test the hypotheses, using multiple measures. This was performed to test both the null and alternate hypothesis to determine which statement fits the data set. The correlative ex post facto design was used in order to determine the correlations between the various variables (Lampard & Pole, 2015; Thomas, Silverman & Nelson, 2015).

According to Babbie and Mouton (2001), this type of study involves the inspection of the independent and dependent variables across respondents to establish the extent to which they vary in the same time period. This approach supports the testing of established structural equations model in order to: (a) test the validity of theories about coherent relationships among two or more observed constructs in a correlational research design and (b) determine the combination of variables that predict a particular variable (Kerlinger, 1992; Lampard & Pole, 2015).

The testing of the hypothesis was performed through correlative ex post factor design with multiple measures. This kind of design was used to establish the relationships that exists between team effectiveness, authentic leadership, psychological empowerment, and work engagement. Possible causal relationships among variables that cannot be controlled by the researcher are identified through ex post facto design. This design incorporates a systematic analysis where independent variables under investigation are not directly controlled by the researcher (Kerlinger & Lee, 2000; Mahembe, 2010; Williams-Brown, 2016; Wolmarans, 2014). The ex post factor design tests the validity of this type of logic statement "if X then Y". Such designs are not open

experimental manipulation. Due to absence of controls in these designs erroneous interpretations may result (Kerlinger & Lee, 2000, Hoy & Adams, 2015; Walliman, 2006). Besides the inability to manipulate the interpretations, another disadvantage of ex post facto designs is the lack of power to randomise. To deal with these problems it is necessary to formulate clear hypotheses (Edmonds & Kennedy, 2016; Kerlinger & Lee, 2000; Sahu, 2013; Walliman, 2011).

From the discussion above, it can be concluded that surveys and statistical modelling are the most appropriate for evaluating the propositions of this study. These designs are briefly outlined below.

3.2.1 Survey design

Generally, surveys use questionnaires or interviews. The subject of these questionnaires or interviews can be anything ranging from attitudes to ideas, demographics to plans. This means these can be either subjective or objective. As long as the data obtained will provide descriptive results and show trends, interviews can be used. The outcomes of such surveys can be used in making inferences or drawing up comparisons (Crowther, Smit & Herbst 1994; McMillan & Schumacher 2001; Nardi, 2015; Pattern, 2016).

3.2.2 Statistical modelling studies

Statistical analysis use mathematics in understanding relationships between variables, such as how one variable relates to another. These analyses can be exploratory or confirmatory. Under an exploration scenario, a researcher creates various models and selects the one that describes the data best. However, a confirmation assessment looks for the best fit model (Ader, 2008; Field, 2005; Kleinbaum, Kupper, Nizam & Rosenberg, 2013).

Surveys are used to quantitatively validate the theoretical models, and this can be expressed as multiple regression equations or as structural equation modeling (Cohen, Cohen, West & Aiken, 2013; Hair, Hult, Ringle & Sarstedt, 2016; Kerlinger & Lee, 2000; Kleinbaum et al., 2013; Mouton, 2001).

3.3. SAMPLE DESIGN AND RESEARCH PARTICIPANTS

3.3.1 Sample design

Sampling means taking a small proportion of the population and use it to understand particular parameters about the whole population (Bryman & Bell, 2003; Kerlinger & Lee, 2000; Levy & Lemeshow, 2013; Mouton, 2001; Newman, 1997). The aim of the research is to use the sample in understanding the population. The pre-requisite for this is to design a sampling strategy in a manner that will validate the results of the whole population. For this to be reliable the sample size must be adequate (Campbell & Stanley, 2015; Fowler, 2013).

Using a well-designed probability sampling method, larger samples are more accurate than smaller ones. In many instances it happens that limitations with respect to time and cost lead to decisions by the researcher to limit the study (Blair, Czaja & Blair, 2013; Fowler, 2013; Maree, 2010).

3.3.2 Research participants

Babbie and Mouton (2001) propose a threshold of large samples (e.g. 100 subjects) for validity of, for an example, psychometric battery tests. Such large sample groups are necessary to conduct appropriate analyses (Kraemer & Blasey, 2015; Jöreskog & Sörbom, 1999; Weitzl, 2017).

In the current study the convenience sampling method was used. An attempt was made for representativity on gender and ethnic differences of the population. In this method of sampling, the participants were drawn based on their availability. The main drawback of the convenience sampling method is inability of extrapolating to the population level. This is because some of the potential participants with different views may have been excluded due to unavailability (Bryman & Bell, 2015). The absolute not the relative size of a sample increases validity of results (Bryman & Bell, 2003). Becker, Bryman and Ferguson (2012) hold the same view.

In the current study the respondents rate their perceptions about their immediate line managers' authentic leadership behaviours would affect their psychological empowerment and work engagement, and ultimately their perceived team effectiveness. The study is targeting management level of the employees. This included supervisors, middle managers, senior managers and executives.

The research was conducted in various medium to large size organisations in the Eastern Cape, namely port firms, a motor company, and public organisations. The sample size of this study was 300 managers, out of which only 210 responded. Table 3.1 below provides a summary of the demographic statistics of the respondents.

3.4   DATA COLLECTION AND PROCEDURE

Data collection is done to answer certain questions. It is important that this process be accurate so that decisions that will be taken are based on credible information (Ott & Longnecker, 2015; Tuckman & Harper, 2012; Weimer, 1995).

The study initially attempted to use a self-administered survey form. This was done electronically where a link to the questionnaire was sent via email. This approach solicited a very poor response. A manual approach was then used where questionnaires were physically delivered to the various organisations in East London and Port Elizabeth. Accompanying each questionnaire had a biographical section, four measuring instruments and a covering letter. The covering letter gave the context of the instructions on completing the questionnaire. The advantage of this self-administered approach is distribution to a large number of participants. Further, it provides opportunities for participants to complete the questionnaire at a suitable time. Table 3.1 presents a summary of the sample profile.

3.5   THE DEMOGRAPHIC PROFILE OF THE SAMPLE

The sample of 210 had 62.9% male and 36.7% female individuals with an average age of 38 years. This indicates that the majority of the sampled population was between 31 and 40 years old. Table 0.1. reflects a breakdown of the sample.

Table 0.1

Demographical profile of sample

Variable	Frequency	Percentage (%)
Gender		

Male	132	62.9%
Female	77	36.7%
No response	1	.4%

Age of participants

20 and Below	1	.5%
21 – 30	59	28.1%
31 – 40	71	33.8%
41 – 50	36	17.1%
Above 50	21	10%
No response	22	10.5

Ethnic group

African	136	64.8%
Coloured	33	15.7%
Indian	10	4.8%
White	30	14.3%
No response	1	.4%

Current job level

Non-managerial	55	26.2%
Lower level management (first line management)	63	30.0%
Middle level management	67	31.9%
Upper level management	22	10.5%
No response	3	1.4%

Organisation's industry

Transport	68	32.%
Public service l	76	36.2%
Retail	30	14.3%
Financial services	4	1.9%
Manufacturing and construction	8	3.8%

| Other | 24 | 11.4 |

3.6 MISSING VALUES

Some respondents were unwilling to answer certain questions, thus the missing values. Such a phenomenon is common in this form of data gathering (Karanja, Zaveri & Ahmed, 2013). It needs to be resolved prior analysis. Missing values can be resolved through:

- List-wise deletion
- Pair-wise deletion
- Imputation by matching
- multiple imputation

Under list-wise deletion the entire case is deleted when missing values are found (Du Toit & Du Toit, 2001; Enders, 2010; Hollenbach, Metternich, Minhas & Ward, 2014). Only questionnaires where all data records are available will be used. The challenge with this approach is that the outcome is a reduced sample size.

In pair-wise deletion cases that have missing values are deleted only in the analysis stage. This deletion is done only when that particular observed parameter is being analysed (Byrne, 2001; Nakagawa, 2015).

In imputation by matching trends within the study are observed and patterns identified. Values of similar response patterns are used to substitute the missing (Du Toit & Du Toit, 2001; Enders, 2010; Hollenbach et al., 2014).

Multiple imputation is based on a statistical approach. For an example, in LISREL 8.80 the missing values are substituted by an average of non-missing values. Caution is provided because these values are just estimates based on random and multivariate normal distribution (Du Toit & du Toit, 2001; Heck, Thomas & Tabata, 2013). The multiple imputation method has been used in dealing with missing values of the current study.

3.7 MEASURING INSTRUMENTS

In the current project, four measuring instruments were used.

3.7.1 Authentic leadership

For authentic leadership the Authentic Leadership Questionnaire (ALQ) developed by Walumbwa, Avolio, Gardener, Wernsing and Peterson (2008) was used. The ALQ uses 16 items distributed among the following four dimensions:

➢ Relational transparency
➢ Internalised moral perspective
➢ Balanced processing
➢ Leader self-awareness

Walumbwa et al. (2008) provided research support of both convergent and discriminant validity with respect to closely related ethical and transformational leadership. Joo and Jo (2017) reported an overall reliability for the ALQ of 0.92. Sample questions included: "My leader tells you the hard truth" (transparency), "My leader demonstrates beliefs that are consistent with actions" (moral), "My leader listens carefully to different points of view before coming to conclusions" (balanced processing), and "My leader accurately describes how others view his or her capabilities" (self-awareness).

3.7.2 Psychological empowerment

A 16-item Psychological Empowerment Scale (PES) was used to measure psychological empowerment as developed and validated by Spreitzer (1995). These 16 items are under specific themes: meaningfulness, competence, self-determination, and impact. A 6-point Likert-type scale which ranged from 1 (disagree strongly) to 6 (agree strongly) was used as a rating scale.

The overall empowerment construct of this study was high with a Cronbach alpha reliability coefficient of 0.72 and 0.62 for both groups. A test-retest reliability showed an average stability. A second-order confirmatory factor analysis (CFA) showed an excellent fit for one group and a modest fit for the other group. The four factors were significantly correlated with each other in both samples (Spreitzer, 1995).

Spreitzer's questionnaire has undergone the most comprehensive investigation (Arneson & Ekberg 2006) starting from Kraimer et al. (1999)'s assessment of convergent and discriminant validity of scores. He confirmed the reliability and

regression analysis. Subsequently Hocwalder and Brucefors (2005) found this Spreitzer's assessment to have a reliability of the subscales was between 0.77 and 0.90. The dimensionality of these scale was evaluated and the four extracted factors explained nearly 70% of total variance. The construct validity of the scale was also evaluated and fit measures for all groups indicated an acceptable fit between the data and theoretical model. The analyses indicated that the psychometric properties of the scale could be considered satisfactory (Uner & Turan, 2010).

3.7.3 Work engagement scale

The 17-item Utrecht Work Engagement Scale (UWES) was developed by Schaufeli and Bakker (2003) with three sub-scales: vigour (6 items) dedication (5 items), and absorption (6 items). Vigour reflects the levels of energy and resilience, the willingness for continued effort, and persistence against difficulties and challenging opposition. Dedication is in reference to enthusiasm, a sense of significance from one's work, and passion about one's job. Absorption refers to being totally and happily immersed in one's work and having difficulties detaching oneself from it.

Data from various studies reflect that the hypothesised three-factor structure of the UWES is superior to the one-factor (Salanova, Schaufeli, Llorens, Piero & Grau, 2001; Schaufeli et al., 2002a; Schaufeli et al., 2002b; Schauefeli, Taris, & Van Rhenen, 2003). However, Sonnentag (2003) did not find a clear three-factor structure and consequently decided to use the total-score on the UWES as a measure for work engagement i.e. unidimensional factor structure.

The values of Cronbach's alpha are equal to or exceed the critical value of 0.70 (Braine & Roodt, 2011; Heine, 2013; Nell, 2015; Nunnally & Bernstein, 1994; Roux, 2010). This is a further confirmation of the internal consistency of the three scales of the UWES. Generally, these values range between 0.80 and 0.90 (Demerouti et al., 2001; Montgomery, Peeters, Schaufeli, & Den Ouden, 2003; Panayides, 2013; Salanova et al., 2001; Salanova, Grau, Llorens, & Schaufeli, 2001).

The UWES are not only reliable but also relatively stable across time. A study done by Bakker, Euwema, & Van Dierendonck (2003) demonstrated a two-year consistency coefficients for vigour, dedication and absorption to be 0.30, 0.36, and 0.46, respectively.

3.7.4 Team effectiveness

Engelbrecht (2013) developed a 21-item Team Effectiveness Scale (TES). This scale was also used in the current study. The TES was an adaptation of the Team Effectiveness Questionnaire (Larson & LaFasto, 2001) (2 items), the Team Commitment Survey (Benett, 1997) (3 items), and two other effectiveness questionnaires developed by Bateman et al. (2002) (12 items), as well the outputs of Doolen et al. (2003) (3 items). An additional item on the team members' valuing and utilising of cultural diversity included in the TES (Engelbrecht, 2013). This scale was developed to be rated on a 6-point Likert-type scale ranging from 1 (disagree strongly) to 6 (agree strongly).

3.8 STATISTICAL TECHNIQUES

Subsequent to data collection on the four constructs, statistical analysis was done for testing the hypothesised relationships between the variables. The statistical techniques that were utilised in this study were item analysis, Exploratory Factor Analysis (EFA) where appropriate, Confirmatory Factor Analysis (CFA), and Structural Equation Modelling (SEM) (Kothari, 2004; Neuendorf, 2016; Pedhazur & Schmelkin, 2013).

3.8.1 Item Analysis

This analysis is done to determine reliable of the measuring instrument and to identify items that do not represent the specific latent variable. These items can be poor if they are unable to differentiate between various states of the latent variable. Also, an item is considered poor if it is unable to detect states that do not reflect the latent variable. Poor items will be considered for elimination.

A measure that provides the same result regardless of any opportunities for variation is reliable (Kline, 2013; Nunnally, 1978). Coefficient alphas were used to determine the level of reliability based on both the average correlation among items (internal consistency) and the number of items. Guidelines of this test are depicted in Table 0.1 (Nunnally, 1978; Yang & Green, 2011). The closer the values are to 1, the greater the internal consistency of the items of the scale. All four measurement scales and

subscales went through item analysis with the use of SPSS Reliability Procedure to identify possible items to be eliminated.

Table 0.1

Nunnally's general guidelines for interpreting Reliability Coefficients

Reliability coefficient value	Interpretation
0.9 and above	Excellent
0.80 – 0.89	Good
0.70 – 0.79	Adequate
Below 0.70	May have limited applicability

Nunnally, J.C. (1967). *Psychometric theory*. New York: McGraw-Hill Inc.

3.8.2 Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) was used to test hypotheses or theories relating to the structure underlying variables of this study (Pallant, 2007). LISREL 8.80 was used to perform CFA. The results from CFA are discussed per scale in terms of important fit indices (See section 3.11).

In this study an initial test of good model fit is indicated when the RMSEA < 0.08 (Kline, 2011). In such a case, each item should be evaluated in terms of its completely standardised factor loadings (LAMDA-X). Only items with a value > 0.50 are considered acceptable, meaning that the item contributes successfully to the coherency of the scale. The confirmatory factor analysis procedure gets completed when all items load significantly on the latent variable. Items that do not load significantly on the variable are considered for deletion.

3.8.3 Structural Equation Modelling

This study further used the Structural Equation Modelling (SEM) and used LISREL 8.80 to test the fit of the structural model proposed in Figure 3.1. The purpose of SEM in this case is to summarise the interrelationships between variables (Little, Schnabel,

Rgen & Baumert, 2015; Western & Gore, 2006). Three prominent reasons for using SEM are given by Kelloway (1998). Firstly, SEM allows researchers to evaluate the measurement properties of certain scales and deals directly with how the measure reflects the intended constructs through confirmatory factor analysis. Secondly, SEM tests complex model paths. Thirdly, SEM tests the quality of measurement and predicts a relationship among constructs (Kelloway, 1998; Squires, 2010).

Through SEM, the relationships between the latent variables can be estimated. This provides an opportunity for the researcher develop complex relationships and test whether these relationships are reflected in the sample data. If the model does not fit or weaknesses are found, the researcher would run extra tests using a modified model (Hair & Hult, 2016; Western & Gore, 2006).

Before SEM can be implemented the data needs to be subjected to a multivariate normality assessment.

3.8.4 Multivariate normality

The underlying assumption of a multivariate analysis is normality, which is the assumption that all variables and all combinations of variables are normally distributed. The null hypothesis stating that this assumption is satisfied was formally tested through PRELIS. If the data did not follow a multivariate normal distribution it was attempted to normalise the data and if this was not successful then robust maximum likelihood estimation was used (Everett, 2013; Press, 2012). Maximum likelihood (assumption that variables are continuous) requires the indicator variables used to operationalise the independent variables, to show a multivariate normal distribution.

3.9   THE STRUCTURAL MODEL

The structural model is a set of linear structural equations which depicts causal relationships among and between latent variables. Further, it describes the causal effects and assigns the explained and unexplained variance (Jöreskog & Sörbom, 1996).
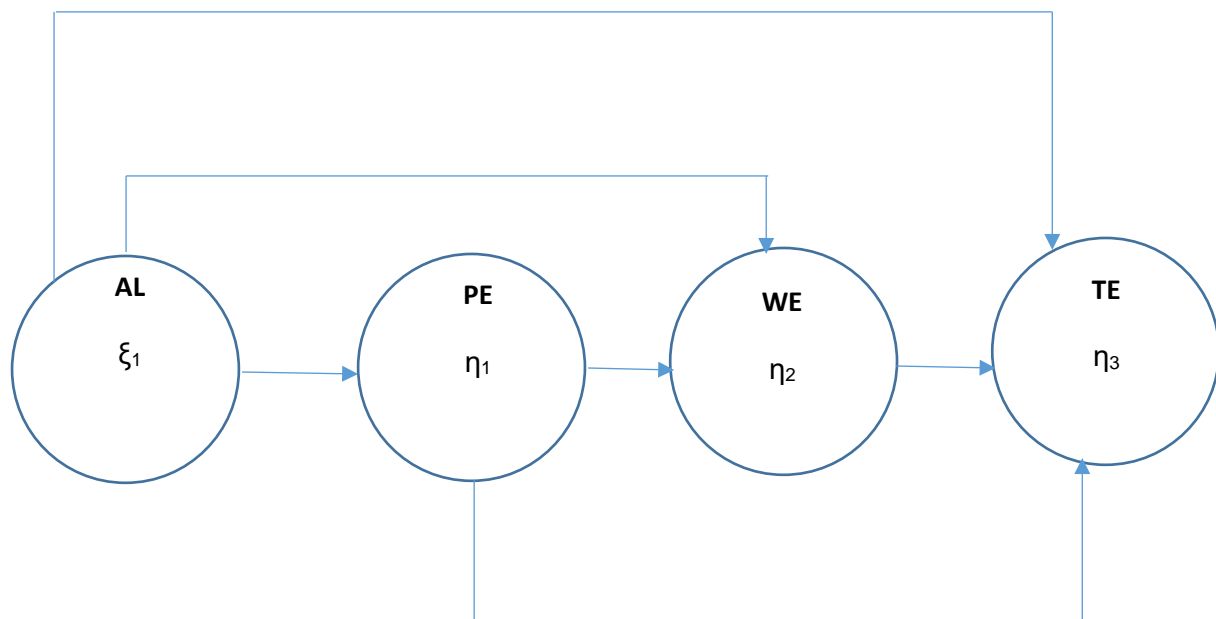
Figure 3.1: *The proposed model representing the expected relationships between authentic leadership (AL), psychological empowerment (PE), work engagement (WE) and team effectiveness (TE).*

The structural model (Figure 3.1) on the context discussed in Chapter 2. This structural model is based on one independent variable and three dependent variables. Authentic leadership is depicted as the independent or exogenous latent variable and is identified by the symbol Ksi (ξ). Psychological empowerment, work engagement and team effectiveness represent the dependent or endogenous variables and are indicated with the symbol Eta (η).

Various paths can be observed in this structural model. These paths represent the relationships between the different variables. The symbol gamma (γ) represents the paths between independent and dependent variables. The paths between the endogenous variables are indicated with the symbol beta (β). Zeta (ζ) represents the errors in structural equations and these are η_1, η_2, η_3. Therefore, zeta depicts residual error in the latent endogenous variables.

3.9.1 The structural model matrix form:

The matrix equation that can be developed is as follows:

$$
\begin{bmatrix} \eta 1 \\ \eta 2 \\ \eta 3 \end{bmatrix} = \begin{bmatrix} 0 & \beta 12 & 0 \\ 0 & 0 & 0 \\ \beta 31 & \beta 32 & 0 \end{bmatrix} \begin{bmatrix} \eta 1 \\ \eta 2 \\ \eta 3 \end{bmatrix} + \begin{bmatrix} \gamma 11 \\ \gamma 21 \\ \gamma 31 \end{bmatrix} \begin{bmatrix} \xi 1 \end{bmatrix} + \begin{bmatrix} \zeta 1 \\ \zeta 2 \\ \zeta 3 \end{bmatrix}
$$

$$\eta = B\eta + \Gamma\xi + \zeta$$

3.9.2 Structural equations

$\eta_1 = \gamma_{11}\xi_1 + \zeta_1$

$\eta_2 = \gamma_{21}\xi_1 + \beta_{21}\,\eta_1 + \zeta_2$

$\eta_3 = \gamma_{31}\xi_1 + \beta_{31}\,\eta_1 + \beta_{32}\,\eta_2 + \zeta_3$

3.10   Statistical hypotheses

This study was intended at investigating the nature of the influence of authentic leadership, psychological empowerment, and work engagement on team effectiveness. The structural model (Figure 3.1) that was developed for testing is based on literature review and research. The main research hypothesis is that the structural model provides a perfect explanation of the manner in which authentic leadership, psychological empowerment, and work engagement influence team effectiveness operate in a work place. The Satorra-Bentler Scaled Chi-square was used to test this research hypothesis, which represents the exact model fit. The Root Mean Square Error of Approximation (RMSEA) (Ofoegbu, 2017) was used to test the close fit hypothesis.

