INTENTION TO QUIT, ORGANISATIONAL CITIZENSHIP AND COUNTERPRODUCTIVE WORKPLACE BEHAVIOUR IN HIGHER EDUCATION: THE ROLE OF EMOTIONAL INTELLIGENCE AND RELATIONSHIP QUALITY

UNIVERSITY *of the* WESTERN CAPE

CHENÉ MADELIN ROUX

A thesis submitted in partial fulfilment of the requirements for the degree of Doctor Philosophiae in the Department of Industrial Psychology,

Faculty of Economic and Management Science, University of The Western Cape.

Supervisor: Prof. Marieta du Plessis

Co-Supervisor: Prof. Jürgen Becker

December 2021

INTENTION TO QUIT, ORGANISATIONAL CITIZENSHIP AND COUNTERPRODUCTIVE WORKPLACE BEHAVIOR IN HIGHER EDUCATION: THE ROLE OF EMOTIONAL INTELLIGENCE AND RELATIONSHIP QUALITY

Chené Madelin Roux

KEYWORDS

Higher Education

Emotional Intelligence

Leader-member Exchange

Team-member Exchange

Organisational Citizenship Behaviours

Counterproductive Workplace Behaviours

Intention to Quit

UNIVERSITY *of the*
WESTERN CAPE

ABSTRACT

INTENTION TO QUIT, ORGANISATIONAL CITIZENSHIP AND COUNTERPRODUCTIVE WORKPLACE BEHAVIOUR IN HIGHER EDUCATION: THE ROLE OF EMOTIONAL INTELLIGENCE AND RELATIONSHIP QUALITY

C. M. Roux

Doctor Philosophiae, Department of Industrial Psychology, University of the Western Cape.

The foundation of this study lies in the essential role of employees in the Higher Education Sector, as they are key in the effective functioning of Higher Education Institutions (HEIs). The effective operations of these institutions, in turn, is vital considering the important role the institutions play with regard to the development and expansion of human capital and skills. Previous research has highlighted the high turnover rates experienced in HEIs, applicable to HEIs in South Africa too.

Understanding which factors contribute to the positive behaviour and retention of employees is therefore important for management in Higher Education Institutions. Expanding this understanding will aid in establishing and fostering positive employee motivations and experiences, which could furthermore assist in reducing staff turnover. With the aim of contributing further to the knowledge on factors underlying employees' attitudes, motivations and behaviour, building on the theoretical principles of the Social Exchange Theory (SET) as well as the Affect Theory of Social Exchange (ATSE), the researcher sought to specifically analyse the effect of employee's Emotional Management (EM) (a key dimension of the Emotional Intelligence construct) on positive and negative organisational behaviour.

More specifically, the positive organisational construct assessed was Organisational Citizenship Behaviour (OCB). This included OCB directed at individuals (OCBI), and OCB directed at the organisation (OCBO). The

negative organisational outcomes assessed were Counterproductive Workplace Behaviours (CWB) and the intention to quit (ITQ).

Further to this, the present study also analysed the effect of the quality of the collegial relationships on the relationship between EM and these organisational outcomes. The quality of the relationships was assessed through Leader-member exchange (LMX) and Team-member exchange (TMX). LMX refers to the perceived quality of the relationship between the employee and their leader, whereas TMX refers to the perceived quality of the relationship between the employee and their team members.

The present study examined the direct and indirect associations between these constructs for academic employees, as well as administrative employees, in Higher Education Institutions in South Africa. Researchers have pointed out the distinction between academic and administrative employees, the difference in their roles, and their value to the HEI. Therefore, a key contribution of this study is the equivalence testing conducted to ascertain whether the hypothesised paths hold true for both employee groups, or whether these would differ based on the nature of the role occupied. In addition to this, the present study is significant as it addresses a research gap on the role of social exchanges in organisational behaviour by specifically exploring the effect that collegial relationships have on employee outcomes.

The research hypotheses were tested through two structural models. One model focused on the positive organisational outcomes (OCB), and the second model focused on the negative organisational outcomes (CWB and ITQ). The models were tested by collecting data via an online questionnaire from five HEIs in South Africa. The final sample consisted of 523 academic and administrative employees. Structural Equation Modeling (SEM) analyses revealed that, within the sample of staff from Higher Education Institutions in South Africa, EM has a significant effect on LMX, TMX, OCB, and CWB, but not on the intention to quit.

Additionally, the statistical analyses reveal that the quality of collegial relationships does not have a significant effect on all the employee behaviour assessed through the organisational outcome constructs in this study. More specifically, regarding the positive organisational outcomes (i.e. OCB), LMX did not have a statistically significant positive influence on OCB. TMX, however, did have a statistically significant influence on OCB. Regarding the negative organisational outcomes, neither LMX nor TMX had a significant influence on CWB. In addition, LMX had a significant negative influence on the intention to quit, whereas TMX had no significant effect on the intention to quit. The structural equivalence of the models was assessed to aid the comparison of the models across the two employee groups.

Reflecting on the results, the thesis concludes with a discussion about the limitations of the study, as well as recommendations for future practice and research. Overall, one of the conclusions of the study is that Emotional Management is key in creating and fostering relationships in the workplace. It was further concluded that the quality of these relationships has an indirect effect on the relationship between Emotional Management and OCB. However, workplace relationships did not have an indirect effect on the relationship between Emotional Management and deviant workplace behaviour. The study, therefore, adds to the body of knowledge on emotional intelligence, social exchange and organisational outcomes in the higher education sector and provides insight into the relationships between the constructs. Finally, the results revealed that the hypothesised models were invariant across the two employee groups. This result suggests that the hypothesised paths hold true for academic employees as well as for administrative employees.

December 2021

DECLARATION

By submitting this thesis, I declare that Intention to Quit, Organisational Citizenship and Counterproductive Workplace Behaviour in Higher Education: The Role of Emotional Intelligence and Relationship Quality, in its entirety is my own work, 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.

Full Name: Chené Madelin Roux

UNIVERSITY *of the*
WESTERN CAPE

ACKNOWLEDGEMENTS

Above all, I thank my Heavenly Father for the opportunity I had to embark on this journey and for the strength and wisdom to get through it. Your Grace is truly amazing. I thank Him, too, for the people in my life that were key in the success of this journey:

My parents, Charles and Valencia Roux, who remained supportive in so many ways. Thank you for your continued patience and encouragement. I am blessed to have you.

To my brother, Charlton Roux, and his wife, Odille – thank you for your input, wisdom, optimism and encouragement. Charlton, your drive in reaching your goals was a source of inspiration for me. To my nephew, Carter, you brought along some extra inspiration – thank you for that.

My co-supervisor, Professor Jurgen Becker – thank you for your patient guidance and for sharing your expertise. Because of you, this journey came with much more learning and personal growth than I expected. I am sincerely grateful.

My supervisor, Professor Marieta du Plessis – words cannot express how thankful I am that you were the one leading me through this. Thank you, too, for your patience and guidance and the knowledge imparted. I thank you for the extra encouragement when I needed it and for your incredible support during each phase of the process. I could not have asked for better supervisors – it was an honour working with you. Thank you for your role in making this dream come true.

TABLE OF ABBREVIATIONS

AES	Assessing Emotions Scale
ATSE	Affect theory of social exchange
CFA	Confirmatory factor analysis
CFI	Confirmatory factor index
CHE	Council on Higher Education
CWB	Counterproductive workplace behaviour
DHET	Department of Higher Education and Training
EFA	Exploratory factor analyses
EM	Emotional management
ESCI	Emotional and Social Competency Inventory
HEI	Higher education institutions
HOD	Head of department
HR	Human resources
IQ	Intelligence quotient
KMO	Keiser-Meyer-Olkin
MOAQ	Michigan Organisational Assessment Questionnaire
OCB	Organisational citizenship behaviour
RMSEA	Root mean square error of approximation
ROE	Regulation of emotion
SEM	Structural equation modelling
SRMR	Standardised root mean square residual

TLI	Tucker-Lewis index
VIF	Variance inflation factors
AIC	Akaike's Information Criteria
BIC	Bayesian Information Criteria
HE	Higher Education
ICT	Information and Communication Technology
IT	Information Technology
ITQ	Intention to quit
LMX	Leader-member Exchange
TMX	Team-member Exchange

TABLE OF CONTENTS

x

UNIVERSITY *of the*
WESTERN CAPE

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE: INTRODUCTION

1.1 Background to the research

Around the world, higher education institutions (HEIs) are highly competitive in nature (Gandy et al., 2018) and they must keep up with continual changes (Obendhain & Johnson, 2004). Effectively recruiting and retaining employees is an aspect that is invaluable to the quality of research output and the overall success of an HEI (Ng'ethe, Namusonge & Iravo, 2012).

South African HEIs are not exempt from the pressure of performing at high international standards regarding applied research and teaching. The number of academics leaving the profession, whether voluntarily or as a result of reaching retirement age or receiving better job opportunities, is higher than the number of new entrants into the field (Mensele & Coetzee, 2014).

De Vito et al. (2016) emphasised that one of the biggest issues faced by universities is employee turnover. High turnover rates are a cause for serious concern by HEIs, because being unable to retain staff members can adversely affect both students and other staff members. This scenario will negatively impact the quality and stability of the institution (Selesho & Naile, 2014).

Theron et al. (2014) examined the factors that contribute to employee turnover. The authors collected data from 153 participants at 13 public HEIs in South Africa. The results showed that 34% of the participants had considered leaving their institution and 74.5% had searched for alternative employment before. What poses more of a challenge is that employees not only leave their institutions for new employment within the country, but many have left South Africa for opportunities abroad. The resulting loss of skills and knowledge affects not only the relevant institution but the country as a whole (Mlambo & Adetiba, 2019). The above synopsis highlights a need to understand the turnover behaviour among academic staff in order to implement strategies to reduce the intention to quit and actual turnover among HEIs.

Riaz et al. (2017) and Lok et al. (2019) reported that the quality of the relationship between leaders and academic employees was one of the most

important factors in voluntary turnover. In addition, Tziner et al. (2020) showed that emotional intelligence influences the employees' perception of the quality of the relationship with their leaders. Emotional intelligence refers to the process of identifying, using, and understanding emotions in oneself and others (Fernandez, 2021). The implication of these studies is that employees' emotional intelligence and the quality of the leader–member relationship are crucial issues for retaining high-calibre academics in the HEI sector. The next sections will therefore explore emotional intelligence and relationships in the workplace.

1.2 Emotional intelligence

Woods (2012) states that emotion is critical for employee functioning and therefore also for organisational functioning. This is because emotion is central to employee motivation and commitment, and is linked to employees' mental and physical wellbeing (Woods, 2012). Employees in higher education have various roles, ranging from administrative or support positions with short interactions with clients to academic roles that include teaching and research. Across these diverse roles, emotion is important for productive functioning (Woods, 2012).

Research within the humanities and social sciences has shown an increased focus on emotion in the workplace (Woods, 2012). However, there seems to be a dearth of research on emotions and emotional intelligence within the higher education context specifically (Bowen et al., 2017). As highlighted by Smith and Ulus (2020), research in this context tends to focus on students rather than employees. Nonetheless, emotional resilience is crucial for employees in HEIs to cope with the fast-changing and often chaotic higher education context (Breen, 2019).

In dealing with difficult situations or people, adjusting to change, managing stress and staying productive, it is clear that managing emotions is necessary. For this reason, emotional intelligence plays an important role in the maintenance of high-quality relationships for both academic and administrative staff in HEIs.

1.2.1 Emotional intelligence and organisational outcomes

In the field of organisational behaviour, interest in the centrality of emotional intelligence in individual and organisational success is growing. This interest is based on the notion that emotional intelligence can explain differences in people's performance at work (Côté & Miners, 2006; Carmeli, 2003; Emmerling et al., 2008) that are not accounted for by personality and cognitive abilities (Rode et al., 2007).

