The influence of transformational leadership and organisational climate on organisational citizenship behaviour among support staff at a selected University in the Western Cape Province

By

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DECLARATION

By submitting this thesis, I declare that the entirety of the work contained therein is my own, original work, that I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

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ABSTRACT

In academic sector, especially the Universities and many other organizations, the human factor is the most important element of the organization and its functions exert a huge influence on the effectiveness, efficiency and success of the organization. Therefore, discretionary behaviours such as OCB among employees in such organizations like any other organizations are crucial for organizational effectiveness and performance. Thus, improving the organizational citizenship behaviours of employees in such organizations in order to promote organizational effectiveness, performance and success is one of the fundamental challenges and principal tasks facing managers. The primary aim of this study is to examine and understand the influence of transformational leadership and organizational climate on organizational citizenship behaviour among support staff. .The secondary objective is to make recommendations to organizations on the importance of transformational leadership in promoting OCB thereby providing recommendations to OD and HR practitioners on the best practice on the pro-organizational behaviour.

The quantitative research design was used in the study. The target population for this study were the support staff at the selected university in the Western Cape Province. The population size was approximately 1123. A sample size of 220 was drawn using the Rasoft calculator. An online goggle form Questionnaire (instead of hard copy questionnaire as original planned) was administered to a sample size of about 220 working support staff. Convenience sampling methods was used to reach the desired number of responses. The Multi factor Leadership Questionnaire (MLQ SX) was used to measure transformational leadership, Organizational climate questionnaire (OCQ) for measuring organisational climate and the Organizational Citizenship Behaviour scale (OCBS) for measuring organisational citizenship behaviour. Data was analysed using structural equation modeling. Item and dimensional analyses were performed to determine the quality of the items.

Significant relationships were found between transformational leadership and organisational citizenship behaviour; organisational climate and organisational citizenship behaviour and transformational leadership and organisational climate. The practical implications and recommendations for future studies were provided.
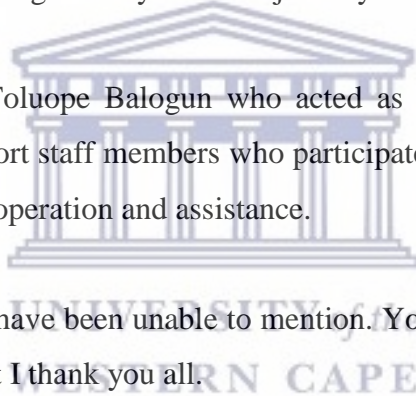
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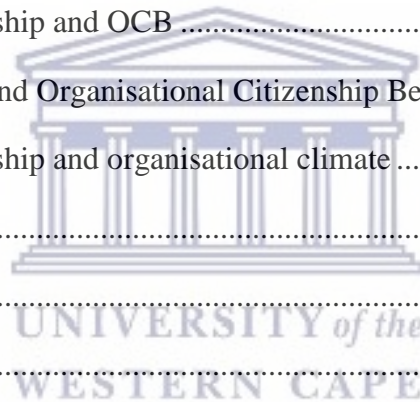
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CHAPTER ONE
INTRODUCTION, RESEARCH INITIATING QUESTION AND RESEARCH OBJECTIVES

1.1 INTRODUCTION AND OVERVIEW OF STUDY

The contemporary world is moving fast, as organisations, many entities in modern societies are evolving rapidly and the role of human resources is undeniable (Sanati & Nikbakhsh, 2014). To this end, many organisations seek sustainability and growth and they always invest their best efforts to increase their long-term financial performance (Khan, Ghouri & Awang, 2013). Therefore, improving the effectiveness, efficiency and creativity of the organisation is highly dependent on the willingness of employees to proactively and positively contribute to addressing changes in the organisation, and it is expected that this behaviour will not only fulfill their formal obligations at work, but also exceed them (Sunardi & Herman, 2007). Effective and efficient organisations depend largely on the organisational behaviour of their employees. Organisations that have been successful in the 21st century have a large percentage of employees who engage in organisational citizenship behaviour (Mahembe & Engelbrecht, 2014).

Organisational citizenship behaviour has been identified as the discretionary work behaviour expressed by employees, which entails and inspires them to go beyond the minimum requirements of their work (Khurana, Singh & Khandelwal, 2014). It is considered as one of the most significant attitudes that influence employee behaviour (Pourkiani et al., 2014), which promotes organisational effectiveness (Gholami, Keykale, Tir, Ramandi, Karimi & Rajaee, 2015), employee performance (Asiedu, Sarf & Adje, 2014; Chiang & Hsieh, 2012), group performance (Sevi, 2010) and organisational commitment (Peterson, 2004; Zayas-Ortiz, Rosario, Marquez & Gruneiro, 2015).

Organisational citizenship behaviour remains a concept that organisations strive to generate in their employees, not only to cultivate a dynamic organisational culture, but also to maximise productivity and ensure sustainability (Lin, Lyau, Tsai, Chen & Chiu, 2010). Involvement in organisational citizenship behaviour is not a random event; it is influenced by a number of person

and environmental factors. The person factors include the extent to which the leadership addresses employee needs, while ensuring that organisational productivity is improved.

Transformational leadership has been identified in literature as one of the most effective people-oriented leadership styles (Hendricks, 2017; Jabber, Alireza & Houshang, 2016). Jabber, Alireza and Houshang (2016) describe transformational leadership as the leadership style that causes change, attracts various skills and methodologies to an organisation, and creates distinct benefits for the organisation. Shen, Ju, Koh, Rowlinson and Bridge (2017) describe transformational leadership as the leadership style that inspires followers to transcend their personal interests for the collective good of the organisation. Daft (2010) adds that a manager who applies transformational leadership style inspires subordinates to go beyond their personal interests with four influencing tactics, namely serving as a model for desired behaviour, developing commitment to subordinate goals, involving subordinates in problem solving, and empathising with subordinates.

According to some studies, the transformational leadership style (TL) can play an influential role in increasing the level of commitment of employees, leading to a reduction in the turnover rate (Chi & Pan, 2012; Dimaculangan & Aguiling, 2012). The main belief is building trust among their employees and empowering them psychologically (Aolio, 2003), so that employees develop the feeling of belonging to their organisation, leading to the development of a higher level of commitment (Garg & Dhar, 2014). Mahmound and Saad (2017) indicate that employees who have close working relationships with transformational leaders have greater professional satisfaction and organisational commitment than those who do not. Employees feel comfortable and satisfied with this method of supportive leadership, as it encourages them to adopt a perspective that nourishes employees, presents a vision, promotes trust, and helps to create innovative and individualised considerations. In addition to propagating an environment characterised by extra-role behaviours (OCB), transformational leadership is likely to influence the organisational climate.

Suresh and Venkatammal (2010) describe the organisational climate as the set of attitudes shown in an organisation that affect individuals and groups, such as rewards and interpersonal

relationships. Gholami et al. (2015) refers to the organisational climate as relating to perception of employees with regards to the organisation's resources, such as leadership style, decision making and work standards. Heather (2018) describes the organisation's climate as the perception of the environment, both by strangers and by people who work for the organisation. The leadership can create a climate. It also feeds events that take place in the office or by the people who work there and how they react to things. The climate can change. It can slowly change over time if there is new leadership.

Anton and Mari (2018) define organisational climate as the shared perception of policies, practices and procedures and, more specifically, in terms of perception of leadership, the way managers treat employees, compensation, and the way people treat themselves and customers.

Although previous studies have been conducted on the influence of transformational leadership style, organisational climate and OCB differently (Suliman & Al-Obaidly, 2011), there are not many studies that have combined transformational leadership and organisational climate in order to determine their influence on OCB. For example, Yaghobi et al. (2010) postulate that all components of transformational leadership have a significant relationship with OCB. Behrangi and Movahedzadeh (2011) show that there is a significant relationship between transformational leadership training for managers and organisational citizenship behaviour and its characteristics in high school teachers.

Suliman and Al-Obaidly (2011) confirm that transformational leadership and communication tend to play an important role in the OCB of employees of Islamic banks in the United Arab Emirates. A study conducted by Shaymy et al. (2014) on the analysis of the effect of the perceived organisational climate on the behaviour of citizenship among nurses in the city of Noshahr revealed that, through the creation of a positive working atmosphere, the OCB can be improved. A positive and significant association between organisational climate and OCB was found in a study that looked at organisational climate and OCB among employees of a sports organisation in the municipality of Tehran (Amini, 2012). It is against this background that this study investigates the influence of transformational leadership and organisational climate on OCB among employees at a selected university in the Western Cape, South Africa. This study contributes to theory and to

existing empirical literature in the fields of leadership, organisational climate and OCB. In addition, insights gained from this study will have positive implications for leadership development, organisational climate and OCB.

1.2 Problem statement

The human factor is the most important element in the academic sector, especially in Universities and many other organisations, and its functions exert a huge influence on the effectiveness, efficiency and success of the organisation. Therefore, discretionary behaviours such as OCB among employees in such organisations, like in any other organisation, are crucial for organisational effectiveness and performance. However, turnover intentions, absenteeism, decreased employee commitment amongst others can also cause abundant and sometimes irreparable damages to these organisations. Thus, improving the organisational citizenship behaviours of employees in such organisations in order to promote organisational effectiveness, performance and success is one of the fundamental challenges and principal tasks facing managers. This study sought to contribute to literature by investigating the influence of transformational leadership and organisational climate on OCB.

1.3 Research question

The main research question that guided the study is: What is the influence of transformational leadership and organisational climate on OCB among support staff at a selected university in Western Cape Province?

1.4 Objectives of the Study

In line with the above stated research question and problem statement, the following objectives were postulated:

1. To determine the influence of transformational leadership on OCB.
2. To determine the influence of organisational climate on OCB.
3. To determine the influence of transformational leadership on organisational climate
4. To determine the goodness-of-fit testing in transformational leadership, organisational climate and OCB.

1.5 Significance of the study

The researcher anticipates that the results of the study will inform organisations on the importance of transformational leadership in promoting OCB, thus providing recommendations to organisations' development and human resource practitioners on the best practice in pro-organisational behaviour. The findings of the study will enable the management to establish strategies, and therefore identify the areas where improvements can be carried out. The importance of this study to the university employees lies in it enabling university employees to foster OCB, as employees' OCB contribute to university success. In addition, university leaders will understand how essential it is to create a stimulating work environment that positively contributes to voluntary behaviours of employees.

The outcome of this study will help the management in planning for the development, effectiveness and efficiency of the organisation that will lead to improved OCB, job satisfaction and performance. Moreover, the study will equip organisational leaders and managers with the best approach to motivate and relate with their subordinates, and to positively influence their employees' organisational citizenship behaviours.

In addition, this study is expected to also equip organisational leaders and managers with the best empowerment approach to keep their employees intrinsically motivated in order to achieve organisational goals. The recommendations of this study will help organisational leaders to provide a suitable and positive organisational climate that is devoid of distractions. This will allow employees to perform to their full potential. Finally, the study will contribute to the existing empirical literature in the areas of leadership, organisational climate, OCB and industrial and organisational psychology.

1.6. Delimitations of the study

The study was limited to some selected departments within the selected university and it therefore does not necessarily reflect the behaviour of all support staff of the university. The convenience sampling method was implemented to enable flexible interaction and full access to the participants.

The population was narrowed to just the support staff in order to allow more depth of understanding this group.

1.7 Outline of the study

This study, which is reported in five chapters, was focused on assessing the influence of transformational leadership and organisational climate on organisational citizenship behaviour.

1.7.1 Chapter 1: Introduction and overview of the study

This chapter presented an overview of the study, the problem statement, research objectives, research hypothesis, and delimitations of the study.

1.7.2 Chapter 2: Literature review

The chapter provides the definitions of the three variables employed in this study, namely transformational leadership, organisational climate and organisational citizenship behaviour. It provides an empirical review of these three. This chapter also provides a detailed discussion of theories employed in this study.

1.7.3 Chapter 3: Research methodology

This chapter shows how the research was conducted. It provides insight into the sampling method used, data collection techniques, and various other techniques that were used to analyse the data.

1.7.4 Chapter 4: Presentation of results

All the data gathered from the research questionnaires are presented in this chapter with the aid of graphs and tables.

1.7.5 Chapter 5: Discussion, conclusions and recommendations

A detailed discussion of the findings of the study is done in this chapter. The chapter also outlines the findings in relation to the theory and it presents the conclusions and recommendations of the study.

1.8 CHAPTER SUMMARY

First, the chapter introduced the research topic, and it provided the background of the study. Secondly, the chapter presented a comprehensive statement of the research problem, and it further highlighted the main and specific objectives of the study. Next, the chapter stated the significance of the study. Besides, the chapter clearly showed the scope and boundaries of the study. Lastly, the chapter outlined the structure of the thesis from the first chapter to the last.
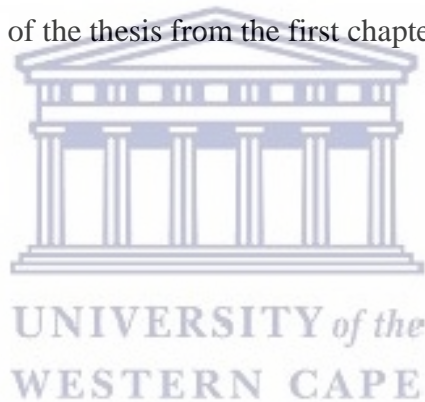
CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter provided a background to the study. The chapter also highlighted objectives, significance of the study, study limitations, and delimitations, which serve as a background for understanding the research problem. The current chapter reviews literature relevant to this study. This includes theories on transformational leadership, organisational climate and organisational citizenship behaviour. It further highlights the empirical framework, emphasising studies conducted on transformational leadership, organisational climate and organisational citizenship behaviour by other researchers as a point of reference for the understanding and interpretation of the results and detailed definition of each variable in the conceptual literature.

2.2 Conceptual literature

This part of the study presents a detailed definition of the variables under study for a robust understanding. As part of this, several concepts are defined, and the sections below are dedicated to this.

2.2.1 Transformational leadership

Transformational leadership is one of the leadership styles that have characterised the 21ˢᵗ century workplace, as evidenced by the ever-increasing journal articles linking it to various work outcomes (Khan, 2020; Lai, 2020; Tian et al., 2020). Elgelala and Noermijatib (2014) define transformational leadership as a leadership style in which leaders take action to try to make their members aware of what is right and important, increase the motivational maturity of their members and push them to go beyond their interests for the good of the group, organisation or society. Transformational leaders are leaders who are able to intellectually stimulate, inspire motivation, consider individually and ideally influence their followers in an ethical way. Transformational

leaders are reliable, honest and credible. They are transparent in their relationships, ethical in their actions and they are morally developed (Novicevic et al., 2006).

From early literature, Bass (1985) defines transformational leadership as a form of leadership in which the leader has a transformational quality with the ability to articulate a strategic vision that could motivate subordinates to focus on learning what the essential issues are in the implementation of the vision and mission at each level of the organisation. Furthermore, Burns (1978) submits that transformational leaders always try to promote followers' psychological and motivational skills to higher levels. As a leadership style, it attracts various skills and methodologies for an organisation, creating distinct benefits for the organisation. A manager who applies transformational leadership shows integrity and communicates clear organisational goals to subordinates or followers. Transformational leaders influence organisational performance by promoting organisational learning and innovation (Garcia-Morales et al., 2011).

Rosari (2019) describes transformational leaders as leaders who have increased the follower confidence by expressing their expectations; they cultivate followers by offering constructive feedback and advice for their development; they encourage followers to apply new methods to solve work problems, and they reward followers by praising their work and performance. In addition, Piccolo and Colquitt (2006) submit that transformational leaders can influence how followers perceive their main job characteristics in terms of high relevance, autonomy, variety, identity and feedback.

Transformational leaders make subordinates aware of the need for personal development and fulfillment and they motivate them to work for the good of the organisation and not for their personal gain (George & Jones, 2008). Pillai and Williams (2004) believe that transformational leaders are those who encourage subordinates to engage more in their organisation, promote cooperation between subordinates, help them to work together and ensure that they transcend their personal interest for the good of the group. Transformational leaders inspire their followers and lead people to act in a very high spirit, with profound effects on their organisations (Mackenzie et al., 2001).

Bass et al. (1994) state that a transformational leader motivates his subordinates to do things beyond expectations. This is done by encouraging them to focus on the greater good, and not on individual needs. Therefore, the leader focuses on essential goals that are at a higher level (e.g. achievement and self-actualisation) rather than extrinsic goals at a lower level (e.g. comfort and safety) and has confidence in the ability of subordinates to achieve the objectives formulated. Furthermore, Andersen (2018) agrees that transformational leadership also transmits group identity to followers, expresses the honour of group achievement and inspires followers to accept collective vision and goals, and articulate an attractive image of the group's future. These behaviours can help followers understand the organisation's vision and share common interests.