If the model is true, the substantive research hypothesis will translate into the following exact fit null hypothesis:

Hypothesis 1

H_{01}: RMSEA = 0

H_{a1}: RMSEA > 0

If the exact fit does not exist, then the close fit null hypothesis will be:

Hypothesis 2

H_{02}: RMSEA ≤ 0.05

H_{a2}: RMSEA > 0.05

The main research hypothesis was divided into six more detailed hypotheses:

Hypothesis 3

Authentic leadership (ξ_1) has a significant positive influence on psychological empowerment (η_1).

H_{03}: $\gamma_{11} = 0$
H_{a3}: $\gamma_{11} > 0$

Hypothesis 4

Authentic leadership (ξ_1) has a significant positive influence on work engagement (η_2).

H_{04}: $\gamma_{21} = 0$
H_{a4}: $\gamma_{21} > 0$

Hypothesis 5

Authentic leadership (ξ_1) has a significant positive influence on team effectiveness (η_3).

H_{05}: $\gamma_{31} = 0$
H_{a5}: $\gamma_{31} > 0$

Hypothesis 6

Work engagement (η_2) has a significant positive influence on team effectiveness (η_3).

H_{06}: $\beta_{32} = 0$
H_{a6}: $\beta_{32} > 0$

Hypothesis 7

Psychological empowerment (η_1) has a significant positive influence on team effectiveness (η_3).

H_{07}: $\beta_{31} = 0$

H_{a7}: $\beta_{31} > 0$

Hypothesis 8

Psychological empowerment (η_1) has a significant positive influence on Work engagement (η_2).

H_{08}: $\beta_{21} = 0$

H_{a8}: $\beta_{21} > 0$

Table 0.1

The Statistical hypotheses

Hypothesis 3	Hypothesis 4	Hypothesis 5
H_{03}: $\gamma_{11} = 0$	H_{04}: $\gamma_{21} = 0$	H_{05}: $\gamma_{31} = 0$
H_{a3}: $\gamma_{11} > 0$	H_{a4}: $\gamma_{21} > 0$	H_{a5}: $\gamma_{31} > 0$
Hypothesis 6	**Hypothesis 7**	**Hypothesis 8**
H_{06}: $\beta_{32} = 0$	H_{07}: $\beta_{31} = 0$	H_{08}: $\beta_{21} = 0$
H_{a6}: $\beta_{32} > 0$	H_{a7}: $\beta_{31} > 0$	H_{a8}: $\beta_{21} > 0$

3.11   ASSESSING MODEL FIT

The goodness-of-fit is assessed by the use of Structural Equation Modelling (Heine, 2013). Kelloway (1998) to determine absolute, comparative and parsimonious fit.

3.11.1   Absolute fit

The proportions of the covariances in the data can explain the absolute fit indices (Kline, 2011) i.e. how well does the model reproduce the sample data. The first

statistics that evaluates the overall fit is the chi-square (χ^2) statistic. It tests for a perfect fit. A Satorra Bentler χ^2 statistic is used to test this hypothesis. If the chi-square is statistically significant the model gets rejected because it indicates that the model does not fit perfectly (Diamantopoulos & Siguaw, 2000). A non-significant χ^2 indicates that the model fits the data well, indicating that the model can reproduce the population covariance matrix (Kelloway, 1998). Due to generally impossible exact fit, a more appropriate approach is to test for a close fit (RMSEA < 0.05).The null hypothesis is $H_0: \Sigma = \Sigma(\theta)$.

The chi-square is sensitive to sample size. This is mitigated by the use of degrees of freedom (i.e. χ^2/df). In the literature, there is no generally accepted interpretation of the values for χ^2/df. However, it is accepted that a good fit is indicated by values that range from 2 to 5. If the value is less than 2, that indicates over fitting (Kelloway, 1998; Rodriguez-Carvajal, de Rivas, Herrero, Moreno-Jime`nez & Van Dierendonck, 2014).

Various absolute fit indices are expressed by LISREL 8.80, the first being the Goodness-of-fit Index (GFI). This index depicts the accuracy of the covariances predicted in reproducing the sample covariance. A GFI of 0 implies a poor fit while that of 1 corresponds to a perfect fit. In this range values that exceed 0.90 are close enough to indicate a good fit of the model to the data (Kelloway, 1998; Rodríguez-Carvajal, de Rivas, Herrero, Moreno-Jiménez, Van Dierendonck, 2014).

The second index expressed by LISREL 8.80 is the Root Mean Square Residual (RMSR). The RMSR uses a theoretical model to measure the average difference between the sample covariance matrix and a fitted covariance matrix reproduced (Diamantopoulos & Siguaw, 2000). The lower the index, the better the fit of the model to the data. The standardising the RMSR is done through dividing the fitted residuals by their estimated standard errors. The lower bound of the p-value is 0 while the upper bound of 1. Values less than 0.05 imply a good fit to the data (Kelloway, 1998).

The third index is the Root Mean Square Error of Approximation (RMSEA). It is regarded as one of the most informative fit indices. Smaller values closer to zero (0) indicate a better fit to the data. (Diamantopoulos & Siguaw, 2000).

3.11.2 Comparative fit

Another fit that may be considered is the Comparative fit (also called incremental fit). It reflects a relative improvement of the model compared to the baseline model, or independence (null) model. These Comparative fit measures can be Normed-Fit Index (NFI), or Non-Normed Fit Index (NNFI), or Incremental Fit Index (IFI), or Comparative Fit Index (CFI), or Relative Fit Index (RFI) and even the Adjusted Goodness-of-Fit Index (AGFI). All these fit indices range from 0 to 1. Values closer to one (1), especially values > 0.95, represent good fit (Hooper, Coughlan & Mullen, 2008; Kelloway, 1998; 2014).

3.11.3 Parsimonious fit

Parsimonious indices of goodness-of-fit are based on the estimation of more parameters for obtain a better fitting model. There is a built-in correction in its formula to mitigate against model complexity. The down side of this index is the absence of ideal upper and lower boundary values (Kelloway, 1998). Its strength is in comparing models and is weak in evaluating model fit, as a result the parsimonious fit will not be discussed in this study.

A detailed summary of these goodness-of-fit indices is in **Error! Reference source not found.**. These indices were used for the purpose of reaching a meaningful conclusion regarding model fit.

Table 0.4
Criteria of goodness-of-fit indices

Absolute fit measures	Criteria
Minimum fit function Chi-Square	A non-significant result indicates good model fit.
$\chi 2/df$	Values between 2 and 5 indicate good fit
Root Mean Square Error of Approximation (RMSEA)	Values of 0.08 or below indicate acceptable fit, those below 0.05 indicate good fit, and values below 0.01 indicate outstanding fit.
P-Value for Test of Close Fit (RMSEA < 0.05)	Values > 0.05 indicate good fit.

90% Confidence Interval for RMSEA	This is a 90% confidence interval of RMSEA testing the closeness of fit (i.e., testing the hypothesis H0: RMSEA < 0.05).
Root Mean Square Residual (RMR)	Lower values indicate better fit, with values below 0.08 indicative of good fit.
Standardised RMR	Lower values indicate better fit, with values less than 0.05 indicating good fit.
Goodness of Fit Index (GFI)	Values closer to 1 and > 0.90 represent good fit.
Comparative fit measures	**Criteria**
Normed Fit Index (NFI)	Values closer to 1 indicate better fit, with values > 0.90 indicative of acceptable fit and > 0.95 of good fit.
Non-Normed Fit Index (NNFI)	Higher values indicate better fit, with values > 0.90 indicative of acceptable fit and > 0.95 of good fit.
Comparative Fit Index (CFI)	Values closer to 1 indicate better fit, with values > 0.90 indicative of acceptable fit and > 0.95 indicative of good fit.
Incremental Fit Index (IFI)	Values closer to 1 indicate better fit, with values > 0.90 indicative of acceptable fit and > 0.95 of good fit.
Relative Fit Index (RFI)	Values closer to 1 indicate better fit, with values > 0.09 indicative of acceptable fit and > 0.95 of good fit.

(Diamantopoulos & Siguaw, 2000; Hooper et al., 2008; Kelloway 1998)

3.12   EVALUATION OF RESEARCH ETHICS

Upholding the research ethics is one of the generally agreed-on scientific tenets of research. This will lead to protecting the research participants in terms of their dignity, rights, safety and well-being. The participants are often vulnerable as they are prone to abuse by researchers therefore the research ethical principles have to be spelt out before administering the questionnaires to participants (Tully, 2015). The Stellenbosch University Standard Operating Procedure (2012) require researchers to observe the following research ethics at all times when conducting research studies and these guided the current study:

Confidentiality – since the study required the participants to evaluate their leader confidentiality was ensured through the researcher personally collecting the completed questionnaires from the participants for hand delivered questionnaires. For the online questionnaires participants completed the questionnaires when it was convenient for them. The information obtained was used to test the hypotheses. Anonymity was maintained in filling the questionnaires, no information linking their questionnaire to the participant was required. No names and identities were disclosed. No discomfort or risk were the participants subjected to than the time they took in completing the questionnaire.

No participant benefitted by participating in the study. But the organisation into which each participant belongs, will benefit from the study.

Each research participant was given an opportunity to recuse him/herself from the study, and introduced to the researcher. Each participant was given the intention of the research, what participation in the research entailed, and how he/she can be involved. Further, each participant was provided with the context and the methodology of disseminating the research, what was it going to be used for used, and where further enquiries about the research can be made. The participants were also informed of their rights as participants are, and where they could obtain more information of their research rights (Standard Operating Procedure, 2012).

The ethics governing Psychologists as indicated in the Health Professions Act (Act no. 56 of 1974) (Republic of South Africa, 2006, p.42) guided the study. These ethical guidelines indicate:

(1) in obtaining the participant's informed consent, the language used should be reasonably understandable to the participant.

(2) the "Informed consent" should be appropriately documented, and in obtaining such consent the psychologist shall –

   a) participants have detailed information of the nature of research;

   b) inform participant of the right to decline or withdraw from the study;

   c) participants informed about potential outcomes of withdrawing from research;

d) participants informed of factors that may contribute to his/her willingness;

e) provide additional context that the participant requires;

f) students or subordinates must be protected from the adverse consequences of declining or withdrawing from participation;

g) an appropriate explanation should be given to a legally incapable person to give consent,;

3. obtain agreement from the participantst; and

4. obtain appropriate permission from a legally authorized person for such.

For the current study, informed consents were obtained from participants. As per Annexure 12 of the Ethical Rules of Conduct for Practitioners Registered under the Health Professions Act (Act no. 56 of 1974) (Republic of South Africa, 2006, p.41) a permission from the organisation into which the participants belonged was solicited:

This code of conduct prescribes psychologists to –

- obtain written permission from the host entities conducting research;

- provide entities accurate information about the research; and

- research in accordance with the approved research protocol .

In the current study informed permission was obtained from all concerned institutions.

All the instruments used in this study are available in the public domain. Therefore they cannot be considered as psychological tests according to the Health Professions Act (Republic of South Africa, 1974).

The Research Ethics Committee Human Research (Humanities) of Stellenbosch University approved the an application for ethical clearance of the current study.

3.13 SUMMARY

This chapter provides the methodology or the sampling strategy. It further discusses the measurement instruments utilised, and research hypotheses. Also, this chapter

provides an overview of the data analysis methodology or approach used to establish the model fit and strengths of the envisaged hypotheses. The context of the study is reflected in Chapter 2. It focuses on the influences of authentic leadership to psychological empowerment, work engagement and team effectiveness. The results of the research will be provided in the following chapter.

CHAPTER 4: RESEARCH RESULTS

4.1   INTRODUCTION

The structural model explicating the manner in which authentic leadership influences psychological empowerment, work engagement and team effectiveness was developed in chapter 2 after a thorough review of literature. The hypotheses postulated and depicted in each of the paths in the model need to be tested using the methodology outlined in chapter three. Chapter 4 entails presentation of the study results. The chapter starts by addressing the approach in which the missing values were tackled followed by item analyses of each of the scales used in the study. The purpose of the item analyses was to ensure that each of the scales used in the study are made up of reliable subscales and good items. The psychometric properties of the scales were further ensured by subjugating each of the scales to confirmatory factor analyses to check for construct validity and whether or not the theoretical structure underlying each of the measures is supported by the data obtained in the South African context. After checking for the construct validity of the scales, using confirmatory factor analyses the overall measurement model was subsequently tested and finally the structural model depicting the hypothesized relationships was tested.

4.2   MISSING VALUES

Given that the majority of the respondents completed the online questionnaire, which permitted participants to proceed only if the previous answer was filled out, missing values did not present a significant problem. Missing values from hard copies were resolved by using the multiple imputation method with LISREL 8.80 on completed questionnaires.

4.3   ITEM ANALYSIS

Item analysis was carried out on all scales used in the study using SPSS Reliability Procedures (SPSS v.20). This procedure was performed to ensure that decisions relating to the hypothesized relationships are founded on reliable scales made up of items contributing to an acceptable internal consistency coefficient. The Cronbach's alpha is the widely accepted indicator of reliability. Acceptable Cronbach's alpha values should preferably exceed the value of .70 (Pallant, 2010).

The Corrected Item-Total Correlation was also inspected since it is an indication of the degree to which each item correlates with the total score. Values lower than .30 may show that the item is not measuring the specific scale sufficiently (Pallant, 2010). These items usually have the effect of lowering the Cronbach's alpha coefficients and therefore these items were considered for possible exclusion from further analyses.

4.3.1 Reliability analysis of the Authentic Leadership Questionnaire (ALQ)

The ALQ is constituted by 16 items measuring four dimensions namely, relational transparency, internalised moral perspective, balanced processing, and leader self-awareness. Item analysis was performed in each of the subscales.

4.3.1.1. Reliability results: Relational transparency

The Relational transparency subscale of the ALQ reliability analysis results (which consists of five items) are presented in Table 4.1. The Cronbach's alpha of the subscale was reported to be .843, which indicates a satisfactory reliability (See Table 3.2) (Nunnally, 1978). All subscale items reported an item-total correlation above the acceptable cut-off value of .30 (Pallant, 2010). Thus, no problematic items were flagged for this subscale.

Table 4.1

Reliability and Item-Total statistics of the Relational transparency subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha based on standardised items	N of items
.843	.844	5

	Item-Total	Statistics			
Relational Transparency	Scale mean if item deleted	Scale variance if item Deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
b1	14.37	13.077	.696	.516	.800
b2	14.72	12.069	.674	.494	.804
b3	14.53	11.973	.715	.533	.792
b4	14.46	13.025	.654	.449	.809
b5	14.60	13.887	.516	.292	.845

4.3.1.2 Reliability results: Internalised moral perspective

Table 4.2 presents the Cronbach's alpha coefficient for the internalised moral perspective dimension of the ALQ of .879. This scale achieved reliability coefficients above the accepted criterion. No disputable items were identified as all item-total correlations were above.30. The internal moral perspective subscale results were unquestionable and did not yield any prospective items for deletion.

Table 4.2

Reliability and Item-Total statistics of the Internalised moral perspective subscale

	Reliability Statistics	
Cronbach's Alpha	Cronbach's Alpha based on standardised items	N of items
.879	.879	4

	Item-Total	Statistics			
internalised moral perspective Items	Scale mean if item deleted	Scale variance if item Deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
b6	10.84	8.844	.741	.551	.844
b7	10.71	9.267	.707	.501	.857
b8	10.84	8.879	.763	.586	.835
b9	11.00	8.560	.744	.559	.843

4.3.1.3   Reliability results: Balanced processing

In view of the 3-item balanced processing dimension of authentic leadership as measured by the ALQ, the Cronbach's alpha value of .844 was found to be good. All the items yielded item-total correlations above .30, thus suggesting no poor items for elimination. The Balanced processing reliability and item-total results are presented in Table 4.3.

Table 4.3

Reliability and Item-Total statistics of the Balanced processing subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha based on standardised items	N of items
.844	.847	3

Item-Total Statistics					
Balanced Processing Items	Scale mean if item deleted	Scale variance if item Deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
b10	7.46	4.804	.643	.414	.846
b11	6.98	4.980	.740	.578	.762
b12	7.17	4.120	.761	.605	.732

4.3.1.4   Reliability results: Leader self-awareness

The final subscale of ALQ, leader self-awareness, comprises of four items, and yielded a good Cronbach's alpha of .894. This is above the accepted threshold of .70 (Pallant, 2010). The reliability results of leader self-awareness of the item-total correlations are provided in Table 4.4. All the items were satisfactory above the accepted value of .30. Therefore, no items were flagged for deletion.

Table 4.4

Reliability and Item-Total statistics of the leader self-awareness subscale

	Reliability Statistics	
Cronbach's Alpha	Cronbach's Alpha based on standardised items	N of items
.894	.895	4

	Item-Total	Statistics			
leader self-awareness Items	Scale mean if item deleted	Scale variance if item Deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
b13	10.32	9.816	.770	.622	.862
b14	10.63	9.201	.773	.627	.863
b15	10.49	9.734	.765	.618	.864
b16	10.28	10.210	.763	.615	.866

4.3.2   Reliability analysis of the Psychological Empowerment Scale

Spreitzer (1995) developed the Psychological Empowerment Scale which is made up of 16 items reduced to four subscales namely: meaning, impact, competence, and self-determination. The test of reliability Item analysis was performed on all four of these dimensions.

4.3.2.1   Reliability results: Competence

The competence subscale consists of four items and a satisfactory Cronbach's alpha of .864 was found. No poor items of the item-total correlations could be flagged for elimination since all the values were above the accepted threshold of .30 (Pallant, 2010). In totality, the item analysis raised no disputed items regarding the competence subscale. The results are provided in Table 4.5.

Table 4.5

Reliability and Item-Total statistics of the Competence subscale

	Reliability Statistics	
Cronbach's Alpha	Cronbach's Alpha based on standardised items	N of items
.864	.866	4

	Item-Total	Statistics			
Meaning Items	Scale mean if item deleted	Scale variance if item Deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
c1	15.20	8.142	.598	.370	.871
c9	15.45	6.909	.719	.544	.826
c11	15.59	6.970	.761	.598	.807
c15	15.43	7.414	.791	.632	.798

4.3.2.2   Reliability results: Meaning

The 4-item meaning subscale of the PES yielded a satisfactory Cronbach's alpha of .879, which exceeds the threshold of .70 (Pallant, 2010). All the items reflected accepted item-total correlations above .30, as can be seen in Table 4.6.

Table 4.6

Reliability and Item-Total statistics of the Meaning subscale

	Reliability Statistics	
Cronbach's Alpha	Cronbach's Alpha based on standardised items	N of items
.879	.882	4

Item-Total	Statistics				
Impact Items	Scale mean if item deleted	Scale variance if item Deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
c2	15.23	9.223	.772	.606	.838
c5	15.68	8.132	.732	.546	.850
c8	15.45	8.708	.706	.521	.857
c13	15.62	8.400	.762	.598	.835

4.3.2.3   Reliability results: Self-determination

The subscale of self-determination also comprised of four items and yielded a Cronbach's alpha of .857, a value considered as satisfactory, according to Nunnally (1967). Summation of the items demonstrated item-total correlations of above .30, and therefore no items were reported as problematic. The results are outlined in Table 4.7.

Table 4.7

Reliability and Item-Total statistics of the Self-determination subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha based on standardised items	N of items
.857	.856	4

Item-Total	Statistics				
Competence Items	Scale mean if item deleted	Scale variance if item Deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
c3	13.82	12.589	.594	.372	.860
c7	13.88	10.507	.748	.569	.798
c10	13.88	10.463	.776	.604	.786
c16	13.68	11.788	.696	.519	.821

4.3.2.4   Reliability results: Impact

		Item-Total	Statistics		
Self-Determination Items	Scale mean if item deleted	Scale variance if item Deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
c4	12.37	14.176	.653	.436	.870
c6	13.14	11.941	.743	.570	.835
c12	13.13	11.839	.741	.591	.836
c14	13.09	11.715	.799	.664	.811

The final subscale of the PES, impact, consists of four items. A good Cronbach's alpha of .875 was achieved along with a good item-total correlations of above .30. Thus no disputes were raised for any of the subscales of the psychological empowerment measure. Results reported in Table 4.8.

Table 4.8

Reliability and Item-Total statistics of the Impact subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha based on standardised items	N of items
.875	.875	4

4.3.3 Reliability analysis of the Work engagement scale

The Utrecht Work Engagement Scale (UWES) comprises 17 items related to three subscales namely vigour, dedication and absorption. Each of these dimensions was subjected to item analysis.