Three important organisational behaviour concepts that researchers have found to be related to emotional intelligence are

- Organisational Citizenship Behaviour (OCB) (Jung & Yoon, 2012; Kim & Park, 2020; Yu & Takahashi, 2020)
- Counterproductive Workplace Behaviour (CWB) (Jung & Yoon, 2012; Yu & Takahashi, 2020)
- Intention to quit (Jordan & Troth, 2011; Mérida-Lopez et al., 2020; Yaseen, 2020).

OCB refers to voluntary employee actions that are beneficial for the organisation but are not required as part of the employee's formal duties and responsibilities. OCB consists of the following dimensions: altruism, conscientiousness, sportsmanship, courtesy and civic virtue (Smith et al., 1983). In the context of HE, employee engagement in actions that are not required but are beneficial, might add to the quality of the services given to students and the broader community.

Contrary to the positive nature of OCB, CWB among employees can have adverse outcomes for individuals and organisations. Jung and Yoon (2012) found that emotional intelligence had a negative effect on CWB. In other words, the better an employee's emotional intelligence, the less likely they were to engage in behaviour that was counterproductive at work. Within HEIs, employees' CWB would adversely affect student success as well as the overall efficiency of the institution. It is worth noting that there are conflicting views about whether CWB and OCB are opposing constructs or are negatively correlated

(Spector & Fox, 2010). Either way, if employers could attend to the factors that increase CWB, such interventions could indirectly and positively affect OCB.

Intention to quit refers to an employee's plan to make a shift from their present employment to a different one (Nadiri & Tanova, 2010). It is a voluntary decision based on the employee's assessment of the present working conditions (Engelbrecht & Samuel, 2019). As mentioned earlier, turnover in HEIs is a cause for concern. Jordan and Troth (2011) found a negative relationship between employees' emotional intelligence levels and their intention to quit. This finding could indicate that emotional intelligence mitigates the adverse effects of an insecure work environment on turnover intention within a higher education context.

1.3 Relationships in the workplace

Relationships are a core feature of the workplace environment (Walumbwa et al., 2020). In an organisational setting, the social exchanges that are generally explored by researchers are the relationships between leaders and subordinates, and between team members. In an academic environment, the academic employee's leader is typically the relevant head of department. The quality of social exchanges among employees is both affected by, and can affect the emotional state of, each person. Hence, social interactions can lead to adverse or positive outcomes for both individuals and the organisation depending on the quality of the exchanges.

A recent study by Duyan and Yildiz (2018) revealed a significant and positive effect of the Leader-member exchange (LMX) on job performance by academic employees in HEIs. The LMX refers to the interpersonal relationship between leaders and their subordinates. This finding shows that although academic employees typically work more independently than do administrative employees, and enjoy wider flexibility, the quality of their relationship with a supervisor carries some weight regarding their workplace behaviour. The relationship between academic employees and their managers is less formal than the relationship between administrative employees and their managers; nonetheless, the former is still an important driver of success.

In the current study, a possible discrepancy between the effect of the quality of 1) the LMX between leaders and academic employees and 2) the LMX between leaders and administrative employees is expected. On the one hand, the effect of LMX might arguably be stronger for administrative employees than for academic employees. The reasoning is that academic employees are thought to be intrinsically motivated, irrespective of the quality of their relationships with superiors (Duyan & Yildiz, 2018). Additionally, they work relatively autonomously. By contrast, administrative employees have more contact with their leaders and are more dependent on them for top performance.

On the other hand, it could be argued that the LMX relationship between leaders and academic employees may be stronger than that between administrative employees and their leaders. The reasoning here is that, for academics, the relationship with their leader is crucial for the achievement of their operational goals. Furthermore, it is possible that leader–employee relationships regarding academic staff become essential when employees engage in team-based assignments.

1.3.1 Relationships in the workplace and organisational outcomes

The affect theory of social exchange (ATSE), which will be elaborated on in Chapter 2, describes emotion as a central feature of social exchange processes (Lawler, 2001). The present study draws on the ATSE to explore the indirect effect that the quality of relationships (i.e., social exchange processes) has on the link between emotional intelligence and the organisational outcomes. The outcome variables that are included in the present study include OCB, CWB and intention to quit. According to the ATSE, emotions are produced by social exchanges, and these emotions influence how the relevant relationship is perceived.

Regarding the antecedents of employee outcomes – such as OCB and CWB, many studies have revealed the importance of leader behaviours and leaders' interpersonal relations with their employees. Through their behaviour, leaders can affect the behaviour and performance of their subordinates (Wexley & Yukl, 1984), which in turn affects organisational success. Gottfredson and Aguinis

(2017) found that the LMX had a strong mediating effect on the link between leader behaviour and employee outcomes.

A high quality of LMX is correlated with positive outcomes, such as respect, trust, good performance and organisational commitment (Cheng et al., 2012). By contrast, Chernyak-Hai and Tziner (2014) reported a negative relationship between LMX and CWB. These empirical findings indicate that when employees enjoy a strong relationship with their leaders, they feel committed to the success of their leader and are relatively unlikely to engage in counterproductive behaviour.

Power (2013) highlights the role of LMX in HEIs specifically, with LMX being thought to complement academic employees' preference for working autonomously. Although academics typically prefer to work autonomously, it does not necessarily mean that they have no need for interaction and support. Given the degree of independence among academics, the role of high-quality LMX relationships may be underestimated. This point, and the notion that high emotional intelligence enhances interpersonal relations, might indicate that LMX is a possible boundary variable. If so, it could affect the relationship between the emotional intelligence of employees and outcomes in the workplace.

1.4 The higher education institutional context

The HEI context has changed markedly over the last decade (Baltaru & Soysal, 2018). Employees in HEIs are now expected to teach bigger classes (Naidoo-Chetty & Du Plessis, 2021), provide personalised learning plans for students and publish in high-impact journals (Guthrie et al., 2019). In the South African context, a particular challenge was the Fees Must Fall movement, which started in 2015, giving rise to feelings of uncertainty and job insecurity among HEI employees. Free education or lowered tuition fees could lead to an increased number of students and a drop in the quality of education and research, and many courses might cease to exist (Mutekwe, 2017). Hence, the negative emotions among HEI employees are not unwarranted; the possible future scenario has an adverse effect on the morale of academic staff (Mutekwe,

2017). Feelings of job insecurity may be correlated with negative outcomes in the workplace, such as turnover intention (Sverke et al., 2002).

In a similar vein to the preceding discussion, Ma et al. (2019) echo that feelings of insecurity could hinder the organisation through a negative effect on employees' attitudes and performance at work. Another negative outcome could include the manifestation of CWB (Reisel et al., 2010). Negative attitudes and decreased performance as a result of job insecurity can affect both CWB directed at the organisation (CWB-O) and CWB directed at individuals (CWB-I). Considering the harmful effects of CWB (see Chapter 2), it would be useful to understand what contributes to these behaviours and how they can be curbed.

The complex nature of the higher education system necessitates the employment and support of successful academic staff and administrative staff to ensure the efficient functioning of the sector. Baltaru (2018) confirmed the importance of administrative employees, especially in a supporting role, for the success of teaching and tutoring activities in HEIs. The focus of the current study will therefore be on both academic and administrative staff in HEIs.

1.4.1 Acknowledging the changes brought about by the COVID-19 pandemic

Currently, along with the rest of the world, South Africa is experiencing the effects of the COVID-19 pandemic. The pandemic has caused many businesses to close, resulting in commercial disruption in many industries (Donthu & Gustafsson, 2020). The health crisis has thus become an economic and financial crisis too, across the world (Fasan et al., 2021). Globally, the higher education sector has been affected (Camilleri, 2021; Hedding et al., 2020; Jena, 2020). Within this sector, the pandemic has had ramifications for teaching, learning, community service, research (Camilleri, 2021; Hedding et al., 2020; Kara, 2021), infrastructure, employees and general operations (Bhagat & Kim, 2020; Purcell & Lumbreras, 2021). While some HEI staff members' employment has been threatened, others have had to adapt to change in the form of working online (Kara, 2021). This sudden required adjustment has been accompanied by stress – related not only to emotional concern for the wellbeing of loved ones,

and possibly dealing with loss, but also from having to adjust to a different way of working. Concerns about job security add to the burden.

To understand the extent of the impact of COVID-19 on the operations of HEIs, researchers should be familiar with the research obligations of those HEIs. Such obligations include supervising postgraduate students, reaching output targets and meeting the criteria set by funders (Hedding et al., 2020). Although academic employees do the actual research, administrative employees play an important role in the smooth functioning of research projects and in processes related to ethical approval, funding administration and so on. The impact is therefore experienced by both employee groups, both academic and administrative.

Studies on the effects of the pandemic on HEI employees have highlighted the extra support needed by students, the reduced research time for academic staff, the challenges related to adjusting to working online (Belikov et al., 2021) and the general need for leadership action (Bebbington, 2021). Naylor and Nyanjom (2021) point out that the pandemic has required academics to adopt a different pedagogy; the authors underline that the move to teaching online has emotionally affected many academic staff members. Regarding social isolation, the focus has tended to be on the effects of the responsibility to care for friends and family affected by COVID-19. To maintain social connection, individuals use online platforms to keep in touch with others (Belikov et al., 2021).

Camilleri (2021) emphasises that the quality of service provided by an HEI depends on the performance of not only academic but also administrative employees. Like students and academic employees, administrative staff have felt the effects of the pandemic. Just as academic operations had to continue, so too did the support by the administrative departments. Administrative employees had to adjust to working from home and as far as possible to continue supporting both staff and students (Gedro et al., 2020). Administrative services include information and communication technology (ICT) support, finance, human resources (HR), counselling and research administration. However, most research on the impact of the pandemic has focused solely on students

and academic employees. Even before the COVID-19 pandemic, researchers have also noted that administrative are rather underrepresented in literature regarding staff in higher education (Bray & Williams, 2017).

Charoensensukmongkol and Phungsoonthorn (2020) point out that many researchers have investigated the impact of the pandemic on organisations; however, few studies have considered the psychological wellbeing of the affected employees in organisations. Regarding HEIs specifically, researchers have focused on the effect of the pandemic on students (e.g., Iglesias-Pradas et al., 2021; Aristovnik et al., 2020). The impact on academics may thus be underestimated. Delivering and keeping the academic project on track with little support can lead to emotional exhaustion, which adversely affects employees' motivation and performance and decreases their level of work engagement. These issues can, in turn, increase absenteeism and the intention to quit (Charoensukmongkol & Phungsoonthorn, 2020).

During this time of increased stress, adjustment and uncertainty, employees have generally had to draw on their own emotional resources. In addition, to deal with the effects of the pandemic, employees may rely more on support from their colleagues or leaders. Hence, emotional intelligence skills become critically important to facilitate strong relationships between leaders and followers, especially during stressful times (Baba, 2020). This point highlights the importance of EM skills as well as collegial relationships in the workplace.

Given the remote nature of work during the pandemic, it can be argued that high levels of emotional intelligence are needed between leaders and followers because of the limited face-to-face interactions. Extremera et al. (2020) emphasise the importance of an employee's 'emotional regulation' ability. This term has a conceptual overlap with the EM dimension of emotional intelligence. Both terms relate to the management of one's own emotions as well as the ability to influence other people's emotions. This ability is crucial when non-verbal cues and direct feedback loops are not salient, as is the case with virtual working conditions.

The relationship between the employee and leader is explored in this thesis. In light of the COVID-19 crisis, Lawton-Misra and Pretorius (2021) emphasise the urgency of leadership in HEIs to navigate through this unprecedented period. The authors highlight that attributes such as empathy, mindfulness and compassion are crucial. Furthermore, leaders should be cognisant of the fact that each person reacts to and deals with crises in a unique way. This individuality necessitates leaders being sensitive to each employee on a personal level (Lawton-Misra & Pretorius, 2021).