Transformational leadership develops the follower's relational identity through interpersonal interaction to communicate great expectations, follower development, intellectual stimulation and personal recognition. The affectionate and supportive behaviours of the transformational leader allow the relational follower to identify such a leader and reward the leader for hard work, show them trust and respect leader (Walumbwa & Hartnell, 2011).

Singh and Krishnan (2007) argue that transformational leaders exercise additional influence by appealing to followers' beliefs and values to exceed expectations. Transformational leadership includes role models, critical thinking and maintaining a personal relationship with followers.

Lin and Hsiao (2014) add that transformational leadership motivates followers, for the good of the group, to do more than they initially expected and, often, even more than they thought possible. As a result, transformational leaders convert their followers to higher levels of performance and other positive work-related outcomes. Bass and Riggio (2006) indicate that transformational leaders transform followers by thinking in ways that embrace the organisation's vision as if it were their own. This transformation motivates employees to exceed their interests and to pursue collective goals.

In addition, transformational leadership helps to create working groups and the integration of individual goals and group goals. The transformational leader has the ability to match his future

vision to that of his subordinates and to raise the needs of his subordinates to a level above what they need.

The present study views transformational leadership from the objective of the Burns, and the Bass, models. According to White et al. (2017), transformational leadership has four main dimensions, namely idealised influence or charismatic, intellectual stimulation, consideration of individual and stimulating motivation.

2.2.1.1 Charismatic leadership or idealised influence

This component refers to the leader's charismatic actions that are focused on values, beliefs and a sense of mission (Antonakis et al., 2003). According to Nassif et al. (2021), the charismatic actions include discussions of the most important values and beliefs and emphasis on the collective mission and goal, as well as considering the ethical implications of their decisions.

According to Marenee et al. (2017), transformational leaders are seen as role models, and they are respected and even admired by their followers. The transformational leader is also described as a leader who has a vision and a mission that are clear and bold. Earlier, Bass (1998) established that the influence of the ideal is highlighted in transformational leadership when one of the leaders sets goals to be achieved, is able to explain and guide the follower so that the success of the goals is drawn by example. A transformational leader is also one who has high expectations on the ability of followers and they serve to provide support and guidance to achieve the desired level.

In this sense, Avolio (2005) argues that it is these types of leaders that speak of their most important values and beliefs, which can also be described as the importance of having a strong sense of purpose. Charismatic actions of the leader are centred on values, beliefs and sense of mission (Change et al., 2019). Transformational leaders act in a way that allows them to shape their members. They also argue that their subordinates admire them for their charismatic personality and they try to imitate these (Humphreys, 2001).

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2.2.1.2 Inspirational motivation

Inspired motivation refers to the ways which leaders adopt to inspire their followers to achieve personal and organisational goals (Nyokabi et al., 2017). Inspirational leadership is communicating a vision with fluency, confidence, optimism and enthusiasm, and creating motivational examples that stimulate others (Yammarino & Dubnisky, 1994).

Transformational leaders have behaviours that can motivate their followers. They are also always enthusiastic and able to meet the challenge. The transformational leader convinces his followers about the mission and the objectives to be achieved. Transformational leaders also sow total commitment to the organisation's goals. In the context of education, school leaders are responsible for providing moral support, as well as the needs and structures necessary to improve and maintain teachers' motivation to achieve the goals of the school organisation (Marenee et al., 2017).

2.2.1.3 Intellectual stimulation

According to Jeevan and Manisha (2015), "Intellectual stimulation is the characteristic of leaders who challenge the ideas and values of their followers when solving problems." Hartog et al. (1997) claim that intellectual stimulation encourages followers to question their own values, assumptions and beliefs and even those of their leaders.

Transformational leaders always solve the problem with dimensions of new and innovative thinking. Transformational leaders indirectly encourage their followers to think creatively about solving problems. Their followers will discover the best solution to any problem. A transformational leader makes his followers able to face challenges and they give them the courage to face the challenges (Marenee et al., 2017). It is one of the qualities of transformational leaders that plays a key role in educational processes in organisations (Jandaghi, Zarei Matin & Farjami, 2009). Such leaders inspire changes in thinking; they suggest new methods of solving problems and using descriptions and examples. They further note that, with intellectual stimulation, transformational leaders show new ways of dealing with problems that arise. Such leaders encourage their followers to use non-traditional thinking to deal with problems and listen to subordinates' ideas, even if different from theirs.
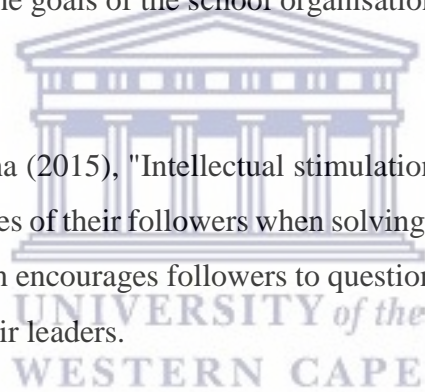
Avolio (2005) also notes that the leaders who are intellectually motivating to see the benefits of diversity. When they think collectively, leaders will be able to create truly new ideas and initiatives. The goal of the intellectual stimulation is to constantly achieve the highest levels of creativity from subordinates. According to Moghali (2002, cited in Jandaghi, Zarei Matin and Farjami, 2009), intellectual stimulation consists of revisiting the basic assumptions and interrogating them, looking for new and different perspectives during problem resolution, asking others to look at a problem from different points of view and encouraging non-traditional thinking to solve problems.

2.2.1.4 Individualised consideration

This refers to the treatment of followers as individuals and not only as members of a group (Dionne et al., 2004). Leaders will satisfy their followers by advising, supporting and paying attention to their individual needs and motivating them to develop (Jeevan & Manisha, 2015). Transformational leaders focus and pay attention to the needs and potential of their followers. The transformational leader treats each of his followers as individuals who need to be respected. A transformational leader always creates a comfortable atmosphere among followers, encouraging and supporting them. Leaders also create a favourable working environment because they are always sensitive to the needs of his target audience (Marenee et al., 2017).

Transformational leaders help their followers to achieve their full potential by applying their talents and increasing their responsibility in the organisation. Transformational leaders differ from transactional leaders in identifying needs because a transactional leader tries to satisfy needs rather than higher needs such as development and maturity (Jandaghi, Zarei Matin & Farjami, 2009). Bass and Riggio (2006) note that colleagues are subsequently developed to their full potential. According to them, individualised consideration is practiced when new experiences and learning opportunities are created in an environment of understanding. According to Ogola (2017), individualised consideration focuses on time devoted to teaching and training; treating others as individuals instead of as group members; paying attention to others as people who have different needs, abilities, dreams and desires; helping other people develop and grow their abilities; listening to the needs and interests of others; developing individuality and facilitating the growth of individuals.

2.2.2 Organisational Climate

Berberoglu (2018) defines organisational climate as a set of attitudes of an organisation that affects individuals and groups, such as rewards and interpersonal relationships. Gholami et al. (2015) consider organisational climate as employee perceptions related to an organisation's features, such as leadership style, decision-making and work standards.

Organisational climate is a relatively enduring quality of the internal environment of an organisation, which is experienced by its members, and which influences their behaviour and can be described in terms of the values of a specific set of characteristics of the organisation (Subramani, Jan, Gaur & Vinodh, 2016). Al Shobak et al. (2018) also define organisational climate as the quality of the internal environment of the organisation, which is described with attributes such as open, lively, relaxed, informal, cold, impersonal, hostile, rigid and closed.

The organisational climate is the collective individual perception of the working environment. It consists of a set of characteristics that distinguish organisations and is relatively long lasting and it influences the behaviour of employees in an organisation (Tiwara, 2014). Organisational climate refers to members' perceptions of how a particular organisation deals with its employees; it also refers to the external environment, because the concept of organisational climate is based on individual perceptions (Moslehpour et al., 2019).

According to Wirawan (2008), Organisational climate is a perception of members of the organisation, individually or in groups, who constantly communicate with the organisation, and who are associated with anything that frequently occurs in the organisation. Ayudiarini (2010) defines the term as a collection and a pattern of the environmental determinants of the motivation aroused.

Salman, Aamir, Asif and Khan (2015) hold that organisational climate is a relative characteristic in an organisation that differentiates it from other organisations. It is the way in which a member has a collective perception of his organisation in relation to dimensions such as autonomy, trust, togetherness, support, recognition, innovation and justice (Salman et al., 2015).

Organisational climate is considered an attribute of the organisation, a conglomerate of attitudes, feelings and behaviours that characterise the daily life of an organisation (Açıkgöza & Günsel, 2011). Organisational climate basically implies the collective perception of employees on different aspects and components of the work environment. It evolves from the experiences that people have when dealing with different layers of organisational reality, namely its goals and objectives, company policies and practices, job design, leadership, motivational and reward mechanisms, structure, communication channels, working conditions, and dependence on technology among other attributes (Gondlekar & Kamat, 2016).

In addition, organisational climate provides a dynamic interface for the employees of the organisation, namely in the form of psychologically meaningful and relevant behavioural perceptions which push them to think, feel and act consistently (Gondlekar & Kamat, 2016). Gondlekar and Kamat (2016) define organisational climate as a relatively lasting quality of the internal environment of an organisation, distinguishing it from other organisations, and which results from the behaviour and policies of the members of the organisation, in particular from the top management, perceived by the members of the organisation, which invariably serves as a basis for integration into the situation and acts as a source of pressure to direct the activities.

From early literature, Amabile (1996) and Dul and Ceylun (2011) define organisational climate as the perception of the work environment and the characteristics of some individuals in the environment, such as supervisors and leaders who can promote or inhibit the level of innovation. Organisational climate is an emerging construct, which consists of employees' shared perceptions of the psychologically significant attributes of the organisational environment. Organisational climate derives from the experiences and perceptions of individual members who gradually become socially shared through a variety of mechanisms, thus emerging as a group-level property (Kozlowski & Klein, 2000).

Furthermore, organisational climate is the set of characteristics that describes an organisation and that distinguishes from other organisations. It is relatively long-lasting and it influences people's

behaviour. Organisational climate represents the way employees feel the atmosphere (Nadu, 2017).

Numerous models surround the organisational climate and the present study used various dimensions as discussed below. It also utilised the organisational climate questionnaire (OCQ) by Litwin and Stringer (1968).

2.2.2.1 Autonomy

Autonomy is the extent to which an employee is free to be his or her own boss and have the power to make decisions without having to obtain managerial approval (Campbell, 1970). Since employees want to see their performance increase, they tend to go a further mile without necessarily waiting for managerial orders (Miller, 2018). Klien (1991) indicates that autonomy in organisations is the design of jobs in such a way that they offer employees a wide scope of work implementation.

2.2.2.2 Involvement

Employee involvement came out as an important factor influencing organisational climate perception. Employees get authority and are they are encouraged to make decisions, provide inputs in their workplace, which result in a positive job and overall organisational performance. According to McMurray and Scott (2013), involvement can either be on an individual basis or organisational basis depending on who is engaging employees in the decision making process.

2.2.2.3 Supervisory support

In this type of dimension, employees perceive their colleagues and manager's willingness to help and support. According to Litwin and Stringer (1968), supervisory support is a perceived importance of implicit and explicit goals and performance standards which emphasises on the challenges represented in personal group goals usually achievable with the help extended to employees by supervisors. A supportive organisational climate has a positive effect on employee performance as supervisors give employees all the support they need within the work environment.

2.2.3 Organisational Citizenship Behaviour

Organisational citizenship behaviour was formally defined for the first time by Organ in 1988 as individual discretionary behaviour, not directly or explicitly recognised by the formal reward system and that promoted the efficient and effective functioning of the organisation (Organ, Podsakoff & MacKenzie, 2005).

Batman and Organ (1983) define organisational citizenship behaviour as beneficial behaviour which is not mentioned in the employee's job description, but which employees manifest while doing their duty to help others. Organisational citizenship behaviour is described as discretionary workplace behaviours that exceed the basic requirements of a job. They are often described as behaviours that go beyond the call of duty.

Organ (1988) defines organisational citizenship behaviour as an individual, discretionary behaviour that is not directly or explicitly recognised by the formal reward system and which, as a whole, promotes the effective functioning of the organisation. discretionary criteria means that behaviour is not a mandatory job requirement or job description, that is, the clearly specified terms of the person's employment contract with the organisation; rather, behaviour is more a matter of personal choice, and its omission is generally not considered punishable.

The concept of organisational citizenship behaviour (OCB) generally refers to behaviour that positively influences the organisation or its members (Poncheri, 2006). Turnipseed and Wilson (2009) emphasise that behaviour is classified as "organisational citizenship" if it is discretionary and not a mandatory work requirement, not directly recognised by the formal reward system and which contributes to organisational effectiveness.

Organ (1997) defines organisational citizenship behaviour that contribute to organisational efficiency, supporting the social and psychological environment in which the activity is carried out. Mallick, Pradhan, Tewari and Jena (2015) add that organisational citizenship behaviour is voluntary or discretionary behaviour by employees and is not recognised in formal job descriptions established by organisations.

Organisational citizenship behaviour has been defined as a multidimensional concept that includes all positive behaviours relevant to the organisation of the members of the organisation, including traditional role behaviours, extra role behaviours relevant to the organisation, and political behaviours, like the full and responsible participation of the organisation (Van Dyne, Graham & Dienesch, 1994).

Jahangir et al. (2004) define the behaviour of organisational citizenship as the willingness of participants to strive beyond the formal obligations dictated by their positions, provided that they are recognised as an essential component of effective organisational performance. Organs et al. (2005) associates organisational citizenship behaviour with the free choice of individual behaviour, which is not defined directly in normal reward systems; in general, this behaviour allows organisations to work more effectively and efficiently. According to Polat (2009), there are five dimensions of OCB, which include altruism, courtesy, conscientiousness, sportsmanship and civic virtue. These are discussed below.

2.2.3.1. Altruism

Redman and Snape (2005) define altruism as a means of helping colleagues to do their jobs. In addition, altruism refers to voluntary acts that involve providing help to colleagues or other members of the organisation in solving problems related to the organisation. Furthermore, altruism is an act to help a colleague with a designated task or problem; therefore, going beyond work needs to help other people with whom the individual comes into contact. It is aimed at other individuals, but contributes to the efficiency of the group, improving the individual's performance; participants help new colleagues and donate their time freely.

Altruism is associated with behaviours that directly or indirectly help another worker with a problem related to current work. Workers help each other instead of distracting supervisors from their jobs (Sparrow et al., 2021). In addition, workers can benefit from not showing the supervisor how often they need help, which can lead to performance appraisal.

2.2.3.2. Courtesy

Redman and Snape (2005) define courtesy as a means of helping others avoid potential problems. It describes behaviours focused on preventing problems and facilitating serenity, bearing in mind how a person's action affects other people, and resolving and avoiding conflicts, facilitating the constructive use of time. Participants give notice, timely reminders and appropriate information. Organ (1988) submits that while courtesy is closely related to altruism, it is distinctly different; it refers to useful behaviours that prevent a work-related problem from occurring or that help reduce the truth of an expected problem. Behaviours like advanced notice, reminders and consultation fall within this dimension.

2.2.3.3. Conscientiousness

Redman and Snape (2005) refer to conscientiousness as discretionary behaviours that go beyond the basic requirements of work, in terms of obedience to the rules of work, attendance and performance at work. Conscientiousness means doing the job according to the rules. In addition, conscientiousness refers to employee actions that go beyond the minimum requirements in performing organisational activities. Employees who adapt these actions are known to do everything possible to complete organisational activities. Conscientiousness is the thoughtful use of time to increase the efficiency of individuals and the group; participants spend more time organising, and they make an effort beyond formal requirements.

2.2.3.4. Sportsmanship

Sportsmanship means protecting team interests and avoiding team conflicts. Sportsmanship refers to the willingness of employees to tolerate organisational difficulties, inconveniences and behaviour of coworkers, accepting work-related problems without complaining excessively, and maintaining a positive attitude towards others (Pennington, 2017). Furthermore, sportsmanship involves the tolerance of the inevitable inconveniences and irritations that can arise in the organisation without complaining or reporting complaints. It increases the amount of time spent on organisational activities; participants reduce the time spent on complaints (Organ et al., 2006).

Earlier in literature, Organ (1988) described sportsmanship as less than desirable tolerant situations, without complaining or "turning federal cases into small potatoes". This dimension may

only be a supervisor's favourite; lack of small complaints. For example, "good sports" are people who not only complain when they are disturbed by other people, but who also maintain a positive attitude even when things are not going the right way. These are not offended when other people do not follow their suggestions; they are willing to sacrifice their personal interest for the good of the team, and they do not personally lead to the rejection of one's ideas.

2.2.3.5. Civic virtue

Civic virtue means a high level of interest in and loyalty to the organisation (Khan et al., 2020). Civil virtue is described as when the employee shows responsible participation in the organisation's political and administrative processes. This can be done by providing contributions, providing feedback and participating in discussions or general involvement in organisational activities to assist, advance and enable the achievement of organisational objectives (Snow, 2018). It widely promotes the interests of the organisation; the participants voluntarily serve on the committees and participate in the functions of the organisation (Redman & Snape, 2005).