4.3.3.1   Reliability results: Vigour

The Vigour subscale comprises six items, which resulted in a good Cronbach's alpha of .868, as described in Table 4.9. This was a highly accepted value since it exceeds the suggested value of .70 (Nunnally, 1967). All items presented item-total correlations

above .30; therefore, no items were flagged as problematic items. In essence, the results of the item analysis did not flag any concerns regarding the vigour subscale.

Table 4.9

Reliability and Item-Total statistics of the Vigour subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha based on standardised items	N of items
.868	.866	6

Item-Total Statistics					
Vigour	Scale mean if item deleted	Scale variance if item Deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
d1	23.08	21.937	.742	.713	.832
d4	22.83	21.549	.797	.741	.822
d8	23.13	20.782	.754	.619	.829
d12	22.80	22.158	.665	.450	.846
d15	22.82	25.476	.437	.295	.882
d17	22.60	24.098	.608	.411	.855

4.3.3.2   Reliability results: Dedication

The 5-item dedication subscale also yielded an excellent Cronbach's alpha of .921. All the dimensions indicated item-total correlations of above .30, as outlined in Table 4.10. No items were reported for possible deletion.

Table 4.10

Reliability and Item-Total statistics of the Dedication subscale

	Reliability Statistics		
	Cronbach's Alpha	Cronbach's Alpha based on standardised items	N of items
	.921	.925	5

Item-Total Statistics					
Dedication	Scale mean if item deleted	Scale variance if item Deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
d2	19.00	19.890	.827	.710	.897
d5	18.94	19.561	.852	.744	.892
d7	19.10	17.740	.892	.823	.882
d10	18.73	20.735	.798	.690	.904
d13	19.24	19.898	.649	.431	.936

4.3.3.3   Reliability results: Absorption

The Absorption subscale comprises of six items. The item-total statistics of the items consisting of the Absorption subscale are all above 0.30 (see Table 4.11). Thus a satisfactory Cronbach's alpha of 0.898 was reported. In essence, the item analysis for the Absorption raised no disputable items.

Table 4.11

Reliability and Item-Total statistics of the Absorption Scale

	Reliability Statistics		
	Cronbach's Alpha	Cronbach's Alpha based on standardised items	N of items
	.898	.899	6

Item-Total Statistics					
Absorption Items	Scale mean if item deleted	Scale variance if item Deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
d3	22.07	27.488	.751	.580	.876
d6	22.69	27.212	.734	.551	.879
d9	22.25	27.606	.700	.530	.884
d11	22.21	27.812	.776	.617	.873
d14	22.43	27.232	.723	.550	.881
d16	22.64	28.881	.665	.481	.889

4.3.3.4   Reliability analysis of the Team Effectiveness Scale (TES)

The TES is a uni-dimensional scale consisting of 21 items. An exceedingly good Cronbach's alpha of 0.954 was reported for the TES (see Table 4.12). All the elements achieved item-total correlations above .30 indicating good internal consistency.

Table 4.12

Reliability and Item-Total statistics of the Team Effectiveness Scale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha based on standardised items	N of items
.954	.967	21

Item-Total Statistics					
Team Effectiveness Items	Scale mean if item deleted	Scale variance if item Deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
e1	88.33	411.255	.771	.678	.951
e2	88.22	425.387	.641	.544	.952
e3	88.00	423.598	.642	.522	.952
e4	88.04	418.711	.796	.738	.951
e5	88.11	418.892	.736	.660	.951
e6	88.07	406.813	.331	.166	.969
e7	88.23	417.211	.758	.642	.951
e8	88.42	418.264	.718	.586	.951
e9	88.49	417.945	.662	.558	.952

e10	88.13	418.074	.785	.681	.951
e11	88.02	422.473	.749	.699	.951
e12	87.97	420.339	.768	.733	.951
e13	87.99	422.756	.762	.785	.951
e14	88.10	420.067	.800	.752	.951
e15	87.90	410.125	.833	.807	.950
e16	87.87	419.500	.771	.780	.951
e17	88.22	407.505	.852	.850	.949
e18	88.42	405.470	.860	.858	.949
e19	88.39	409.378	.830	.840	.950
e20	88.15	414.245	.781	.733	.951
e21	87.97	417.176	.782	.724	.951

4.3.4 Summary of the item analysis results

After performing item analysis on all the scales, all the Cronbach's alpha values exceed the accepted .70 threshold and all the items exhibited high item-total correlations (> .30) (Pallant, 2010). Consequently, no items were found to be poor. Each measurement scale with its subscales can therefore be reported internally consistent and reliable. The item analysis results are provided in Table 4.13.

Table 4.13

Summary of the item analyses results

Scale	Mean	Std deviation	Cronbach's alpha	Number of items deleted	Number of items retained
ALQ: Relational transparency	18.17	4.388	.843	0	5
ALQ: Internalised moral perspective	14.47	3.897	.879	0	4
ALQ: Balanced processing	10.80	3.110	.844	0	3
ALQ: Self awareness	13.90	4.090	.894	0	4
UWES: Vigour	27.45	5.639	.868	0	6
UWES: Dedication	23.75	5.475	.921	0	5
UWES: Absorption	26.86	6.253	.898	0	6
PES: Competence	20.56	3.538	.864	0	4
PES: Meaning	20.66	3.837	.879	0	4
PES: Self-determination	18.42	4.386	.857	0	4
PES: Impact	17.24	4.603	.875	0	4
TES	92.55	21.402	.954	0	21

4.4   EVALUATING THE MEASUREMENT MODELS

Using LISREL 8.80, Confirmatory Factor Analysis (CFA) was conducted on all the scales used in this study. This was performed in order to ascertain the goodness-of-fit between the measurement models and the empirical data by testing the hypotheses of exact fit ($H0_1$: RMSEA = 0) and close fit ($H0_2$: RMSEA $\leq$ 0.05). (Jöreskog & Sörbom, 2006).

The results of the CFA are initially discussed per scale in terms of the index of the Root Mean Square Error of Approximation (RMSEA). A RMSEA value of smaller than 0.08 indicates a reasonable model fit; RMSEA values smaller than 0.05 indicates a good fit to the data (Diamantopoulos & Siguaw, 2000). A P-value of the Test for Close fit above 0.05 indicates that a close fit has been achieved. The factor loadings were carefully examined by looking at the Completely Standardised LAMBDA-X matrices. When values above 0.30 were obtained, items were construed to load sufficiently on the latent variable (Jöreskog & Sörbom, 2006).

Various procedures were followed subject on whether the initial results indicated a good or poor model fit. In cases of a poor fit, the modification indices were investigated to determine the possibility of improving model fit (Diamantopoulos & Siguaw, 2000).

Freeing model parameters in cases of poor fit, improves the model's fit (Diamantopoulos & Siguaw, 2000). This process entails looking at the THETA-DELTA modification indices. Theta-delta refers to the variance as measured in error terms. Simply stated, it reflects the proportion of variance in the observed variables not explained by the latent variables linked to it, but rather by random error and systematic latent variables. High modification index values (i.e. > 6.64 at a significant level of 0.01) are reflective of parameters that would improve the model fit if it is set free (Diamantopoulos & Siguaw, 2000; Jöreskog & Sörbom, 1996). After identifying items with large THETA-DELTA values, they were considered for removal based on the loadings obtained in the corresponding completely standardised LAMBDA-X matrices. Items with the lowest factor loadings in the completely standardised LAMBDA-X

matrices were considered for removal (Diamantopoulos & Siguaw, 2000; Jöreskog & Sörbom, 1996).

4.4.1   Evaluating the Measurement Model Fit of the ALQ

In previous sections it has been reported that the ALQ was used to measure the four dimensions of authentic leadership. Upon assessing the measurement model of this scale, all four dimensions were included simultaneously in the confirmatory factor analysis (Walumbwa et al. 2008).

The initial inspection of the fit statistics confirmed that the measurement model of the ALQ seemed to fit the data reasonably well (RMSEA = 0.0736). The p-value for Close Fit is 0.00323. Therefore, the H_0 for close fit can be rejected, indicating that the measurement model did not obtain close fit.

The fit indices reported in Table 4.18 indicate that the ALQ measurement model achieved satisfactory fit. The results for the absolute fit measures were measured by a variety of values including the χ^2/df, Root Mean Residual (RMR), Standardised RMR and Goodness of Fit Index (GFI) (Matsimbe, 2017).

The χ^2/df ratio was measured using the Satorra-Bentler Scaled Chi-Square divided by the Degrees of Freedom. A χ^2/df value of 2.13 was obtained which indicates a good fit range of 2 – 5. The RMR value of .0566 marginally missed the cut-off value of 0.05 for good fit. However, the Standardised RMR value of 0.0434 fell within the range of acceptable fit (<0.05). For the GFI, a good fit is indicated by values above 0.90 with values closer to one indicating better values. A GFI value of 0.847 was obtained, which once again fell just below the cut-off value for good fit. Therefore, it was concluded that the measurement model of the ALQ presented reasonable absolute fit (Ofoegbu, 2017; Diamantopoulos & Siguaw, 2000).

The results of the incremental fit indices indicated that the measurement model achieve Normed Fit Index (NFI) = 0.98, Non-Normed Fit Index (NNFI) = 0.98, Comparative Fit Index (CFI) = 0.99, Incremental Fit Index (IFI) = 0.99 and Relative Fit Index (RFI) = 0.97 indices that were all above .95, which represented good fit. These comparative indices therefore, appeared to reveal a positive depiction of model fit. The

measurement model could therefore be inferred to indicate a credible explanation of the observed covariance matrix.

The values presented in the completely standardised LAMBDA-X solution matrix represent the regression slopes of the regression of the standardised indicator variables on the standardised latent variable. All the items loaded satisfactory and above 0.50 on the corresponding sub-dimension of the authentic leadership latent variable. The unstandardised LAMBDA-X matrix indicated that all the items significantly ($z > 1.64$) represented the dimensions they meant to reflect. The LAMBDA-X matrix can be seen in table 4.14, and as a result, no items were deleted.

Table 4.14

Completely standardised LAMBDA-X matrix for the ALQ

| ALQ Items | LAMBDA-X | | | |
	Self-awareness	Relational transparency	Balanced processing	Internal moral perspective
b1		0.803		
b2		0.776		
b3		0.811		
b4		0.701		
b5		0.526		
b6				0.838
b7				0.761
b8				0.835
b9				0.785
b10			0.786	
b11			0.795	
b12			0.860	
b13	0.832			
b14	0.803			
b15	0.821			
b16	0.826			

4.4.2 Evaluating the Measurement model of the Psychological Empowerment

The psychological empowerment scale with all its dimensions were subjected to CFA in order to assess the fit of the measurement model. The initial CFA results indicated poor fit with a RMSEA of 0.0838 (>0.08). After investigation of the THETA-DELTA

modification indices, items with values above 6.64 were identified as problematic and based on their factor loadings were considered for deletion. Item C1 was removed from the PES, which resulted in the adapted measurement model obtaining accepted fit with a RMSEA of 0.0704 (<0.08) (Spreitzer, 1995).

The measurement model indicated reasonable fit the data with a RMSEA of 0.0704. The χ^2/df value of 2.04 (2 - 5)) indicates good model fit. However, the RMR of 0.0807 (>0.08) missed the required 0.08 cut-off level, the Standardised RMR of 0.0550 (>0.05) marginally missed the 0.05 cut-off level, the p-value for the Test of Close fit of 0.0153 (< 0.05) and the GFI of 0.866 (<0.90) missed the cut-off values of good fit.

The results of the incremental fit indices indicated that the measurement model achieve Normed Fit Index (NFI) = 0.97, Non-Normed Fit Index (NNFI) = 0.98, Comparative Fit Index (CFI) = 0.98, Incremental Fit Index (IFI) = 0.98 and Relative Fit Index (RFI) = 0.96 indices that were all above .95, which represented good fit. These comparative indices therefore, appeared to reveal a positive picture of model fit. The measurement model could therefore be said to provide a credible explanation of the observed covariance matrix.

The factor loadings of the remaining items on its specified dimensions are displayed in Table 4.15. According to the unstandardised LAMBDA-X matrix, as produced by LISREL 8.80, it was found that all indicator variables of the PES loaded significantly and satisfactory above 0.50 according to the completely standardised matrix.

Table 4.15

Completely standardised LAMBDA-X matrix for the refined PES

| | LAMBDA-X | | | |
PES Items	Competence	Meaning	Self-determination	Impact
c2		0.775		
c3			0.634	
c4				0.729
c5		0.775		
c6				0.787
c7			0.763	
c8		0.784		

c9	0.798			
c10			0.814	
c11	0.773			
c12				0.775
c13		0.828		
c14				0.841
c15	0.800			
c16			0.787	

4.4.3 Evaluating the Measurement model of the UWES (work engagement)

The UWES was designed to measure three dimensions of work engagement namely vigour, dedication and absorption. Therefore, CFA was done with all the items loading on the three subscales. The initial CFA results indicated poor fit with RMSEA of 0.098 (>0.08). After further inspection of the THETA-DELTA modification indices, items with values above 6.64 were flagged as problematic and based on their factor loadings were considered for removal. Two items (d1 and d14) were removed from the UWES, which resulted in the adapted measurement model obtaining reasonable fit with RMSEA of 0.0781 (<0.08) (Schaufeli & Bakker, 2003; Pallant, 2007).

The absolute fit indices reported in Table 4.18 indicated that the χ^2/df value of 2.27 which is indicative of good fit, and the GFI value of 0.84 (<0.90) marginally missed the cut-off values for good fit. The RMR of 0.0732 missed the good fit cut-off, and the Standardised RMR of 0.0487 showed good model fit. The p-value for the Test of Close fit (0.0001) indicated poor fit. The incremental fit indices all indicated good fit with values above 0.95. Therefore, it could be inferred that the measurement model for the UWES showed reasonable absolute fit.

The results of the incremental fit indices indicated that the measurement model achieve Normed Fit Index (NFI) = 0.974, Non-Normed Fit Index (NNFI) = 0.982, Comparative Fit Index (CFI) = 0.985, Incremental Fit Index (IFI) = 0.985 and Relative Fit Index (RFI) = 0.968 indices that were all above .95, which represented good fit. These comparative indices therefore, appeared to reveal a positive picture of model fit. Therefore, the measurement model could be inferred to provide a credible explanation of the observed covariance matrix.

The factor loadings of the remaining items were all satisfactory (above 0.50), as presented by the LAMBDA-X matrices in Table 4.16. All the items loaded significantly and well above the cut-off value of 0.50.

Table 4.16

Completely standardised LAMBDA-X matrix for the refined UWES

UWE Items	LAMBDA-X		
	Vigour	Dedication	Absorption
d2		0.848	
d3			0.827
d4	**0.773**		
d5		0.890	
d6			0.728
d7		0.909	
d8	0.781		
d9			0.767
d10		0.831	
d11			0.817
d12	0.760		
d13		0.685	
d15	0.501		
d16			0.695
d17	0.645		

4.4.4 Evaluating the Measurement model of the TES

The Team Effectiveness Scale was designed to be unidimensional, therefore CFA was done with all the items loading on one factor namely team effectiveness (Engelbrecht, 2013; Larson & LaFasto, 2001). The initial CFA results indicated poor fit with RMSEA of 0.084 (>0.08). After investigation of the THETA-DELTA modification indices, items with values above 6.64 were flagged as complex and based on their factor loadings were considered for deletion. One item TE11 was removed from the TES, which resulted in the adapted measurement model obtaining reasonable fit with a RMSEA of 0.0792 (<0.08).

The absolute fit indices reported in Table 4.18 indicated that the χ^2/df value of 2.31 which is indicative of good fit, and the GFI value of 0.78 (<0.90) marginally missed the cut-off values for good fit. The p-value for the Test of Close fit (0.00) and the RMR of 0.0754 missed the good fit cut-off value, but the Standardised RMR of 0.0472 showed

good model fit. The incremental fit indices all indicated good fit with values above 0.95. Therefore, it could be inferred that the measurement model for the TES obtained reasonable fit.

The factor loadings of the remaining items were all satisfactory (above 0.50), as presented by the LAMBDA-X matrices in Table 4.17. All the items loaded significantly ($z > 1.64$) and well above the cut-off value of 0.50.

Table 4.17

Completely Standardised LAMBDA-X matrix for the refined TES

LAMBDA-X	
TES Items	Factor 1
e1	0.769
e2	0.618
e3	0.599
e4	0.760
e5	0.730
e6	0.737
e7	0.767
e8	0.731
e9	0.654
e10	0.774
e12	0.741
e13	0.756
e14	0.791
e15	0.837
e16	0.765
e17	0.875
e18	0.870
e19	0.843
e20	0.794
e21	0.800

Table 4.18

Fit indices for the refined measurement models for the four measurement scales

Indices	ALQ	PES	UWES	TES
Absolute Fit measures				
Satorra-Bentler Scaled Chi-Square	209.069 (p<0.05)	170.967 (p<0.05)	197.776 (p<0.05)	392.717 (p<0.05)
Degrees of Freedom (df)	98	84	87	170
χ^2/df	2.13	2.04	2.27	2.31
Root Mean Square Error of Approximation (RMSEA)	0.0736	0.0704	0.0781	0.0792
P-Value for Test of Close Fit (RMSEA < 0.05)	0.00323	0.0153	0.0001	0.00
Root Mean Square Residual (RMR)	0.0566	0.0807	0.0732	0.0754
Standardised RMR	0.0434	0.055	0.0487	0.0472
Goodness of Fit Index (GFI)	0.847	0.866	0.840	0.782
Incremental Fit Measures				
Normed Fit Index (NFI)	0.975	0.969	0.974	0.971
Non-Normed Fit Index (NNFI)	0.984	0.980	0.982	0.982
Comparative Fit Index (CFI)	0.987	0.984	0.985	0.983
Incremental Fit Index (IFI)	0.987	0.984	0.985	0.983
Relative Fit Index (RFI)	0.970	0.961	0.968	0.968

4.5   FITTING THE OVERALL REVISED MEASUREMENT MODEL

The overall fit of the initial measurement model was satisfactory with a P-value for Close fit of 0.265 and a RMSEA value of 0.057. The RMSEA is a critical value to consider when assessing model fit. According to Diamantopoulos and Siguaw (2000), values smaller than 0.05 indicate good fit and values below 0.08 indicate reasonable fit.

The Satorra-Bentler Scaled Chi-Square of 99.041 (p < 0.01), indicates that the null hypothesis of exact fit could be rejected. The $\chi2/df$ ratio was calculated using the Satorra-Bentler Scaled Chi-Square divided by the degrees of freedom. The $\chi2/df$ ratio of 1.679 falls marginally below the range of 2 – 5 indicating good fit.

The RMR of the measurement model was found to be 0.048, which is an indication of good fit. Kelloway (1998) further states that LISREL provides the standardised RMR, which is a better index and indicates that values lower than 0.05 represents good fit.

The standardised RMR value of this measurement model was 0.046. The GFI value of 0.92 for the measurement model was also above the criterion for good fit.

Comparative fit is an incremental fit index that "measures the relevant improvement in the fit of the researcher's model over that of a baseline model, typically the independence model" (Kline, 2011). The incremental fit indices resulted in a NFI value of .98, NNFI .99, CFI .99, IFI .99 and RFI .97 that are all above .95, indicating good comparative fit relative to the independence model.

In summary, the inspection of the goodness-of-fit indices resulted in the inference that the overall measurement model displayed a reasonable fit with the data. The fit statistics are shown in Table 4.19.

The path diagram for the overall adapted measurement model is presented in Figure 4.19. The path diagram for the measurement model is an illustration showing that all items comprising of each of the scales and subscales used in this study, seemed to load significantly on the respective latent variables.

Table 4.19

Fit statistics for the overall Measurement Model

Indices	
Absolute Fit measures	
Satorra-Bentler Scaled Chi-Square	99.041 (p<0.05)
Degrees of Freedom (df)	59
χ^2/df	1.679
Root Mean Square Error of Approximation (RMSEA)	0.057
P-Value for Test of Close Fit (RMSEA < 0.05)	0.265
Root Mean Square Residual (RMR)	0.048
Standardised RMR	0.046
Goodness of Fit Index (GFI)	0.92
Incremental Fit Measures	
Normed Fit Index (NFI)	0.98
Non-Normed Fit Index (NNFI)	0.99
Comparative Fit Index (CFI)	0.99
Incremental Fit Index (IFI)	0.99
Relative Fit Index (RFI)	0.97
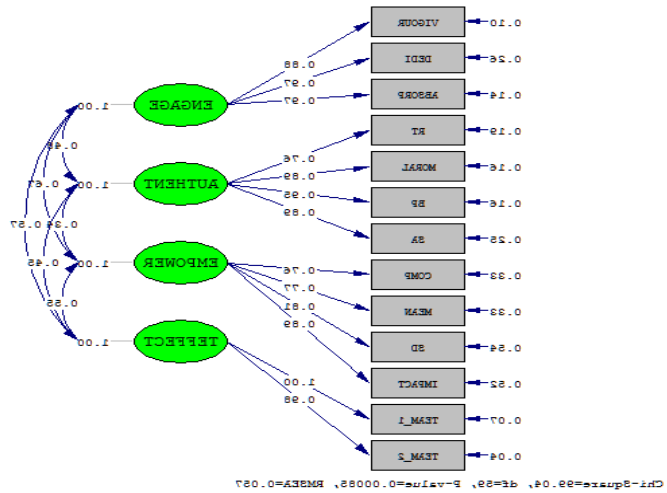
Figure 4.1 : Path diagram for the overall refined measurement model

4.6   EVALUATING THE STRUCTURAL MODEL FIT

The overall model is a combination of the structural equation system among the latent variables eta's (η's) and ksi's (ξ's). This combination also extends to the measurement models for the observed y-indicators and x-indicators where all variables (observed and latent), are assumed measured in deviation from their means (Jöreskog & Sörbom, 1996). All the fit statistics of the structural model are shown in Table 4.20.