In summary, although it was not a specific variable in the models, the pandemic's potential effect on the research results is acknowledged.

1.5 Integration of the preceding discussions

In this thesis, the quality of the relationships between leaders and followers is explored with reference to the leader–member exchange (LMX) construct. The quality of the relationships among team members is explored through the team-member exchange (TMX) construct. Hence, the focus is on the employees' relationships with their leader (LMX) as well as with team members (TMX). The preceding discussions alluded to emotional intelligence as an antecedent in these relationships. Furthermore, it was explained that these relationships affect employees' attitudes and their behaviour at work.

Employee behaviour is not random; it can be explained by a complex set of variables that reflect employees and their perceived characteristics at work (Theron, 2011 as cited in Brink, 2014). The relationships among such variables can be explained through an understanding of their nomological network. The present study examines the effect of one of the emotional intelligence dimensions, namely emotional management, on the dimensions of OCB, CWB and intention to quit. The indirect effects of LMX and TMX on these relationships are also examined. This novelty is the study's unique contribution to the knowledge on emotional intelligence. In addition, the model was tested in multiple HEIs in South Africa. Finally, a comparison is made between the results for academic and administrative staff.

1.6 Problem statement

Studies have reported on the high turnover rates of employees in HEIs, both internationally and in South Africa (Butt et al., 2020; Hossen et al., 2020; Takawira et al., 2014; Theron et al., 2014). As mentioned earlier, the number of employees leaving the academic sector is not matched by the number of people entering academic professions. The result is a decline in the intellectual capital of HEIs. This scenario raises a concern about the quality of the research output, competitiveness and overall success of the institutions. The trend has been amplified by the large-scale disruptions caused by the Fees Must Fall movement in South African institutions, which began in 2015.

The Fees Must Fall protests may have shaken the operations and manner of work for HEI employees to an extent. However, the impact of the global COVID-19 pandemic resulted in a shutdown of most sectors and has presented students and employees with unprecedented challenging circumstances (Hedding et al., 2020). Students and academic and administrative staff are all affected in some way and to varying degrees by the pandemic. This has necessitated a need for swift adaptation to a new way of work, while also coping with the resulting personal and work stress. Coupled with higher workload and higher student to academic ratios, it becomes apparent that the academic positions are not as sought after (Erasmus et al., 2015), as evidenced by the ever-increasing turnover intentions of academic employees in HEIs in South Africa (Lesenyeho et al., 2018).

According to the affective events theory, one factor that influences staff turnover – and in turn productivity – is leadership. Specifically, the quality of the relationship between the employees and the leader (LMX) can affect an employee's intention to leave (Jordan & Troth, 2011). A lack of good leadership increases the likelihood of an employee intending to quit. Understanding what contributes to good leader–employee relationships is therefore valuable so that employers can put measures in place to ensure and improve such relations. Several studies (e.g., Clarke & Mahadi, 2017; Ordun & Acar, 2014) have shown that emotional intelligence has a positive effect on the quality of the LMX.

11

Lai et al. (2019) highlight a research gap regarding the relationship between social exchanges in the workplace and employee outcomes. Specifically, they mention that researchers have not explored the combined or joint effect of TMX and LMX on employee outcomes. Furthermore, Lai et al. (2019) highlight that the available research tends to focus mainly on the effect of LMX regarding the intention to quit and less on the effect of TMX on that intention. However, a thorough understanding of the effects of relationship dynamics requires researchers to consider employees' social exchanges with each other (TMX) as well as with their leaders (LMX). In the present study, therefore, the effects of both LMX and TMX on employee outcomes are explored.

Tziner et al. (2020) suggests that there is a need for researchers to delve into the context and associations among factors that might affect employees' workplace behaviour. This study heeds that call by exploring the relationships among a specific dimension of employee emotional intelligence, namely EM, LMX and TMX, and organisational outcomes. In doing so, the study captures individual differences, relational perceptions as well as employee behaviours and attitudes at work respectively. The association between EM and collegial relationships is also explored. In addition, the effect of EM and collegial relationships on organisational outcomes is also studied.

1.7 Research question

Based on the background and the problem statement set out in the previous sections, the following main research question was formulated to guide this study:

What roles do EM, LMX and TMX play in determining the key organisational outcomes within HEIs?

The main research question was furthermore broken down into the following sub-questions, all related to the HEI setting:

1. What effect does EM have on LMX and TMX?
2. What effect does EM have on employees' ITQ?

3. How do EM and the perceived quality of relationships, in the form of LMX and TMX, affect the manifestation of CWB among employees?
4. What roles do EM and relationship quality (LMX and TMX) play in determining the extent to which employees engage in OCB at work?
5. Are the two proposed models equivalent for both academic and administrative employees?

1.8 Research aim and objectives

The study setting includes specific HEIs. The study aims to test structural models to capture the conceptual linkages that could explain positive (research objective 1) and negative organisational outcomes (research objective 2). Thereafter, the third aim of the study is to test whether these proposed relationships are equivalent among both academic and administrative staff.

The research aims can be broken down into the following objectives:

1. To conceptualise a structural model that explains the relationship between EM and OCB, including the indirect effect of relationship quality (Model 1).
2. To conceptualise a structural model that explains the relationship between EM and negative organisational outcomes, namely CWB and the intention to quit. The model includes the indirect effect of relationship quality (Model 2).
3. To compare the results of both structural models for two groups, namely academic employees and administrative employees. The purpose is to establish whether the relationships among the variables are roughly equivalent for both groups.

1.9 Contribution of the research

To the researcher's knowledge, the proposed models have not been examined with regard to employees in HEIs. The study therefore adds to the body of knowledge on emotional intelligence and LMX among HEI employees. No similar study was identified that assessed the indirect role of relationship quality

on employee and organisational outcomes in a single study, as proposed in this study.

Another contribution of this study lies in exploring the complex relationships between LMX, TMX and EM among both academic and non-academic staff. The HEI sector has become less secure over the last decade. Exploring the emotional exchanges between leaders, followers and teams can provide important insight into organisational outcomes – such as OCB, CWB and the intention to quit. Furthermore, the study aims to compare the conceptual models between academic and support staff.

Overall, the study highlights the importance of quality in leadership and in collegial relationships. This point should motivate management to establish and foster good leadership practices and relationships. In turn, such effort can assist in the retention of staff and help to counter a decline in the quality of education and research output by an HEI.

1.10 Delimitation

To narrow the focus of the study, it was decided to concentrate only on HEIs. Furthermore, only public universities in South Africa were included. Therefore, no private universities or colleges participated in this study. Finally, no HEIs or employee categories were deliberately excluded.

1.11 Thesis outline

Figure 1.1 presents an overview of the thesis. The section highlighted in green is covered in the current chapter.
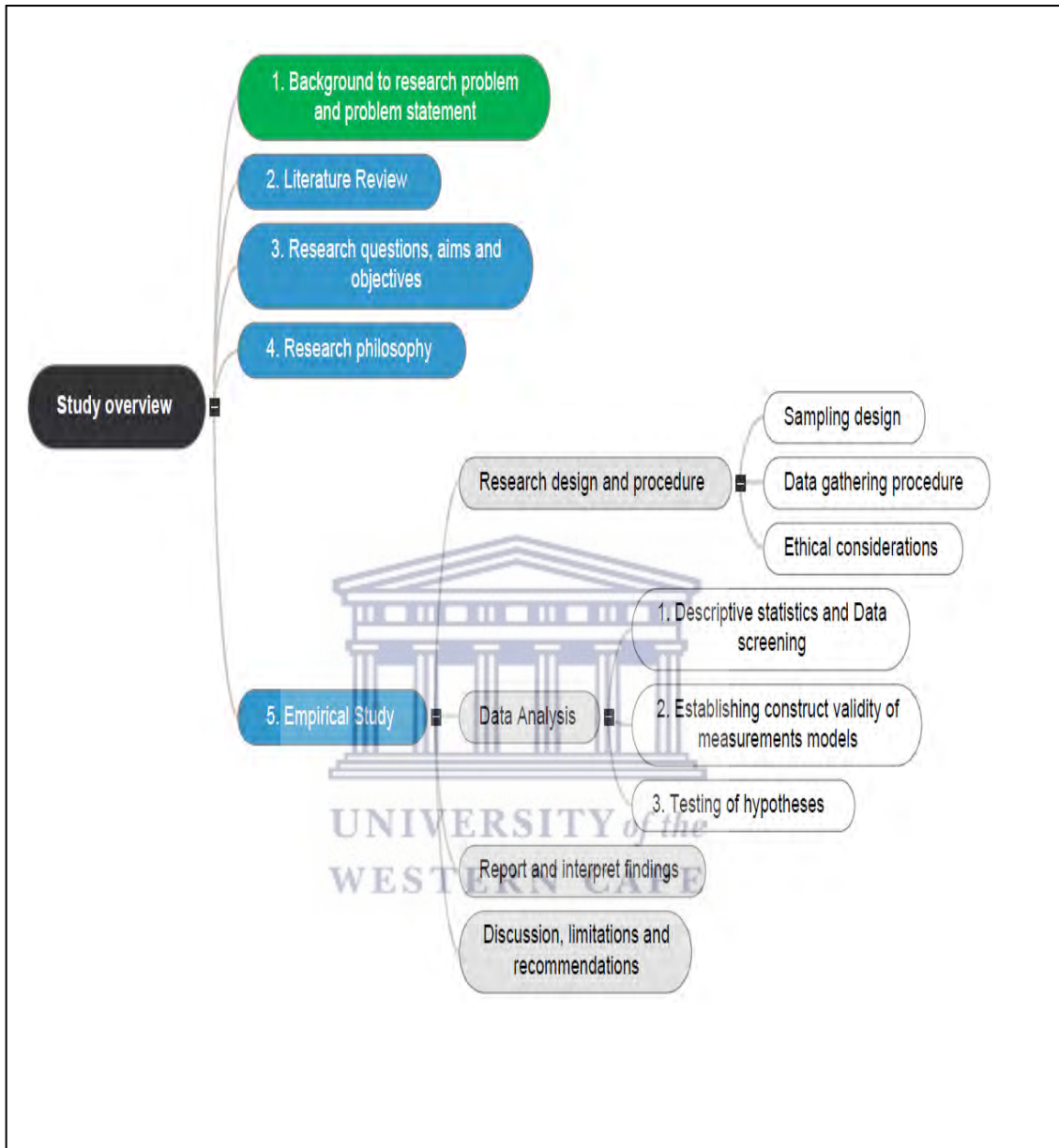
Figure 1. 1: Study overview: Focus areas for Chapter 1 are highlighted in green

Chapter 1 has provided an introduction to the study. It includes the research aim and objectives, the research questions and the delimitation of the study. Chapter 2 presents a literature review. Each key construct is discussed, with definitions, antecedents and outcomes of those constructs being examined. Literature on the proposed relationships between the dimensions of the various constructs is also reviewed.

Chapter 3 discusses the research methodology. Chapter 4 presents the results of the study, followed by Chapter 5, which discusses and interprets those results. Chapter 5 also covers the practical implications and limitations of the research and presents some recommendations for practice and for future research.