Organ (1988) defines civic virtue as "responsible participation in the political life of the organisation". An example of such behaviour is keeping up to date with important issues in the organisation. Civic virtue has a macro-level interest or commitment to the organisation as a whole. This is demonstrated by the willingness to actively participate in its governance (for example, attend meetings, participate in political debates, express someone's opinion on which strategy the organisation should follow, etc.); monitor the environment for threats and opportunities (for example, track changes in the industry that may affect the organisation), and take care of your best interests (for example by reporting fire risks or suspicious activities, closed doors, etc.), even at high personal costs. These behaviours reflect a person's recognition of being part of a larger whole in the same way that citizens are members of a country and therefore accept the responsibilities that this entails (Vincent, 2018).

Furthermore, Ngxukumeshe, Smith and Mazibuko (2017) point out that there are different dimensions to organisational citizenship behaviour, which include helping or altruistic behaviour, conscientiousness, compliance, sportsmanship, loyalty or organisational boosterism, individual initiative and self-development. By engaging in organisational citizenship behaviour, individuals

can help other members of their organisation solve problems and participate in tasks that will lead to the creation and protection of community relationships (King, George & Hebel, 2005; Mossholder, Richardson & Settoon, 2011).

Podsakoff et al. (2000) indicate that the conduct of organisational citizenship is not required by the organisation as part of the terms and conditions of work. On the contrary, it is completely optional and non-existent, and this behaviour cannot be questioned or punished. Organisational citizenship behaviour is described as a set of voluntary behaviours that determine a better functioning of the functions of the organisation (Appelbaum et al., 2004).

According to Bukhari (2008), Organisational citizenship behaviour is the act of defending the organisation when it is in difficulty and it encourages stakeholders to invest in the organisation. OCB is a type of behaviour of the members of the organisation that aims to improve the effectiveness of the organisation without ignoring the productivity and the individual goal of the employees (Castro et al., 2004).

Organisational citizenship behaviours are the behaviours exhibited by employees that are not formally requested by management in evaluating the employee's work, but which are able to increase organisational function, since they are based more on personal freedom to express the initiative (Bienstock et al., 2003). Organ et al. (2006) define the behaviour of organisational citizenship as an extra-functional behaviour of the employee in a work group, such as the behaviour of enjoying other activities outside the main activities indicated in the employee's job description. Explicitly, this action is not recognised in the company's formal system, but it can improve the efficiency and effectiveness of the organisation.

Jacqueline et al. (2004) add that organisational citizenship behaviour is extra role behaviour, such as the employee's action to perform additional activities in a work group that is not officially required by the company, but constitutes the employee's desire, and it is voluntarily conducted for help of the organisation.

2.4 Empirical Literature

This section provides detailed findings of several studies done by various researchers in the past with regards to the relationships between the variables under study.

2.4.1 Transformational leadership and OCB

Empirical evidence constantly supports positive correlations between transformative leadership behaviour and organisational citizenship behaviour (Carter et al., 2014; Wang et al., 2011). Transformational leadership has been recognised as an effective factor in winning the OCB in several ways. However, the results differ from country to country (Choudhary et al., 2016). Recently in China, Lingyun et al. (2019) conducted a study to promote organisational citizenship behaviour for the environment through transformational leadership. The findings reported that between transformational leadership and organisational citizenship behaviour was a positive and significant relationship, but the four dimensions of transformational leadership have different influencing paths and strengths on OCBE.

Jiang, Zhao and Ni (2017) conducted a study on impact of transformational leader on OCB and discovered that transformational leaders improve the subordinates' organisational citizenship behaviour at the expense of inspiration. The findings remind leaders of the need to pay close attention to transformational leadership to improve OCB and employees' performance.

Ismaeelzadeh, Anjomshoa and Fard (2016) found that the components of transformational leadership and organisational citizenship behaviour have a significant positive relationship. A study by Rodrigues and Ferreira (2015) found that the transformational leadership style positively predicted the dimensions of organisational citizenship behaviour associated with creative suggestions related to the system, which is the creation of a favourable organisational climate in the external environment and self-training and cooperation between colleagues' styles of transformational leadership.

Hutahayan et al. (2013) found a positive relationship between transformational leadership and organisational citizenship behaviour in Indonesian state-owned companies. They further claim that

the relationship between these two variables becomes stronger when the culture and commitment of the organisation are used as mediators. Therefore, it is because of the strong relationship with the appropriate leadership style that appears as a high civic virtue, sportsmanship and courtesy, as well as conscientiousness among employees.

Fatene, Seyyed and Morteza's (2013) study in Mazandra's "general sport and youth office" in Iran found a positive relationship between the (transformational) leadership style and the organisational behaviour of citizenship of the team. Saif and Khattak (2014) found a positive relationship between transformational leadership and organisational citizenship behaviour. In the context of this study, it can be assumed that transformation leadership is strongly correlated to the behaviour of employee citizenship, applying the appropriate strategy of the behaviour of the target group, as this will infuse sufficient energy among the employees to effectively carry out their organisational tasks.

The findings of Cho and Dansero's (2010) study also demonstrate that transformational leadership significantly influences the behaviour of organisational citizenship and the perception of organisational justice. Organ et al. (2006), Modassir and Singh (2008) and Jiao et al. (2010) in separate studies on transformational leadership in organisational citizenship behaviour reported a significant positive relationship between the two constructs. Guh (2008) reported a significant positive relationship between transformational leadership in normative commitment, emotional engagement and organisational citizenship behaviour.

2.4.2 Organisational climate and Organisational Citizenship Behaviour relationship

There is a significant increase of recent studies which focused on understanding the relationship between organisational climate and OCB. Priyankara et al. (2018) discovered that organisational climate and OCB have a strong positive relationship. Furthermore, Subramani, Gaur and Vinodh (2016) submit that the organisational climate has a positive impact on organisational citizenship behaviour and its components, such as Altruism, Civic Virtue, Sportsmanship, Courtesy and Conscientiousness. The results of the study by Setyaningrum (2017) on the relationship between organisational citizenship behaviour and organisational climate showed that the organisational

climate was effective in organisational citizenship behaviour. Therefore, based on the bilateral relationship between organisational climate and organisational citizenship behaviour, it can be said that the greater the good organisational climate, the greater organisational citizenship behaviour will be.

Shaymyet et al. (2014), "on the analysis of the effect of perceived organisational climate on organisational citizenship behaviour in nurses in the city of Noshahr", found that establishing a positive working climate could improve OCB through perceived organisational climate. Therefore, to improve the organisational climate, involving people in cooperative activities can help colleagues do better work and to be motivated to make efforts, and when the organisation has an innovative climate employees can easily start innovation and promote themselves.

Amini (2012) conducted a study on organisational climate with organisational citizenship behaviour among employees of the sports organisation in the municipality of Tehran. The results showed that there was a positive and significant association between organisational climate and organisational behaviour of citizenship.

Moghadam, Ziabari and Fathizadeh (2012) report that the organisational climate adapted relationship between organisational citizenship behaviour and performance and the organisational climate directly and indirectly had a positive effect on organisational citizenship behaviour. Feizi and Emadi (2010) conducted a study on the relationship between organisational citizenship behaviour and organisational climate in the Ministry of Science, Research and Technology. The results of the study showed that OCB had a positive and significant association with the organisational climate.

Michael (2011) conducted a study on the relationship between the behaviour of organisational citizenship and the organisational climate for creativity among students of the Metropolitan University of Northern California. The study found that employee perceptions of the creative organisational climate were associated, on average, with organisational citizenship behaviour. The climate has high social relationships and internal motivation to perform functions, as well as the

perception of employees of the organisation with a developed climate and supported can lead to people's creativity.

Noor, Bhatti and Khan (2011) conducted a study to explore the relationship between organisational climate and organisational citizenship behaviour among employees of public sector organisations in Pakistan. The test results indicate a significant relationship between workplace conditions (fairness perception and peer cooperation) and organisational citizenship behaviour.

2.4.3 Transformational leadership and organisational climate

Gaviria-Rivera and López-Zapata (2019) conducted a study to determine the influence of transformational leadership on job satisfaction and organisational climate on a sample of 185 work team leaders and collaborators from large, medium and small companies in the Colombian construction sector. The study findings indicated that transformational leadership positively influences job satisfaction and organizational climate in work teams. Since organisational climate involves shared common practices, beliefs and values (Denison, 1996), the transformational leader is expected to use his or her idealised influence to steer the subordinates towards the preferred organisational climate.

Based on the foregoing discussion, the following hypotheses were postulated to guide the study:

Hypothesis 1

Transformational leadership has a positive influence on organisational citizenship behaviour.

Hypothesis 2

Organisational climate has a positive influence on organisational citizenship behaviour.

Hypothesis 3

Transformational leadership has a positive influence on organisational climate.

2.5 CHAPTER SUMMARY

This chapter provided an overview of the literature on transformational leadership, organisational climate and organisational citizenship behaviour. The key definitions and conceptualisation of key terms were outlined in respect to the study hypotheses. Furthermore, empirical literature of related studies was discussed with focus on the relationships being investigated by the research objectives. Lastly, the chapter concluded by highlighting the hypotheses of the study. The next chapter outlines the methodology used to test the model.

RESEARCH METHODOLOGY

3.0 Introduction

The review of the previous literature on the variables used in the present study resulted in the postulation of the hypotheses guiding the study. These hypotheses were tested using objective methods detailed in this chapter. The methodology chapter includes a description of the population, sample size and sampling method, among other topics. The tools used to collect data, with a focus on their rationale, validity and reliability, as well as the procedures used to collect and analyse the data are also discussed in this chapter.

According to Hair, Wolfinbarger, Ortinau and Bush (2008), the quality of the data collected is as good as the methodology used to collect it. Kothari (2004) postulates that researchers need not only know how to apply specific research methods and techniques, such as developing certain indices or tests, how to calculate the mean, modality, median or standard deviation or chi-square, but they must also understand the reliability and validity of these methods and techniques. A good method used to collect data ensures that the reliability and validity of the study are not compromised.

3.1 Research design

Research design refers to the steps that researchers take to complete their study from start to finish. It includes research questions based on the theoretical guide, the selection of respondents, the collection of data, and on the communication of results (Marvasti, 2004). Research can be classified into qualitative and quantitative designs. According to Shaughnessy (2011), the qualitative approach uses data obtained through interviews, observations and information obtained to describe individuals, groups and social activities.

In qualitative design, the research results are produced in verbal summaries and there are no statistical analyses. On one hand, research using a qualitative methodology is based on data collection methods such as observation of participants, in-depth interviews and/or focus group discussions (Jennings, 2011). On the other hand, in quantitative research, the information obtained by the participants is expressed in numerical form. Quantitative research uses mathematical

analysis to measure variables and it strongly emphasises the use of structured questionnaires (Cant, Gerber, Nel & Kotze, 2005).

McMillan and Schumacher (2010) state that quantitative methods are replicable and, therefore, they guarantee objectivity, generalisation, reliability and verifiability. Quantitative research methods allow the researcher to summarise large amounts of information. Terre Blanche, Durrheimand Painter (2006) state that the adoption of a quantitative research technique allows the collection of data in the form of numbers, and that statistical techniques are used to analyse the data.

Johnson and Christensen (2008) claim that quantitative methodology presupposes that social reality is constructed, it emphasises the context of research, uses deductive reasoning and it includes personal involvement and prejudice of the researcher. A quantitative methodology extracts data from participants for statistical analysis of representations rather than textual images of the phenomenon (Goodwin, 2007).

The whole research process was objectively constructed and the results are generally representative of the study population. Furthermore, the present study was based on questionnaires and the information obtained was expressed in numerical form; therefore, a quantitative method was adopted in this study. The method, therefore, provides answers that have a much more solid basis than a layperson's common sense, intuition or opinion (Leedy & Omrod, 2012). Therefore, since the present study deals with a large sample size and has questionnaires as a tool for data collection, the quantitative design of the research proved useful and was adopted in this study.

3.1.1 Research paradigm

This study used a positivism research paradigm. The positivist perspective is based on assumptions that the scientist, or the social scientist in this case, is able to suppress his views, values and experiences so effectively that objectivity can be achieved. Positivism depends on quantifiable observations, leading to statistical analysis. It has been observed that, "as in philosophy, positivism is in line with the empiricist view that knowledge derives from human experience" (Collins, 2010).

A research paradigm explains or predicts phenomena, provides orientation and guides the study (Schunk, 2000).

The positivist paradigm was used in this study to discover the truths of the relationship between transformational leadership, organisational climate and organisational citizenship behaviour. The positivist approach presupposes that the researcher is completely independent of the research carried out and, therefore, they are purely objective. Thus, the researcher maintained minimal interaction with research participants during the research. In other words, studies with a positivist paradigm are based only on facts that are considered to be external and objective (Wilson, 2010).

Statistical hypothesis

The conceptual model indicates inter-relationships among different variables. Below, Figure 3.1 illustrates the conceptual model that depicts the specific hypothesised casual linkages among transformational leadership, organisational climate and OCB. In order to test the validity of the relationships postulated in the structural model, the following specific research hypotheses were tested:
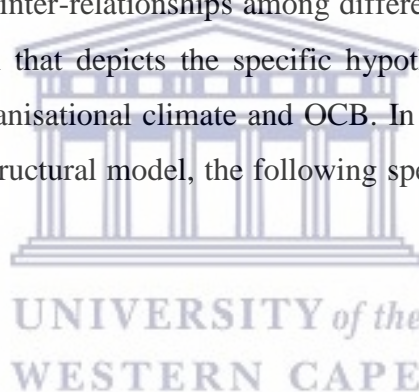
Hypothesis 1

Transformational leadership has a positive influence on organisational citizenship behaviour.

Hypothesis 2

Organisational climate has a positive influence on organisational citizenship behaviour.

Hypothesis 3

Transformational leadership has a positive influence on organisational climate.

Figure 3.1

Conceptual model
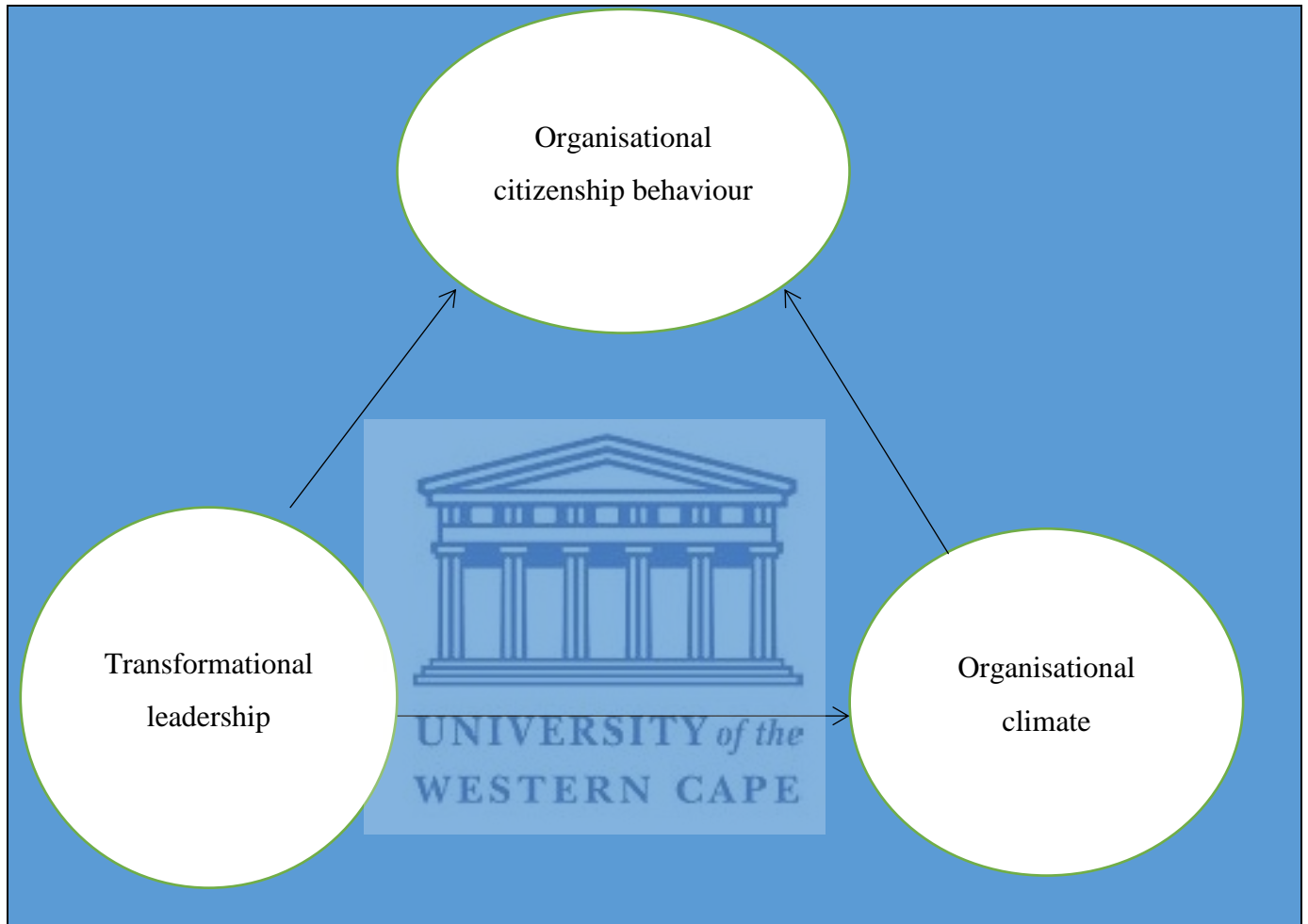
3.2.1 Target population

According to Singh (2007), a population is a group of individuals or objects from which samples are collected for measurement. McMillan and Schumacher (2010) note that population is an aggregate or a totality of all objects, subjects or members conforming to a series of specifications. According to Babbie and Mouton (2006), the population of a study is that group (usually from people) from whom the researcher wants to draw conclusions.