The RMSEA value of this structural model resulted in 0.057, which fell within the acceptable fit range according to Diamantopoulos and Siguaw (2000). The P-value for Test of Close fit (p = 0.265) indicated that the model shows close fit with the data.

The Satorra-Bentler Scaled Chi-Square of 99.041 (p < 0.01), indicated that the null hypothesis of exact fit should be rejected. The χ2/df ratio was calculated using the Satorra-Bentler Scaled Chi-Square divided by the degrees of freedom. The χ2/df ratio of 1.679 fell marginally below the range of 2 – 5 indicating good fit.

The RMR of the structural model was found to be .048. The standardised RMR value of this structural model was .0461, which met the threshold for good model fit (<0.05). The GFI value of .92 for the structural model was within the range for acceptable good fit.

Comparative fit is an incremental fit index that "measures the relevant improvement in the fit of the researcher's model over that of a baseline model, typically the independence model" (Kline, 2011). The incremental fit indices resulted in a NFI value of .98, NNFI 0.99, CFI 0.99, IFI 0.99 and RFI 0.97 which were all above .95, indicated good comparative fit relative to the independence model (Coughlan & Mullen, 2008; Kelloway, 1998; 2014).

Overall, the examination of the goodness-of-fit indices resulted in the conclusion that the structural model displayed a reasonable fit with the data. The path diagram for the overall structural model is presented in Figure 4.2.

Table 4.20

Fit statistics for the structural model

Indices	
Absolute Fit measures	
Satorra-Bentler Scaled Chi-Square	99.041 (p<0.05)
Degrees of Freedom (df)	59
χ^2/df	1.679
Root Mean Square Error of Approximation (RMSEA)	0.057
P-Value for Test of Close Fit (RMSEA < 0.05)	0.265

|	
Root Mean Square Residual (RMR)	0.048
Standardised RMR	0.0461
Goodness of Fit Index (GFI)	0.92
Incremental Fit Measures	
Normed Fit Index (NFI)	0.98
Non-Normed Fit Index (NNFI)	0.99
Comparative Fit Index (CFI)	0.99
Incremental Fit Index (IFI)	0.99
Relative Fit Index (RFI)	0.97

Chi-Square=100.62, df=59, P-value=0.00060, RMSEA=0.058
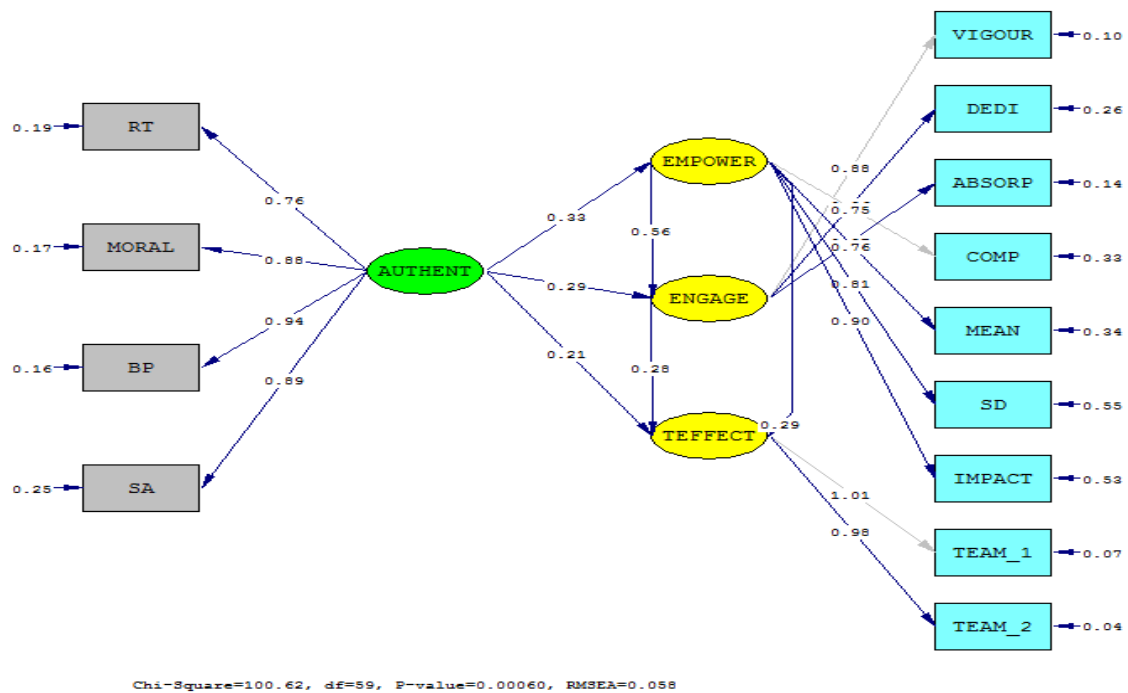
Figure 4.2: **Path diagram for the refined structural model**

4.6.1 Relationships Between The Variables

Once the structural model fitted the data reasonably good, it is necessary to test the relationships between the endogenous and exogenous latent variables. This assessment is performed in order to ascertain whether the linkages specified in the conceptualisation phase, were, in fact, supported by the data (Diamantopoulos & Siguaw, 2000). In order to determine these relationships, three relevant issues should considered. The first issue is to examine the signs of the parameters representing the

paths between the latent variables. These paths determine whether the direction of the hypothesised relationships is as conceptually determined. Secondly, measurement of the magnitudes of the estimated parameters is essential, because it provides critical information with regard to the strength of these relationships. Lastly, the squared multiple correlations (R^2) should be considered, which indicate the amount of variance in the endogenous variables that is explicated by the latent variables that are linked to it (Diamantopoulos & Siguaw, 2000).

The parameters that were evaluated are the freed elements of the gamma (γ) and beta (β) matrices. The unstandardised gamma matrix is used to evaluate the strength of the estimated path coefficients γ_{ij} that express the significance of the influence of ξ_j on η_i. These unstandardised γ_{ij} estimates are significant if t > |1.64| (Diamantopoulos & Siguaw, 2000). A significant γ estimate would entail that the related H_0-hypothesis will be rejected in favour of the relevant H_a-hypothesis.

Table 4.21

Unstandardised GAMMA (Γ) Matrix

GAMMA	
	Authentic Leadership
Work engagement	0.291
	(0.074)
	3.958
Empowerment	0.338
	(0.092)
	3.693
Team Effectiveness	0.217
	(0.079)
	2.728

Table 4.21 presents the unstandardised gamma matrix. Authentic leadership is the only exogenous latent variable.

Table 4.22 presents the unstandardised beta (β) matrix that describes the relationships between the endogenous variables and reflects the slope of the regression in η_i and η_j. The unstandardised beta matrix is used to assess the

hypothesised relationships between the endogenous variables in the structural model. According to Diamantopoulos and Siguaw (2000), unstandardised β_{ij} estimates are also significant (p<0.05) if t values are > |1.64|. A significant β estimates would result in the rejection of the relevant H_0-hypothesis in favour of the relevant H_a-hypothesis.

4.6.1.1 Relationship between authentic leadership and psychological empowerment

From Table 4.21, it can be derived based on a path coefficient of 0.34 and a t value of 3.693 (>1.64) that a significant positive relationship existed between authentic leadership (ξ_1) and psychological empowerment (η_1). Therefore, hypothesis 3 (H_{03}) could be rejected in favour of H_{a3}: $\gamma_{11} > 0$, which suggests that the proposed relationship between these two latent variable was supported.

4.6.1.2 Relationship between authentic leadership and work engagement

Based on a path coefficient of 0.29 and a t value of 3.958, which is above 1.64 as can be seen in the gamma matrix, a significant positive relationship exists between authentic leadership (ξ_1) and work engagement (η_2). Therefore, hypothesis 4 (H_{04}) could be rejected in favour of H_{a4}: $\gamma_{21} > 0$, which infers that the proposed relationship between authentic leadership and work engagement was supported.

4.6.1.3 Relationship between authentic leadership and team effectiveness

As indicated in Table 4.21, a significant relationship with a path coefficient of 0.22 and a t-value of 2.728 (> 1.64) existed between authentic leadership (ξ_1) and team effectiveness (η_3). Therefore, support was obtained for a positive effect of authentic leadership on team effectiveness as stated by hypothesis 5.

4.6.1.4 Relationship between work engagement and team effectiveness

As presented in the beta matrix Table 4.22 the t value of 2.633 was above 1.64 thus indicating a significant positive relationship with a path coefficient of 0.28 between work engagement (η_2) and team effectiveness (η_3). Therefore, the null hypothesis 6 (H_{06}: $\beta_{32} = 0$) was rejected in favour of the alternative hypothesis 6 (H_{a6}: $\beta_{32} > 0$) which suggest that the proposed relationship between these two latent variables was supported.

4.6.1.5   Relationship psychological empowerment and team effectiveness

Based on the t value of 2.746, which is above 1.64, the null hypothesis 7 (H_{07}) could be rejected in favour of the alternative hypothesis 7 (H_{a7}). Therefore, it could be derived that there exists a significant positive relationship (i.e. a path coefficient of 0.29) between psychological empowerment (η_1) and team effectiveness (η_3).

4.6.1.6   Relationship between psychological empowerment and work engagement

With a t value of 7.659, as indicated in Table 4.22 the null hypothesis 8 (H_{08}) could also be rejected in favour of the alternative hypothesis (H_{a8}). It could thus be concluded that a significant positive relationship (i.e. a path coefficient of 0.57) was established between psychological empowerment (η_1) and work engagement (η_2).

Table 4.22

Unstandardised BETA (B) Matrix

	BETA		
	Work Engagement	**Empowerment**	
Work engagement	-	0.569 (0.074) 7.659	
Team Effectiveness	0.275 (0.104) 2.633	0.290 (0.106) 2.746	-

4.6.2 Structural model modification indices

In order to determine the extent to which the structural model was successful in explicating the observed covariances among the manifest variables, it is necessary to investigate the structural model modification indices. According to Jöreskog and Sörbom (1993), a modification index (MI) indicates the minimum decrease in the model's chi-square value if a previously fixed parameter is set free and the model is

re-estimated. In essence, a modification index for a particular fixed-parameter indicates that if that specific parameter were extricated in a subsequent model, then the chi-square goodness-of-fit value would be predicted to decrease by at least the value of the index. Broad modification indices are characterised by values above 6.6349, which would then be indicative of parameters, that if extricated, it would potentially improve the fit of the model ($p < 0.01$). However, it should be considered that any adjustment to the model, as suggested by parameters with high MI values, should only be freed if it makes theoretical sense to do so (Kelloway, 1998).

The LISREL output suggested no modification indices for the gamma or beta matrices. This indicates that no additional paths exist between the latent variables, which would significantly improve the fit of the structural model.

4.7   SUMMARY

The chapter's objective was to present the results gathered from this study. The section introduced an investigation and polishing of the measuring instruments used. The statistical outcome of the hypothesised relationships was also determined. The subsequent chapter will discuss in greater depth the general conclusions drawn from the results. Suggestions for future research and possible managerial implications will be presented in the conclusion.

CHAPTER 5: DISCUSSION OF RESEARCH RESULTS, CONCLUSION AND RECOMMENDATIONS FOR FUTURE RESEARCH

5.1   INTRODUCTION

The study objective was to establish relationships among authentic leadership, psychological empowerment, employee engagement, and team effectiveness. Chapter 2 provides the theoretical meanings of study variables, as well as the nature of the relationships, as indicated by the existing literature. The discussion regarding proven relationships among constructs used, led to the formulation of hypotheses to guide the study. Methodology used in arriving at decisions regarding hypotheses are covered in Chapter 3. It was important that the scientific assumptions of objectivity and rationality were built into the study to avoid bias and engaging in unethical conduct. Hence, the ethical considerations and research procedure were provided for the scientific community to evaluate this study. Furthermore, Chapter 4 encapsulates the findings obtained from statistical analysis of the hypotheses in this study. The present chapter, Chapter 5, provides a holistic perspective of the study and a discussion of results obtained from the data analysis procedure. The results obtained in the study are related to previous findings. The managerial implications to inform practice, the constraints of this study, and suggestions for future directions, are provided.

5.2   PURPOSE OF THE STUDY

As mentioned before, the study purpose is to identify the relationship among authentic leadership, psychological empowerment, employee engagement and team effectiveness. Utilisation of team in corporates today is increasing and it is synonymous with enhanced organisational productivity, organisational success, improved employee morale and reduced absenteeism (Doolen et al., 2003; Glassop, 2002). Despite that, organisations fall short of recognising the crucial operatives of effective work teams (Irving & Longbotham, 2007). Ineffective work teams are pernicious to an organisation's vision and success. It takes time and effort to build effective teams; a myriad of factors ought to be considered. The present study identified authentic leadership, psychological empowerment, and employee engagement as some of the factors. The rationale for identifying these variables is given in Chapter 2, where research hypotheses were postulated. The following

sections discuss the findings obtained through the analysis of the empirical evidence, presented in Chapter 4.

5.3   SUMMARY OF THE FINDINGS

Item and confirmatory factor analyses were conducted on the scales in this study. This is done to ascertain that decisions relating to the hypotheses postulated in the study are made based on reliable and valid instruments as required by the *Amended Employment Equity Act of South Africa* (Republic of South Africa, 1998).

5.3.1   Conclusions regarding reliability analysis

To ensure internal reliability, and to identify items that did not contribute to the internal description of the latent variables, an item analysis was performed on all the four measurement scales, using SPSS. This data evaluation procedure was crucial to ensure the validity of each measuring instruments.

Determination of the reliability coefficients of all the scales were performed to confirm that each of the items from the various instruments succeeded in contributing to an internally consistent description of the specific scale in question. According to Nunnally (1978), testing of hypotheses is possible through measuring instruments with moderate reliability. The scale reliabilities were tested using Cronbach's alpha values above .70 as suggestive of satisfactory reliability coefficients (Pallant, 2016). Another suitable measure for internal consistency, were Item-total correlations of above .30 (Nunnally, 1978). In accordance with these guidelines, Table 4.13 presents the results obtained, which were satisfactory for the reliability analyses. All reliability scales exceeded the suggestive value of .70. In addition, the results revealed that all items presented an item-total correlation above the acceptable cut-off value of .30.

5.3.2   Conclusion regarding Confirmatory Factor Analysis (CFA)

In addition to the item inspection, it was also deemed important to assess the degree to which the individual items, comprising each of the scales, are representative of the underlying latent variable, by evaluating each of the measurement models of all the instruments. Once the goodness-of-fit of the overall measurement model was

evaluated and indicated acceptable model fit, hypotheses were evaluated through the structural model.

The Confirmatory Factor Analysis (CFA) was executed on all the dimension scales in this study (Jöreskog & Sörbom, 2006). The CFA was conducted to further refine the psychometric properties of the instruments, and to ascertain whether the expected data in the population is represented by sample data of the underlying measurement models. In terms of the index of the Root Mean Square Error of Approximation (RMSEA), the results of the CFA are initially discussed per scale. An RMSEA value of smaller than .08 show a satisfactory model fit; RMSEA values below .05 indicate a good data fit (Diamantopoulos & Siguaw, 2000). A p-value above 0.05 of the test of the close fit indicates that close fit has been derived. In line with this, the factor loadings were investigated by examining the Completely Standardised LAMBDA-X matrices When values above.30 were reached, items are explained to load sufficiently on the latent variable.

Various stages were ensued, depending on whether the initial results indicated a poor or a good model fit. In instances of a poor fit, the Lambda X and the theta-delta modification indices were examined to ascertain the possibility of improving the model fit (Diamantopoulos & Siguaw, 2000). The theta-delta indices indicate the variance percentage in the empirical variables not explained by the latent variables linked to it, but rather by random error and systematic latent variables. Parameters that would improve the model fit if it is set free, large modification are indicated by index values (i.e. > 6.64 at a significant level of 0.01) (Diamantopoulos & Siguaw, 2000; Jöreskog & Sörbom, 1996). In accordance with the loadings obtained in the corresponding, completely standardised LAMBDA-X matrices, and after items with large theta-delta values were identified, they were considered for removal. Items that were considered for removal are those with the lowest factor loadings in the completely standardised LAMBDA-X matrices.

The four dimensions of authentic leadership were measured using the ALQ. The observed fit statistics showed that the ALQ measurement model emerged to fit the data reasonably well (RMSEA = 0.0736) (see Table 4.18). The close fit p-value is 0.00323. Therefore, the H_0 for close fit can be rejected, with an explaining that the measurement model did not obtain close fit. The standardised RMR value of .0434

indicate a good fit range (< .05). A GFI value of .847 was established, which is just below the cut-off value for good fit (< .90).

The results of the incremental fit indices indicated that the measurement model achieved indices that were all above .95, this is indicative of a good fit (see Table 4.18). Therefore, it was inferred that the ALQ measurement model presented a reasonable fit. For this reason, the measurement model could allegedly provide a sensible justification of the observed covariance matrix.

The values presented in the completely standardised LAMBDA-X solution matrix, were all above 0.50 on the corresponding sub-dimension of the authentic leadership latent variable (see Table 4.14).

The psychological empowerment scale (PES) with all its dimensions was subjected to CFA to determine the measurement model fit. The initial CFA results indicated poor fit with an RMSEA of .0838 (> .08). After further inspection of the theta-delta modification indices, items with values above 6.64 were flagged as complex, and parameters for removal were set based on their factor loadings. Item C1 was eliminated from the PES, which led to the adapted measurement model achieving a reasonable fit with an RMSEA of .0704 (< .08) (see Table 4.18). The standardised RMR of .0550 (> .05), as well as the p-value for the test of close fit of .0153 (< .05) and the GFI of .866 (< .90), reported below the cut-off values of good fit.

The incremental fit indices of the measurement model were all above 0.95, a good fit was obtained (see Table 4.18). Therefore, the measurement model could supposedly provide a sensible justification of the observed covariance matrix. According to the unstandardised LAMBDA-X matrix, all indicator PES variables loaded satisfactorily above 0.50, according to the completely standardised matrix (see Table 4.15).

The initial CFA on the UWES results indicated poor fit with an RMSEA of .098 (> 0.08). After further scrutiny of the THETA-DELTA modification indices, two items (d1 and d14) were eliminated from the UWES, which led in the adapted measurement model achieving satisfactory fit of 0.0781 (< 0.08) with RMSEA (see Table 4.18). The GFI value of .84 (< .90) slightly missed the cut-off values for good fit. The Standardised RMR of .0487 showed a satisfactory model fit. The p-value for the test of close fit (0.0001) did not indicate close fit. The incremental fit indices all reported good fit with values above .95 (see Table 4.18). Therefore, it could be concluded that the measurement model for the UWES indicated satisfactory fit.

The factor loadings of the remaining items were all satisfactory, as presented by the LAMBDA-X matrices in Table 4.16. All the items loaded significantly and well above the cut-off value of .50.

The Team Effectiveness Scale (TES) was designed to be unidimensional, therefore CFA was performed with all the items loading on team effectiveness factor. The initial CFA results indicated poor fit with RMSEA of .084 (> 0.08). After further inspection of the THETA-DELTA modification indices, items with values above 6.64 were labelled as complex, and based on their factor loadings they were considered for elimination. One item (TE11) was eliminated from the TES, which led in the adapted measurement model achieving satisfactory fit with an RMSEA of .0792 (< .08).

Table 4.18 indicated further that the GFI value of .78 (< .90) and the p-value for the test of close fit (0.00) missed good fit cut-off values. However, the Standardised RMR of .0472 showed good model fit. The incremental fit indices all reported good fit with values above 0.95 (see Table 4.18). Thus, it could be inferred that the measurement model for the TES showed satisfactory fit.

Table 4.17 provides satisfactory factor loadings of the remaining items as presented by the LAMBDA-X matrices. All the items loaded significantly (z > 1.64) and significantly above the cut-off value of .50.

5.3.3   Evaluation of the overall measurement model

The fit of the overall measurement model was satisfactory with a P-value for close fit of .265 and an RMSEA value of .057 (see Table 4.19). The standardised RMR value of the measurement model was .046. The GFI value of .92 for the measurement model also indicated good fit.

The incremental fit indices were all above .95, indicating good comparative fit relative to the independence model (see Table 4.19). The examination of the goodness-of-fit indices resulted in the conclusion that the overall measurement model displayed reasonable fit with the data.

5.3.4 Conclusion regarding the evaluation of the structural model

The overall model is a combination of the structural equation system among the latent variables etas (ηs) and ksis (ξs), and measurement models for the observed y-indicators and x-indicators, where all variables, observed and latent, are assumed to be measured in deviation from their means (Jöreskog & Sörbom, 1996). Table 4.20 presents all the fit statistics of the structural model.