CHAPTER TWO: THEORETICAL BACKGROUND AND LITERATURE REVIEW

2.1 Introduction

Chapter 1 presented the background to the research problem and the problem statement. Figure 2.1. provides an overview of the study; the sections highlighted in green are the focus of this chapter.
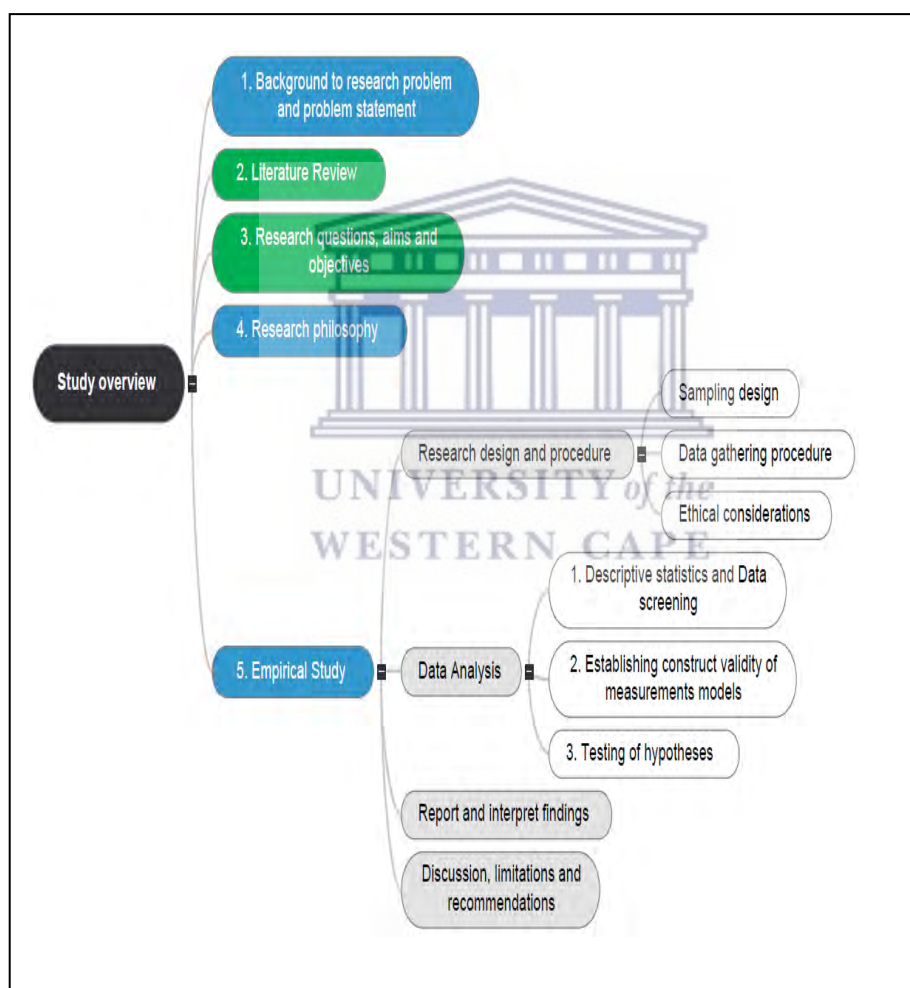
Figure 2. 1: Study overview: Focus areas for Chapter 2 are highlighted

This chapter reviews literature that is relevant to the study. First, the context of the research is discussed, followed by the theoretical frameworks which provide

the foundation for this study. The key constructs are elaborated and the hypothesised relationships among them are outlined.

2.2 Contextualisation

This section provides the practical and theoretical context of the study. First, the practical level is discussed; this pertains to HEIs in South Africa. Then the theoretical frameworks for the study are presented.

2.2.1 The higher education sector

In any country, higher education is a key driver for growth and the generation of wealth. It is also a significant equalizer of income inequality (Lin, 2007). In South Africa, the government and society emphasise the value of education to redress the inequalities that have resulted from the country's history (CHE, 2016). In addition, the global economy has changed from a focus on primary economies, such as mining, agriculture and fisheries, to service and knowledge industries. However, because of a relative lack of critical skills, South Africa is struggling to keep up with these changes. Addressing this lack of skills should therefore be an urgent task.

Higher education institutions (HEIs) play a key role in producing and expanding the human capital and skills needed for organisations in all fields of work (Selesho & Naile, 2014). HEIs are at the core of a country's agenda of HR and skills development (Mabaso & Dlamini, 2018). Therefore, HEIs play an important role in producing graduates that can meet the needs of an evolving economy. Education is vital for a country's development and the prosperity of the society (Akareem & Hossain, 2016; Mabaso & Dlamini, 2018). Hence, the higher education sector is an important industry which contributes to the country's goals of creating jobs and transforming the economy (National Development Plan of South Africa 2030, 2012). The efficient functioning of these institutions is vital for the country's economy and for attaining other socio-economic goals, such as addressing inequality (Lin, 2007).

HEIs in South Africa and around the world have undergone vast changes over the last couple of decades (Baltaru & Soysal, 2018). These changes include

larger classes, increased access for previously disadvantaged students and less funding – all of which affect the overall functioning of institutions. Some of these issues are structural and can only be addressed through changes in policy. Certain other issues can be addressed through management practices and workplace policies. The latter approaches focus on employees (Alhawsawi & Jawhar, 2021; Cletus et al., 2018; Lašáková et al., 2017).

As mentioned earlier, a recent global occurrence that has disrupted the operations of many industries is that of the COVID-19 pandemic. The pandemic has had an immense effect on all sectors, including HEI in South Africa (Hedding et al., 2020). Social isolation as a result of the pandemic forced the leadership of HEIs to rethink how they could deliver the core services. This was – and possibly still is – a complex undertaking. The challenges include theoretical and practical tasks as well as the need to assess components which comprise the learning experience. In addition, most academic staff in HEIs in South Africa previously received minimal training or experience in the delivery of online education (Hedding et al., 2020; Mgutshini et al, 2021).

Similarly, administrative staff had to adjust to working remotely, which caused heightened levels of anxiety (Gedro et al., 2020). Contributing to the stress experienced is the lack of in-person interaction with colleagues and not being to walk to another person's office with a quick question, and home being a poor working environment. In addition, the fear related to the wellbeing of friends and family, as well as job insecurity, are all factors that would contribute to the employees' increased stress levels experienced during the pandemic (Drasler et al., 2021; Hedding et al., 2020; Walters et al., 2021).

The impact of the pandemic should not only be considered in terms of its effect on modes of work and the continuation of operations. The personal circumstances of employees should also be appreciated. No two households are the same, and employees thus experience the effects of the pandemic in different ways (Scherer et al., 2021). In addition to having to equip themselves mentally and physically for virtual work, employees have different living environments, which are affected by and affect the execution of work duties.

The performance of the higher education sector depends on students, community interaction, research output, technology and systems and the success of employees. In a Higher Education South Africa newsletter (HESA, 2009), this notion was put forth by Professor Loyiso Nongxa, then Vice-Chancellor of the University of the Witwatersrand. He stated that at 'the heart of the performance of any higher education system is the human capital'. This comment emphasises the value of employees' contribution to the efficiency and productivity of HEIs. It also highlights the need to understand what makes a successful employee in HEI. Such knowledge is useful for recruitment and retention strategies, given that retaining employees has become a priority in HEIs (Mabaso & Dlamini, 2018).

2.2.1.1 Impact of South Africa's history

A discussion about higher education systems in South Africa would be incomplete without reference to the apartheid regime, which lasted from 1948 until the early 1990s. The effects of apartheid are still felt today (Omodan, 2019). Although it is not the focus of the study, South Africa's history cannot be separated from current-day effects regarding the attitudes among employees.

During apartheid, racial segregation was present in HEIs, and each HEI served a specific race group. Post-apartheid, some HEIs merged, and the institutions became more accessible to previously disadvantaged groups. Although there have been transformations since the apartheid era in the higher education system in South Africa, the system still has challenges – such as an increased number of students, but insufficient resources. In addition, according to Statistics South Africa (Stats SA, 2020), the country still has one of the most unequal societies in the world.

The legacy of racial apartheid remains evident in the demographics of employees at South African universities (Karodia et al., 2015). Because of the country's history, South African HEIs are still faced with the challenge of diversifying the demographic profiles of their academic posts. One reason is that learners from previously disadvantaged communities remain ill-prepared for tertiary education. This situation contributes to the lack of available skills in fields

such as science and engineering (Karodia et al., 2015). For example, the field of engineering consists mostly of white male academics. Previously disadvantaged groups did not have the same access to education as white individuals, and many senior academic roles are thus still incumbent with white – and male – employees. For less specialised roles, such as certain administrative posts, it has been less challenging to grow a more diverse workforce with regard to race and gender.

Furthermore, academic employees have frequent contact with students during teaching and learning engagements. The nature of this interaction between academic employees and students is different compared to such interactions during the apartheid era. Academics have had to shift to engage with students from various races, who have different backgrounds and mindsets.

Apartheid laws caused a physical separation of different races and also affected people's psyches (Kessi & Boonzaier, 2018). Even though there was no longer physical segregation, the impact caused in people's minds and the way they identified others and themselves did not simply fall away when apartheid ended. The psychological effects may still affect people's attitudes towards others; in turn, this dynamic could influence behaviour in the workplace. Some of the generation that was affected directly by apartheid is still alive and economically active. This fact could contribute to enduring employee attitudes and behaviour.

The old social categorisations might still influence the perceived quality of LMX and TMX, especially if the parties are not of the same gender and/or race. Therefore, in addition to the differing nature of the roles that make up an HEI, and the perception of these roles, the intersectionality of race and gender may contribute to differing results for academic and administrative employees in this study. Hence, the analysis includes a comparison of the hypothesised models regarding the academic and the administrative staff.

2.2.1.2 Academic and administrative staff

HEIs consist of academic employees and administrative employees (Youngs, 2017). The role of an academic involves research, teaching and community

service. Academics have direct engagement with students and a direct impact on student success. The responsibility and nature of the academic role therefore differ from that of administrative employees. Administrative employees in an HEI do not have academic duties but they form part of the support departments which provide professional services. Examples of these departments include finance, research development, library and information services and information technology. These functions complement the work of the academic staff (Youngs, 2017) and contribute to the effective operations of the HEI (Baltaru & Soysal, 2018).

Over the years, the relationship between academic and administrative staff has been characterised by tension, competition and conflict (Kallenberg, 2020). Youngs (2017) points out that an otherwise shared social identity may be affected by the divide between these employee groups in an HEI. Divisions could also arise through conflicting motivations between managerial versus non-managerial employees. It seems possible that the various employee groupings could mean that the academic and administrative employees in an HEI might have differing attitudes and relationships with their colleagues.

A source of frustration experienced by many academic employees is that young academics expect to be mentored by senior academics. However, mentoring others does not contribute to an academic career. To be promoted, an academic must instead contribute knowledge in their field (Evan et al., 2013). In addition, academics often feel frustrated by having to attend to administrative duties and believe that the time could be better spent on innovation and research. These issues can affect academics' relationships with their leaders and colleagues as well as their overall performance and behaviour at work.

Research has shown that administrative staff in HEIs experience stress related to the views of academic staff members regarding the administrative employees. This is especially true for those who are not centrally located within a faculty (Gedro et al., 2020). Furthermore, whereas academics usually have clear criteria to meet to be considered for promotion, the career paths of administrative employees are not as direct and clear. Such aspects are likely to

affect the attitudes and performance of employees and possibly their interactions with leaders and colleagues.

Florenthal et al. (2009) recorded that the differing roles of academic and administrative employees, and how these roles are perceived, may cause unproductiveness among administrative employees. This finding suggests that administrative employees may feel that academic employees deem the roles of administrative employees to be less important than those of academics (Ryttberg & Gershwind, 2021). This feeling, in turn, would affect their morale and behaviour at work. In addition, the salaries of administrative employees are generally lower than those of employees in academic positions (Bray & Williams, 2017). This difference could lead to academics and administrative employees having quite different experiences – whether positive or negative – at work, despite working for the same institution.

Moreover, academic staff across the world have felt pressure to increase their research output, especially as funding is based on performance in this regard (Naidoo-Chetty & Du Plessis, 2021). The stress that comes with this expectation, and having to increase their focus on research output, could negatively affects an employee's attitudes and behaviour. This point is true especially if an individual embarked on an academic career because of a passion for teaching. The increased focus on research has also been crucial in HEIs during South Africa's transition from apartheid to democracy. The role of research was pivotal in the growth of knowledge, which in turn contributed to national development and competitiveness (Buijnath et al., 2007).