Babbie and Mouton (2006) also explain that we are almost never able to study all the members of the population that interests us, and we can never make all possible observations about them. The population is a large set of cases or elements from which the researcher extracts his sample (Neuman, 2005). According to Welman, Kruger and Mitchell (2005), a population is the study of objects and it is made up of individuals, groups, organisations, products and human events or the conditions to which they are exposed. Population includes the total collection of all units of analysis from which the researcher wishes to draw specific conclusions. The target population for this study were the support staff at the selected university in the Western Cape province. This includes human resources managers, human resources personnel, cashiers, administrative officers, and clerical officers amongst other support staff. The population size was approximately 1123.

3.2.2 Sampling method

Abdullah (2015) defines sample as a subset of a statistical population in which each member of the subset has the same probability of being chosen. According to Welman, Kruger and Mitchell (2006), a researcher uses a sampling method to draw participants from a population. Ellsberg and Heise (2005) list the types of sampling methods to include intensity, deviated case, stratified sampling, simple and random sampling, snowball or chain, maximum variation, convenience and criteria sampling methods.

This study adopted the convenience sampling method in selecting participants. The convenience sampling method is a set of techniques in which respondents are selected for convenience because of their proximity, availability, accessibility or other ways that the researcher decides (Abrams, 2010).

Convenience sampling is a type of non-probability sampling in which members of the target population who meet certain practical criteria, such as easy accessibility, geographic proximity, availability at any given time or willingness to participate, are included for the purpose of the study (Dörnyei, 2007).

The participants were selected from the Human Resources Department and other administrative departments at the selected university in the Western Cape, South Africa. This sampling method

was considered suitable for this study because not all departments and administrative staff at the selected university showed interest to participate in the study. Therefore, the researcher collected data from those employees who were available on distribution and who were willing to fill in the questionnaire.

3.2.3 Sample size

According to Sekaran (2003), a sample size refers to the number of respondents to be included in an investigation. Sample size refers to how many respondents should be included in the investigation and is an important consideration for research because the size of the sample drawn affects the quality and generalisation of the data (Cant, Gerber, Nel & Kotze, 2005). In calculating the sample size, a Raosoft calculator was used to determine the sample size within the population. A Raosoft sample size calculator is a mathematical software used by researchers to determine the sample size of a given population. This method is useful because it enables the researcher to estimate the adequate sample size with some degree of precision by entering the population sizes, confidence levels and margin of error (Rate, 2016). A margin of error of 5% was used for sample size and confidence interval of 95% as well as 50% response distribution. From the total population of 1123 employees, a sample size of 220 was drawn using the Rasoft calculator.

3.3 Research instruments

Research instruments are used to collect data in a survey. One of the most used tools in quantitative research is a questionnaire. To achieve the aims of this study, a quantitative research design was employed. The quantitative design gives the possibility of access to a large amount of information which can be generalised. An online goggle form Questionnaire (instead of hard copy questionnaire as original planned) was administered to a sample size of about 220 working support staff. Convenience sampling methods was used to reach the desired number of responses. The measuring instrument is comprised of a Multi factor Leadership Questionnaire (MLQ SX), Organizational climate questionnaire (OCQ) by Litwin and stringer and Organizational Citizenship Behaviour scale (OCBS).

3.3.1 Transformational leadership questionnaire

Transformational leadership was measured using the Multifactor Leadership Questionnaire 5X (MLQ 5X) that was developed by Bass and Avolio (1994). The MLQ 5X breaks these into three primary categories with four scales linked to transformational leadership behaviours, three to transactional leadership and one laissez-faire. In this study, only the transformational leadership measures were extracted, where the MLQ 5X used 20 items to measure the four scales using a 5-point Likert scaled assessment of agreement from zero (not at all') to four (frequently, if not always'). Carless (1998) also reports that the reliability of the MLQ 5X has been consistently strong, with a Cronbach alpha above 0.90. The four scales identified as characteristics of transformational leadership are idealised influence, inspired motivation, individual consideration and intellectual stimulation. The most recent version of MLQ 5X has been used in nearly 200 research programs, doctoral theses and degree theses around the world in the past four years (Bass & Avolio, 2000). The questions used to collect information on transformational leadership and its components are shown in Table 3.1:
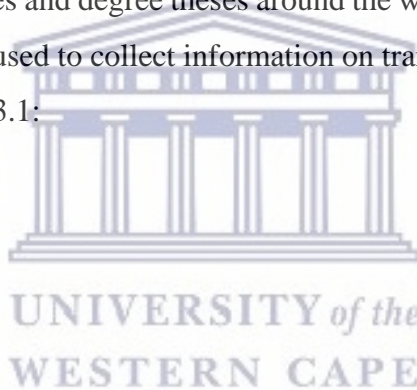
Table 3.1

Transformational leadership

	Idealised Influence (attributed)
1	Goes beyond his/hers self-interest for good of others
2	Builds my respect by his/her actions
3	Instill pride in being associated with him/her
4	Displays extraordinary talent of competence
	Idealised Influence (Behaviour)
5	Emphasises importance of commitment to beliefs
6	Takes a stand on difficult issues
7	Displays conviction in his/her ideals, beliefs, values
8	Talks to me about his/hers most important values, beliefs

	Inspirational Motivation (IM)
9	Talks optimistically about future
10	Envisions exciting new possibilities
11	Talks enthusiastically about what needs to be accomplished
	Intellectual Stimulation (IS)
12	Expresses confidence that goals will be achieved
13	Re-examines critical assumptions to questions whether they are appropriate
14	Seeks differing perspectives when solving problems
15	Gets me to look at problems from many different angles
16	Suggests new ways of looking at how to complete assignments
	Individualised Consideration (IC)
17	Treats me as individual with different needs, abilities
18	Focuses me on developing my strengths
19	Treats me as individual rather than just a member of the group
20	Spends time teaching/coaching me

MLQ 5X is the most used tool to evaluate transformational leadership theory (Kirkbride, 2006) and it is considered the best validated measure of transformational leadership (Ozaralli, 2003). The instrument also has a Cronbach alpha coefficient of $\alpha = 0.89$, which is considered acceptable / ideal for performing further statistical analysis (Letchumanasamy, 2013).

3.1.1.2 Reliability and validity for transformational leadership

Without internal validity, a questionnaire is generally questionable and cannot answer the research questions. According to Kumar (2011), validity is the adequacy and precision applied to research questions. In other words, it is the ability of the tool to produce precise values of the variables that it has to measure. The importance of the internal validity of a questionnaire is that it allows data

collection to measure the relevant concepts in the research variables (Willis & Riley, 2017). Validity is important in research, as it indicates whether confirmation justifies the study's claims.

To be sure of the reliability and validity of Transformational Leadership, a subscale of Cronbach's alpha was used. This is one of the methods for measuring the consistency and validity of reactions to a series of questions. Diggines and Wiid (2013) have suggested that, for any reliable answer in a research, the minimum internal consistency limit for Cronbach's alpha should be 0.70. For any alpha value lower than 0.60, reliability values are considered weak and data are considered unreliable and therefore below the acceptability value.

3.3.2 Organisational climate

Organisational climate was measured using a 27-item instrument developed by Litwin and Stringer (1968), a 5-point Likert scale that varies from strongly disagree to strongly agree. This instrument has a Cronbach alpha of 0.93. There are six dimensions in the organisational climate, namely involvement autonomy, supervision support, welfare and integration as explained below.

Involvement

Employee involvement focuses on the level of input that employees are allowed to make with regards to company decision-making and problem-solving, especially when it concerns them. When employees are encouraged to be involved in company procedures, they are more likely to be committed to achieving overall organisational success (Robbins, 2005).

Autonomy

Autonomy is related to job design. Autonomy is high when jobs allow employees to enjoy more freedom and independence with regard to the work that they do and the procedures that they use (Robbins, 2005). When employees feel that management trusts them to take the initiative and make their own work-related decisions they tend to be more motivated to do a good job and receive good feedback.

Supervisory support

Supervisory support refers to the extent to which employees perceive supervisors and managers to be supportive and understanding with regard to their needs (Eisenberger, Stinglhamber, Vandenberghe, Sucharski & Rhoades, 2002). Making use of supportive leadership styles results in higher levels of performance and satisfaction (Robbins, 2005). Supervisory support is effective when employees perceive their supervisors to be approachable, friendly and confident, and when they view them as people that can be relied upon to give guidance and support.

Integration

Integration involves the level of trust and cooperation between different teams and departments within an organisation that need to work together in order to achieve individual and common goals (Nauta & Saunders, 2000; Patterson et al., 2005). Good integration leads to improved communication, better information sharing and lower levels of interdepartmental conflict.

Welfare

Welfare refers to the extent to which the organisation takes care of the employees and values their health and safety (Patterson et al., 2005). Promoting safe working conditions and a healthy environment leads to a decrease in absenteeism and turnover and an increase in employee morale. When employees feel that the organisation looks after their interests and that everybody is treated fairly and equally they feel less negative towards their work environment.

Training

The training dimension of organisational climate has to do with the extent to which the organisation invests in the training and development of employees (Patterson et al., 2005). Investing in the training of employees helps them feel like valued members of the organisation and it enables them to undergo personal growth, thus leading to increased work performance. The items used to collect information on organisational climate and its components are shown in Table 3.2.

Table 3.2

Organisational climate

	INVOLVEMENT
1	In my organisation, information is widely shared.
2	There are often breakdowns in communication here.
3	Management involves people when decisions that affect them are made.
4	Changes are made without talking to the people involved in them.
5	Employees do not have any say in decisions that affect their work.
6	Employees feel decisions are frequently made over their heads.
	AUTONOMY
7	Management allows people to make their own decisions most of the time.
8	Management trusts people to take work-related decisions without getting permission first.
9	Management keeps too tight a reign on the way things are done around here
10	It is important to check things with the boss before taking a decision.
	SUPERVISORY SUPPORT
11	Superiors here are really good at understanding people's problems.
12	My superiors show that they have confidence in those they manage.
13	Our superiors here are friendly and easy to approach.

14	My superiors can be relied upon to give good guidance to people.
15	Our superiors show an understanding of the people who work for them.
	I**NTERGRATION**
16	Employees in different departments are prepared to share information.
17	There is very little conflict between departments here.
18	Collaboration between departments is very effective.
19	There is very little respect between some of the departments here.
	WELFARE
20	The organisation pays little attention to the interests of employees.
21	The organisation tries to look after its employees.
22	The organisation cares about its employees.
23	The organisation tries to be fair in its actions towards employees.
	TRAINING
24	Employees are not properly trained when a new machine is brought.
25	Employees receive enough training when it comes to using new equipment.
26	Employees are strongly encouraged to develop their skills.
27	The company only gives employees the minimum amount of training they need to do their job.

3.3.2.2 Reliability and validity: Organisational Climate

Without internal validity, a questionnaire is generally questionable and cannot answer the research questions. According to Kumar (2011), validity is the adequacy and precision applied to research questions. In other words, it is the ability of the tool to produce precise values of the variables that it has to measure. The importance of the internal validity of a questionnaire is that it allows data collection to measure the relevant concepts in the research variables (Willis & Riley, 2017). Validity is important in research, as it indicates whether confirmation justifies the study's claims.

To be sure of the reliability and validity of the organisational climate questions, Cronbach's alpha was used. This is one of the methods for measuring the consistency and validity of reactions to a series of questions. Diggines and Wiid (2013) have suggested that for any reliable answer in a research, the minimum internal consistency limit for Cronbach's alpha should be 0.70. For any alpha value lower than 0.60, reliability values are considered weak and data are considered unreliable and therefore below the acceptability value.

3.3.3 Organisational citizenship behaviour

The fourth section of the questionnaire consisted of the Organisational Citizenship Behaviour (OCBS) scale, developed by Podsakoff et al. (1990), and which is the most widely used OCB study tool. The 24-element scale measures the five subscales / OCB dimensions, namely altruism, conscientiousness, sportsmanship, courtesy and civic virtue. Respondents were asked to rate each of the 24 item on a five-point scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree). Eyupoglu (2016) reported the reliability of the internal consistency of the adapted scale to be 0.87. The questions used to collect information on Organisational Citizenship Behaviour and its components are shown in Table 3.3.

Table 3.3

Organisational Citizenship Behaviour

	CONSCIENTIOUSNESS
1	My attendance at work is above the norm.
2	I do not take extra breaks.
3	I obey the organisation's rules and regulations even when no is watching.
4	I am one of the organisation's most conscientious employees.
5	I believe in giving an honest day's work for an honest day's pay.
	SPORTSMANSHIP
6	I consume a lot of time complaining about trivial matters.
7	I always focus on what is wrong, rather than the positive side.
8	I tend to make "mountains out of molehills."

9	I always find fault with what the organisation is doing.
10	I am the classic "squeaky wheel" that always needs greasing(i.e., I make the loudest noise with my problems)
	CIVIC VIRTUE
11	I attend meetings that are not mandatory, but considered important.
12	I attend functions that are not required, but help the organisation's image.
13	I keep abreast of changes in the organisation.
14	I read and keep up with organisation announcements, memos and so on.
15	Our superiors show an understanding of the people who work for them.
	COURTESY
16	I am mindful of how my behaviour affects other people's job.
17	I do not abuse the rights of other.
18	I try to avoid creating problems for co-workers.
19	I take steps to try to prevent problems with other workers.
	ALTRUISM
20	I consider the impact of my actions on co-worker
21	I help others who have heavy workload.
22	I help orient new people even though it is not required.
23	I willingly help others who have work related problems.
24	I am always ready to lend a helping hand to those around me.

3.3.3 Reliability and validity: Organisational Citizenship Behaviour

A reliable questionnaire, without internal validity, is generally questionable and cannot answer the research questions. According to Kumar (2011), validity is the adequacy and precision applied to research questions. In other words, it is the ability of the tool to produce precise values of the variables that it has to measure. The importance of the internal validity of a questionnaire is that it allows data collection to measure the relevant concepts in the research variables (Willis & Riley,

2017). Validity is important in research, as it indicates whether confirmation justifies the study's claims.

To be sure of the reliability and validity of the organisational citizenship behaviour questions, Cronbach's alpha is always used. This is one of the methods for measuring the consistency and validity of reactions to a series of questions. Diggines and Wiid (2013) have suggested that for any reliable answer in a research, the minimum internal consistency limit for Cronbach's alpha should be 0.70. For any alpha value lower than 0.60, reliability values are considered weak and data are considered unreliable and therefore below the acceptability value.

3.5 Data collection procedure

The researcher first obtained an ethical clearance certificate from the University Ethics Committee requesting permission to conduct the study based on the positivist research paradigm. A quantitative research utilising questionnaire-based survey method for gathering evidence was deemed appropriate. This study employed a questionnaire-based survey as a method to capture the perception of the supporting staff at the selected university.

The questionnaires comprised fixed format, self-report items, and were completed by respondents voluntarily, at their own pace and it was deemed suitable to produce more honest responses to sensitive topics. The English language was employed, as it is used widely in all universities in the Western Cape. The questionnaire was distributed to the various department in the selected university.

Each packet contained a cover letter from the researcher stating the aim of the study as well as information on confidentiality and anonymity. A pilot study was conducted using five employees who are not part of the selected samples. The aim of the pilot study was to ensure that the research participants properly understand the data gathering instruments, so that the administration and collection of questionnaires can be done successfully.

3.6 Data analysis

Sharp, Peters and Howard (2002) define data analysis as the ordering and structuring of data to produce knowledge. In this study, the data was analysed in relation to the data collection scales used. These statistical test was used to describe the data and test the hypotheses of the study. SPSS 27 was used for this purpose. The reliability and validity of the questionnaire were assessed using the Cronbach's alpha and factor analysis respectively.