The RMSEA value of this structural model resulted in 0.057, which fell within the reasonable fit range according to Diamantopoulos and Siguaw (2000). The p-value for the test of close fit (p = .265) indicated that the model shows a tight fit with the data.

The standardised RMR value of the structural model was .0461, which met the cut-off for good model fit (< 0.05). The GFI value of .92 for the structural model was within the range for good fit.

The incremental fit indices were all above .95, indicating proper comparative fit relative to the independence model (see Table 4.20).

Overall, the investigation of the goodness-of-fit indices resulted in the conclusion that the structural model displayed a reasonable fit with the data.

5.3.5 Conclusion regarding the hypothesised relationships

An investigation of the gamma and beta matrices was performed to determine the strength of the theoretical linkages proposed in the structural model, as illustrated in Figure 3.1. The interpretation of these results provided information to ascertain whether the theoretical relationships specified at the conceptualisation stage, were supported by the data. Here the interpretation concerns the proposed causal linkages between the various endogenous and exogenous variables. The interpretation of these findings are discussed in the subsequent section.

5.3.3.1   The relationship between authentic leadership and psychological empowerment

From the unstandardised gamma matrix (see Table 4.21), it can be derived based on the t-value of 3.693 (>1.649), that a significant positive relationship exists between authentic leadership (ξ_1) and psychological empowerment (η_1). Therefore, hypothesis 3 (H_{03}) could be rejected in favour of H_{a3}: $\gamma_{11} > 0$, which suggests that the proposed

relationship between these two latent variables was supported. Similar finding is obtained from various studies (Joo & Jo, 2017; Jose & Mampilly, 2014; Marič et al., 2017; Shapira-Lishchinsky, & Tsemach, 2014; Walumbwa et al. 2010; Zhang et al., 2018; Zhu et al., 2004).

Jose and Mampilly (2014) reported a positive relationship among authentic leadership and psychological empowerment in a study conducted by using non-supervisory employees from three organisations, ranging from healthcare, insurance, and telecom sector) in South India. Shapira-Lishchinsky and Tsemach (2014) also reported similar results using MPLUS in a study conducted in Israel. This positive relationship between authentic leadership and psychological empowerment is expected, as authentic leadership is one of the contemporary value-based leadership styles that combines both the pre-occupation with the task and concern for the employees' well-being. Employees are likely to feel valued if a leader cares for them and helps them grow by giving them challenging roles to perform, as well as the opportunity to make decisions by using their own discretion.

5.3.3.2 The relationship between authentic leadership and work engagement

Based on the t-value of 3.958, which is above 1.649 (See Table 4.21) a significant positive relationship exists between authentic leadership (ξ_1) and work engagement (η_2). Therefore, hypothesis 4 (H_{04}) could be rejected in favour of H_{a4}: $\gamma_{21} > 0$, which suggests that the proposed relationship between authentic leadership and work engagement was supported. This finding is in agreement with the results of various studies (Alilyyani et al., 2018; Alok & Israel, 2012; Giallonardo et al., 2010; Hsieh & Wang, 2015; Karam et al., 2017; Malila et al. 2018; Lyubovnikova et al., 2017). According to Gardner et al. (2005), the psychological explanation of this link is hinged on the fact that authentic leadership increases employees' involvement, satisfaction and enthusiasm for work.

5.3.3.3 The relationship between authentic leadership and team effectiveness

As indicated in Table 4.21, a meaningful relationship with a t-value of 2.728 (>1.649) exists between authentic leadership (ξ_1) and team effectiveness (η_3). Therefore, support was found for a positive effect of authentic leadership on team effectiveness

as stated by hypothesis 5. Various research findings reveal that authentic leadership behaviour has been linked with team effectiveness (Clapp-Smith et al.,2009; George et al., 2007; Lyubovnikova et al., 2017; Meng et al., 2016; Walumba et al., 2008). Clapp-Smith et al. (2009) found that authentic leadership positively affects group performance as measured by unit sales growth. According to Meng et al. (2016), authentic leadership behaviour has a role to play regarding positive team atmosphere. When leader behaviour is congruent with their deeply held moral values, the team members tend to trust their leader and are motivated to perform as a team.

5.3.3.4   The relationship between work engagement and team effectiveness

As presented in the unstandardised beta matrix (see Table 4.22), the t-value of 2.633 was above 1.649, recording a significant positive relationship between work engagement (η_2) and team effectiveness (η_3). Therefore, the null hypothesis 6 (H_{06}: $\beta_{32} = 0$) was rejected in favour of the alternative hypothesis 6 (H_{a6}: $\beta_{32} > 0$), which suggests that the proposed relationship between these two latent variables was supported. This result is based on the premise that the more engaged employees are, the better the work teams perform (Costa et al., 2017; Spence et al., 2009; Van Bogaert et al., 2013). It was found that the teams with high levels of engagement were vibrant, passionate and energetic in their work, thus empowering such teams to remain motivated to perform (Costa et al., 2017). Vigour, dedication and absorption are employee behaviours that create positive team-level experiences and effectiveness. One can infer that since work engagement involves the creation of positive emotions by employees, team effectiveness and job performance are enhanced.

5.3.3.5   The relationship between psychological empowerment and team effectiveness

Based on the t-value of 2.746, which is above 1.649, the null hypothesis 7 (H_{07}) could be rejected in favour of the alternative hypothesis 7 (H_{a7}) (see Table 4.22). Therefore, it could be derived that there exists a significant, positive relationship between psychological empowerment (η_2) and team effectiveness (η_3). This result was supported by other researchers (Aucamp, 2014; Chen et al., 2007; Jain, 2017; Masoud & Yazdi, 2017; Ozaralli, 2003; Seibert at al., 2011; Spence et al., 2009).

Aucamp (2014) reported a significant relationship between the two variables obtained from a sample comprising employees operating in a team environment. According to Seibert at al. (2011), the explanation lies in the fact that empowered teams have a collective ability and inclination to accomplish work-related tasks for as long as these tasks are intrinsically meaningful and important for the organisation, and they, as a group, have a higher degree of choice or discretion in everyday work-related decisions. Therefore, the more the team members experience team empowerment, the more effective the team becomes.

5.3.3.6   The relationship between psychological empowerment and work engagement

With a t-value of 7.659, as indicated in Table 4.22, the null hypothesis 8 (H_{08}) could also be rejected in favour of the alternative hypothesis (H_{a8}). Thus, it could be concluded that a significant positive relationship was established between psychological empowerment ($\eta 1$) and work engagement ($\eta 2$). Other studies also revealed a positive link between psychological empowerment and work engagement (De Klerk & Stander, 2014; Jose & Mamphilly, 2014; May, Gilson, & Harter, 2004; Spence et al., 2009). A study among employees from three organisations in the healthcare, insurance and telecom sectors in India reports similar results (Jose and Mamphilly 2014). In this study, the authors reported that the four dimensions of psychological empowerment explained 71.7 per cent of variance in employee engagement. According to Thomas and Velthouse (1990) as well as May, Gilson, and Harter (2004), the four cognitions of empowerment create some conducive conditions for the development of work engagement. A psychologically empowered workforce tend to demonstrate high levels of competence on the job and in the meaningful experience of what they do. Therefore, the more employees experienced higher levels of psychological empowerment, the higher the levels of work engagement were demonstrated.

In conclusion, the results indicated that authentic leadership has a direct and indirect effect on team effectiveness. Psychological empowerment and work engagement probably mediate the relationship between authentic leadership and team effectiveness. Thus, for an authentic leader to influence effective teamwork optimally,

the authentic leader should create a work environment conducive to the psychological empowerment and work engagement of employees.

5.4 IMPLICATIONS AND RECOMMENDATIONS

Team effectiveness is one of the desirable outcomes that organisations need to promote. The findings of this study have a direct impact on the identification of some of the variables that explain variance in team effectiveness. It has been found that authentic leadership and work engagement are two of the variables that have a favourable effect on team effectiveness. The favourable relationship between authentic leadership and team effectiveness is consistent with the findings regarding the relationship between other value-based leaderships (such as transformational leadership and servant leadership) and team effectiveness. This discovery has important practical implications for training and development at work. Leadership should be valued-based and people-oriented, to reap the positive work outcomes such as team effectiveness.

The moment employees realise that the leaders care about them and offer them opportunities to exercise their discretion through psychological empowerment, as well as ensuring that their jobs have meaning, impact, enhance their competence and ultimately their self-determination, they are likely to develop feelings of engagement with their job. Teams with high levels of psychological empowerment are documented to be closely linked to employees' ingenious behaviour, effective communication systems and higher levels of job satisfaction and performance (Aucamp, 2014; Spreitzer et al., 1997).

Hence, organisations can use the theoretical model developed in the present study to develop credible interventions for enhancing effective team performance at work. The success of this model might be facilitated by sending the leadership team for a self-insight exercise to determine their own perceptions of the type of leaders that they are. This should be followed by one-on-one coaching and mentorship programmes to develop and enhance the basic tenets of authentic leadership in the leadership team.

5.5   LIMITATIONS OF THIS STUDY AND SUGGESTIONS FOR FUTURE RESEARCH

The findings of this research adds some valuable insights into effective leadership practice. In spite of its importance and relevance, some limitations have been identified which need to be addressed in future, as the scientific community requires the continuous improvement of science. Firstly, the use of convenience sampling, a type of non-probability sampling design hinders the generalisability of this study. Future studies should employ probability sampling designs. Secondly, the use of the cross sectional design that is collecting data at a single-point in time, did not take maturational effects into consideration. Longitudinal studies might help to reduce this problem. Thirdly, the use of questionnaires are usually plagued by the problem of social desirability as participants may respond in ways that seek to please the researcher. Fourthly, the study used a quantitative design, which only uses numbers at the expense of participants' subjective experiences. Qualitative studies will assist with the finer details from the participants. Fifthly, the model might have excluded other variables that explain variance in team effectiveness, such as affective commitment and the creation of happiness and flourishing among employees (Mahembe & Engelbrecht, 2013; Wagner & Harter, 2006).

5.6   CONCLUSION

The empirical evidence found from the sample and the results from the statistical analyses were presented in Chapter 4. Interpretation of results and plausible explanations thereof were presented in Chapter 5. Significant favourable relationships were found to exist among all the variables used in the study (authentic leadership, psychological empowerment, work engagement and team effectiveness). These findings have some notable implications for work practice as far as the creation of effective teams is concerned. According to the findings of the present study, this can be achieved by psychologically empowering employees and creating work engagement via authentic leadership.

REFERENCES

Adèr, H.J. (2008). Chapter 12: Modelling. In H.J. Adèr & G.J. Mellenbergh (Eds.) (with contributions by D.J. Hand), *Advising on Research Methods: A consultant's companion* (pp. 271-304). Huizen, The Netherlands: Johannes van Kessel Publishing.

Alderfer, C.P. (1977). Group and intergroup relations. In J.R. Hackman & J.L. Suttle (Eds.), *Improving the quality of work life* (pp. 227–296). Palisades, CA: Goodyear.

Alilyyani, B., Wong, C. A., & Cummings, G. (2018). Antecedents, mediators, and outcomes of authentic leadership in healthcare: A systematic review. *International journal of nursing studies*, *83*, 34-64.

Alok, K., & Israel, D. (2012). Authentic leadership & work engagement. *Indian Journal of Industrial Relations*, 498-510.

Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in Organizational Behaviour, 10,* 123–167.

Amundsen, S., & Martinsen, Ø. L. (2015). Linking empowering leadership to job satisfaction, work effort, and creativity: The role of self-leadership and psychological empowerment. *Journal of Leadership & Organizational Studies*, *22*(3), 304-323.

Argote, L., & McGrath, J.E. (1993). Group processes in organizations. In C.L. Cooper & I.T. Robertson (Eds.), *International review of industrial and organizational psych*ology (Vol. 8, pp. 333–389). New York: John Wiley & Sons.

Arneson, H., & Ekberg, K. (2006). Measuring empowerment in working life: a review. *Work, 26*(1), 37-46.

Arnold, J. A., Arad, S., Rhoades, J. A., & Drasgow, F. (2000). The Empowering Leadership Questionnaire: The construction and validation of a new scale for measuring leader behaviors. *Journal of Organizational Behavior, 21,* 249 –269. doi:10.1002/(SICI)1099-1379(200005)21:3::AID-JOB103.0.CO;2-#

Ashforth, B., & Mael, F. (1989). Social identity theory and the organisation. *Academy of Management Review, 14,* 20-39.

Athearne, M., Mathieu, J., & Rapp, A. (2005). To empower or not to empower your sales force? An empirical examination of the influence of leadership empowerment behaviour on customer satisfaction and performance. *Journal of Applied Psychology, 90*, 945-955

Aucamp, L. (2014). *The influence of transformational leadership on trust, psychological empowerment, and team effectiveness* .Masters thesis, Stellenbosch: Stellenbosch University).

Avolio, B. J., & Gardner, W. L. (2005). Authentic leadership development: getting to the root of positive forms of leadership. *The Leadership Quarterly, 16* (3), 315-338.

Avolio, B. J., & Luthans, F. (2006). *The high impact leader.* New York: McGraw-Hill.

Avolio, B. J., Gardner, W. L., Walumbwa, F. O., Luthans, F., & May, D. R. (2004). Unlocking the mask: A look at the process by which authentic leaders impact follower attitudes and behaviors. *The leadership quarterly*, *15*(6), 801-823.

Avolio, B. J., Jung, D., Murry, W. D., & Sivasubramaniam, N. (1996). Vital forces: Building highly-developed: Focusing on shared leadership processes, efficacy, trust and performance. In M. M. Beyerlein, D. A. Johnson, & S. T. Beyerlein (Eds.), *Advances in interdisciplinary studies of work teams* (pp. 173-209). Greenwich, CT: JAI Press.

Avolio, B. J., Walumbwa, F. O. & Weber, T. J. (2009). Leadership: Current theories, research, and future directions. *Annual Review of Psychology, 60*(1), 421-449.

Avolio, B. J.& W. L. Gardner (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly 16* (3), 315-338.

Avolio, B. J., Luthans, F., & Walumbwa, F. O. (2004b). *Authentic leadership: Theory building for veritable sustained performance* . Working Paper, Gallup Leadership Institute, University of Nebraska-Lincoln.

Avolio, B.J., Waldman, D.A., & Einstein, W.O. (1988). Transformational leadership in a management game simulation. *Group and Organisational Studies*, 13, 59-79

Babbie, E. R. (1998). *The practice of social research (8th ed.).* Belmont: Wadsworth Publishing Company.

Babbie, E. R. (2015). *The practice of social research.* Nelson Education.

Babbie, E., & Mouton, J. (2001). *The logic of sampling in The Practice of Social Research.* Oxford University Press.

Bailey, C., Madden, A., Alfes, K., & Fletcher, L. (2017). The meaning, antecedents and outcomes of employee engagement: A narrative synthesis. *International Journal of Management Reviews*, *19*(1), 31-53.

Bakker A.B., van Emmerik H. & Euwema M.C. (2006) Crossover of burnout and engagement in work teams. *Work and Occupations, 33*, 464–489.

Bakker, A. B., & Schaufeli, W. B. (2008). Positive organisational behaviour: Engaged employees in flourishing organisations. Journal of Organisational Behaviour, 29, 147 – 154.

Bakker, B., Euwema, C. F., & van Dierendonck, A. (2003). Job resources foster engagement and motivation to change. *Manuscript in preparation.*

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Engelwood Cliffs, N.J: Prentice Hall.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York, NY: Freeman.

Banks, G. C., McCauley, K. D., Gardner, W. L., & Guler, C. E. (2016). A meta-analytic review of authentic and transformational leadership: A test for redundancy. *The Leadership Quarterly*, *27*(4), 634-652.

Barbuto, J.E. (1997). Taking the charisma out of transformational leadership. *Journal of Social Behaviour and Personality, 12*, 689-697.

Bass, B. M. (1996). *A New Paradigm for Leadership: An Inquiry into Transformational Leadership.* State University Of New York At Binghamton.

Bass, B. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organisational Psychology, 12*, 47-59.

Bass, B. & Steidlmeier, P (1999). Ethics. Character, and authentic transformational leadership behaviour, *The Leadership Quarterly, 10*(2), 181-217.

Bass, B. M. (1981). *Stogdill's handbook of leadership.* New York: Macmillan.

Bass, B. M. (1985). *Leadership and performance beyond expectations.* New York: Free Press

Bass, B.M. (1990). *Bass & Stogdills handbook of leadership: Theory, research, and managerial applications* (3rd ed.). New York: The free press

Bass. B.M. & Avolino, B.J. (1993). "Transformational leadership: a response to critiques", in Chamers, M.M. & Ayman, R. (Eds), *Leadership Theory and Research*, , San Diego, CA, Academic Press, 49-80.

Bateman, B., Wilson, F. C., & Bingham, D. (2002). Team effectiveness – development of an audit questionnaire. *The Journal of Management Development*, *21*(3), 215-226.

Battilana, J., Sengul, M., Pache, A. C., & Model, J. (2015). Harnessing productive tensions in hybrid organizations: The case of work integration social enterprises. *Academy of Management Journal*, *58*(6), 1658-1685.

Becker, S., Bryman, A., & Ferguson, H. (2012). *Understanding research for social policy and social work: themes, methods and approaches.* Bristol, UK, Policy Press.

Becker, W. S., & Yukl, G.A. (2006). Effective Empowerment in Organisations: Linking Theory and Practice: EAM White Paper Series. *Organisation Management Journal. 3* (3), 210-231

Bekker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career development international*, *13*(3), 209-223.

Bell, B.S., & Kozlowski, S.W.J. (2002b). A typology of virtual teams: Implications for effective leadership. *Group & Organization Management, 27*, 14–49.

Benders, J. & Van Hootegem, G., (1999). Teams and their context: moving the team discussion beyond existing dichotomies. *Journal of Management Studies*, *36*(5), 609-628.

Bennet, H. (1997). *Personal Communication with A.B. Boshoff.* June, 1997, University of Pretoria, Pretoria.

Bennis, W. (1989). *Why leaders can't lead*. San Francisco: Jossey-Bass, 118-120.

Bennis, W. (2003). *On Becoming a Leader*. Cambridge, MA: Perseus Publishing.

Bhindi, N, & Duignan, P. (1997). Leadership for a new century: Authentically, intentionality, spirituality and sensibility. *Educational Management and Administration, 25* (2), 117-132

Bhindi, N., & Duignan, P. (1997). Leadership for a new century, authenticity, intentionality, spirituality and sensibility. *Educational Management & Administration*, *25*(2), 117-132.

Blaikie, N. (2003). *Analyzing quantitative data: From description to explanation*. Sage.

Blair, J., Czaja, R. F., & Blair, E. A. (2013). *Designing surveys: A guide to decisions and procedures*. Sage Publications.

Blau, P. (1964). *Exchange and power in social life.* New Brunswick, NJ: Transaction Books.

Bleeker, M.M.E. & Roodt, G. (2002). Die verband tussen werksbetrokkenheid en werksprestasie. [The relationship between work involvement and work performance]. *SA Journal of Industrial Psychology, 51*, 1173-1182.

Block, P. (1987). *The empowered manager: Positive political skills at work*. San Francisco, CA: Jossey-Bass.

Boikanyo, D. H., & Heyns, M. M. (2019). The effect of work engagement on total quality management practices in a petrochemical organisation. *South African Journal of Economic and Management Sciences*, *22*(1), 1-13.

Bradley, B. H. (2008). The bad apple spoils the bunch: How a disagreeable person damages team performance and what can be done about it. University of Iowa Libraries.

Braine, R. D., & Roodt, G. (2011). The Job Demands-Resources model as predictor of work identity and work engagement: A comparative analysis. *SA Journal of Industrial Psychology*, *37*(2), 52-62.

Branson, C. (2007). Effects of structured self-reflection on the development of authentic leadership practices among Queensland primary school principals. *Educational Management Administration Leadership*, 35(2), 225-246.

Braun, S., & Nieberle, K. W. (2017). Authentic leadership extends beyond work: A multilevel model of work-family conflict and enrichment. *The Leadership Quarterly*, *28*(6), 780-797.

Bryman, A., & Bell, E. (2003). *Business Research methods.* New York: Oxford University Press Inc.

Burke, W. 1986. Leadership as empowering others. In S. Srivastva (Ed.), *Executive power*: San Francisco: Jossey-Bass, 51-77.

Bush, M. C. (2018). *A Great Place to Work for All: Better for Business, Better for People, Better for the World*. Oakland, CA.: Berrett-Koehler Publishers.

Byrne, B. M. (2001). Structural equation modeling with AMOS, EQS, and LISREL: Comparative approaches to testing for the factorial validity of a measuring instrument. *International journal of testing*, *1*(1), 55-86.

Caldwell, C., & Dixon, R. D. (2010). Love, forgiveness, and trust: Critical values of the modern leader. *Journal of Business Ethics, 93*(1), 91-101.

Caldwell, C., Hayes, L. A., & Long, D. T. (2010). Leadership, trustworthiness, and ethical stewardship. *Journal of Business Ethics, 96*(4), 497-512.