Nonetheless, the importance of administrative roles in HEIs is highlighted by Baltaru and Soysal (2018). These authors report that the number of administrative employees at HEIs has increased at a greater rate than the employment of academic employees, in various countries.

2.2.2 Theoretical framework

This section discusses the two theoretical frameworks which underlie the study, including the proposed relationships among the variables. The first is social

exchange theory (SET). Because SET does not encompass an emotional element, which was central in this study because of the topic of EM, a second theory was included, namely the affect theory of social exchange (ATSE). The ATSE underscores the important role of emotions in collegial relationships. This point is of particular importance considering the emotional wellbeing of employees who might have been threatened by the COVID-19 pandemic.

2.2.2.1 Social exchange theory

Many key concepts in the field of organisational behaviour have been explored from the perspective of SET (Cropanzano, Anthony, Daniels & Hall, 2017). Examples of relevant concepts and principles include organisational citizenship behaviour (OCB), commitment, support and justice. This study proposes an indirect effect of social exchanges, in the form of LMX and TMX, on the relationship between EM and specific organisational outcomes. The outcomes of interest are intention to quit, OCB and CWB.

'Social exchange' has been defined as behaviour which is both voluntary and is influenced by employees' perceptions of the manner in which the organisation treats them (Blau, 1964). In their review of SET, Cropanzano et al. (2017) explained that whereas economic exchanges are generally characterised by monitoring and little trust, social exchanges are less transactional and are more flexible; they involve more trust between the parties. Furthermore, there is an element of expected reciprocity (Blau, 1964; Cropanzano & Mitchell, 2005); that is, a beneficial action by one party in the exchange should be returned by the other party. These reciprocal actions and responses may be portrayed through relational or behavioural forms.

Moreover, as pointed out by Shkoler at al. (2019), reciprocal actions are relevant to both positive and negative behaviour. Mutual interdependence therefore occurs in exchanges between individuals, which affects employees' views, attitudes and behaviours at work (Liaquat & Mehmood, 2017). Similarly, Cropanzano et al. (2017) identified the common features among all theories of social exchange: an initial action by one party, directed toward another;

reciprocal action in response to the initial action; and the creation of a relationship.

A principle of SET discussed by Homans (1961, as cited in MacLeod et al., 2020) is the cost-benefit consideration. This term means that in an exchange or relationship, the parties consider what benefits or rewards would arise from entering into the exchange or relationship. These are then weighed against the costs. Examples of benefits are support, friendship and financial gain. Examples of costs include time, effort and financial loss. Alternative options are also considered; therefore, there is an element of comparison to the outcomes that could arise from entering a different relationship. If the benefits are more than the costs, the outcome of the exchange could be considered valuable.

A further element of this perspective, which affects the continuation of the relationship, is reinforcement. Here, positive action by one party in the relationship reinforces a positive action by the other party, which in turn again reinforces a positive action by the first party. It is posited that should there be no mutual reinforcement in the relationship, the relationship might cease.

Furthermore, Cropanzano et al. (2017) explain that the concept of employee commitment to an organisation cannot be fully understood without considering the related parties, namely colleagues, leaders and the workplace. For this reason, the SET plays a substantial role in studying commitment. Commitment to an organisation is closely related to the concept of the intention to quit and the latter variable is included in the present study. This point provides further motivation for using the SET as one of the theoretical foundations in the study.

An example of a study that drew on the principles of social exchange is that of Yu et al. (2019). The authors used a sample of 275 individuals in managerial positions at various Chinese companies. They explored the effect of internal marketing on the organisation's performance via the effect of such marketing on retention and commitment. In the notion of internal marketing, jobs are depicted as products and employees as customers. This notion serves as a theoretical foundation which can be used to build relationships in the workplace (Yu et al., 2019). The authors drew on SET because building relationships involves

interactions or exchanges. In addition, emotions that arise in employees during these interactions have an effect on whether – and to what extent – the employees feel attached to their employers and organisations.

Similarly, the present study draws on principles of SET. The study includes constructs that assess the (perceived) relationships among employees, their colleagues and their managers. The SET clarifies how these relationships affect positive and negative behaviour at work.

According to the SET, individuals respond to initiated actions based on whether the actions are perceived as negative or positive. If positive, individuals' responses are also positive, and these responses can be either relational or behavioural (Cropanzano et al., 2017). For example, in a work context, SET predicts that if an employee perceives their colleagues' actions toward them in a positive light, the employee will engage in positive behaviours, such as helping others, and less negative behaviour, such as theft. In the present study, positive employee behaviour in the form of OCB is explored, as is negative employee behaviour in the form of CWB and intention to quit. Again, SET is an applicable theory on which to base this study, which investigates the link between relationship quality (LMX and TMX) and employee behaviour. In the present study, employee behaviour is measured as OCB, CWB and intention to quit.

2.2.2.2 Affect theory of social exchange

As pointed out by Lee (2020), a person's job not only consists of tasks but also involves social relationships among employees. Within an organisation, employees form part of various social relations. These relationships can be with – among others – colleagues, leaders, followers and clients. Sinha (2018) posits that it is therefore necessary for employees to enhance their emotional self-awareness and expression and to cultivate levels of trust and integrity. Doing so can improve the quality of relations within the workplace, which in turn will positively affect the employees and organisational performance (Sinha, 2018).

The ATSE proposes that during social exchanges, emotions are produced, which have an effect on how the relevant relationship is perceived. In the

workplace, social exchanges occur between leaders and followers as well as between team members. In this study, the relationship between leaders and followers are explored through the construct of leader–member exchange (LMX), whereas relationships between the team members are explored through the team-member exchange (TMX).

Esop and Timms (2019) explored the affective commitment and turnover intentions of academic employees in Papua New Guinea. The authors specifically examined how organisational support would influence affective commitment and turnover intentions. Data was collected from 232 academic staff members through questionnaires. The analyses indicated that organisational support was positively correlated with employees' affective commitment and negatively associated with turnover. Because affective commitment is an emotional attachment (Esop & Timms, 2019) that is experienced by the employee, it shows a relation between emotion and turnover intention (one of the outcome variables in the present study). This finding supported the decision to draw on the ATSE as a theoretical foundation for the current study.

The following sections discuss each variable that was examined in this study. They are: EM (as a dimension of emotional intelligence), LMX, TMX, OCB, CWB and intention to quit. The variables are defined, followed by a discussion of their antecedents and outcomes.

2.3 Emotional intelligence

2.3.1 Conceptualising the construct

According to Zeidner et al. (2004), the most widely accepted scientific definition of emotional intelligence was proposed by Salovey and Mayer (1990, p.189). It reads as follows: ''the subset of social intelligence that involves the ability to monitor one's and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions''. The concept of emotional intelligence is rooted in the research of Thorndike (1920), who studied

the effects of social intelligence that were not accounted for by a person's intelligence quotient (IQ).

The world of work is continuously changing. This situation can be extremely challenging and requires individuals to tap deep into their cognitive and emotional resources (Vashisht, 2018). Zeidner et al. (2004) report that the importance of emotional intelligence skills for organisational success is becoming more widely acknowledged among organisations. Similarly, Groves et al. (2008) argue that the growing interest in emotional intelligence is due to people understanding that emotions form an important part of one's working life. Specifically, emotions serve as a key basis for understanding and interacting with others and adjusting to social settings (Salovey & Grewal, 2005).

2.3.2 Models of emotional intelligence

Researchers have explored emotional intelligence from the ability model perspective as well as the trait model approach. The trait model subsumes the mixed model approach. The ability model is depicted in Mayer and Salovey's (1997) work on emotional intelligence. It comprises the following four components: (i) perception of emotions; (ii) using emotions to facilitate thoughts; (iii) understanding emotions; and (iv) managing emotions (McEnrue et al., 2009; Mayer et al., 2004). The ability theory has been cited as the best model for exploring emotional intelligence, for the following reasons (Kanesan & Fauzan, 2019):

1. Emotional intelligence is perceived as an intelligence.
2. The ability model was proposed by the founder of the construct of emotional intelligence.
3. This approach ties in well with the common definition of emotional intelligence, namely 'managing emotion in oneself and in others' (Kanesan & Fauzan, 2019, p.1).
4. The model perceives emotional intelligence as being separate from personality traits.

The ability model is based on performance, where emotional intelligence is observed as a mental ability. By contrast, the mixed model approach does not regard emotional intelligence as a form of intelligence but rather as a broad concept that comprises several emotional skills. The model developed by Bar-On in 1997 is a mixed model. It includes five dimensions: (i) intrapersonal; (ii) interpersonal; (iii) adaptation; (iv) stress management; and (v) general mood factors (McEnrue et al., 2009).

Goleman's (1998) model of emotional intelligence is another mixed model. An example of an instrument that measures this model is the Emotional and Social Competency Inventory (ESCI) developed by Boyatzis and Goleman (2007). It consists of the following four dimensions: (i) self-awareness; (ii) self-management; (iii) social awareness; and (iv) relationship management. Self-awareness refers to knowing one's 'internal states, preferences, resources and intuitions' (Boyatzis, 2007, p.754). More specifically, it refers to the ability to manage and control one's emotions and their effects at work (Dulewicz & Higgs, 2005). The self-management dimension involves 'managing one's internal states, impulses and resources' (Boyatzis, 2009, p.754). It includes achievement orientation, adaptability, emotional self-control and having a positive outlook. Social awareness involves being aware of other peoples' feelings; it includes empathy, organisational awareness and service orientation (Boyatzis, 2009). Finally, relationship management refers to being able to positively affect the emotions and responses of other people. It includes 'conflict management, coach[ing] and mentor[ing], influenc[ing], inspirational leadership [and] teamwork' (Boyatzis, 2009, p.754).

Trait emotional intelligence pertains to individuals' perceptions about their own emotions. Table 2.1 presents the 15 facets of trait emotional intelligence. The facets are grouped into four factors: (i) wellbeing; (ii) self-control; (iii) emotionality; and (iv) sociability (Petrides & Mavroveli, 2018).

Table 2. 1

Domains of the trait of emotional intelligence (Petrides, 2010, p. 137)

Facets	High scorers view themselves as…
Adaptability	flexible and willing to adapt to new conditions
Assertiveness	forthright, frank, and willing to stand up for their rights
Emotion expression	capable of communication their feelings to others
Emotion management (others)	capable of influencing other people's feelings
Emotional perception (self and others)	clear about their own and other people's feelings
Emotion regulation	capable of controlling their emotions
Impulsiveness (low)	reflective and less likely to give in to their urges
Relationships	capable of maintaining fulfilling personal relationships
Self-esteem	successful and self-confident
Self-motivation	driven and unlikely to give up in the face of adversity
Social awareness	accomplished networkers with superior social skills
Stress management	capable of withstanding pressure and regulating stress
Trait empathy	capable of taking someone else's perspective
Trait happiness	cheerful and satisfied with their lives
Trait optimism	confident and likely to "look on the bright side" of life

As mentioned, the current study draws on the ability model of emotional intelligence because this approach indicates an individual's capacity to comprehend emotions and how they are processed (O'Connor et al., 2019). It has also been reported that ability emotional intelligence was a valid predictor of work-related outcomes (Miao et al., 2017) and social competence (Brackett et al., 2006). Ability emotional intelligence is therefore applicable to this study; the study focuses on how a specific dimension of emotional intelligence affects social exchanges among employees as well as its effect on organisational outcomes.

Additionally, perceiving and working with emotional intelligence as an ability opens that ability to the possibility of being developed. This approach puts employers, recruiters and trainers in a position to draw on the value of emotional intelligence through its potential to be developed. The value of emotional intelligence and its development are discussed in the next two sections respectively.