The hypothesised relationships were determined using structural equation modeling (SEM). SEM helps to determine the psychometric properties of the measures, checking the compatibility between the latent variables and their manifest variables before testing the structural relationships in a model to answer the hypotheses of the study (Diamantopoulos & Siguaw, 2000). SEM analysis of this study was performed using the LISREL 8.80 software.

3.6.1 Missing values

Before the process of analysing data, the issue surrounding missing values had to be addressed. The issue of missing values is believed to be a common occurrence in self-reporting instruments (Mahembe, 2014). Missing data is a problem found in all types of research. A sophisticated technique used to address the problem of missing data is called multiple imputation (Donders, van der Heijden, Stinjen & Moons, 2006).

Imputation of missing data on a variable replaces the missing data with an average value extracted from an estimate of the distribution of this variable. Multiple imputation refers to several estimates used, which reflect the uncertainty in estimating this distribution (Donders et al., 2006).

3.6.2 Item analysis

Item analysis is a technique that involves the elimination of items that do not appear to be related to, or have a low relation to, the subscale score (Mahembe, 2010; Pallant, 2010). Ghiselli, Campbell and Zedeck (1981) suggest that the goal of item analysis is to measure the same characteristic so that the individual score of a subscale is positively correlated. SPSS version 27 was used to conduct the reliability analysis procedure.

Pallant (2016) suggests that if an item has a total item correlation value of less than 0.30, a significant increase in the reliability ratio will be recorded if the item is excluded. Therefore, an item with a correlation value less than 0.30 was excluded from further analysis in the study.

Nunnally's (1967) guidelines were used to determine the reliability levels for scales and subscales in the study.

Table 3.4

Nunnally's (1967) guidelines for interpreting the reliability coefficient

Reliability coefficient Value	Interpretation
0.9 and above	Excellent
0.80 – 0.89	Good
O.70 -0.79	Adequate
Below 0.70	May have limited applicability

Source: Nunnally (1967)

3.6.3 Dimensional analysis

The purpose of the dimensionality analysis is confirming the uni-dimensionality of each subscale and removing items with inadequate factor loads or dividing heterogeneous subscales into two or more homogeneous subsets of items (Mahembe, 2010; Pallant, 2016). Factor analysis is performed to see if the variables have a similar pattern of responses. Yong and Pearce (2013) claim that the main goal of exploratory factor analysis is "to summarize data in such a way that relationships and patterns can be easily interpreted and understood". Tabachnick and Fidell (2001) add that they identified the relatively independent and consistent subsets of data that are related to each other and are referred to as factors. SPSS version 27 was used to perform the analysis.

3.6.4 Structural equation modelling (SEM)

The SEM technique was used to establish the relationship between the variables. SEM was the choice of the analysis technique, as it helps to explain the patterns found by the covariance researchers among the variables observed in terms of relationships hypothesised by the measures and by the structural models (Diamantopoulos & Siguaw, 2000). SEM deals with the structural

model while CFA relates to the measurement model. Although the two are similar, according to Diamantopoulos and Siguaw (2000), the measurement model describes how each latent variable is operationalised by corresponding observed variables while the structural model describes the relationships between the latent variables themselves. SEM identifies the following stages of the structural equation modelling process: (i) model specification, (ii) model identification, (iii) model estimation, (iv) model testing, and (v) model modification. Various criteria can be used to assess model fit, and these include Chi-square, Goodness-of-fit (GFI), Adjusted GFI, Root-mean-square residual (RMR), Root-mean-square error of approximation (RMSEA), Tucker-Lewis index, Normed fit index, Normed chi-square, Parsimonious fit index, and Akaike information criterion.

SEM was utilised for the present study because it allows researchers to conduct confirmatory factor analyses to test measurement properties of the measuring scales used. In addition, SEM techniques enable researchers to specify and assess complex "path" models that integrate the understanding of complex phenomena. Furthermore, SEM provides a unique analysis that considers questions of both measurement and prediction simultaneously (Kelloway, 1998). Model estimation yields parameter estimates for the particular model being considered. It is then incumbent upon the researcher to determine how well the model is supported by the data; this, then, is the focus of model testing. The key objective of examining a model's overall goodness of fit is to ascertain the degree to which the entire model is consistent with the empirical data (Diamantopoulus & Siguaw, 2000 cited in Mahembe, 2013). The measurement model represents the relationship between the latent constructs (servant leadership, trust, psychological empowerment, job satisfaction and organisational citizenship behaviour) and its corresponding manifest indicators while the structural model describes the relationships between the latent constructs themselves. The statistical programme, LISREL 8.80, was utilised to execute the confirmatory factor analysis on the overall measurement model to determine the goodness of fit. The Robust Maximum Likelihood estimation method was used to produce the estimates.

3.7 Ethical considerations

An ethical clearance certificate was obtained from the selected university's Research Ethics Committee and the researcher paid particular attention to the following ethical principles.

3.7.1 Permission

The researcher asked for permission from the selected university before conducting the research. Permission was also requested from the participants in order for the researcher to conduct the research.

3.7.2 Protection from harm

The researcher ensured that participants were not exposed to any harm of physical or psychological nature. During the study, the researcher strived to be honest, respectful towards all participants.

3.7.3 Confidentiality

The Researcher understood the need and the importance of ensuring that all information and data gathered were kept confidential as the researcher did not mention the names and did not reveal the identities of the participants to protect them. The researcher sought the consent of each participant before conducting the study and each participant voluntarily engaged in the study. The researcher promised to uphold every ethical issue that was needed and encouraged the participants not to worry about the confidentiality of the study.

3.8 Chapter summary

This chapter provided an overview of the research methods utilised in the study. The population, sample and sample selection, measuring instruments, statistical methods used in testing the hypothesis, delimitations of the study and ethical considerations were all discussed. It has been noted that a research design involves all the processes in the collection of data, including the population, how respondents were identified, the sampling procedures that were followed, and the data collection method used, and it also highlights how the data was analysed. In short, research design takes into consideration the whole process of carrying out a quantitative research. The chapter explained the research design, the location of the study, the instruments of the study and the selection of respondents.

CHAPTER FOUR

PRESENTATION OF RESULTS

4.1 INTRODUCTION

The previous chapter outlined the methodology, procedure and the instruments used to collect the data for the study. The purpose of the current chapter is to present the findings from the data analyses conducted to answer the research questions guiding the study. Data analysis involves making sense of the data and the interpretation of data in relation to the research questions and hypotheses of the study (Cooper & Schindler, 2003). The Statistical Package for Social Sciences (SPSS) program (version 27) was used to conduct the preliminary analyses such as item and dimensional analyses which were meant to ascertain the psychometric properties of the instruments used in the study as well as the dimensionality of the measures. These analyses were followed by the discussion of the measurement model that was performed using the LISREL 8.80 software for structural equation modeling. The measurement model further assessed the extent to which the observed variables represent the latent variables that they are meant to reflect. Thereafter, the structural model was conducted to determine the nature of the hypotheses. The chapter starts with a discussion of how the problem of missing values encountered during data collection was addressed.

4.2 MISSING VALUES

Missing data often occurs as a result of respondents not responding to certain questions for a variety of reasons (Mels, 2003; Williams, 2015). The problem of missing values can have a significant effect on the conclusions drawn from the data. No missing values were found for this research study. Therefore, the response rate for the questionnaire was 100 percent.

4.3 ITEM ANALYSIS

The analyse-scale-reliability analysis procedure available in the SPSS program was used to conduct item analysis. This procedure provides some information pertaining to scale reliability, inter-item correlations, and item-total statistics that are important for detecting poor items. Item

analysis was therefore conducted on each of the scales used in the study. The results are discussed in this section.

4.3.1 Item analysis for Transformational Leadership

The multifactor Leadership questionnaire was employed to measure transformational leadership in this study. The questionnaire is made up of 20 items measuring four dimensions (idealised influence, inspirational motivation, intellectual stimulation and individualised consideration). The study made use of a five point Likert scale ranging from strongly disagree (5) to strongly agree (1).

4.3.1.1 Item analysis of Idealised Influence subscale

The idealised influence subscale indicated an internal consistency value of $\alpha = .958$, which is greater than the recommended acceptable threshold value of .70 (Nunnally, 1967). All the corrected item-total score loadings in the Item-Total-Statistics table are above the recommended cut-off value of 0.30 (Pallant, 2016). (See Table 4.1) The Correlation matrix indicates a relationship or association between two variables in a statistical analysis (Steiger, 1980). A strong positive relationship is indicated by a high correlation matrix coefficient value greater than 0.50 (Steiger, 1980). According to Cohen (1988), values between $r = .10$ and $.29$ indicate a small relationship, those between $r = .30$ and $.49$ a medium, while those between $r = .50$ and 1.0 indicate a large relationship. The results from the Inter-Item correlation matrix indicated high correlation coefficients values ranging from 0.638 to 0.877, showing strong relationships among the idealised influence items.

Table 4.1

Cronbach's Alpha Coefficients for Idealised Influence

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.958	.958	8

Item-Total Statistics				
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
IIA1	24.62	49.698	.848	.817	.951
IIA2	24.59	50.315	.845	.826	.952
IIA3	24.62	50.154	.836	.797	.952
IIA4	24.55	50.031	.872	.858	.950
IIB5	24.62	50.081	.819	.762	.953
IIB6	24.64	51.318	.826	.792	.953
IIB7	24.62	50.402	.850	.855	.951
IIB8	24.78	50.495	.818	.760	.953

Inter-Item Correlation Matrix								
Items	IIA1	IIA2	IIA3	IIA4	IIB5	IIB6	IIB7	IIB8
IIA1	1.000	.835	.851	.874	.652	.688	.671	.658
IIA2	.835	1.000	.831	.877	.714	.638	.667	.641
IIA3	.851	.831	1.000	.859	.650	.644	.656	.666
IIA4	.874	.877	.859	1.000	.672	.697	.687	.685
IIB5	.652	.714	.650	.672	1.000	.774	.842	.772
IIB6	.688	.638	.644	.697	.774	1.000	.870	.799
IIB7	.671	.667	.656	.687	.842	870	1.000	.851

IIB8	.658	.641	.666	685	.772	.799	.851	1.000

4.3.1.2 Item analysis for Inspirational Motivation subscale

The ideal inspirational motivation subscale indicated an internal consistency value of α = .955, which is greater than the recommended acceptable threshold value of .70 (Nunnally, 1967). All the corrected item-total score loadings in the Item-Total-Statistics table are above the recommended cut-off value of 0.30 (Pallant, 2016). (See Table 4.2) The Correlation matrix indicates a relationship or association between two variables in a statistical analysis (Steiger, 1980). A strong positive relationship is indicated by a high correlation matrix coefficient value greater than 0.50 (Steiger, 1980). According to Cohen (1988), values between r = .10 and .29 indicate a small relationship, those between r = .30 and .49 a medium, while those between r = .50 and 1.0 indicate a large relationship. The results from the Inter-Item correlation matrix indicated high correlation coefficients values ranging from 0.822 to 0.877, showing strong relationships among the inspirational motivation items.

Table 4.2

Cronbach's Alpha Coefficients for Inspirational motivation reliability output

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.955	.956	4

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
			Item-Total Statistics		
IM9	10.72	11.485	.869	.755	.948
IM10	10.72	11.767	.899	.812	.938
IM11	10.63	12.036	.896	.804	.939
IM12	10.61	12.063	.899	.813	.938

Items	IM9	IM10	IM11	IM12
		Inter-Item Correlation Matrix		
IM9	1.000	.830	.830	.822
IM10	.830	1.000	.853	.867
IM11	.830	.853	1.000	.859
IM12	.822	.867	.859	1.000

4.3.1.3 Item analysis for intellectual stimulation subscale

The intellectual stimulation subscale indicated an internal consistency value of α = .956, which is greater than the recommended acceptable threshold value of .70 (Nunnally, 1967). All the corrected item-total score loadings in the Item-Total-Statistics table are above the recommended cut-off value of 0.30 (Pallant, 2016). (See Table 4.3) The Correlation matrix indicates a relationship or association between two variables in a statistical analysis (Steiger, 1980). A strong positive relationship is indicated by a high correlation matrix coefficient value greater than 0.50 (Steiger, 1980). The results from the Inter-Item correlation matrix indicated high correlation coefficients values ranging from 0.819 to 0.892, showing strong relationships among the intellectual stimulation items.

Table 4.3

Cronbach's Alpha Coefficients for intellectual stimulation

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.956	.956	4

Item-Total Statistics				
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
IS13	10.47	11.401	.866	.753	.950
IS14	10.47	11.276	.894	.803	.941
IS15	10.46	11.628	.910	.834	.936
IS16	10.46	11.700	.898	.844	.940

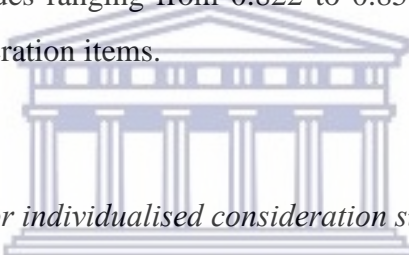| Inter-Item Correlation Matrix				
Items	IS13	IS14	IS15	IS16
IS13	1.000	.838	.819	.819
IS14	.838	1.000	.863	.838
IS15	.819	.863	1.000	.892
1S16	.819	.838	.892	1.000

4.3.1.4 Item analysis of Individualised Consideration subscale

The individualised consideration subscale indicated an internal consistency value of α = .936, which is greater than the recommended acceptable threshold value of .70 (Nunnally, 1967). All the corrected item-total score loadings in the Item-Total-Statistics table are above the recommended cut-off value of 0.30 (Pallant, 2016). (See Table 4.4) The Correlation matrix indicates a relationship or association between two variables in a statistical analysis (Steiger, 1980). A strong positive relationship is indicated by a high correlation matrix coefficient value greater than 0.50 (Steiger, 1980). According to Cohen (1988), values between r = .10 and .29 indicate a small relationship, those between r = .30 and .49 a medium, while those between r = .50 and 1.0 indicate a large relationship. The results from the Inter-Item correlation matrix indicated high correlation coefficients values ranging from 0.822 to 0.850, showing strong relationships among the individualised consideration items.

Table 4.4

Cronbach's Alpha Coefficients for individualised consideration subscale

	Reliability Statistics		
	Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
	.936	.956	4

Item-Total Statistics					
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
IC17	9.74	11.366	.855	.753	.915
IC18	9.72	11.354	.882	.793	.906
IC19	9.64	11.578	.855	.736	.915
IC20	9.79	11.833	.805	.651	.931

Item-Total Statistics					
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
IC17	9.74	11.366	.855	.753	.915
IC18	9.72	11.354	.882	.793	.906
IC19	9.64	11.578	.855	.736	.915
IC20	9.79	11.833	.805	.651	.931

4.3.2   Item analysis for Organisational Climate

This section presents findings obtained from the item analysis of the organisational climate questionnaire. As mentioned in the methodology section, the questionnaire was developed by Litwin and Stringer (1968), and this tool aims to measure the working environment, individual perceptions, individual involvement, autonomy recognition competencies and Supervisory support status.
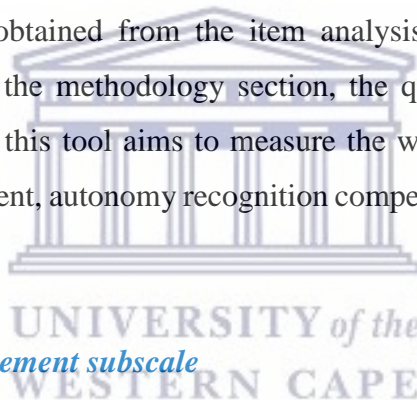
4.3.2.1 Items analysis for Involvement subscale

The involvement subscale indicated an internal consistency value of α = .820, which is greater than the recommended acceptable threshold value of .70 (Nunnally, 1967). All the corrected item-total score loadings in the Item-Total-Statistics table are above the recommended cut-off value of 0.30 (Pallant, 2016). (See Table 4.5) The Correlation matrix indicates a relationship or association between two variables in a statistical analysis (Steiger, 1980). According to Cohen (1988), values between r = .10 and .29 indicate a small relationship, those between r = .30 and .49 a medium, while those between r = .50 and 1.0 indicate a large relationship. The results from the Inter-Item correlation matrix indicated varying correlation coefficients values ranging from 0.203 to 0.827, showing small, medium and strong relationships among the involvement items.