Cameron, K. S., Dutton, J. E., Quinn, R. E., & Wrzesniewski, A. (2003). Developing a discipline of positive organizational scholarship. *Positive organizational scholarship: Foundations of a new discipline*, 361-370.

Cameron, K.S., Dutton, J.E. & Quinn, R.E. (2003). Positive Organisational Scholarship: Foundations of a new discipline. Books.google.com

Campbell, D. T., & Stanley, J. C. (2015). *Experimental and quasi-experimental designs for research*. Boston. Ravenio Books.

Cannela, A. A., & Monroe, M. J. (1997). Contrasting perspectives on strategic leaders: Toward a more realistic view of top managers. *Journal of Management, 23*, 213 – 237.

Cavalieri, I. C., & Almeida, H. N. (2018). Power, Empowerment and Social Participation - the Building of a Conceptual Model. *European Journal of Social Sciences Education and Research*, *12*(1), 189-199.

Caza, B.B. & Caza, A. (2008). Positive Organisational Scholarship: A critical theory perspective: *Journal of Management Inquiry; 17*(1), 21-33

Chen, G., Kirkman, B. L., Kanfer, R., Allen, D., & Rosen, B. (2007). A multilevel study of leadership, empowerment, and performance in teams. *Journal of applied psychology*, *92*(2), 331-346.

Chiaburu, D. S., & Harrison, D. A. (2008). Do peers make the place? Conceptual synthesis and meta-analysis of coworker effects on perceptions, attitudes, OCBs, and performance. *Journal of Applied Psychology, 93,* 1082–1103.

Chiumento (2004). *Get Engaged*. Chiumento, London. In Armstrong, M.(2006) *A Handbook of Human Resource Management Practice.* 10th Edition. Kogan Page, London & New Delhi.

Clapp- Smith, R.; Vogelgesang, G. R. & Avey, J. B. (2009). Authentic Leadership and Positive Psychological Capital. The mediating role of trust at the group level of Analysis. *Journal of Leadership & Organisational Studies. 15* (3), 227 – 240

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences*. New York. Routledge.

Cohen, S. G., Chang, L., & Ledford, G. E. (1997). A hierarchical construct of self-management leadership and its relationship to quality of work life and perceived work group effectiveness. *Personnel Psychology, 50,* 275–308. doi:10.1111/j.1744-6570.1997.tb00909.x

Collins, J. & Porras, J. (1996). Building your Company's vision. *Harvard Business Review, 74*, 65-78.

Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O., & Ng, K. Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology, 86,* 425–445.

Combs, J., Liu, Y., Hall, A., & Ketchen, D. (2006). How much do high-performance work practices matter? A meta-analysis of their effects on organizational performance. *Personnel Psychology, 59,* 501–528.

Conger, J.A. (1999). Charismatic and transformational leadership in organisations: An insider's perspective on these developing streams of research. *Leadership Quarterly, 10*, 145-179

Conger, J.A., & Kanungo, R.N. (1988). The empowerment process: Integrating theory and practice. *Academy of Management Review, 13* (3), 471-482

Costa, P. L., Passos, A. M., Bakker, A. B., Romana, R., & Ferrão, C. (2017). Interactions in engaged work teams: a qualitative study. *Team Performance Management: An International Journal*, *23*(5/6), 206-226.

Cotter-Lockard, D., Cotter-Lockard, D., & Barlow. (2017). *Authentic leadership and followership*. USA: Palgrave Macmillan.

Cottrill, K., Denise Lopez, P., & C. Hoffman, C. (2014). How authentic leadership and inclusion benefit organizations. *Equality, Diversity and Inclusion: An International Journal*, *33*(3), 275-292.

Creswell, J. W. (2003). *Research design. Qualitative, quantitative, and mixed methods approaches.* (2nd ed.). London: SAGE Publications.

Crowther, N.A.S., Smit, C.S. & Herbst, C. (1994). *Class notes for research methodology students*. Department of Statistics: University of Pretoria.

Dansereau, F., Yammarino, F. J., & Markham, S. E. (1995). Leadership: The multiple-level approaches. *The Leadership Quarterly, 6*, 97-109.

Dansereau, F., Yammarino, F. J., Markham, S. E. Alutto, J. A., Newman, J. A., Newman, J., Dumas, M., Nachman, S. A., Naughton, T. J., Kim, K., Al-Kelabi, S. A., Lee, S., & Keller, T. (1995). Individualised leadership: A new multiple-level approach. *The leadership Quarterly, 6*, 413-450.

De Klerk, S., & Stander, M. W. (2014). Leadership empowerment behaviour, work engagement and turnover intention: The role of psychological empowerment. *Journal of Positive Management*, *5*(3), 28-45.

De Meuse, K. (2009). *Driving team effectiveness*. The Korn/Ferry Institute, 1-16.

De Meuse, K. P., Tang, K.Y., & Dai, G. (2009). *Construct validation of Lominger T7 Model of team effectiveness*. Minneapolis, MN: Lominger International: A Korn/Ferry Company.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior.* New York, NY: Springer.

Deci, E. L., & Ryan, R. M. (1995). Human autonomy: The basis for true self-esteem. In M. H. Kernis (Ed.), *Efficacy, Agency, and Self-Esteem* (pp. 31-49). New York: Plenum.

Demerouti, E., Bakker, A. B., De Jonge, J., & Janssen, P. P. (2001). Burnout and engagement at work as a function 0f demands and C0ntf0l. *Scand J Work Environ Health*, *27*(4).

Denscombe, M. (2014). *The good research guide: for small-scale social research projects.* McGraw-Hill Education (UK).

DeVellis, R. F. (2016). *Scale development: Theory and applications* (Vol. 26). Sage publications.

Devine, D.J., Clayton, L.D., Phillips, J.L., Dunford, B.B., & Melner, S.B. (1999). Teams in organizations: Prevalence, characteristics, and effectiveness. *Small Group Research, 30*, 678–711.

Diamantopoulos, A., & Siguaw, J.A. (2000). *Introducing LISREL.* London: Sage. PMCid:1298088.

Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology, 87*(4), 611-628.

Doolen, T. L., Hacker, M. E., & Van Aken, E. M. (2003). The impact of organizational context on work team effectiveness: A study of production team. *IEEE Transactions on Engineering Management*, *50*(3), 285-296.

Du Toit, M. & Du Toit, S.H.C. (2001). *Interactive LISREL user's guide.* Lincolnwood, IL: Scientific Software International.

Dunham-Taylor, J. (2000). Nurse executive transformational leadership found in participative organisations. *Journal of nursing administration 30(5): 241-250.*

Dutton, J., Glynn, M. & Spreitzer, G. (2006). *Positive Organizational Scholarship. Encyclopedia of Career Development.* Thousand Oaks, CA: Sage

Dzia-Uddin, D. N. D. U. (2016. Psychological empowerment, motivation and job performance amongst 5-star hotel employees in Kuala Lumpur. *Journal of Hospitality and Networks, 1*(1).

Edmonds, W. A., & Kennedy, T. D. (2016). *An Applied Guide to Research Designs: Quantitative, Qualitative, and Mixed Methods.* Sage Publications.

Ehrhart, M. G. (2004). Leadership and procedural justice climate as antecedents of unit-level organizational citizenship behavior. *Personnel Psychology, 57,* 61–94. doi:10.1111/j.1744-6570.2004.tb02484.x

Ehrhart, M. G., & Naumann, S. E. (2004). Organizational citizenship behavior in work groups: A group norms approach. *Journal of Applied Psychology, 89,* 960–974. doi:10.1037/0021-9010.89.6.960

Einsenberger, R., Fasolo, P., & Davis-LaMastro, V. (1990). Perceived organisational support and employee diligence, commitment, and innovation. *Journal of Applied Psychology, 75,* 51-59

Enders, C. K. (2010). *Applied missing data analysis.* Guilford Press.

Engelbrecht, A.S. (2013). *The development of the Leader Effectiveness Questionnaire (LEQ)*, Unpublished report, Department of Industrial Psychology, University of Stellenbosch.

Epitropaki, O., Kark, R., Mainemelis, C., & Lord, R. G. (2017). Leadership and followership identity processes: A multilevel. *The Leadership Quarterly*, *28*, 104-129.

Eriksen, M. (2009). Authentic leadership: Practical reflexivity, self-awareness, and self-authorship. *Journal of Management Education, 33*(6), 747-771.

Everett, B. (2013). *An introduction to latent variable models.* Springer Science & Business Media.

Fay, D. & Luhrmann, H. (2004). Current themes in organisational change. *European Journal of Work and Organisational Psychology, 13*(2), 113-119.

Field, A. (2005). *Discovering statistics using SPSS.* Sage, London.

Finkelstein, S., & Hambrick, D. C. (1996). Strategic leadership: Top executives and their effects on organisations. Minneapolis, MN: West Publishing.

Fonagy, P. (2018). *Affect regulation, mentalization and the development of the self.* Routledge.

Fortin, C., Baron, L., & Renucci, C. (2018). Authentic Leadership and Authenticity: An Existential Perspective. In *Authentic Leadership and Followership* (pp. 245-270). USA: Palgrave Macmillan, Cham.

Fowler Jr, F. J. (2013). *Survey research methods.* Boston. Boston: Sage publications.

Fredrickson, B. (2003). The value of positive emotions. *American Scientist, 91*(4), 330-335.

Fredrickson, B. (2004). The broaden-and-build theory of positive emotions. *Philosophical Transactions of the Royal Society B: Biological Sciences, 359* (1449), 1367-1377.

Fried, Y., & Ferris, G. R. (1987). The validity of the job characteristics model: A review and meta-analysis. *Personnel Psychology, 40*, 287-322.

Friedrich, A. L., & Ulber, D. (2017). Why Are We in Effects of Teamwork and How to Enhance Team Effectiveness. *An Introduction to Work and Organizational Psychology: An International Perspective*, *212*. USA: John Wiley & Sons.

Galpin, M., & Page, N. (2008). Whose engagement is it anyway? *Organisations and people*, 15(2), 37-43

Gardner, Cogliser, W.L., Davis, C.C., K.M., & Dickens, M.P. (2011). Authentic Leadership. A review of the literature and research agenda. *The Leadership Quarterly, 22* (i), 1120-1145

Gardner, W. & Schermerhorn (2004). "Unleshing Individual potential: Performance Gains Through Positive Organisational Behaviour and Authentic Leadership." *Organisational Dynamics, 33*(3), 270-281.

Gardner, W. L. (2017). *Authentic Leadership and Followership: International Perspectives.* Springer.

Gardner, W. L., & Avolio, B. J. (1998). The charismatic relationship: A dramaturgical perspective. *Academy of Management Review, 23*, 32-58.

Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. O. (2005). "Can you see the real me?" A self-based model of authentic leader and follower development. *The Leadership Quarterly, 16* (3), 343 – 373.

Gardner, W. L., Cogliser, C. C., Davis, K. M., & Dickens, M. P. (2011). Authentic leadership: A review of the literature and research agenda. *The Leadership Quarterly*, *22*(6), 1120-1145.

Gebauer, J. (2006). Workforce engagement. Learning and development in China: good for workers; better for employers. *T+D, November 2006*.

Gee, J. (2018). *The new work order*. New York: Routledge.

George, B., Sims, P., McLean, A. N., & Meyer, D. (2007). Discovering your authentic leadership. *Harvard business review*, *85*(2), 129.

George, W. (2003). *Authentic leadership: Rediscovering the secrets to creating lasting value.* SanFrasisco: Jossey-Bass

Gerrits, J.H.M. (2009). *Authentic Leadership. Organisational Change and Consultancy* (Msc IB). Faculty of Economics and Business Administration. Maastricht University

Giallonardo, L. M., Wong, C. A., & Iwasiw, C. L. (2010). Authentic leadership of preceptors: predictor of new graduate nurses' work engagement and job satisfaction. *Journal of Nursing Management, 18*(8), 993-1003.

Gibson, C. (2001). From knowledge accumulation to accommodation: Cycles of collective cognition in work groups. *Journal of Organisational Behaviour, 22*, 145-160.

Gladstein, D. (1984). Groups in context: A model of task group effectiveness. *Administrative Science Quarterly, 29,* 499–517. doi:10.2307/2392936

Gardner, W. L., Avolio, B. J., Luthans, F., May, D., & Walumbwa, F. O. (2005). "Can you see the real me?" A self-based model of authentic leadership and follower development. *The Leadership Quarterly, 16* (3), 343-372.

Glassop, L. I. (2002). The organizational benefits of teams. *Human relations*, *55*(2), 225-249.

Gomez, C., & Rosen, B. (2001). The leader-member exchange as a link between managerial trust and employee empowerment. *Group & Organization Management, 26*, 53 – 69.

Gorn, G. J., & Kanungo, R. N. (1980). Job involvement and motivation: Are intrinsically motivated managers more job involved? *Organizational Behavior and Human Performance, 26*, 265-277.

Gould, S. (1979). An equity-exchange model of organisational involvement. *Academy of Management Review, 4,* 53-62

Greco, P., Spence Laschinger, H.K. & Wong (2006). Leader empowering behaviours, staff nurse empowerment and work engagement/burnout. *Nursing Leadership, 19*(4), 41-56.

Griffin, R. W. (1991). Effects of work redesign on employee perceptions, attitudes, and behaviors: A long-term investigation. *Academy of Management Journal, 34,* 425-435.

Guzzo, R. A., Campbell, R. J., Moses, J. L., Ritchie, R. R., Schneider, B., Shaff, K., Wheeler, J., & Gufstason, P. W. (1991). What makes high-performing teams effective? Unpublished manuscript, University of Maryland, College Park.

Guzzo, R. A., Yost, P. R., Campbell, R. J., & Shea, G. P. (1993). Potency in groups: Articulating a construct. *British Journal of Social Psychology, 32*, 87-106.

Hackman, J. R. (1987). The design of work teams. In J. W. Lorsch (Ed.), *Handbook of organizational behavior* (pp. 315–342). Englewood Cliffs. NJ: Prentice Hall.

Hackman, J. R., & Oldham, G. (1980). *Work Redesign*. Reading, MA: Addison-Wesley.

Hackman, J.R. (1992). Group influences on individuals in organizations. In M.D. Dunnette & L.M. Hough (Eds.), *Handbook of industrial and organizational psychology* (Vol. 3, pp. 199–267). Palo Alto, CA: Consulting Psychologist Press.

Hackman, J.R. (2002). *Leading teams: Setting the stage for great performances*. Boston: Harvard Business School Press.

Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. CA, USA, Sage Publications.

Hamilton, B. H., Nickerson, J. A., & Owan, H. (2003). Team incentives and worker heterogeneity: An empirical analysis of the impact of teams on productivity and participation. *Journal of political Economy*, *111*(3), 465-497.

Hansen, L. B. (2017). *The Dimensionality of Management Team Effectiveness: A psychometric analysis of the team inventory,* Master's thesis, University of OSLO.

Hansen, M. T., Amabile, T. M., Snook, S. A., & Craig, N. (2018). *Purpose, Meaning, and Passion (HBR Emotional Intelligence Series)*. Harvard Business Press.

Hardy, C., & Leiba-O'Sullivan, S. (1998). The power behind empowerment: Implications for research and practice. *Human Relations, 51,* 451-483.

Hargrove, D. (2017). *The Building Blocks of Authentic Leadership: Being Consistent and Being Seen,* (Doctoral dissertation. Duke University.

Harley, B. (1999). The myth of empowerment: Work organization, hierarchy, and employee autonomy in contemporary Australian workplaces. *Work, Employment and Society, 13,* 41–66.

Harley, B., Allen, B. C., & Sargent, L. D. (2007). High performance work systems and employee experience of work in the service sector: The case of aged care. *British Journal of Industrial Relations, 45,* 607–633.

Harrell, F. (2015). *Regression modeling strategies: with applications to linear models, logistic and ordinal regression, and survival analysis*. Springer.

Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement and business outcomes: A meta-analysis. *Journal of Applied psychology, 87*, 268-279.

Harter, J.K., Schmidt, F.L. & Keyes, C.L.M. (2003). Well-being in the workplace and its relationship to business outcomes: a review of the Gallup studies. In Keyes, C.L.M. and Haidt, J. (2003). *Flourishing: positive psychology and the life well-lived*, 205-224.

Harter, J.K., Schmidt, F.L., & Hayes, T.L. (2002). Business-unit level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. Journal of Applied Psychology, 87, 268-279

Harter, S. (2002). Authenticity. In C.R. Snyder. & S.J. Lopez (eds.), *Handbook of Positive Psychology,* (pp.382-394). Oxford: Oxford University Press

Harter, S. (2002). Authenticity. In Snyder, C. R., & Lopez, S. J. (Eds), *Handbook of positive psychology* (pp. 382-394). Oxford, UK: Oxford University Press.

Hatcher, S. & Laschinger, H.K.S. (1996). Staff nurses' perceptions of job empowerment and level of burnout: a test of Kanter's theory of structural power in organisations. *Canadian Journal of Nursing Administration, 9*(2), 74-94.

Hater, J., & Bass, B.M. (1988). Supervisors' evaluations and subordinates' perceptions of transformational and transformational leadership. *Journal of Applied Psychology, 73* (4), 695-702

HayGroup (2001). Engage employees and boost performance. HayGroup.

Heck, R. H., Thomas, S. L., & Tabata, L. N. (2013). *Multilevel and longitudinal modeling with IBM SPSS*. Routledge.

Heine, G. (2013). *The influence of integrity and ethical leadership on trust and employee work engagement.* Master's thesis , Stellenbosch: Stellenbosch University.

Herzberg, F. (2017). *Motivation to work*. USA: Routledge.

Hewlin, P. F., Dumas, T. L., & Burnett, M. F. (2017). To thine own self be true? Facades of conformity, values incongruence, and the moderating impact of leader integrity. *Academy of Management Journal, 60*(1), 178-199.

Hochwälder, J., & Brucefors, A. B. (2005). A psychometric assessment of a Swedish translation of Spreitzer's empowerment scale. *Scandinavian journal of psychology*, *46*(6), 521-529.

Hollenbach, F. M., Metternich, N. W., Minhas, S., & Ward, M. D. (2014). Fast & Easy Imputation of Missing Social Science Data. *arXiv preprint arXiv:1411.0647*.

Hollenbeck, J.R., Ilgen, D.R., Sego, D.J., Hedlund, J., Major, D.A., & Phillips, J. (1995). Multilevel theory of team decision-making: Decision performance in teams incorporating distributed expertise. *Journal of Applied Psychology, 80*, 292–316.

Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *Journal of Business Research Methods, 6,* 53-60.

Howell, J. M., & Shamir, B. (2005). The role of followers in the charismatic leadership process: Relationships and their consequences. *Academy of Management Review, 30*, 96-112.

Hoy, W. K., & Adams, C. M. (2015). *Quantitative research in education: A primer*. Sage Publications.

Hoy, W. K., & Henderson, J. E. (1983). Principal authenticity, school climate, and pupil-control orientation. *Alberta Journal of Educational Research, 29*(2), 123-130.

Hsieh, C. C., & Wang, D. S. (2015). Does supervisor-perceived authentic leadership influence employee work engagement through employee-perceived authentic leadership and employee trust? *The International Journal of Human Resource Management*, *26*(18), 2329-2348.

Hu, J. & Linden, R. C. (2011). Antecedents of team potency and team effectiveness: an examination of goal and process clarity and servant leadership. *Journal of Applied Psychology, 96*,(4), 851 – 862.

Humphrey, S. E., & Aime, F. (2014). Team microdynamics: Toward an organizing approach to teamwork. *The Academy of Management Annals*, *8*(1), 443-503.

Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytical summary and theoretical extension of the work design literature. *Journal of Applied Psychology, 92*, 1332-1356.

Hunt, J. G. (19991). *Leadership: A new synthesis*. Newbury Park, CA: Sage.

Hunt, J.G. (1999). Transformational/charismatic leaderships of the field: An historical essay. *Leadership Quarterly, 10* (2): 129-144

Ilies, Morgeson, F. et al. (2005). Authentic leadership and eudaemonic well-being: Understanding leader-follower outcomes. *The Leadership Quarterly, 16*(3), 373-394.

Irving, J. A., & Longbotham, G. J. (2007). Leading Effective Teams through Servant Leadership: An Expanded Regression Model of Essential Servant Leadership Themes. *American Society of Business and Behavioral Sciences Proceedings, 14(1),* 806-817*.*

Irving, J. A., & Longbotham, G. J. (2007). Team effectiveness and six essential servant leadership themes: A regression model based on items in the organizational leadership assessment. *International Journal of Leadership Studies, 2*(2), 98-113.

Ishii, K., Shibata, A., & Oka, K. (2018). Work Engagement, Productivity, and Self-Reported Work-Related Sedentary Behavior among Japanese Adults: A Cross-Sectional Study. *Journal of Occupational and Environmental Medicine, 60*(4), e173-e177. https://doi.org/10.1097/JOM.0000000000001270

Jain, V. K. (2017). A Study of Psychological Dispositions of Engaged and Disengaged Associates and Impact of Leadership Strategies on Employee Engagement in Service Sector, Doctoral Dissertation, New Delhi: Guru Gobind Singh Indraprastha University

Jelphs, K., & Dickinson, H. (2016). *Working in teams 2e*. UK: Policy Press.