2.3.3 The value of emotional intelligence

Emotional intelligence has been shown to have benefits in various areas of a person's life: at work, at home, in education (Daipuria, 2016) and in terms of mental wellbeing (Extremera et al., 2020). Regarding the benefits at work, researchers have examined the concepts associated with emotional intelligence that are beneficial for organisational success. There is increasing awareness of the importance of emotional intelligence for the success of both employees and organisations. For example, emotional intelligence may account for differences in work performance (Carmeli, 2003; Côté & Miners, 2006; Emmerling et al., 2008) that are not explained by personality characteristics or intellect (Lam & Kirby, 2002; Rode et al., 2007).

Drigas and Papoutsi (2019) state that emotional intelligence has enjoyed extensive attention from HR practitioners and researchers because of its impact on organisational performance. The authors argue that emotional intelligence represents a valuable set of skills for achieving success at work, especially in modern times. People's work lives are becoming more demanding and are characterised increasingly by competitiveness (Drigas & Papoutsi, 2019). Furthermore, research has shown that well-managed emotions – which is characteristic of emotional intelligence – can contribute to high levels of commitment, productivity and success. This is true not only for individuals but also for groups and the organisational as a whole (Drigas & Papoutsi, 2019).

Using a sample of managers, Slaski and Cartwright (2002) examined the influence of emotional intelligence on health, wellbeing and performance. The results revealed that individuals with high emotional intelligence showed relatively low stress levels. Similarly, researchers have reported that individuals who portray emotional intelligence skills tend to handle and cope with stress relatively well (Oginska-Bulik, 2005; Görgens-Ekermans & Brand, 2012; Lazarus & Folkman, 1984). High emotional intelligence levels have been associated with career success and good personal relationships and health (Cooper, 1997).

A possible explanation for these positive effects could be that people with high emotional intelligence can express their thoughts better than people with lower emotional intelligence (Goleman, 1998). Other outcomes associated with high emotional intelligence include the manifestation of transformational leadership (Görgens-Ekermans & Roux, 2021), superior performance (Hiu-Hua & Schutte, 2015), creativity and teamwork (Koman & Wolff, 2008).

Using a sample of employees at a luxury hotel in Korea, Jung and Yoon (2012) studied the relationships between emotional intelligence, CWB and OCB. The authors found a positive relationship between emotional intelligence and OCB (i.e., positive behaviours by employees that benefit the organisation). This finding highlights the value of emotional intelligence in the field of organisational behaviour. OCB involves behaviour that goes beyond what is expected from employees and is not formally rewarded (Carmeli & Josman, 2006; Podsakoff et al., 2000; Turnipseed, 2018).

Jung and Yoon (2012) also report a negative relationship between emotional intelligence and CWB. As mentioned earlier, CWB refers to employee behaviours that are detrimental to the organisation or its employees. In 2016, Raman et al. (2016) similarly found a negative relationship between emotional intelligence and CWB, indicating that individuals with high emotional intelligence displayed little CWB (Raman et al., 2016). Another variable that was found to have a negative relationship with emotional intelligence was the intention to quit (Jordan & Troth, 2011). This means that people with high emotional intelligence are relatively unlikely to have turnover intentions.

Regarding the benefits of emotional intelligence within the home, individuals who have high emotional intelligence are likely to establish good relationships. Research has shown that individuals who rate highly in emotional intelligence are usually socially competent and are perceived as being more sensitive in interpersonal settings than are people with lower emotional intelligence (Brackett, Rivers, & Salovey, 2011). It is therefore understandable that researchers have found a positive relationship between emotional intelligence and social exchanges. Studies have shown a positive relationship between

emotional intelligence and both LMX (Lee et al., 2018) and TMX (Zhao & Cai, 2021).

Individuals with relatively high emotional intelligence cope better with stress and change than do people who rate lower in emotional intelligence (Daipuria, 2016). This could partly explain why those with higher emotional intelligence perform better in the workplace and in educational contexts. Similarly, Chew et al. (2013) report that among first and final year students, emotional intelligence affected their academic performance.

2.3.4 Development of emotional intelligence

Dulewicz and Higgs (2004) discuss three studies to explore whether emotional intelligence can be developed. One of these studies reported the results for individuals' emotional intelligence levels before and after receiving training in skills for emotional intelligence. The sample consisted of 59 individuals in middle management positions in a retail company. The employees received emotional intelligence training once a week for four weeks. Their emotional intelligence was retested six months after the final day of the training, and the results showed that their overall emotional intelligence had increased over time. This finding indicates that emotional intelligence can be directly developed.

2.3.5 Emotional management as a dimension of emotional intelligence

Côté (2014) describes the abilities that make up each of Mayer and Salovey's (1997) four branches of emotional intelligence. These are (i) perceiving and expressing emotions, (ii) using emotions, (iii) understanding emotions, and (iv) regulating emotions (a focal point in this study). Regarding regulating emotions, Côté (2014) explains that this branch involves the following three abilities:

a) being able to set goals for emotional regulation
b) being able to choose emotional regulation strategies
c) being able to implement the chosen strategies.

According to Mayer and Salovey (1997), being able to set emotion regulation goals has to do with how well someone can establish whether their current

emotions are ideal in the given circumstances; they should then be able to set goals to adjust their emotions if required. The second ability (i.e. being able to choose emotional regulation strategies) refers to the degree to which one chooses strategies that increase the more favourable emotions (Côté, 2014). The third ability means effectively implementing the chosen strategies to regulate emotions.

The emotional regulation ability described here has a conceptual overlap with managing emotions, also referred to as EM. This is a dimension of the emotional intelligence model adopted in the present study, which is elaborated on in Chapter 3. The next few paragraphs discuss this regulating ability in detail and explain why the researcher decided to focus on this part of emotional intelligence alone.

Emotional intelligence relates to the quality of work life and behaviour at work. Alfonso et al. (2016) reported that, in comparison with the other dimensions of emotional intelligence, the emotional regulation dimension had the strongest association with employee wellbeing. Other researchers subsequently reported that wellbeing at work was influenced by the leader's behaviour (Inceoglu et al., 2018) and by the relationship between an employee and leader, namely LMX (Nielsen et al., 2017). These results emphasise this crucial aspect of emotional intelligence. This point supported the decision, in this study, to focus on EM abilities rather than the overall emotional intelligence construct.

In the present study, attention is paid to the indirect role of relationship quality. Relationships involve interpersonal interactions and thus depend on the behaviour of the people involved, how this behaviour is perceived and the effect of the behaviour. This is true for relationships in one's personal life and at work. Emotional intelligence involves the management of emotions within oneself as well as in others. Lechuga (2012) explains that the process of managing emotions in oneself requires understanding the social environment and its norms and practising self-reflection. It can be argued that the skill of EM is key to creating and maintaining good relationships. The present study focuses on

the EM dimension of emotional intelligence and how it affects employee behaviour.

Extremera et al. (2020) emphasise the role of emotional regulation. They explored the effect of job dissatisfaction on the mental health of employees. Using a sample of 629 employees from different companies, the authors collected data through questionnaires. To cover issues pertaining to mental health, the questionnaires assessed psychological distress, which encompassed anxiety, depression and stress. The results revealed that the higher an employee's level of emotional regulation ability, the lower the impact of job dissatisfaction on their mental wellbeing (Extremera et al., 2020). That is, emotional regulation – which overlaps conceptually with EM – buffered the negative effect of job dissatisfaction on mental health.

Buruck et al. (2016) similarly highlight the importance of emotional regulation skills with regard to stress and wellbeing. Their study did not focus specifically on emotional regulation in the context of emotional intelligence, as in the present study. However, their results revealed the benefits and importance of emotional regulation and indicated that these skills are open to development (Buruck et al., 2016).

Zhao et al. (2019) stated that research has shown that among the various emotional intelligence abilities, emotional regulation is the dimension that directly predicts work performance. Therefore, many studies have focused on this dimension. Zhao et al. (2019) also analysed the effect of individuals' emotional regulation ability on job burnout. Using a sample of 343 employees from various Chinese companies, they collected data through a survey. The survey measured the employees' emotional regulation ability, emotional labour, negative and positive affect and job burnout. The authors reported a negative association between emotional regulation skills and job burnout. This was particularly applicable in jobs that required considerable emotional labour. The findings show that the better an employee's emotional regulation skills, the lower their experience of job burnout (Zhao et al., 2019).

As mentioned previously, the emotional regulation dimension assessed by Zhao et al. (2019) overlaps conceptually with the EM dimensions of emotional intelligence that will be assessed in the present study. Emotional intelligence has been shown to have a positive effect on the quality of the leader–employee relationship, also called the leader–member exchange (LMX; Clarke & Mahadi, 2017; Lee et al., 2018). LMX is discussed in the following section.

2.4 Leader–member exchange

2.4.1 Conceptualising the construct

'Leader–member exchange' (LMX) refers to the quality of the relationship between a leader and a subordinate (O'Donnell et al. 2012). Depending on the perceptions of the parties, the quality of the LMX can be high or low (Chung & Jeon, 2020). LMX comprises four dimensions: (i) affect, (ii) loyalty, (iii) contribution and (iv) professional respect (Ordun & Acar, 2014). The affect dimension is characterised by 'friendship and liking', and the loyalty dimension involves mutual obligation (Maslyn & Uhl-Bien, 2001, p. 699). The contribution dimension is characterised by – for example – executing duties which are not formally part of the job. Professional respect refers to having 'respect for professional capabilities' (Maslyn & Uhl-Bien, 2001, p. 699).

In a similar conceptualisation of LMX, it comprises three elements: (i) respect, (ii) trust and (iii) obligation (Graen & Uhl-Bien, 1995). A high quality of LMX is therefore more than an economic exchange between the employee and the leader. Because LMX is a form of social exchange, the three elements are engaged in reciprocally. The parties' respect and trust, and the resulting sense of obligation, are mutual (Sparrowe, 2020).

Considering the changing nature of many workplaces, not only is the effective management of employees critical but also collaborative work, which requires effective communication (Akyel, 2018). Hence, LMX remains an important concept to explore and understand in management research and practice.

The LMX theory highlights that the quality of the dyadic relationship between a leader and a subordinate could differ from that of the relationship between the

same leader and another subordinate (O'Donnell et al., 2012). Therefore, based on the quality of the exchange (Horne, 2017) and the leaders' perception of employees' performance (Wang et al., 2018), leaders form different relationships with different employees. The LMX theory states that subordinates form part of either the leader's 'in-group' or the 'out-group' (Estel et al., 2019). In-group members enjoy more access to information and receive more responsibilities; they also display higher job satisfaction. Employees in the in-group also receive more attention and favour from the leader compared to employees in the out-group (Horne, 2017). Out-group members reportedly receive less trust and respect from their leaders, and their influence is weaker than people in the in-group (Estel et al., 2019). According to LMX theory, these relationships grow with time and negotiation (Horne, 2017).

To illustrate how these relationships grow, Northouse (2004) documents three roles that occur in the relationship between an employee and the leader. The first is labelled 'role taking'. In the beginning of the employment relationship, the leader evaluates the employee's capabilities and gives them an opportunity to display those abilities (Horne, 2017). The second role is 'role making'. Here, the leader and employee enter an informal agreement about factors relating to the employment. The employee is likely to enjoy a better chance of success if they are similar to the leader. The last role is referred to as 'role routinisation'. This involves both the employee and leader displaying commitment to the objectives.

Table 2.2 below displays the differences between in- and out-group members as posited by various researchers.

Table 2. 2

Comparison of exchanges between leaders and in- versus out-group members (Wang, 2004 cited in Wang et al., 2018)

Scholar(s)	In-group members	Out-group members
Denserau et al. (1975)	Close interaction	Formal relationship
Liden and Graen (1980)	High level of loyalty	Low level of loyalty
Dockery and Steiner (1990)	Good relationship with leaders	Employment relationship with leaders
Podsakoff et al. (1990)	Greater trust in leaders	Greater distrust in leaders
Liden et al. (1993)	Mutually beneficial relationship	Top-down relationship
Deluga (1994)	Great amount of trust, interaction, support and formal or informal rewards	Low-quality exchange
Yukl (1994)	Assignment of better tasks, increase in salary or special welfare	Formal relationship
Graen and Uhl-Bien (1995)	Mutual trust and respect, allocation of greater responsibilities	Lower level of mutual trust and respect
Pillai et al. (1999)	Higher level of interdependence	Lower level of interdependence
Robbins (2001)	Considered insiders	Considered outsiders

The concept of LMX has been found to be correlated to several variables in organisational research. This correlation is discussed briefly in the next section.