Table 4.5

Cronbach's Alpha Coefficients for Involvement subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.820	.823	6

Item-Total Statistics				
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
INVOL1	14.84	19.942	.429	.572	.827
INVOL2	15.14	18.711	.681	.504	.773
INVOL3	14.92	20.590	.413	.602	.827
INVOL4	15.24	18.143	.677	.686	.771
INVOL5	15.24	18.275	.681	.693	.771
INVOL6	15.14	18.089	.664	.748	.774

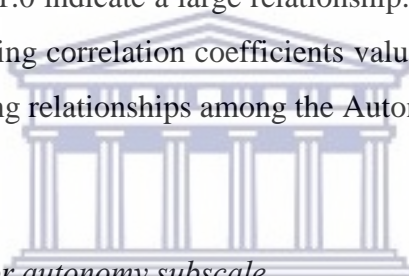| Inter-Item Correlation Matrix						
Items	INVOL1	INVOL2	INVOL3	INVOL4	INVOL5	INVO6
INVOL1	1.000	.349	.751	.189	.203	.163
INVOL2	.349	1.000	.385	.630	.537	.573
INVOL3	.751	.385	1.000	.138	.190	.104
INVOL4	.189	.630	.138	1.000	.733	.786
INVOL5	.203	.537	.190	.733	1.000	.813

INVOL6	.163	.573	.104	.786	.813	1.000

4.3.1.2 Item analysis for Autonomy subscale

The autonomy subscale indicated an internal consistency value of α = .67, which is slightly lower than the recommended acceptable threshold value of .70 (Nunnally, 1967). All the corrected item-total score loadings in the Item-Total-Statistics table are above the recommended cut-off value of 0.30 (Pallant, 2016). (See Table 4.6) The Correlation matrix indicates a relationship or association between two variables in a statistical analysis (Steiger, 1980). According to Cohen (1988), values between r = .10 and .29 indicate a small relationship, those between r = .30 and .49 a medium, while those between r = .50 and 1.0 indicate a large relationship. The results from the Inter-Item correlation matrix indicated varying correlation coefficients values ranging from 0.120 to 0.827, showing small, medium and strong relationships among the Autonomy items.

Table 4.6

Cronbach's Alpha Coefficients for autonomy subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.671	.671	4

Item-Total Statistics

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
AUTO7	8.88	6.540	.468	.523	.594
AUTO8	8.84	6.446	.499	.525	.573
AUTO9	9.18	6.998	.402	.397	.638
AUTO 10	8.82	6.874	.442	.402	.612

Inter-Item Correlation Matrix

Items	AUTO7	AUTO8	AUTO9	AUTO10
AUTO7	1.000	.718	.124	.193
AUTO8	.718	1.000	.184	.185
AUTO9	.124	.184	1.000	.623
AUTO10	.193	.185	.623	1.000

4.3.1.3 Items analysis for Supervisory support subscale

The supervisory support subscale indicated an internal consistency value of α = .947, which is greater than the recommended acceptable threshold value of .70 (Nunnally, 1967). All the corrected item-total score loadings in the Item-Total-Statistics table are above the recommended cut-off value of 0.30 (Pallant, 2016). (See Table 4.7) The Correlation matrix indicates a relationship or association between two variables in a statistical analysis (Steiger, 1980). A strong positive relationship is indicated by a high correlation matrix coefficient value greater than 0.50 (Steiger, 1980). According to Cohen (1988), values between r = .10 and .29 indicate a small relationship, those between r = .30 and .49 a medium, while those between r = .50 and 1.0 indicate a large relationship. The results from the Inter-Item correlation matrix indicated high correlation

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coefficients values ranging from 0.747 to 0.826, showing strong relationships among the supervisory support items.

Table 4.7

Cronbach's Alpha coefficients for Supervisory support subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.947	.948	5

Item-Total Statistics				
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
SS11	13.61	19.026	.819	.675	.942
SS12	13.36	19.204	.863	.752	.934
SS13	13.44	18.901	.861	.744	.934
SS14	13.37	19.209	.864	.753	.934
SS15	13.37	19.012	.874	.776	.932

Inter-Item Correlation Matrix					
Items	SS11	SS12	SS13	SS14	SS15
SS11	1.000	.763	.766	.748	.747
SS12	.763	1.000	.781	.786	.826
SS13	.766	.781	1.000	.804	.799
SS14	.748	.786	.804	1.000	.820
SS15	.747	.826	.799	.820	1.000

4.3.3   Item analysis for Organisational Citizenship Behaviour (OCB)

This section presents findings obtained from the item analysis of the Organisational Citizenship Behaviour (OCB) questionnaire. As mentioned in the methodology chapter, the questionnaire was developed by Bateman and Organ (1983), and this tool aims to measure an employee's positive and constructive extra behaviours, individual conscientiousness, individual sportsmanship, individual civic virtue, individual courtesy and individual altruism.

4.3.3.1 Item analysis for Conscientiousness subscale

The conscientiousness subscale indicated an internal consistency value of α = .940, which is greater than the recommended and acceptable threshold value of .70 (Nunnally, 1967). All the corrected item-total score loadings in the Item-Total-Statistics table are above the recommended cut-off value of 0.30 (Pallant, 2016). (See Table 4.8) The Correlation matrix indicates a relationship or association between two variables in a statistical analysis (Steiger, 1980). A strong positive relationship is indicated by a high correlation matrix coefficient value greater than 0.50 (Steiger, 1980). According to Cohen (1988), values between r = .10 and .29 indicate a small relationship, those between r = .30 and .49 a medium, while those between r = .50 and 1.0 indicate a large relationship. The results from the Inter-Item correlation matrix indicated high correlation coefficients values ranging from 0.716 to 0.820, showing strong relationships among the conscientiousness items.

Table 4.8

Cronbach's Alpha coefficients for conscientiousness subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.940	.940	5

Item-Total Statistics

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
CONS1	14.32	16.954	.839	.714	.926
CONS2	14.40	17.878	.799	.648	.933
CONS3	14.23	17.537	.870	.771	.920
CONS4	14.41	18.098	.823	.700	.928
CONS5	14.19	17.478	.862	.750	.921

Inter-Item Correlation Matrix

Items	CONS1	CONS2	CONS3	CONS4	CONS5
CONS1	1.000	.762	.781	.716	.777
CONS2	.762	1.000	.723	.697	.732
CONS3	.781	.723	1.000	.805	.820
CONS4	.716	.697	.805	1.000	.776
CONS5	.777	.732	.820	.776	1.000

4.3.3.2 Items analysis for Sportsmanship subscale

The sportsmanship subscale indicated an internal consistency value of α = .934, which is greater than the recommended acceptable threshold value of .70 (Nunnally, 1967). All the corrected item-total score loadings in the Item-Total-Statistics table are above the recommended cut-off value of 0.30 (Pallant, 2016). (See Table 4.9) The Correlation matrix indicates a relationship or association between two variables in a statistical analysis (Steiger, 1980). A strong positive relationship is indicated by a high correlation matrix coefficient value greater than 0.50 (Steiger, 1980). According to Cohen (1988), values between r = .10 and .29 indicate a small relationship, those between r = .30 and .49 a medium, while those between r = .50 and 1.0 indicate a large relationship.

The results from the Inter-Item correlation matrix indicated high correlation coefficients values ranging from 0.650 to 0.808, showing strong relationships among the sportsmanship items.

Table 4.9

Cronbach's Alpha coefficient for Sportsmanship subscale

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.934	.935	5

Item-Total Statistics

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
SPOR6R	15.60	16.729	.765	.621	.931
SPOR7R	15.58	16.711	.841	.715	.916
SPOR8R	15.58	16.566	.870	.771	.910
SPOR9R	15.57	17.044	.828	.717	.918
SPOR10R	15.54	16.820	.824	.703	.919

Inter-Item Correlation Matrix

Items	SPOR6R	SPOR7R	SPOR8R	SPOR9R	SPOR10R
SPOR6R	1.000	.752	.723	.650	.659
SPOR7R	.752	1.000	.760	.759	.739
SPOR8R	.723	.760	1.000	.808	.806
SPOR9R	.650	.759	.808	1.000	.761
SPOR10R	.659	.739	.806	.761	1.000

4.3.3.3 Items analysis Civic Virtue subscale

The Civic virtue subscale indicated an internal consistency value of α = .922, which is greater than the recommended acceptable threshold value of .70 (Nunnally, 1967). All the corrected item-total score loadings in the Item-Total-Statistics table are above the recommended cut-off value of 0.30 (Pallant, 2016). (See Table 4.10) The Correlation matrix indicates a relationship or association between two variables in a statistical analysis (Steiger, 1980). A strong positive relationship is indicated by a high correlation matrix coefficient value greater than 0.50 (Steiger, 1980). According to Cohen (1988), values between r = .10 and .29 indicate a small relationship, those between r = .30 and .49 medium, while those between r = .50 and 1.0 indicate a large relationship. The results from the Inter-Item correlation matrix indicated high correlation coefficients values ranging from 0.617 to 0.807, showing strong relationships among the Civic Virtue items.

Table 4.10

Cronbach's Alpha coefficients for Civic virtue subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.922	.922	5

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
CV11	13.45	15.876	.790	.662	.906
CV12	13.41	16.419	.768	.621	.910
CV13	13.23	15.865	.854	.751	.893
CV14	13.12	16.033	.820	.698	.900
CV15	13.42	26.203	.757	.604	.912

Inter-Item Correlation Matrix					
Items	CV11	CV12	CV13	CV14	CV15
CV11	1.000	.749	.736	.692	.617
CV12	.749	1.000	.682	.670	.623
CV13	.736	.682	1.000	.807	.748
CV14	.692	.670	.807	1.000	.709
CV15	.617	.623	.748	.709	1.000

4.3.3.4 Items analysis for Courtesy subscale

The Courtesy subscale indicated an internal consistency value of α = .952, which is greater than the recommended acceptable threshold value of .70 (Nunnally, 1967). All the corrected item-total score loadings in the Item-Total-Statistics table are above the recommended cut-off value of 0.30 (Pallant, 2016). (See Table 4.11) The Correlation matrix indicates a relationship or association between two variables in a statistical analysis (Steiger, 1980). A strong positive relationship is indicated by a high correlation matrix coefficient value greater than 0.50 (Steiger, 1980). According to Cohen (1988), values between r = .10 and .29 indicate a small relationship, those between r = .30 and .49 a medium, while those between r = .50 and 1.0 indicate a large relationship. The results from the Inter-Item correlation matrix indicated high correlation coefficients values ranging from 0.768 to 0.866, showing strong relationships among the Courtesy items.

Table 4.11

Cronbach's Alpha coefficients for Courtesy subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.952	.953	4

Item-Total Statistics

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
COURT16	11.34	8.930	.903	.822	.931
COURT17	11.21	9.563	.863	.775	.943
COURT18	11.26	9.560	.871	.792	.940
COURT19	11.23	9.803	.901	.820	.933

Inter-Item Correlation Matrix

Items	COURT 16	COURT 17	COURT18	COURT19
COURT16	1.000	.858	.841	.843
COURT17	.858	1.000	.768	.829
COURT18	.841	.768	1.000	.866
COURT 19	.843	.829	.866	1.000

4.3.3.5 Item analysis for Altruism subscale

The Altruism subscale indicated an internal consistency value of α = .955, which is greater than the recommended acceptable threshold value of .70 (Nunnally, 1967). All the corrected item-total score loadings in the Item-Total-Statistics table are above the recommended cut-off value of 0.30 (Pallant, 2016). (See Table 4.12) The Correlation matrix indicates a relationship or association between two variables in a statistical analysis (Steiger, 1980). A strong positive relationship is indicated by a high correlation matrix coefficient value greater than 0.50 (Steiger, 1980). According to Cohen (1988), values between r = .10 and .29 indicate a small relationship, those between r = .30 and .49 a medium, while those between r = .50 and 1.0 indicate a large relationship.

The results from the Inter-Item correlation matrix indicated high correlation coefficients values ranging from 0.770 to 0.853, showing strong relationships among the Altruism items.

Table 4.12

Cronbach's Alpha coefficients for Altruism subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.955	.955	5

Item-Total Statistics				
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ALT20	14.63	16.244	.855	.738	.948
ALT21	14.62	17.014	.869	.755	.946
ALT22	14.70	16.397	.864	.752	.946
ALT23	14.62	16.662	.887	.792	.942
ALT24	14.54	16.125	.901	.815	.940

Inter-Item Correlation Matrix					
Items	ALT20	ALT21	ALT22	ALT23	ALT24
ALT20	1.000	.794	.770	.793	.826
ALT21	.794	1.000	.800	.811	.820
ALT22	.770	.800	1.000	.821	.822
ALT23	.793	.811	.821	1.000	.853
ALT24	.826	.820	.853	.853	1.000

4.4   DIMENSIONAL ANALYSIS

This section presents the results of the dimensional analyses conducted for each of the subscales conducted in the present study. Dimensional analysis was conducted to ascertain the number of dimensions in each subscale. In other words, the purpose was to determine if the subscale is uni-dimensional or multi-dimensional.

4.4.1   Dimensional analysis for the Transformational leadership

This section presents the results for the Transformational leadership dimensional analysis. The dimensions measured include idealised influence dimension, inspirational motivation dimension, intellectual stimulation dimension, and individualised consideration dimension.

4.4.1.1   *Dimensionality of Idealised influence subscale*

Based on the results obtained from the idealised influence Exploratory Factor Analysis (EFA) of subscale, the Kaiser-Meyer-Olkin coefficient 0.920 (which is higher than the acceptable value 0.60) (Dziuban & Shirkey, 1974) indicated that Factor analysis can be conducted for this subscale. The Bartlett's test of Sphericity value is 1826.894, with a 1% level of significance and a p-value of 0.000 (df =28). These values are acceptable and they indicate that factor analysis can be used for the Idealised influence subscale. Initial eigenvalues indicated a one factor with an eigenvalue greater than 1, with a variance of 74.04%. This means the Idealised influence subscale is uni-dimensional. The factor loadings are all above 0.50 (see Table 4.13), which indicates that the items selected fit the subscale (Pallant, 2010).

Table 4.13

Factor Matrix for Idealised Influence

	Factor
IIA1	.871
IIA2	.866
IIA3	.857
IIA4	.894
IIA5	.839
IIA6	.846
IIA7	.870
IIA8	.838

4.4.1.2 Dimensionality of Inspirational Motivation

The EFA results for Inspirational motivation subscale shows Kaiser-Meyer-Olkin (KMO) index 0.875 and Bartlett's test of Sphericity value 827.259 (p = 0.000 (df =6). These values are acceptable and they indicate that factor analysis can be used to analyse the Inspirational motivation subscale. Only one factor had an eigenvalue greater than 1, accounting for variance approximately 84.34%. The subscale was found to be uni-dimensional. The factor loadings are all above 0.50 (see Table 4.14), which indicates that selected items are good items (Pallant, 2010).

Table 4.14

Factor Matrix for Inspirational Motivation
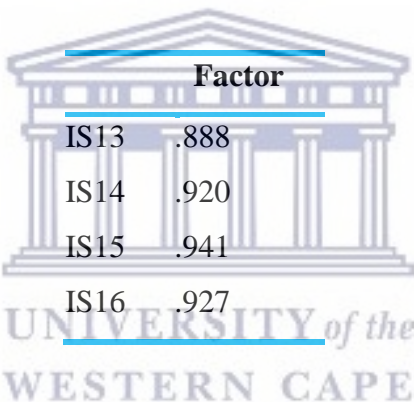
	Factor
IM9	.892
IM10	.928
IM11	.924
IM12	.928

4.4.1.3 Dimensionality of Intellectual Stimulation subscale

The Intellectual stimulation subscale attained a KMO index value of 0.859, which meets the requirement of being greater than 0.50. In addition, the Bartlett's Test of Sphericity provided a value of 848.031 (df = 6; p < 0.000), which indicates that factor analysis may be conducted. The Intellectual stimulation subscale was found to be unidimensional, and the dominant factor accounted for approximately 84.50% of the variance. The factor loadings were all above 0.50. The results are shown in Table 4.15.

Table 4.15

Factor Matrix for Intellectual stimulation subscale

	Factor
IS13	.888
IS14	.920
IS15	.941
IS16	.927

4.4.1.4 Dimensionality of Individualised Consideration

The Individualised consideration subscale attained a Kaiser-Meyer-Olkin of 0.852, which is acceptable since it is greater than 0.80 and the Bartlett's Test of Sphericity obtained a value of 993.536 (df = 10, p < 0.00). Only one factor obtained an eigenvalue greater than 1. This factor explains 78.77% of the variance. The factor loadings are all above 0.50. (See Table 4.16)

Table 4.16

Factor Matrix for Individualised Consideration

	Factor
IC17	.895
IS18	.927
IS19	.893
IS10	.834

4.4.2   Dimensional analysis for Organisational Citizenship Behaviour

This section presents findings obtained from the dimensional analysis of the Organisational Citizenship Behaviour (OCB) questionnaire. The dimension analysis aims to measure the conscientiousness subscale, sportsmanship subscale, civic virtue subscale, courtesy subscale and individual subscale.
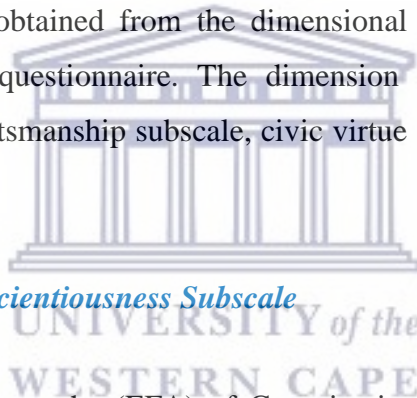
4.4.2.1 Dimensionality for Conscientiousness Subscale

Based on the results obtained from the (EFA) of Conscientiousness subscale, the KMO 0.90 (which is higher than the acceptable value 0.60) indicated that Factor analysis can be conducted. The Bartlett's test of Sphericity value is 1826.894, with a 1% level of significance and a p-value of 0.000 (df =10). These values are acceptable and they indicate that factor analysis can be conducted on Conscientiousness subscale. Only one factor had an eigenvalue greater than 1, with a variance of 75.98%. The factor loadings are all above 0.50, which indicates items selected fit the subscale (Pallant, 2010). This is shown in Table 4.17.