Jones, G. R., & George, J. M. (1998). The experience and evolution of trust: Implications for cooperation and teamwork. *Academy of Management Review, 23,* 531-546.

Joo, B. K., & Jo, S. J. (2017). The effects of perceived authentic leadership and core self-evaluations on organizational citizenship behavior: The role of psychological empowerment as a partial mediator. *Leadership & Organization Development Journal, 38*(3), 463-481.

Joo, B. K., & Jo, S. J. (2017). The effects of perceived authentic leadership and core self-evaluations on organizational citizenship behavior: The role of psychological empowerment as a partial mediator. *Leadership & Organization Development Journal*, *38*(3), 463-481.

Jöreskog, K. G., & Sörbom, D. (1999). *LISREL 8 User's reference guide.* Chicago: Scientific Software International.

Jöreskog, K. G., & Sörbom, D. (2006). *LISREL 8.80 for Windows [Computer Software]*. Lincolnwood, IL: Scientific Software International, Inc.

Jöreskog, K.G., & Sörbom, D. (1993). *LISREL 8: Structural equation modelling with the SIMPLIS command language.* United States of America: Scientific Software International, Inc.

Jose, G., & Mampilly, S. R. (2014). Psychological empowerment as a predictor of employee engagement: An empirical attestation. *Global Business Review*, *15*(1), 93-104.

Judge, T. A., Thoresen, C.J., Bono, J.E. & Patton, G. K. (2001). "The job satisfaction-job performance relationship: a qualitative and quantitative review". *Psychological Bulletin, 127*, 376-407.

Kahn, W. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal, 33*, 692-724.

Kanter, R. M. (1977). *Men and Women of the Corporation.* New York: Basic Books.

Kanter, R. M. (1983). *The change masters.* New York, NY: Simon &Schuster.

Kanter, R. M. (1993). *Men and Women of the Corporation* (2nd Ed.). New York: Basic Books.

Karam, E. P., Gardner, W. L., Gullifor, D. P., Tribble, L. L., & Li, M. (2017). Authentic leadership and high-performance human resource practices: implications for work engagement. In *Research in personnel and human resources management* (pp. 103-153). UK: Emerald Publishing Limited.

Karanja, E., Zaveri, J., & Ahmed, A. (2013). How do MIS researchers handle missing data in survey-based research: A content analysis approach. *International Journal of Information Management*, *33*(5), 734-751.

Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly,24,* 285–308.

Karau, S. J., & Williams, K. D. (1993). Social loafing: A meta-analytic review and theoretical integration. *Journal of Personality and Social Psychology, 65,* 681–706. doi:10.1037/0022-3514.65.4.681

Kark, R., Shamir, B., & Chen, G. (2003). The two faces of transformational leadership: Empowerment and dependency. *Journal of Applied Psychology, 88,* 246–255.

Kataria, A., Garg, P., & Rastogi, R. (2013). Psychological climate and organizational effectiveness: Role of work engagement. *IUP Journal of Organizational Behavior*, *12*(3), 33.

Katzenbach, J. R., & Smith, D. K. (2015). *The wisdom of teams: Creating the high-performance organization.* Boston: Harvard Business Review Press.

Katzenbach, J. R., & Smith, D.K. (1993). *The wisdom of teams: Creating the high-performance organisation.* Boston: Harvard Business School Press.

Kelloway, E. K. (2014). *Using Mplus for structural equation modeling: A researcher's guide.* Sage Publications.

Kelloway, E.K. (1998). *Using LISREL for structural equation modelling; a researcher's guide.* Thousand Oaks: Sage Publications.

Kerfoot, K. (2007). Stagg engagement: It starts with the leader. *Nursing Economics. , 25*(1), 47-48.

Kerlinger, F. N. (1992). *Foundations of behavioral research* (3rd ed.). Orlando: Harcourt Brace.

Kerlinger, F.N., & Lee, H.B. (2000). *Foundations of behavioural Research* (4th ed.). USA: Fort Worth.

Ketter, P. (2008). What's the big deal about employee engagement. *T+D January 2008*, 44-49

Kim, M., Beehr, T. A., & Prewett, M. S. (2018). Employee responses to empowering leadership: A meta-analysis. *Journal of Leadership & Organizational Studies, 25*(3), 257-276. 1548051817750538.

Kim, W., & Park, J. (2017). Examining structural relationships between work engagement, organizational procedural justice, knowledge sharing, and innovative work behavior for sustainable organizations. *Sustainability*, *9*(2), 205.

Kirkman, B. L., & Rosen, B. (1997). A model of work team empowerment. *Research in Organizational Change and Development, 10,* 131–167.

Kirkman, B. L., & Rosen, B. (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal, 42,* 58–74.

Kleinbaum, D., Kupper, L., Nizam, A., & Rosenberg, E. (2013). *Applied regression analysis and other multivariable methods*. Scarborough, ON, Canada. Nelson Education.

Kline, P. (2013). *Handbook of psychological testing*. Routledge.

Kline, R. B. (2011). *Principles and practice of structural equation modelling.* (3rd edn.). New York: The Guilford Press.

Knight, C., Patterson, M., & Dawson, J. (2017). Building work engagement: A systematic review and meta-analysis investigating the effectiveness of work engagement interventions. *Journal of Organizational Behavior*, *38*(6), 792-812.

Knight, D., Durham, C. C., & Locke, E. A. (2001). The relationship of team goals, incentives, and efficacy to strategic risk, tactical implementation, and performance. *Academy of Management Journal, 44,* 326–338. doi:10.2307/3069459

Kompaso, S. M., & Sridevi, M. S. (2010). Employee engagement: The key to improving performance. *International journal of business and management*, *5*(12), 89.

Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.

Kouzes, J. M. & Posner, B. Z. (1997). *Leadership Practices Inventory – Individual Contributor 9LPI-IC). Observer Response Sheet*. San Francisco, CA: Jossey-Bass / Pfeiffer.

Kouzes, J. M. & Posner, B. Z. (2002). *The Leadership Challenge*. Third Edition. San Francisco, Jossey-Bass.

Kouzes, J. M., & Posner, B. Z. (2002). *The leadership challenge.* San Francisco: Jossey-Bass.

Kozlowski, S. W. J. & Ilgen, D. R. (2006). Enhancing the effectiveness of work groups and teams. *Psychological Science in the Public Interest*, 7(3), 77-124.

Kozlowski, S.W.J., & Bell, B.S. (2003). Work groups and teams in organizations. In W.C. Borman, D.R. Ilgen, & R.J. Klimoski (Eds.), *Handbook of psychology*: Vol. 12. Industrial and organizational psychology (pp. 333–375). London: Wiley.

Kozlowski, S.W.J., Gully, S.M., McHugh, P.P., Salas, E., & Cannon-Bowers, J.A. (1996). A dynamic theory of leadership and team effectiveness: Developmental and task contingent leader roles. In G.R. Ferris (Ed.), *Research in personnel and human resource management* (Vol. 14, pp. 253–305). Greenwich, CT: JAI Press.

Kozlowski, S.W.J., Gully, S.M., Nason, E.R., & Smith, E.M. (1999). Developing adaptive teams: A theory of compilation and performance across levels and time. In D.R. Ilgen & E.D. Pulakos (Eds.), *The changing nature of work performance: Implications for staffing, personnel actions, and development* (pp. 240–292). San Francisco: Jossey-Bass.

Kraemer, H. C., & Blasey, C. (2015). *How many subjects?: Statistical power analysis in research.* Sage Publications.

Kraimer, M. L., Seibert, S. E., & Liden, R. C. (1999). Psychological empowerment as a multidimensional construct: A test of construct validity. *Educational and Psychological Measurement, 59,* 127–142.

Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person–job, person– organization, person– group, and person–supervisor fit. *Personnel Psychology, 58,* 281–342.

LaFasto, F., & Larson, C. (2001). *When teams work best: 6000 team members and leaders tell what it takes to succeed.* Thousand Oaks, CA: Sage.

Lampard, R., & Pole, C. (2015). *Practical social investigation: Qualitative and quantitative methods in social research.* Routledge.

Larson, C.E., & LaFasto, F.M. J. (2001). The Team Effectiveness Questionnaire. In P.G. Northouse, *Leadership: Theory and practice* (2nd ed.) (p. 184). Thousand Oaks, CA: Sage.

Larson, J. R., Jr. (2010). *In search of synergy in small group performance.* New York, NY: Psychology Press.

Laschinger, H.K.S. & Finegan, J. (2005b). "Using empowerment to build trust and respect in the workplace: a strategy for addressing the nursing shortage." *Nursing Economics 23*(1), 6-12.

Laschinger, H.K.S. & Finegan. (2005a). "Empowering nurses for work engagement and health in hospital settings." *Journal of Nursing Administration, 35*, 439-449.

Laschinger, H.K.S., Finegan, J., Shamian, J. & Casier, S. (2000). "Organisational trust and empowerment in restructured healthcare settings: effects on staff nurse commitment." *Journal of nursing administration 29*(5), 28-39.

Lawler, E. E., III**,** Mohrman, S. A., & Benson, G. (2001). *Organizing for high performance: Employee involvement, TQM, reengineering, and knowledge management in the Fortune 1000 companies.* San Francisco, CA: Jossey-Bass.

Lawler, E. E., III, Mohrman, S. A., & Ledford, G. E., Jr. (1995). *Creating high performance organizations: Practices and results of employee involvement and total quality management in Fortune 1000 companies.* San Francisco: Jossey-Bass.

Lawler, E.E., Mohrman, S.A., & Ledford, G.E. (1992). Employee involvement and total quality management: Practices and results in Fortune 1000 companies. San Francisco: Jossey-Bass.

Leiter, M.P. & Maslach, C. (1999). Six areas of worklife: a model of the organisational context of burnout. *Journal of Health and Human Services Administration*: 472-489.

Lencioni, P. (2006). *Overcoming the five dysfunctions of a team*. San Francisco: John Wiley & Sons.

Leroy, H., Anseel, F., Gardner, W. L., & Sels, L. (2015). Authentic leadership, authentic followership, basic need satisfaction, and work role performance: A cross-level study. *Journal of Management, 41*(6), 1677-1697.

Levy, P. S., & Lemeshow, S. (2013). *Sampling of populations: methods and applications.* John Hoboken, NJ: Wiley & Sons.

Liao, H., Toya, K., Lepak, D. P., & Hong, Y. (2009). Do they see eye to eye? Management and employee perspectives of high-performance work systems and influence processes on service quality. *Journal of Applied Psychology*, 94, 371-391.

Liden, R. C., Wayne, S. J., & Sparrowe, R. T. (2000). An examination of the mediating role of psychological empowerment on the relations between the job, interpersonal relationships, and work outcomes. *Journal of Applied Psychology, 85,* 407–416.

Liden, R. C., Wayne, S. J., Jaworski, R. A., & Bennett, N. (2004). Social loafing: A field investigation. *Journal of Management, 30,* 285–304. doi:10.1016/j.jm.2003.02.002

Liden, R.C., Sparrowe, R.T., & Wayne, S.J. (1997). Leader-member exchange theory: The past and potential for the future. *Research in Personnel and Human Resource Management, 15,* 47-119

Linley, P.A. (2008). Average to A+; Realising strengths in yourself and others. Coventry, UK: CAPP Press.

Little, T. D., Schnabel, K. U., & Rgen Baumert, J. (Eds.). (2015). *Modeling longitudinal and multilevel data: Practical issues, applied approaches, and specific examples*. Psychology Press.

Liu, Y., Fuller, B., Hester, K., Bennett, R. J., & Dickerson, M. S. (2018). Linking authentic leadership to subordinate behaviors. *Leadership & Organization Development Journal*, *39*(2), 218-233.

Locke, E. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297–1350). Chicago, IL: Rand McNally.

Locke, E. A., & Latham, G. P. (1990). Work motivation and satisfaction: Light at the end of the tunnel. *Psychological Science, 1,* 240–246. doi:10.1111/j.1467-9280.1990.tb00207.x

Locke, E. A., Latham, G. P., & Erez, M. (1988). The determinants of goal commitment. *Academy of Management Review, 13,* 23–39. doi:10.2307/258352

Lohuis, A.M., van Vuuren, M. & Bohlmeijer, E. 2013, Context-specific definitions of organizational concepts: Defining 'team effectiveness' with use of the Delphi Technique, *Journal of Management & Organization, 19(6),* 706-720. doi:10.1017/jmo.2014.10

Lombardo, M. M., & Eichinger, R. W. (1995). *The Team Architect user's manual.* Minneapolis, MN: Lominger Limited.

Lucas, N.J. (2000). Lives of integrity: factors that influence moral transformational leaders. Dissertation abstracts international section A: Humanities & Social Sciences, 60, 3289

Luthans, F. (2001). The case for positive organisational behavior (POB). *Current Issues in*

Management, 1 (1), 10-21.

Luthans, F. (2002). Positive organisational behaviour: Developing and managing psychological strengths. *Academy of Management Executive, 16(1)*, 57 – 72.

Luthans, F. & Avolio, B. (2003). *Authentic leadership: A positive development approach.* In K. S. Cameron, J. E. Dulton, & R. E. Quinn (eds*.), Positive Organizational Scholarship* San Francisco, CA: Berrett-Koehler, . 241 – 258.

Luthans, F. & Youssef, C. M. (2004). Human, social and now positive psychological capital

management: Investing in people for competitive advantage. *Organisational*

Dynamics, 33, 143-160.

Luthans, F., Avolio, B. J., Avey, J., & Norman, S. (2006)*. Psychological capital:*

Measurement and relationship with performance and satisfaction (Working paper

No. 2006 – 1). Gallup Leadership Institute, University of Nebraska-Lincoln.

Luthans, F., Youssef, C. M., & Avolio, B. J. (2007)*. Psychological capital: Developing the human competitive edge.* New York: Oxford University Press.

Lyubomirsky, S., Sheldon, K.M. & Schkade, D. (2005). "Pursuing happiness: The architecture of sustainable change". *Review of General Psychology, 9*, 111-131.

Lyubovnikova, J., Legood, A., Turner, N., & Mamakouka, A. (2017). How authentic leadership influences team performance: The mediating role of team reflexivity. *Journal of business Ethics, 141*(1), 59-70.

Macik-Frey, M., Campbell Quick, J., & Cooper, C. L. (2009). Authentic leadership as a pathway to positive health. *Journal of Organisational Behaviour, 30*(3), 453-458.

Mahembe, B. (2010). The relationship between servant leadership, team commitment, team citizenship behaviour and team effectiveness: An exploratory study. Doctoral dissertation, Stellenbosch: University of Stellenbosch.

Mahembe, B., & Engelbrecht, A.S. (2013). The relationship between servant leadership, affective team commitment and team effectiveness. *SA Journal of Human Resource Management, 11*(1), 495-505 http://dx.doi.org/10.4102/sajhrm.v11i1.495

Maier, G. W., & Brunstein, J. C. (2001). The role of personal work goals in newcomers' job satisfaction and organizational commitment: A longitudinal analysis. *Journal of Applied Psychology, 86,* 1034–1042. doi: 10.1037/0021-9010.86.5.1034

Mäkikangas, A., Aunola, K., Seppälä, P., & Hakanen, J. (2016). Work engagement–team performance relationship: shared job crafting as a moderator. *Journal of Occupational and Organizational Psychology, 89*(4), 772-790.

Malila, N., Lunkka, N., & Suhonen, M. (2018). Authentic leadership in healthcare: a scoping review. *Leadership in Health Services, 31*(1), 129-146.

Manz, C. C., & Sims, H. P., Jr. (1993). *Business without bosses: how self-managing teams are building high-performance companies.* New York: Wiley.

Maree, K. (2010). *First steps in research.* Pretoria: Van Schaik Publishers.

Marič, M., Miglič, G., & Jordan, G. (2017). The Impact of Authentic Leadership on Psychological Empowerment of the Employees in the Slovenian Local Self-Government Institutions. *Lex Localis-Journal of Local Self-Government, 15*(3).

Maslach, C. & Leiter, M.P. (1997). *The truth about burnout.* San Francisco: Jossey-Bass.

Maslach, C., Jackson, S.E. & Leiter, M.P. (1996). *Maslach Burnout Inventory Manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.

Maslow, A. H. (1954). *Motivation and personality.* New York: Harper & Row.

Masoud, A., & Yazdi, T. (2017). *The effect of big-five personality traits on psychological empowerment* Doctoral dissertation, University of Malaya.

Mathieu, J. E., Hollenbeck, J. R., van Knippenberg, D., & Ilgen, D. R. (2017). A century of work teams in the Journal of Applied Psychology. *Journal of applied psychology*, *102*(3), 452.

Mathieu, J.E., Marks, M.A., & Zaccaro, S.J. (2002). Multi-team systems. In N. Anderson, D.S. Ones, H.K. Sinangil & C. Viswesvaran (Eds.), *Organizational psychology*: Vol. 2. Handbook of industrial, work and organizational psychology (pp. 289–313). London: Sage.

Matsimbe, C. M. R. (2017). *Influence of integrity and moral intelligence on authentic leadership and organisational citizenship behaviour* (Doctoral dissertation, Stellenbosch: Stellenbosch University).

Maxwell, J. C. (2018). *Developing the Leader within You* . USA: HarperCollins Leadership.

May, D. R., Chan, A., Hodges, T., & Avolio, B. J. (2003). Developing the moral component of authentic leadership. *Organisational Dynamics, 32*, 247-260.

May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of occupational and organizational psychology*, *77*(1), 11-37.

McGrath, J.E. (1964). *Social psychology: A brief introduction.* New York: Holt, Rinehart, & Winston.

McMillan, J.H. & Schumacher, S. (2001). *Research in education: a conceptual introduction.* (5th ed.). New York: Addison-Wesley Longman.

Meng, H., Cheng, Z. C., & Guo, T. C. (2016). Positive team atmosphere mediates the impact of authentic leadership on subordinate creativity. *Social Behavior and Personality: an international journal*, *44*(3), 355-368.

Menguc, B., Auh, S., Fisher, M., & Haddad, A. (2013). To be engaged or not to be engaged: The antecedents and consequences of service employee engagement. *Journal of business research*, *66*(11), 2163-2170.

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review,1,* 61–98.

Meyer, J. P., Becker, T. E., & Vandenberghe, C. (2004). Employee commitment and motivation: A conceptual analysis and integrative model. *Journal of Applied Psychology, 89,* 991–1007.

Mitchell, D. (2017). *50 Top Tools for Employee Engagement: A Complete Toolkit for Improving Motivation and Productivity*. UK: Kogan Page Ltd.

Mohammed, S., & Dumville, B. C. (2001). Team mental models in a team knowledge framework: Expanding theory and measurement across disciplinary boundaries. *Journal of Organisational Behaviour, 22*, 89-106.

Montgomery, A.J., Peeters, M.C.W., Schaufeli, W.B., & Den Ouden, M. (2003). Work–home interference among newspaper managers: Its relationship with burn- out and engagement. *Anxiety, Stress and Coping*, *16*, 195–211.

Morgeson, F. P., Lindoerfer, D., & Loring, D. J. (2010). Developing team leadership capability. *The Center for Creative Leadership handbook of leadership development*, *3*, 285-312.

Morgeson, F.P., DeRue, D.S., & Karam, E.P. (2010). Leadership in teams: A functional approach to understanding leadership structures and processes. *Journal of Management, 36*(1), 5-39. http://dx.doi.org/10.1177/0149206309347376

Morrison, A. (2001). Integrity and global leadership. *Journal of Business Ethics, 31*, 65-76

Mouton, J. (1996). *Understanding social research*. Pretoria: Van Schaik.

Mouton, J. (2005). *How to succeed in your master's and doctoral studies: A South African guide and resource book*. Pretoria: Van Schaik.

Muduli, A., & Pandya, G. (2018). Psychological Empowerment and Workforce Agility. *Psychological Studies*, 1-10.

Mumford, M. D., Dansereau, F., & Yammarino, F. J. (2000). Motivation and followership: The case of individualised leadership. *The leadership Quarterly, 11,* 313-340.

Mumford, M. D., Zaccaro, S. J., Harding, F. D. Jacobs, T. O., & Fleishman, E. A. (2000). Leadership skills for a changing world: Solving complex social problems. *The Leadership Quarterly, 11,* 11-35.

Nakagawa, S. (2015). Missing data: mechanisms, methods and messages. *Ecological statistics: contemporary theory and application.* Oxford, UK: Oxford University Press, 81-105.

Nardi, P. M. (2015). *Doing survey research*. New York: Routledge.

Nell, E. (2015). *Testing the Job Demands-Resources Model on nurses.* Doctoral dissertation, Stellenbosch: Stellenbosch University.

Neuendorf, K. A. (2016). *The content analysis guidebook*. Sage publications.

Newell, S. (2002). *Creating the healthy organisation: Well-being, diversity and ethics at work*. London: Thomson Learning.

Newman, W. L. (1997). *Social Research Methods: Quantitative and Qualitative Approaches* (3rd ed.). Needham Heights, MA: Allyn & Bacon.

Nor, N. B. M., Ismail, T. N. B. T., & Puteh, H. F. B. H. (2017). Discovering the Antecedents of Engagement for Citizen Centric Public Service Excellence. *ICOPS2017 eProceedings*, 809.