2.4.2 General antecedents and outcomes

The LMX construct is linked to key organisational outcomes, such as organisational justice (Akyel, 2018), engagement (He et al., 2021), influence (Estel et al., 2019), autonomy (Garg & Dhar, 2017), team effectiveness and fewer accidents related to the job (Omilion-Hodges & Baker, 2017). Hence, strong LMX relationships benefit the employees and the organisation as a whole (Omilion-Hodges & Baker, 2017). Conversely, a poor LMX relationship could be detrimental for an organisation. Without a strong LMX relationship, employees

experience less support and feel less satisfied; they perform tedious tasks and display less organisational commitment. In this case, as pointed out by Omilion-Hodges and Baker (2017), employees may be more likely to develop turnover intentions.

In summary, LMX has been shown to be positively associated with beneficial organisational constructs and employee attitudes, such as respect, trust, performance (Estel et al., 2019), organisational commitment (Cheng, Huang, Lee & Ren, 2012) and job satisfaction (Gerstner & Day, 1997). Additionally, LMX has a positive relationship with OCB (Dulebohn et al., 2012; Wulani & Lindawati, 2018). This relationship is discussed further (see section 4.4.4). Studies have also revealed a negative relationship between LMX and CWB (Chernyak-Hai & Tziner, 2014) and between LMX and employees' intention to quit (Dulebohn et al., 2012). These two relationships are discussed in sections 4.5.5 and 4.6.5 respectively.

The antecedents of LMX have also been studied. A leader's behaviour, transformational leadership characteristics and rewarding behaviour (Dulebohn et al., 2012) all affect the quality of the LMX relationship. Another construct that was found to be an antecedent of LMX is emotional intelligence (e.g. Ordun and Acar, 2014).

2.4.3 Emotional intelligence and LMX

Khodabakhsh and Besharat (2011) examined the relationship between emotional intelligence and the quality of interpersonal relationships. They reported a positive correlation between these two variables. The results suggest that individuals who have high emotional intelligence have a better quality of interpersonal relationships than people with lower emotional intelligence. As discussed earlier, the various dimensions of emotional intelligence include, among others, the ability to manage emotions and having social skills. Hence, the positive correlation between emotional intelligence and interpersonal relations is likely to be largely related to the ability to manage one's own emotions while being sensitive to others' emotions.

Jordan and Troth (2011) analysed the relationship between the emotional intelligence of employees and their levels of job satisfaction and intention to leave the organisation. The analysis included an examination of the mediatory role of LMX on these relationships. Using questionnaires, the authors collected data from 578 employees at a private pathology company in Australia. The study was longitudinal and two sets of data were collected. The first set measured emotional intelligence and LMX; the second set was collected four weeks later and measured the employees' job satisfaction and turnover intentions. The results revealed that high emotional intelligence was correlated with high levels of job satisfaction as well as good LMX relationships and low levels of turnover intention. Four dimensions of emotional intelligence were assessed: (i) own awareness, (ii) own management, (iii) other awareness and (iv) other management. The four dimensions of LMX analysed were (i) loyalty, (ii) contribution, (iii) professional respect and (iv) liking. The analysis revealed a general positive correlation between the emotional intelligence and LMX dimensions. However, no correlation was found between the other-awareness dimension of emotional intelligence and the liking dimension of LMX.

Jordan and Troth (2011) furthermore found that the quality of LMX had a mediating effect on the relationship between employees' emotional intelligence and the outcome variables of employee job satisfaction and turnover intentions. Specifically, when employees were able to manage other people's emotions (a characteristic of emotional intelligence), they showed relatively high levels of job satisfaction and were unlikely to want to leave the organisation. The results showed that these effects were mediated by LMX. Similarly, the quality of LMX mediated the positive effect of managing and controlling one's emotions on the intention to quit and job satisfaction. Hence, employees who could manage and control their own emotions were unlikely to intend to resign and they displayed job satisfaction. Moreover, these links were mediated by the quality of the LMX as perceived by the employee (Jordan & Troth, 2011).

Lopes et al. (2003) explored the association between emotional intelligence abilities and personality traits and how these factors affected the quality of interpersonal relationships. The authors used a sample of 103 students at Yale

University. The results revealed a positive correlation between the ability to manage emotions and positive relationships with others. Again, it is evident that individuals who manage their own emotions and those of others are likely to have good relationships and are unlikely to report negative relations with the people close to them (Lopes et al., 2003). A limitation of that study was that it was based on a small group of university students. However, similar results were reported by Schutte et al. (2001), who found a positive correlation between emotional intelligence skills and interpersonal relations.

The definition of LMX indicates that it refers to the quality of an interpersonal relationship between a leader and a subordinate. It can be argued that the study by Lopes et al. (2003) indicates a positive relationship between emotional intelligence and LMX; the same type of relationship is reported by Clarke and Mahadi (2017). For the purpose of this study, therefore, it is hypothesised that a positive relationship exists between emotional management and LMX**.** To the researcher's knowledge, no studies have reported contrary results.

There seems, however, to be a dearth of studies that have assessed specific or single dimensions of emotional intelligence in relation to organisational constructs. Nonetheless, given the reported positive association between emotional intelligence and LMX, it can be reasoned that EM – as a specific dimension of emotional intelligence – is also positively correlated with LMX. Therefore, EM is key for the development of healthy relationships (Zhao & Cai, 2021). Individuals high in EM will be able to foster healthy relationships by effectively dealing with their own emotions as well as those of the other party. In addition, LMX is a social exchange characterised by the element of reciprocity. Therefore, if the employee can manage emotions, LMX will be strong, and in return the leader is likely to provide support – which is characteristic of LMX. This leadership support positively influences the way the employee perceives the quality of the relationship with the leader. It can therefore further be reasoned that EM will have a positive correlation with LMX.

Hypothesis 1: EM positively influences LMX (Model 1)

Hypothesis 13: EM positively influences LMX (Model 2)

Furthermore, it has been pointed out that individuals who regulate their emotions tend to display appropriate behaviour during their interactions with others (Zainal et al. 2017). Interactions with others are social exchanges; therefore, it can be reasoned that emotional regulation affects the LMX – that is, the quality of the exchange between a leader and an employee. It also affects TMX, the quality of the exchanges among employees. In the workplace, employees do not only have relationships with leaders. Employees form part of a wider social context (Lee, 2020). Research has shown the importance of a quality relationship not only between leaders and followers but also among team members (Lee, 2020). The quality of the TMX is discussed in section 2.5.

2.5 Team-member exchange

2.5.1 Conceptualising the construct

The modern world of work demands high productivity. Many employee duties require working with others – and not just individually (Vashisht, 2018). In addition to relationships with their leaders, employees also form key relationships with their colleagues within teams or groups (Lee, 2020)

The concept of TMX refers to the quality of relationships among employees and considers their contributions in terms of ideas and assistance (Seers, 1989). The three dimensions of TMX identified by Seers (1989) are (i) meeting, (ii) exchange and (iii) cohesiveness. The better the TMX quality, the stronger the reciprocity between employees (Chen, 2018). Having employees support each other is important for organisations, especially when they function under uncertain economic conditions (Maxel, 2013). The following section discusses various constructs that have been shown to be related to TMX in the field of organisational behaviour.

2.5.2 General antecedents and outcomes

The centrality of TMX is evident in a consideration of its outcomes. TMX has an effect on positive employee behaviours and attitudes, such as increased helpfulness, commitment, loyalty and job involvement (Chen, 2018). Aw and Ayoko (2017) examined the association between employees' conflict behaviours, transformational leadership and TMX quality. Using a random sample of 261 employees from various teams in a company in Singapore, the study revealed a significant positive relationship between TMX quality and work engagement (Aw & Ayoko, 2017). Thus, higher levels of TMX were associated with higher levels of work engagement among individual team members.

With further regard to the antecedents of TMX, research has shown that leadership affects the quality of the relationships among employees (Zou et al. 2015). In addition, the levels of complexity and innovation in the team are correlated with TMX. Specifically, the more complex the tasks are, and the more innovation is required, the better is the quality of the relationships (Chen, 2018).

Similarly, Wu et al. (2018) explored the relationship between emotional conflict and innovation behaviour. Emotional conflict is described in their study as the internal conflict experienced in an individual's mind when there is a discrepancy between their belief about the right action and their actual behaviour. The moderating effect of LMX and TMX on the association between these two constructs was also examined. Data was collected through surveys from three Chinese companies. The results indicated an inverted curvilinear relationship between emotional conflict and innovation behaviour. This means that the association between the two constructs is positive, up to an ideal level, after which the association becomes negative. The authors also reported that TMX affected the relationship between emotional conflict and innovation behaviour. They argued that this was because TMX affects employee motivation, which in turn affects the level of innovation (Wu et al., 2018).

Another concept that has been revealed as an antecedent to TMX is LMX. A high quality of LMX is characterised by shared trust and respect between the leader and follower, and a mutual sense of obligation is experienced by both

parties. This encourages the employee to internalise the objectives of not only the leader but also the team (Graen & Uhl-Bien, 1995). Therefore, an employee in a high-quality LMX is likely to put extra effort into the organisation and take on extra tasks for the team because they value their relationship with the leader.

Malingumu et al. (2016) explored servant leadership, OCB and creativity. As a part of their study, the authors included the indirect role of TMX. The sample included 188 triads, namely employees matched with their colleagues and supervisors, and data was collected through questionnaires. One result indicated a positive link between servant leadership and TMX. From this finding, it can be inferred that a leader's behaviour affects TMX. Therefore, LMX can be examined as a possible antecedent – as well as outcome – of TMX.

In HEIs, many functions operate within a team context. For example, in a human resources division, a recruitment process involves many steps. The responsibility for these steps could be divided among several employees, resulting in an interdependency among those team members. Similarly, a specific IT-related project could be assigned to a group of employees instead of only one employee. With specific regard to academic employees, the presence of collaborative relationships with peers is an important variable in the management of one's career (Barnes et al., 2021). Building and maintaining supportive connections, and thereby creating a good quality of TMX relationships, is critical for success in HEIs. A healthy and functional team is therefore essential for the efficient flow of operations. Research has also shown that emotional intelligence is correlated with TMX. This correlation is discussed in the next section.