Table 4.17

Factor Matrix for Conscientiousness subscale

	Factor
CONS1	.870
CONS2	.825
CONS3	.907
CONS4	.856
CONS5	.898

4.4.2.2 Dimensionality for Sportsmanship subscale

The results for Sportsmanship subscale EFA attained KMO value of 0.885 and Bartlett's test value of 810.175 (p=0.000, df= 10), showing that Factor analysis can be conducted. The sportsmanship subscale was found to be unidimensional and the variance of the dominant factor was approximately 74.34%. The factor loadings are all above 0.50 (shown in table 4.18), which indicates that the items selected were good (Pallant, 2010).

Table 4.18

Factor matrix for Sportsmanship subscale
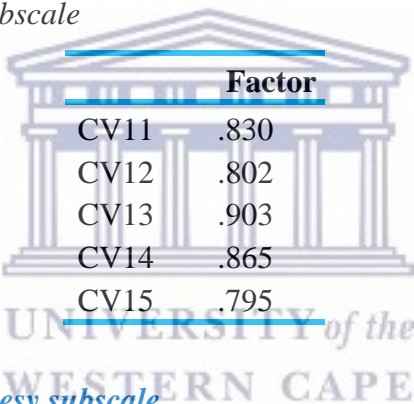
	Factor
IC17	.895
IS18	.927
IS19	.893
IS10	.834

4.4.2.3 Dimensionality for Civic Virtue subscale

The EFA performed on the Civic Virtue subscale obtained a KMO index of 0.874 and Bartlett's test of Sphericity of 1826.894, with a 1% level of significance and a p-value of 0.000 (df =10). According to Kaiser (cited in Field, 2005), these values are acceptable and they show that factor analysis can be conducted on Civic Virtue subscale. Civic virtue subscale was found to be unidimensional. There was only one factor with an eigenvalue greater than 1, accounting a variance of 70.53%. Table 4.19 indicates that all the factor loadings are above 0.50, meaning the items selected are good items.

Table 4.19

Factor Matrix for Civic Virtue subscale

	Factor
CV11	.830
CV12	.802
CV13	.903
CV14	.865
CV15	.795

4.4.2.4 Dimensionality for Courtesy subscale

Based on the results obtained from the Courtesy subscale EFA, the Kaiser-Meyer-Olkin index is 0.835 and Bartlett's test of Sphericity value is 1826.894, (p=0.000 (df =6). These values indicate that factor analysis can be used for the Courtesy subscale. Only one factor with an eigenvalue greater than 1 was found, fairly accounting for 83.46% variance. The factor loadings are all above 0.50 (shown in Table 4.20), which indicates that the items selected did fit the Courtesy subscale.

Table 4.20

Factor matrix for Courtesy subscale

	Factor
COURT16	.934
COURT17	.888
COURT18	.899
COURT19	.932

4.4.2.5 Dimensionality for Altruism subscale

The Kaiser-Meyer-Olkin index measure of Altruism subscale is 0.917 and the Bartlett's Test of Sphericity value is 1007.411 (df = 10, p < 0.000). The test values indicate that exploratory factor analysis can be conducted on the responses of the Altruism subscale. All the items are loaded on one factor as presented in Table 4.21. This factor explains 81.13% percent of the variance.

Table 4.21

Factor Matrix for Altruism subscale
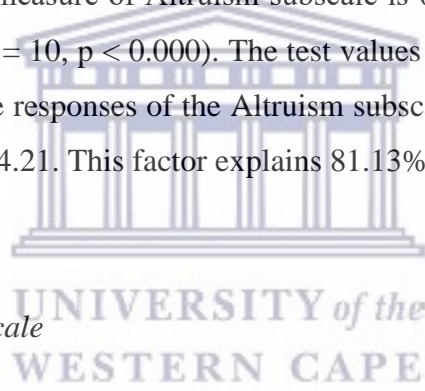
	Factor
ALT20	.878
ALT21	.893
ALT22	.889
ALT23	.913
ALT24	.929

4.4.3 Dimensional analysis for Organisational climate

This section presents findings obtained from the dimensional analysis of the Organisational Climate questionnaire. The dimensionality measured includes the Involvement, Autonomy and Supervisory support subscales.

4.4.3.1 Dimensionality of Involvement subscale

Exploratory factor analysis for the Involvement subscale indicated that there were two factors with eigenvalues greater than 1. The subscale was not unidimensional. The factors accounted for 50.17% and 22.97% variance respectively. Table 4.22 indicates that items INVOL 2, INVOL4, INVOL5, and INVOL6 were loaded on factor 1, with coefficients of greater 0.70, whilst INVOL1 and INVOL 3 were loaded on factor 2.

Table 4.22

Factor Matrix for Involvement subscale

	Factor	
	1	2
INVOL1	.443	.653
INVOL2	.715	.061
INVOL3	.459	.835
INVOL4	.834	-.275
INVOL5	.816	-.239
INVOL6	.855	-.343

4.4.3.2 Dimensionality of Supervisory support subscale

The results from Supervisory support subscale indicated a KMO of 0.910, which is acceptable and Bartlett's test of Sphericity value 907.138 (df =10 and p-value=0.000). Such findings indicate that factor analysis can be conducted for Supervisory support subscale. The subscale was found to be unidimensional. Only 1 factor had eigenvalue greater 1, accounting for 78.41%. From Table 4.23, all the factor loadings were all above 0.50.

Table 4.23

Factor Matrix for Supervisory support subscale

	Factor
SS11	.844
SS12	.893
SS13	.890
SS14	.893
SS15	.906

4.4.3.3 Dimensionality of Integration subscale

The EFA Integration subscale obtained a Kaiser-Meyer-Olkin measure of 0.741 and the Bartlett's Test of Sphericity achieved a value of 294.791(df = 6; p < 0.000). This is sufficient evidence that the subscale is analysable by factor analysis. The factor matrix revealed that all of the items loaded on one factor. (See table 4.24) This factor explains 52.63% of the variance.
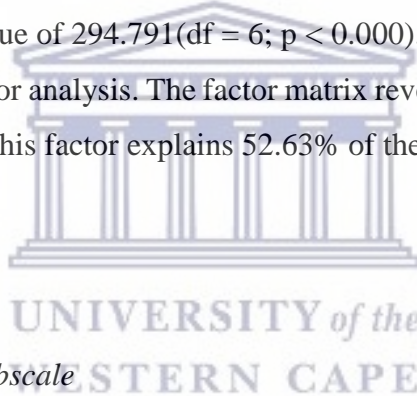
Table 4.24

Factor Matrix for Integration subscale

	Factor
INTER16	.865
INTER17	.832
INTER18	.814
INTER19	.050

4.4.3.4 Dimensionality for Training subscale

Based on the findings, training subscale obtained a Kaiser-Meyer-Olkin measure of 0.663 and the Bartlett's Test of Sphericity achieved a value of 125.649 (df = 6; p < 0.000). These findings indicate that factor analysis can be conducted for training dimension. The factor matrix revealed that all of the items loaded on one factor (see Table 4.25). This factor explains 36.32% of the variance.

Table 4.25

Factor matrix for Training subscale

	Factor
TRAI24	.274
TRAI25	.793
TRAI26	.665
TRAI27	.554

4.5 THE OVERALL MEASUREMENT MODEL FIT

A variety of fit statistics are used to assess the goodness of fit for the overall measurement model. Table 4.26 provides a summary of the fit indices. The Root Mean Square Error of Approximation (RMSEA) value is 0.0693, which indicates a reasonable model fit. It Shows the fit of the model to the covariance matrix of the sample, taking into account the degrees of freedom. RMSEA values below 0.05 indicate good model fit; values between 0.05 and 0.08 indicate reasonable fit, while those above 0.08 indicate poor model fit (Diamantopoulos & Siguaw, 2000) and the value from the table below is between 0.05 and 0.08, indicating that the model is reasonable. The Root Mean Squared Residual (RMR) and the standardised RMR values are 0.044 and 0.0480 respectively, which indicate good model fit. The GFI and AGFI values of .877 and .813 respectively miss the 0.90 level indicative of good model fit. The statistics of the NFI, NNFI, CFI, IFI and RFI values are 0.978, 0.985, 0.989, 0.989 and 0.970 respectively. (See Table 4.26) These indices from the model generally indicate a reasonable model fit over the independence model as acceptable values are all above 0.90. The measurement model path diagram is depicted in Figure 4.1.

Table 4.26

Goodness-of-Fit statistics for the overall measurement model

Fit index	Value
Degrees of Freedom	89
Satorra-Bentler Scaled Chi-Square	171.566 (P = 0.0)
Chi-square corrected for Non-Normality	311.158 (P = 0.0)
Root Mean Square Error of Approximation (RMSEA)	0.0693
90 Percent Confidence Interval for RMSEA	(0.0563; 0.0848)
P-Value for Test of Close Fit (RMSEA < 0.05)	0.0233
Normed Fit Index (NFI)	0.978
Non-Normed Fit Index (NNFI)	0.985
Parsimony Normed Fit Index (PNFI)	0.725
Comparative Fit Index (CFI)	0.989
Incremental Fit Index (IFI)	0.989
Relative Fit Index (RFI)	0.970
Critical N (CN)	139.303
Root Mean Square Residual (RMR)	0.0444
Standardised RMR	0.0480
Goodness of Fit Index (GFI)	0.877
Adjusted Goodness of Fit Index (AGFI)	0.813
Parsimony Goodness of Fit Index (PGFI)	0.574

Figure 4.1

Measurement model

Chi-Square=171.57, df=89, P-value=0.00000, RMSEA=0.069
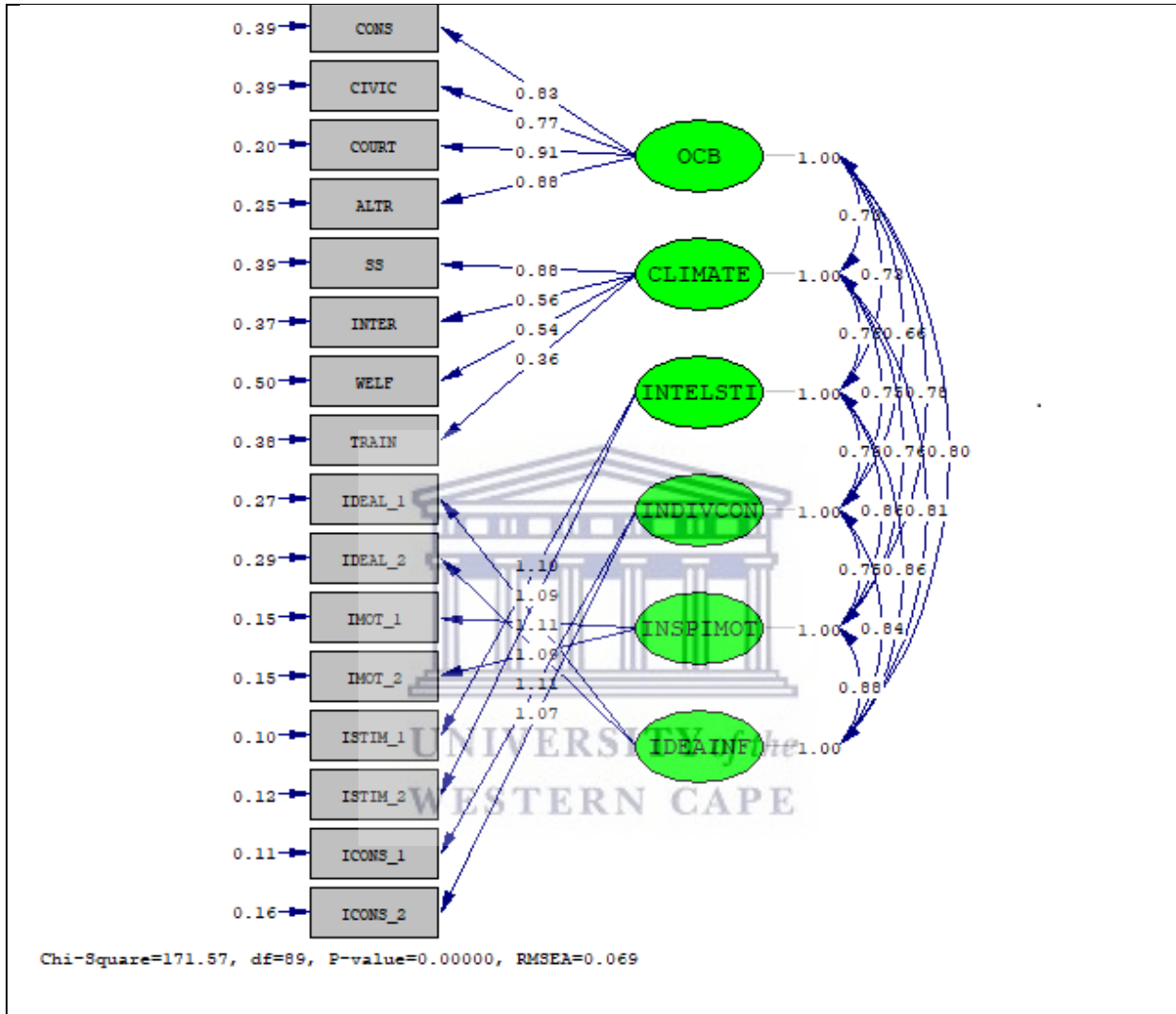
4.5.1 The completely standardised solution factor loading matrix

The values in Table 4.27 depict the completely standardised solution factor loading matrix that signify the regression slopes of the regression of the consistent indicator variables on the standardised latent variables. According to Diamantopoulus and Siguaw (2000), the completely standardised factor loadings show the change that is expressed in standard deviations in the manifested variable related with one standard deviation change in the other latent variable. In this study, the standardised factor loadings all appear to be significantly above 0.50.

Table 4.27

Completely standardised lambda-X matrix for the item parcels

	INTELSTI	INDIVCON	INSPIMOT	IDEAINF
	--------	--------	--------	--------
IDEAL_1	- -	- -	- -	0.878
IDEAL_2	- -	- -	- -	0.860
IMOT_1	- -	- -	0.943	- -
IMOT_2	- -	- -	0.943	- -
ISTIM_1	0.962	- -	- -	- -
ISTIM_2	0.953	- -	- -	- -
ICONS_1	- -	0.959	- -	- -
ICONS_2	- -	0.938	- -	- -

	OCB	CLIMATE	INTELSTI	INDIVCON	INSPIMOT	IDEAINF
	--------	--------	--------	--------	--------	--------
CONS	0.835	- -	- -	- -	- -	- -
CIVIC	0.774	- -	- -	- -	- -	- -
COURT	0.913	- -	- -	- -	- -	- -
ALTR	0.876	- -	- -	- -	- -	- -
SS	- -	0.885	- -	- -	- -	- -
INTER	- -	0.564	- -	- -	- -	- -
WELF	- -	0.538	- -	- -	- -	- -
TRAIN	- -	0.358	- -	- -	- -	- -
IDEAL_1	- -	- -	- -	- -	- -	0.959
IDEAL_2	- -	- -	- -	- -	- -	0.912
IMOT_1	- -	- -	- -	- -	1.112	- -
IMOT_2	- -	- -	- -	- -	1.086	- -

ISTIM_1	- -	- -	1.098	- -	- -	- -
ISTIM_2	- -	- -	1.089	- -	- -	- -
ICONS_1	- -	- -	- -	1.110	- -	- -
ICONS_2	- -	- -	- -	1.071	- -	- -

4.6 GOODNESS OF FIT FOR THE STRUCTURAL MODEL

The structural model describes the relationships between the latent variables themselves and it represents the amount of unexplained variance. In addition, it is of paramount importance to focus on the relationships between independent and dependent variables with the objective of determining the fit between the hypothesised relationships and the existing data. To determine the fit of the structural model the LISREL programme (version 8.80) was used. The Robust Maximum Likelihood estimation was used to yield the estimates. A full spectrum of the indices are presented in Table 4.39, and the path diagram of the fitted measurement model is represented in Figure 4.2.