Northouse, P. G. (2018). *Leadership: Theory and practice*. Los Angeles, USA: Sage publications.

Nunnally, J. C. (1967). *Psychometric theory*. New York: McGraw-Hill.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory.* (3rd edn.). New York: McGraw-Hill.

Nunnally, J.C. (1978). *Psychometric theory*. McGraw-Hill: New York.

Ofoegbu, L. I. (2017). *Understanding the Influence of Human Emotions in Organizations: The Emotional Extent Effects.* Doctoral dissertation, Walden University.

Ott, R. L., & Longnecker, M. T. (2015). *An introduction to statistical methods and data analysis.* USA: Nelson Education.

Özaralli, N. (2003). Effects of transformational leadership on empowerment and team effectiveness. *Leadership & Organization Development Journal*, *24*(6), 335-344.

Pallant, J. (2007)*. SPSS survival manual: A step-by-step guide to data analysis using SPSS for Windows* (Version 15) (3rd ed.). Australia: Allen & Unwin.

Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using SPSS.* (4th edn.). London: McGraw-Hill.

Pallant, J. (2016). SPSS survival manual: A step by step guide to data analysis using SPSS program (6th ed.). London, UK: McGraw-Hill Education.

Panayides, P. (2013). Coefficient alpha: interpret with caution. *Europe's Journal of Psychology*, *9*(4), 687-696.

Park, J., & Hassan, S. (2018). Does the Influence of Empowering Leadership Trickle Down? Evidence from Law Enforcement Organizations. *Journal of Public Administration Research and Theory*, *28*(2), 212-225.

Patten, M. L. (2016). *Questionnaire research: A practical guide.* New York: Routledge.

Patterson, M. G., West, M. A., & Wall, T. D. (2004). Integrated manufacturing, empowerment, and company performance. *Journal of Organisational Behaviour, 25*, 641-665.

Pearce, C. L., & Herbik, P. A. (2004). Citizenship behavior at the team level of analysis: The effects of team leadership, team commitment, perceived team support, and team size. *Journal of Social Psychology, 144,* 293–310. doi:10.3200/SOCP.144.3.293-310

Pedhazur, E. J., & Schmelkin, L. P. (2013). *Measurement, design, and analysis: An integrated approach.* Psychology Press.

Pendleton, D., & Furnham, A. (2016). The history of thinking about leadership. In *Leadership: All You Need To Know 2nd edition* (pp. 1-33). London: Palgrave Macmillan.

Perrin, T. (2005). Largest single study of the workforce worldwide shows that employee engagement levels pose a threat to corporate performance globally. *Press Release. www. towersperrin. com November*, *15,* 2005.

Piccoli, G., Powell, A., & Ives, B. (2004). Virtual teams: team control structure, work processes, and team effectiveness. *Information Technology & People*, *17*(4), 359-379.

Polychroniou, P. V. (2009) "Relationship between emotional intelligence and transformational leadership of supervisors: The impact on team effectiveness", *Team Performance Management: An International Journal*, 15(7/8), 343–356.doi.org/10.1108/13527590911002122

Powell, A., Piccoli, G. & Ives, B. (2004). Virtual Teams: A review of Current Literature and Directions for Future Research. *Winter 2004*, 35, 6-36

Press, S. J. (2012). *Applied multivariate analysis: using Bayesian and frequentist methods of inference.* Courier Corporation.

Purcell, J., Kinnie, N., Hutchinson, S., Rayton, B. & Swart, J. (2003). *Understanding the people and performance link: Unlocking the black box.* CIPD

Randolph, W. A. (1995). Navigating the journey to empowerment. *Organisational Dynamics, 26*, 473-488.

Reina, C. S., Rogers, K. M., Peterson, S. J., Byron, K., & Hom, P. W. (2018). Quitting the boss? The role of manager influence tactics and employee emotional engagement in voluntary turnover. *Journal of Leadership & Organizational Studies*, *25*(1), 5-18.

Republic of South Africa. (1998, October 19). Employment Equity Act. *Government Gazette*, No. 19370.

Republic of South Africa. (2006). Health Professions Act no. 56 of 1974. South Africa: Government Gazette[Law]

Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology, 87,* 698–714.

Ritchie, J., Lewis, J., & Elam, R. G. (2013). Selecting samples. *Qualitative research practice: A guide for social science students and researchers*, 111.

Rizzo, J. R., House, R. J., & Lirtzman, S. L. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly, 15,* 150–163. doi:10.2307/2391486

Rodríguez-Carvajal, R., de Rivas, S., Herrero, M., Moreno-Jiménez, B., & Van Dierendonck, D. (2014). Leading people positively: cross-cultural validation of the Servant Leadership Survey (SLS). *The Spanish journal of psychology*, *17*, E63.

Ross, T.M., Jones, E.C., & Adam, S.G. (2008). Can team effectiveness be predicted? *Team Performance Management*, *14*(5/6), 248-268 http://dx.doi.org/10.1108/13527590810898518

Rousseau, D.M. (1995). *Psychological contracts in organisations: Understanding written and unwritten agreements*. Thousand Oaks, CA: Sage Publications.

Roux, S. (2010). *The relationship between authentic leadership, optimism, self-efficacy and work engagement: An exploratory study.* Doctoral dissertation, Stellenbosch: University of Stellenbosch.

Rubin, I. M., Plovnick, M. S., & Fry, R. E. (1997). *Task oriented team development.* New York: McGraw-Hill.

Ryan, R. M., &, Deci, E. L. (2001). To be happy or to be self-fulfilled: A review of research on hedonic and eudaimonic well-being. In S. Fiske (Ed.), *Annual Review of Psychology,* 52, 141-166). Palo Alto, CA: Annual Reviews/ Inc.

Sahu, P. K. (2013). *Research methodology: A guide for researchers in agricultural science, social science and other related fields.* Springer, 432.

Saks A M (2006), "Antecedents and Consequences of Employee Engagement," *Journal of Managerial Psychology*, *21*, 600-619.

Salanova, M., Schaufeli, W. B., Llorens, S., Pieró, J. M., & Grau, R. (2001). From burnout

Salas, E., Dickinson, T.L., Converse, S.A., & Tannenbaum, S.I. (1992). Toward an understanding of team performance and training. In R.W. Swezey & E. Salas (Eds.), *Teams: Their training and performance* (pp. 3–29). Norwood, NJ: Ablex.

Sawyer, J. E. (1992). Goal and process clarity: Specification of multiple constructs of role ambiguity and a structural equation model of their antecedents and

consequences. *Journal of Applied Psychology, 77,* 130–142. doi:10.1037/0021-9010.77.2.130

Schaufeli W.B. & Bakker A.B. (2004) Job demands, job resources, and their relationship with burnout and engagement: a multi- sample study. *Journal of Organizational Behavior 25*, 293– 315.

Schaufeli, W. B., & Bakker, A. B. (2003). *The Utrecht Work Engagement Scale. Preliminary manual*. Occupational Health Psychology Unit, Utrecht University, Utrecht.

Schaufeli, W. B., Martinez, I., Marques Pinto, A., Salanova, M., & Bakker, A. B. (2002b). Burnout and engagement in university students: A cross-national study. *Journal of cross-cultural psychology*, *33*(5), 464-481.

Schaufeli, W. B., Salanova, M., Gonzalez-Roma, V., & Bakker, A. B. (2002a). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness studies*, *3*(1), 71-92.

Schaufeli, W. B., Taris, T. W., & Van Rhenen, W. (2003). Workaholism, burnout and work engagement: three of a kind or three different kinds of employee well-being?. Journal of *Applied psychology*, *57*(2), 173-203.

Seibert, S. E., Wang, G. & Courtright, S. H. (2011). Antecedents and consequences of psychological and team empowerment in organisations: a meta-analytic review. *Journal of Applied Psychology, 96*(5), 981-1003.

Seibert, S. E., Wang, G., & Courtright, S. H. (2011). Antecedents and consequences of psychological and team empowerment in organizations: A meta-analytic review. *Journal of applied psychology*, *96*(5), 981.

Sekoere, I. M. (2015). *The effect of authentic leadership and psychological capital on work engagement amongst employees in leadership positions at Standard Lesotho Bank* , Doctoral dissertation, University of the Free State.

Seligman, M.E.P., (2003). Authentic happiness. London: Nicholas Beakley.

Shamir, B., & Eilam, G. (2005). "What is your story?" A life-stories approach to authentic leadership development. *The Leadership Quarterly, 16*(1), 395-417

Shapira-Lishchinsky, O., & Tsemach, S. (2014). Psychological empowerment as a mediator between teachers' perceptions of authentic leadership and their withdrawal and citizenship behaviors. *Educational Administration Quarterly*, *50*(4), 675-712.

Shea, G. P., & Guzzo, R. A. (1987). Group effectiveness: What really matters? *Sloan Management Review*, 3(1): 25-31.

Shuffler, M. L., & Carter, D. R. (2018). Teamwork situated in multiteam systems: Key lessons learned and future opportunities. *American Psychologist*, *73*(4), 390.

Siikavirta, M. (2016). *Implementation and Future of the T7 Model in Service Centres Acquired by Corporate Merger*. Finland: Lapland University of Applied Sciences.

Sims, R.L., & Kroeck, K.G. (1994). The influence of ethical fit on employee satisfaction, commitment, and turnover. *Journal of Business Ethics, 13*, 939-948

Smythe, J. (2017). Defining Employee Engagement. In *The Velvet Revolution at Work* (pp. 33-58). Routledge.

Somsriruen, T., Chavez, G. S., & Tayko, P. R. (2018). The effect of organization development intervention on structural and psychological empowerment to enhance innovative work behavior: an action research in a technical school in Thailand. *ABAC Journal*, *38*(1).

Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: a new look at the interface between nonwork and work. *Journal of applied psychology*, *88*(3), 518.

Sparrowe, R. (2005). Authentic leadership and the narrative self. *The Leadership Quarterly, 16 (*3), 419-439.

Sparrowe, R. T. (1994). Empowerment in hospitality industry: an exploration of antecedents and outcomes. *Hospitality Research Journal, 17*, 51 – 73.

Spector, P. E. (1986). Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work. *Human Relations,39,* 1005–1016.

Spector, P.E. (1997). *Job satisfaction application, assessment, causes, and consequences.* Thousand Oaks.CA: Sage Publications

Spence Laschinger, H. K., Wilk, P., Cho, J., & Greco, P. (2009). Empowerment, engagement and perceived effectiveness in nursing work environments: does experience matter?. *Journal of nursing management*, *17*(5), 636-646.

Spitzmuller, M., & Ilies, R. (2010). Do they [all] see my true self? Leader's relational authenticity and followers' assessment of transformational leadership. *European Journal of Work and Organisational Psychology, 19*(3), 304-332.

Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of management Journal*, *38*(5), 1442-1465.

Spreitzer, G. M. (1995b). Psychological empowerment in the workplace: Construct definition, measurement, and validation. *Academy of Management Journal, 38,* 1442–1465

Spreitzer, G. M. (2008). Taking stock: A review of more than twenty years of research on empowerment at work. In J. Barling & C. L. Cooper (Eds.), *Handbook of organizational behavior* (pp. 54–72). Thousand Oaks, CA: Sage.

Spreitzer, G. M., Kizilos, M. A., & Nason, S. W. (1997). A dimensional analysis of the relationship between psychological empowerment and effectiveness satisfaction, and strain. *Journal of management*, *23*(5), 679-704.

Spreitzer, G.M., McCall, M.W., & Mahoney, J.D. (1997). Early identification of international ex- ecutive potential. *Journal of Applied Psychology, 82*(1), 6–29.

Squires, M. E. (2010). *The influence of perceived fairness and relational leadership on nursing safety climate and work environment,* Doctoral dissertation, University of Toronto.

Stairs, M (2005). Work happy: Developing employee engagement to deliver competitive advantage. *Selection & Development Review, 21(5), 7 -* 11

Stairs, M., Galpin, M., Page, N. & Linley, A. (2006). "Retention on a knife edge: the role of employee engagement in talent management". *Selection & Development Review, 22*(5), 19-23 BPS.

Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin, 124*, 240-261.

Steers, R. M. (1977). Antecedents and outcomes of organisational commitment. *Administrative Science Quarterly, 22*: 46-56.

Stewart, G. L. (2006). A meta-analytic review of relationships between team design features and team performance. *Journal of Management, 32,* 29–55. doi:10.1177/0149206305277792

Stogdill, R. M. (1974). *Handbook of leadership: A survey of the literature*. New York: Free Press.

Stronge, J. H. (2018). (3rd ed.) *Qualities of effective teachers*. ASCD.

Suen, H. K., & Ary, D. (2014). *Analyzing quantitative behavioral observation data*. Psychology Press.

Susman, G. I. (1976). *Autonomy at work: A sociotechnical analysis of participative management*. New York: Praeger.

Swart, C. (2017). *Neethling's thinking style preferences instrument to enhance team performance in an organisation in South Africa,* Doctoral dissertation, University of South Africa,

Tanner, T. (2015). *The Role of Transformational Leadership on Team Performance* Doctoral dissertation, University of Maryland University College.

Taylor, C. (1991). *The ethics of authenticity*. Cambridge, M.A: Harvard University Press

Tetik, N. (2016). The effects of psychological empowerment on job satisfaction and job performance of tourist guides. *International Journal of Academic Research in Business and Social Sciences, 6*(2), 221-239.

Thomas, J. R., Silverman, S., & Nelson, J. (2015). *Research methods in physical activity, 7E*. Human kinetics.

Thomas, K. W., & Tymon, W. G., Jr. (1994). Does empowerment always work: Understanding the role of intrinsic motivation and personal interpretation. *Journal of Management Systems, 6*: 39-54.

Thomas, K. W., & Velthouse, B. A. (1990). Cognitive elements of empowerment. *Academy of Management Review, 15,* 666–681.

Thomas, K.W. (2009). (2nd ed.) *Intrinsic Motivation at work. What really drives Employee Engagement.* San Fransisco: Berrett-Koehler Publishers Inc.

Thomas, K.W., & Velthouse, B.A. (1990). "Cognitive elements of empowerment: An enterprise model of intrinsic task motivation." *Academic Management Journal, 15*(4), 666-681

Truss, C., Soane, E., Edwards, C., Wisdom, K., Croll, A. & Byrnett, J. (2006). *Working life: employee attitudes and engagement.* CIPD

Tuckman, B. W., & Harper, B. E. (2012). *Conducting educational research.* Rowman & Littlefield Publishers.

Tully, T. (2015). *Critical Care Nurses' involvement in end-of-life decision-making: a grounded theory study.* Doctoral dissertation, Auckland University of Technology.

Turner, P. (2018). Talent Management and Employee Engagement. In *Talent Management in Healthcare* (pp. 253-283). UK: Palgrave Macmillan, Cham.

Tuuli, M. M., Rowlinson, S., Fellows, R. & Liu, A. M. M. (2012). Empowering the project team: impact of leadership style and team context. *Team Performance Management,* 18(3/4), 149 – 175.

Tuuli, M.M. & Rowlinson, S. (2009). Performance consequences of psychological empowerment. *Journal of Construction Engineering and Management, 135* (12), 1334-1347

Uner, S., & Turan, S. (2010). The construct validity and reliability of the Turkish version of Spreitzer's psychological empowerment scale. *BMC public health, 10*(1), 117.

Upenieks, V.V. (2002). "Assessing differences in job satisfaction of nurses in magnet and non-magnetic hospitals." *Journal of nursing administration 32*(11), 564-576.

Van Bogaert, P., Peremans, L., Van Heusden, D., Verspuy, M., Kureckova, V., Van de Cruys, Z., & Franck, E. (2017). Predictors of burnout, work engagement and nurse reported job outcomes and quality of care: a mixed method study. *BMC nursing, 16*(1), 5.

Van Bogaert, P., Wouters, K., Willems, R., Mondelaers, M., & Clarke, S. (2013). Work engagement supports nurse workforce stability and quality of care: nursing team-level analysis in psychiatric hospitals. *Journal of psychiatric and mental health nursing*, *20*(8), 679-686.

Van Seters, D. A. & Field, R. H. G. (1990) "The Evolution of Leadership Theory", *Journal of Organizational Change Management, 3*(3), 29 - 45

Wagner, R., & Harter, J. K. (2006). *The elements of great managing* . Simon and Schuster.

Walliman, N. (2006). *Social research methods*. Sage.

Walliman, N. (2011). *Your research project: Designing and planning your work*. Sage Publications.

Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic Leadership: Development and validation of a theory-based measure. *Journal of Management, 34*(1), 89-126.

Walumbwa, F. O., Muchiri, M. K., Misati, E., Wu, C., & Meiliani, M. (2018). Inspired to perform: A multilevel investigation of antecedents and consequences of thriving at work. *Journal of Organizational Behavior*, *39*(3), 249-261.

Walumbwa, F. O., Wang, P., Wang, H., Schaubroeck, J., & Avolio, B. J. (2010). Psychological processes linking authentic leadership to follower behaviours. *Leadership Quarterly, 21*(5), 901-914.

Walumbwa, F., Avolio, B., Gardner, W., Wernsing, T. & Peterson, S. (2008). Authentic Leadership: Development and validation of a theory-based measure. *Journal of Management, 34*(1), 89-126

Wang, G., & Lee, P. D. (2009). Psychological empowerment and job satisfaction: An analysis of interactive effects. *Group & Organization Management*, *34*(3), 271-296.

Warr, P. (2007). *Work, happiness, and unhappiness*, Mahwah, New Jersey: Lawrence Erlbaum.

Washburn, K. D. (2017). Effects of Authentic Leadership Style and Nurse Engagement on Patient Satisfaction. Walden Dissertations and Doctoral Studies, Walden University.

Webb, K. (2007). Motivating Peak Performance: Leadership Behaviours that stimulate employee motivation and performance. *Christian Higher Education, 6*, 53-71

Weimer, J. (ed.) (1995). *Research Techniques in Human Engineering.* Englewood Cliffs, NJ: Prentice Hall

Weingart, L. R. (1992). Impact of group goals, task component complexity, effort, and planning on group performance. *Journal of Applied Psychology, 77,* 682–693. doi:10.1037/0021-9010.77.5.682

Weitzl, W. (2017). Research Methods. In *Measuring Electronic Word-of-Mouth Effectiveness* (pp. 163-207). Springer Fachmedien Wiesbaden.

Wellins, R. S., Wilson, R., Katz, A. J., Laughlin, P., Day, C. R., Jr., & Price, D. (1990). *Self-directed teams: A study of current practice.* Pittsburgh: DDI

Western, R., & Gore, P. A. (2006). A brief guide to structural equation modelling. *The Counselling Psychologist*, *34*(5), 719-751.

Whittington, J. L., Meskelis, S., Asare, E., & Beldona, S. (2017). *Enhancing employee engagement: An evidence-based approach*. Cham: Springer International Publishing.

Wiley, D.M. (1999). Impact of locus of control and empowerment on organisational commitment. Unpublished Doctoral dissertation, USA: United States International University.

Williams-Brown, H. A. (2016). *A quantitative, quasi-experimental study on emotional intelligence and leadership performance in the financial-services industry.* Doctoral dissertation, University of Phoenix.

Wolmarans, J. (2014). *The effect of core ethical values on ethical leadership, organisational justice, ethical climate and leader effectiveness.* Doctoral dissertation, Stellenbosch: Stellenbosch University.

Wong, D. (2017). *Increasing employee engagement at the City of Pitt Meadows.* Canada: University of Victoria.

Yammarino, F. J. & Dansereau, F. (2008). Multi-level nature of and multi-level approaches to leadership. *The Leadership Quarterly, 19*, 135-141.

Yammarino, F. J., Dione, S. D., Schriesheim, C. A., & Dansereau, F. (2008). Authentic leadership and positive organisational behaviour: A meso, multi-level perspective. *The Leadership Quarterly, 19*, 693-707.

Yang, Y., & Green, S. B. (2011). Coefficient alpha: A reliability coefficient for the 21st century?. *Journal of Psychoeducational Assessment*, 0734282911406668.

Yin, R. K. (2013). *Case study research: Design and methods.* Sage publications.

Yu, M., Vaagaasar, A. L., Müller, R., Wang, L., & Zhu, F. (2018). Empowerment: The key to horizontal leadership in projects. *International Journal of Project Management*, *36*(7), 992-1006.

Yukl, G. A., & Becker, W. S. (2006). Effective empowerment in organizations. *Organization Management Journal*, *3*(3), 210-231.

Zaccaro, S. J., Rittman, A. L., & Marks, M. A. (2001). Team leadership. *The Leadership Quarterly, 12*, 451 – 483.

Zhang, J., Song, L. J., Wang, Y., & Liu, G. (2018). How authentic leadership influences employee proactivity: the sequential mediating effects of psychological empowerment and core self-evaluations and the moderating role of employee political skill. *Frontiers of Business Research in China, 12*(1), 5.

Zhang, X. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal, 53* (1), 107-128

Zhu, W., May, D. R., & Avolio, B. J. (2004). The impact of ethical leadership behavior on employee outcomes: The roles of psychological empowerment and authenticity. *Journal of Leadership & Organizational Studies*, *11*(1), 16-26.

Zimmerman, M. A. (1995). Psychological empowerment: Issues and illustrations. *American journal of community psychology*, *23*(5), 581-599.