Figure 4.2

The Structural model

Chi-Square=171.57, df=89, P-value=0.00000, RMSEA=0.069
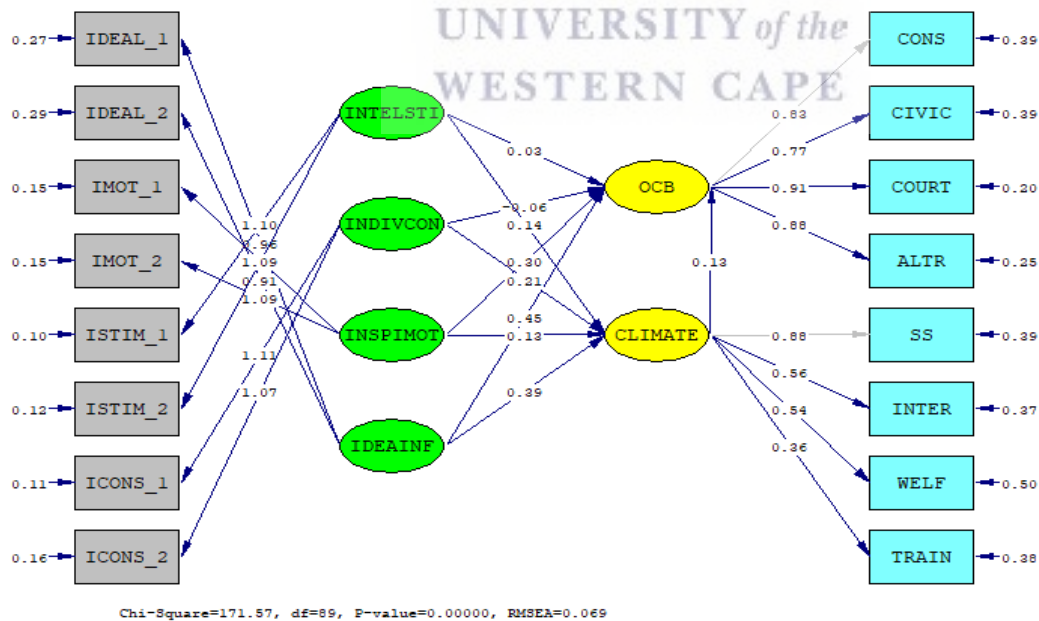
Table 4.39

Goodness-of-Fit statistics for the structural model

Fit index	Value
Degrees of Freedom	120
Satorra-Bentler Scaled Chi-Square	321.451 (P = 0.0)
Chi-square corrected for Non-Normality	2117.495 (P = 0.0)
Root Mean Square Error of Approximation (RMSEA)	0.0781
90 Percent Confidence Interval for RMSEA	(0.0667; 0.0896)
P-Value for Test of Close Fit (RMSEA < 0.05)	0.000
Normed Fit Index (NFI)	0.950
Non-Normed Fit Index (NNFI)	0.967
Parsimony Normed Fit Index (PNFI)	0.800
Comparative Fit Index (CFI)	0.972
Incremental Fit Index (IFI)	0.972
Relative Fit Index (RFI)	0.941
Critical N (CN)	118.130
Root Mean Square Residual (RMR)	0.0834
Standardised RMR	0.0595
Goodness of Fit Index (GFI)	0.845
Adjusted Goodness of Fit Index (AGFI)	0.796
Parsimony Goodness of Fit Index (PGFI)	0.641

The RMSEA value for the structural model is 0.0781, which reveals that reasonable fit exists. The RMR and standardised RMR values are 0.0834 and 0.0595 respectively, which are above 0.05. This raises some doubts regarding the closeness of fit. The GFI = 0.845 and AGFI = 0.796, missed the 0.90 level indicative of good model fit. The values for Normed Fit Index (NFI) = 0.950, Non-Normed Fit Index (NNFI) = 0.967, Comparative Fit Index (CFI) = 0.972, Incremental Fit Index (IFI) = 0.972 and Relative Fit Index (RFI) = 0.941 (this is shown in the table above),   generally indicate a reasonable fit over the independent model since the acceptable values for these indices are above 0.90.

4.6.1 Parameter estimates

The main aim of evaluating the structural model is to establish whether the theoretical relationships that were stated at the conceptualisation stage of the study are substantiated by the empirical data. At this stage, the main focus is on the relationships between the independent and dependent

variables. The process of evaluating the structural model involves an in-depth analysis of the autonomous elements of the gamma (γ) and beta (β) matrices. Primarily, it is vital to estimate the signs of the parameters representing the paths between the latent variables. This is to determine the degree of consistence with the nature of the causal effect hypothesised to exist between the latent variables. Furthermore, it is vital to determine whether the parameter estimations are significant ($p < 0.05$) as indicated by t-values greater than 1.96 (two-tailed) or 1.645 (one-tailed).

Table 40

The Beta Matrix

BETA		
	OCB	CLIMATE
	– –	
TRAIN	0.835	– –
	(0.064)	– –
	12.963	– –
CLIMATE	0.913	– –
	(0.051)	– –
	17.808	– –
TRAIN	– –	0.358
	– –	(0.065)
	– –	13.641

HYPOTHESIS ONE

A very strong significant positive relationship exists between transformational leadership and organisational citizen behaviour (t=12.963, $p < 0.05$). This finding suggests that the proposed relationship between transformational leadership and organisational citizenship behaviour is supported. Given this scenario, the H_0 hypothesis, which says that transformational leadership does not have a significant positive influence on organisational citizenship behaviour, is rejected.

Therefore, the alternative hypothesis, which states that transformational leadership has a positive influence on organisational citizenship behaviour, is accepted.

HYPOTHESIS TWO

The t-value (t=17.808) of the link between organisational climate and organisational citizen behaviour is greater than 1.645. A significant ($p < 0.05$) positive relationship is therefore evident between these two constructs, which suggests that the proposed relationship between organisational climate and organisational citizenship behaviour is supported. Given this scenario, the null hypothesis, which says that organisational climate does not have a positive influence on organisational citizenship behaviour, is rejected. Therefore, the alternative hypothesis, which says organisational climate has a positive influence on organisational citizenship behaviour, is accepted.

HYPOTHESIS THREE

The t-value for the connection between transformational leadership and organisational citizenship behaviour is (t= 13.641, p<0.05) which is greater than 1.645. This implies that a significant positive relationship exists between these two variables. Given these values, we the null hypothesis, which states that transformational leadership has no positive influence on organisational citizenship behaviour, is rejected. The alternative hypothesis, which states that transformational leadership has a positive influence on organisational citizenship behaviour, is thus accepted.

4.7 CHAPTER SUMMARY

The purpose of this chapter was to present the results of the statistical analyses achieved through the statistical packages namely, SPSS (version 24) and LISREL (version 8.80). Item and dimensional analyses were performed on the data to identify poor items. The overall measurement model was assessed using the method of item parcelling. Both the measurement and structural models were found to fit the data reasonably well. The results indicated a positive and significant relationship between all the variables

<center>**CHAPTER FIVE**</center>

<center>**DISCUSSION OF RESEARCH RESULTS AND RECOMMENDATIONS FOR FUTURE RESEARCH**</center>

5.1 INTRODUCTION

The previous chapters gave an overview of the research problem, a review of the literature on previous studies that used the latent variables (transformational leadership, organisation climate and OCB) and the research methodology used to conduct this study. The current study's findings were provided in Chapter 4. The findings reported in Chapter 4 are discussed in this chapter, which also focuses on the study's limitations and practical implications. Future research suggestions are also presented in this chapter.

The present study focused on determining the influence of transformational leadership on OCB, the influence of organisational climate on OCB, the influence of transformational leadership on organisational climate and goodness-of-fit testing of the manner in which transformational leadership, organisational climate and OCB correlate.

5.2 ASSESSMENT OF MODEL FIT

5.2.1 Measurement model

A variety of fit statistics are used to assess the goodness of fit for the overall measurement model. The measurement model fit tests the degree to which a hypothesised model fits the data and provides evidence and information of the manifested indicators regarding the degree to which they represent the latent variables under investigation (Diamantopoulus & Siguaw, 2000).

In terms of the measurement model fit, Table 4.26 provided a summary of the fit indices. The Root Mean Square Error of Approximation (RMSEA) value is 0.0693, which indicates a reasonable model fit. The Root Mean Squared Residual (RMR) and the standardised RMR values are 0.044 and 0.0480 respectively, which confirms the closeness of fit of the model. The GFI and AGFI

values of .877 and .813 respectively miss the 0.90 level indicative of good model fit. The statistics of the NFI, NNFI, CFI, IFI and RFI values are 0.978, 0.985, 0.989, 0.989 and 0.970 respectively. (See Table 4.26.) These indices from the model generally indicate a reasonable model fit over the independence model as acceptable values are all above 0.90. Therefore, it can be concluded that the measurement model generally shows acceptable or reasonable model fit.

5.2.2 Structural model

The structural model indicates whether the theoretical relationships stated at the conceptualisation stage are substantiated by the empirical data. The structural part of the model explains the relational links among the dependent and independent variables.

The RMSEA value for the structural model is 0.0781, which reveals that reasonable fit exists. The RMR and standardised RMR values are 0.0834 and 0.0595 respectively, and are above 0.05, which raises some doubts regarding the closeness of fit. The GFI = 0.845 and AGFI = 0.796, missed the 0.90 level indicative of good model fit. The values for Normed Fit Index (NFI) = 0.95, Non-Normed Fit Index (NNFI) = 0.967, Comparative Fit Index (CFI) = 0.972, Incremental Fit Index (IFI) = 0.972 and Relative Fit Index (RFI) = 0.941 indicate good model fit (see Table 4.28), and generally indicate acceptable fit over the independent model as acceptable value for these indices are above 0.90.

5.3 ASSESSMENT OF MODEL HYPOTHESES

The results regarding the three hypotheses are discussed below.

HYPOTHESIS ONE

A significant positive relationship exists between transformational leadership and organisational citizenship behaviour (t=12.963, p<0.05). This finding suggests that the proposed relationship between transformational leadership and organisational citizenship behaviour is supported. Given this scenario, the null hypothesis, which states that transformational leadership does not have a positive significant influence on organisational citizenship behaviour, was rejected.

Similar findings were reported by Khahili (2017) that transformational leadership has a significant influence of OCB. A study conducted by Majeed et al. (2007) reported similar results and revealed a significant relationship between transformational leadership and OCB. The results of 220 responses from this study indicated that the relationship between transformational leadership and OCB is statistically significant where Emotional Intelligence plays an important role as a mediator. The results support and add to the positive effects of transformational leadership style interconnected with extra role behaviour at work, making it more meaningful.

HYPOTHESIS TWO

The t-value (t=17.808) of the link between organisational climate and organisational citizenship behaviour is greater than 1.645. A significant ($p < 0.05$) positive relationship is therefore evident between these two constructs, which suggests that the proposed relationship between organisational climate and organisational citizenship behaviour is supported. Given this scenario, the null hypothesis, which states that organisational climate does not have positive influence on organisational citizenship behaviour, was rejected.

This is consistent with the results obtained by Subramani, Jan, Gaur and Vinodh (2016) who collected data from 472 workers and office staff working in Automotive Industries. The findings of this research show that organisational climate has a positive impact on organisational citizenship behaviour and its components through Structural Equation modeling approach. Hence, it is proved that the compassionate organisational climate nurture the positive attitudinal outcomes for the employees, which in turn create organisational citizenship behaviour among its employees. In addition, Murugesan, Raja and Kanan (2013) found that organisational climate and OCB are positively correlated.

HYPOTHESIS THREE

The t-value for the connection between transformational leadership and organisation climate is (t= 13.641, p<0.05), which is greater than 1.645, thus stating that a significant positive relationship exists between these two variables. Given these values, the null hypothesis, which states that transformational leadership has no positive influence on organisational climate, is rejected. The

alternative hypothesis, stating that transformational leadership has a positive influence on organisational climate, is then accepted.

Similar findings were obtained in Thailand by Kitratporn and Puncreobutr (2016) in a study of 384 respondents. The result of correlation revealed that there was a positive moderate relationship between transformational leadership and organisational climate. Gaviria-Rivera and López-Zapata (2019) conducted a study to determine the influence of transformational leadership on job satisfaction and organisational climate on a sample of 185 work team leaders and collaborators from large, medium and small companies in the Colombian construction sector. The study findings indicated that transformational leadership positively influences job satisfaction and organizational climate in work teams. Since organisational climate involves shared common practices, beliefs and values (Denison, 1996), the transformational leader is expected to use his or her idealised influence to steer the subordinates towards the preferred organisational climate.

5.4 LIMITATIONS TO THE STUDY

The major limitation of the current study is that it made use of only the quantitative approach and cross-sectional survey, and the available sample was used to represent the opinions, sentiments, and perceptions of support staff at a specific point in time. As a result, the causality of the correlations between the variables, as well as the casual elements involved with these subjective experiences, cannot be ascertained.

Secondly, only one university was used; thus, the findings cannot be generalised to the entire population of support staff within the province or within South Africa. A larger population may have resulted in more irrefutable results. Furthermore, the sample size used limited the type of statistical analyses that could be used. For example, structural equation modelling was used and not multiple regression analysis. In light of the above, the analysis procedure of the current study limits the extent of the research as all the variance amongst the constructs cannot be sufficiently accounted for.

A major limitation was the remote data collection during the COVID-19 restrictions. Data collection was done through goggle forms, which accumulated many days of delayed responses.

Another shortcoming of the study is the measurement instruments used. The measuring instruments (questionnaires) were based on self-reporting methods. Self-report methods are influenced by how a participant feels at a particular point in time and therefore it is subjective in nature. These subjective perceptions and opinions might not be an accurate reflection of the entire system at that specific point in time. Thus, the results of the study population obtained may be limited in its generalisability due to the relatively small sample size in the Western Cape province.

Another major limitation was anticipating social-desirability bias. Anticipating response bias with tendency of respondents to answer questions in a manner that favours views of others is difficult in conducting data collection. In most social science research, they can be either over-reporting of good behaviour and under reporting of bad or undesirable behaviour by respondents. This tendency poses a serious problem with conducting research and its one of the major limitations in research.

5.5 SUGGESTIONS FOR FUTURE RESEARCH

Future studies can consider using larger sample sizes that are more representative of the population, which would be very beneficial. The total sample after addressing the missing values problem should not be less than the minimum recommended requirement of 200, in order to utilise the structural equation modelling technique to test hypothesised models. In addition, future research should endeavour to obtain samples from more universities in order to increase the demographic representativeness of the support staff population in the Western Cape and South Africa.

Future research studies should consider a mixed-methods (quantitative and qualitative) approach to draw more insightful experiences from the participants. A degree of accuracy in the research analysis may be proven to be higher if data collection instruments such as observations and interviews are used in conjunction with a questionnaire.

5.6 PRACTICAL IMPLICATIONS

The current study reported positive relationships between transformational leadership and OCB, between organisational climate and OCB, and between transformational leadership and organisational climate. The results have interesting implications for universities. Leaders are advised to foster OCB because employee OCB contributes to organisational success. Hence, OCBs are discretionary behaviours that can be less required by formal job descriptions compared organisational climate. It is important to create a stimulating work environment that positively contributes to those voluntary behaviours. In line with prior studies, the study results suggest that transformational leadership behaviours are an important aspect for a stimulating work environment that contributes to OCB. Thus, universities should foster transformational leadership behaviours, for example by providing trainings, using suitable selection criteria, and communicating official leadership guidelines.

In addition, universities should contribute to an environment in which the positive implications of transformational leadership behaviours can fully unfold. In this regard, our findings offer differential suggestions. Specifically, results of this study suggest that the leaders and professional staff are strong in mediating the relationship between transformational leadership and OCB for motivating all support staff at the University used for the study. Thus, organisations wishing to benefit from transformational leadership's positive implications for OCB should focus on how to best develop important aspects of the dyadic leader-follower relationship such as trust in the leader.

The study also examined the relationship between organisational climate and OCB. From the results, it has been found that there is a strong positive correlation between these two constructs, and the variance in OCB is explained by the dimensions of organisational climate. The most important organisational climate dimensions were found to be supervisory support, autonomy, welfare and participation. Support from the supervisors encourages the employees to engage in citizenship behaviour. A supportive environment makes the employees more confident in performing duties and it, hence, increases the productivity. Clearly, it is important to increase citizenship behaviour among employees. Therefore, management and the immediate supervisors should be supportive to their employees in various situations at the workplace.

5.7   CONCLUSION

The study findings represented a significant positive relationship exists between transformational leadership and organisational citizenship behaviour. Secondly, a positive relationship was discovered between organisational climate and organisational citizenship behaviour. Then, a significant positive relationship was discovered between transformational leadership and organisational climate. These findings suggest that the proposed relationships between transformational leadership, organisational climate and organisational citizenship behaviour are supported.

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