2.5.3 Emotional management and TMX

Ashkanasy and Humphrey (2011) argue that an individual's emotions have effects at various levels, ranging from within the person to the organisational level (Michinov & Michinov, 2020). Given this broad impact of emotions, it is imperative that individuals' emotions are managed well so that their effects are positive and adverse impacts on the five levels portrayed in Figure 2.2 can be avoided.
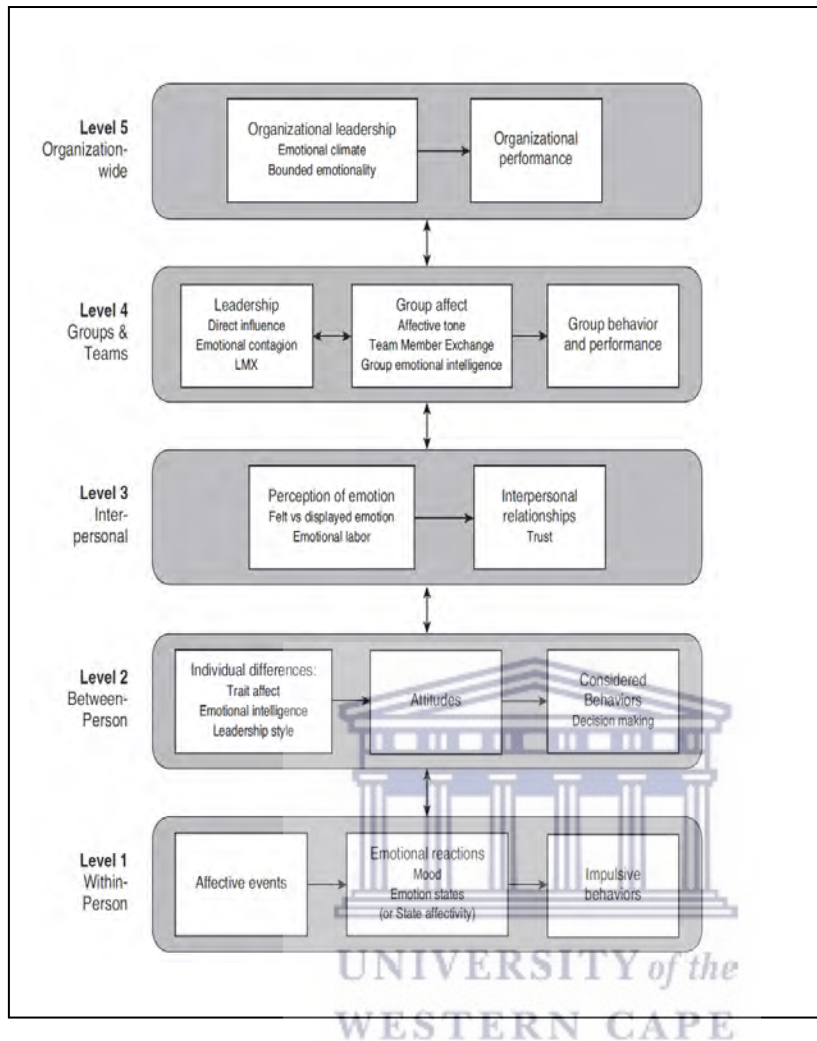
*Figure 2. 2: The five-level model of emotion in organisations (Ashkanasy &
Jordan, 2008)*

People who have strong emotional intelligence skills are able to perceive and
understand their own and others' emotions effectively (Mayer, Caruso, Panter &
Salovey, 2012). This skill assists in the development of social and personal
skills. Individuals with a high emotional intelligence are thus relatively likely to
have good interpersonal relationships (Chen, 2018). In addition, research has
revealed that emotional intelligence and effective teamwork are related (Clarke,
2010). It appears that emotional intelligence allows for quality interactions
among team members – that is, TMX.

Oh and Jang (2020) explored the indirect effect of TMX on the relationship between emotional intelligence and job performance. The authors collected data from 273 employees in the service industry through an online survey. The results indicated that TMX indeed had an indirect effect on the association between employees' emotional intelligence and their job performance. This result indicates a link between emotional intelligence and TMX and implies that emotional intelligence is key in enhancing the quality of relationships among team members (Oh & Jang, 2020). The authors explain that this correlation exists because understanding the emotions of others is an important skill in building and fostering relationships at work. Therefore, individuals with high emotional intelligence are likely to be accepted by fellow team members, because they provide support to those who need it and are able to identify with them (Oh & Jang, 2020).

Casciaro and Lobo (2008) analysed the role of negative and positive interpersonal affect in task-related interactions. The authors differentiate between task-related and expressive ties, where expressive ties are affective. In organisational research, task-related and affect-related concepts are viewed as interconnected and dependent (Casciaro & Lobo, 2008). Hence, emotions can be regarded as being integral in work structures and collegial relationships. It would follow that emotional regulation, as a component of emotional intelligence, plays a key role in collegial relationships. For example, Grant (2013) reported that individuals with strong emotional regulation knowledge are perceived as respectful and socially skilled, which would foster healthy relationships.

In this study, it was hypothesised that emotional management has a positive correlation with the perceived quality of relationships among team members (measured as TMX). The specific hypotheses were as follows:

Hypothesis 2: Emotional management positively influences TMX (Model 1)

Hypothesis 14: Emotional management positively influences TMX (Model 2)

2.6. Organisational citizenship behaviour

Research has revealed that LMX is related to employee OCB (Teng et al., 2019; Son, 2020; Wang et al., 2005). This section presents a discussion about OCB.

2.6.1 Conceptualising the construct

Positive employee behaviours that do not form part of one's formal duties are important for the effectiveness of an organisation (Elche et al., 2020; Katz, 1964; Purwanto et al., 2021). Such behaviours are not formally rewarded and are referred to as OCB. In workplaces characterised by strong competition, employers expect employees to engage in roles that fall beyond their job requirements so as to give the company an advantage over its competitors (Dasgupta, 2020). Examples of OCB include assisting colleagues and working overtime. Organisational citizenship behaviour towards individuals (OCB-I) refers to behaviours directed at an individual. By contrast, 'organisational citizenship behaviour towards the organisation' (OCB-O) refers to behaviours that benefit the organisation (William & Anderson, 1991). The value of OCB for institutions is highlighted by Mahdiuon et al. (2010), who posit that with the changing nature of organisations, the need for OCB by employees has increased because it contributes to organisational success. In the context of HE, examples of OCB include accepting responsibilities beyond those which are formally prescribed, helping colleagues who are or have been absent and mentorship of students which is not required as part of a formal programme (DeAngelo et al., 2016).

OCB consists of the following dimensions (Smith, Organ & Near, 1983): (i) altruism, (ii) conscientiousness, (iii) sportsmanship, (iv) courtesy and (v) civic virtue. Altruism involves directly helping people with a work-related issue. Conscientiousness refers to an individual doing more than what is required in their job. When an employee has a positive attitude at work and does not complain about minor issues, this is regarded as sportsmanship. Courtesy includes behaviour such as information sharing among employees and involving others in decision making. When employees participate in organisational activities and are supportive of organisational policies, this is referred to as civic

virtue (Aoyagi et al., 2008). The following section discusses the general antecedents and outcomes of OCB.

2.6.2 Antecedents and outcomes of OCB

OCB should enjoy high priority in all organisations, because it enhances and effectively uses human capital and enables the organisation to keep up with a competitive environment (Benjamin, 2012). Walden and Kinglsey Westerman (2018) highlight that OCB is associated with enhanced productivity and efficiency. It positively affects performance (Hidayah & Harnoto, 2018) and enhances customer satisfaction (Chib, 2016). Chib (2016) furthermore reports that OCB reduces employee turnover and can decrease absenteeism. Positive actions through OCB are beneficial not only for individuals (Chib, 2016) but also for the organisation (Organ, 1988).

An empirical study by Anggraeni et al. (2017) drew on SET to examine the antecedents of OCB. The analysis was based on the responses of 191 bank employees in Indonesia. The following constructs emerged as antecedents of OCB: psychological contract and organisational support. Additionally, research has shown that factors such as organisational support, leadership (López-Domínguez et al., 2013) and personality traits (Organ & Ryan, 1995) are considered to be antecedents of OCB. For example, employees are likely to exhibit OCB if they have positive perceptions of the support provided in the organisation (Gupta et al., 2016).

Nadim et al. (2016) reported that organisational commitment is another antecedent of OCB. Similarly, Wang and Wong (2011) argued that employees who are committed to an organisation are likely to exhibit positive behaviours and are therefore likely to engage in OCB. According to Pool and Pool (2007), Meyer and Allen's (1991) model of organisational commitment has been used most widely in research. In this model, organisational commitment has three dimensions: (i) affective commitment, (ii) continuance commitment and (iii) normative commitment. Similarly, Organ et al. (2006) stated that affective commitment – which is one of the three dimensions of organisational commitment – is related to OCB. Affective commitment refers to employees

48

remaining with an organisation because they want to rather than out of need or obligation. It can thus be argued that affective commitment is voluntary, which explains its positive relationship with OCB (Organ, Podsakoff & MacKenzie, 2006).

In an empirical study by Organ and Ryan (1995), the relationship between the 'big five' personality traits and OCB was explored. The results revealed that four of the five traits correlated with OCB and could therefore be considered antecedents. These traits were conscientiousness, agreeableness, neuroticism and extraversion. However, the correlation coefficients ranged from 0.15 to 0.22, indicating weak correlations.

Mahdiuon et al. (2010) reported slightly different results. These authors also explored the relationship between personality and OCB using a sample of 213 university employees in Iran. A positive relationship was found between OCB and four of the personality traits, namely agreeableness, conscientiousness, openness and extraversion. A negative relationship was found with neuroticism (Mahdiuon et al., 2010). The authors report that of the big five traits, three predicted OCB, namely agreeableness, conscientiousness and openness to experience. These results indicate that employees who are open to experience, have an active imagination, portray trust, give support and are hardworking and ambitious are likely to display OCB in the workplace (Mahdiuon et al., 2010).

Walden and Kingsley Westerman (2018) examined the effect of organisational communication on employee advocacy as a form of OCB. Employee advocacy refers to when employees speak positively about or for their organisation (Walden & Kingsley Westerman, 2018). The authors put forth that employee advocacy represents a type of OCB as it entails actions that are not part of the employee's formal job responsibilities. Regarding communication by the organisation, the study considered information flow, interaction supportiveness and information adequacy. The sample was 223 employees in a health care organisation in the United States. The authors reported that employee-centred internal communication had a positive effect on employee advocacy. They also found that organisational commitment mediated this link. These findings show

that when employees have a strong commitment to the organisation and perceive that the organisation values the relationship, they might engage in voluntary activities beyond what is formally expected, to the benefit of the organisation. The results thus indicated that internal communication and organisational commitment are both antecedents for OCB.

Another two constructs that have been shown to affect OCB are emotional intelligence and LMX. The relationships between these constructs and LMX are discussed in sections 4.3.3 and 4.3.4, respectively.

2.6.3 Emotional management and OCB

Emotional management abilities are crucial for maintaining healthy relationships with others, including colleagues (Jordan & Troth, 2004). Such management involves individuals being able to understand and influence the emotions of others and being sensitive to the needs of others. People high in these traits might be inclined to engage in informal roles to help colleagues – that is, OCB (Turnipseed, 2018).

For example, EM has a conceptual link to civic virtue, an aspect of OCB. Civic virtue relates to taking responsibility and contributing to the institution's sustainability. Ryback (1997) explains that an emotionally intelligent approach to decision making at work is advantageous for a company, especially in the long-term. A well-considered decision is mindful of policy, ethics and the impact on the organisation. This notion indicates the need for a sense of responsibility, which links conceptually to civic virtue.

Kim and Park (2020) emphasised that emotional intelligence is a key antecedent to OCB. Similarly, Jain (2012) analysed the relationship between emotional intelligence and OCB as well as the moderating effect of impression management. According to Rosenfeld et al. (1995, cited in Jain, 2012), 'impression management' refers to behaviour that is intended to influence other people's perceptions to avoid being perceived in an undesirable light. The study was conducted in India, with a sample of 250 individuals, and used self-report questionnaires (Jain, 2012). The author reported that emotional intelligence and

impression management both positively predicted OCB. This indicates that an employee with high emotional intelligence is likely to manifest positive behaviour within the organisation (Jain, 2012). Furthermore, the impression management motive had a negative effect on the relationship between emotional intelligence and OCB. This negative impact indicates that impression management lessens the positive effect that emotional intelligence has on the manifestation of OCB (Jain, 2012).

In an empirical study by Chehrazi et al. (2014), evidence supporting the positive relationship between emotional intelligence and OCB was reported. Using a sample of 324 employees in a transportation company in Iran, the authors collected data through questionnaires. The results of the analysis showed that emotional intelligence had a positive effect on the organisational commitment of employees as well as the manifestation of OCB.

More recently, Turnipseed (2018) also explored the relationship between emotional intelligence and OCB. The moderating role of the person's locus of control was also considered. The analysis was based on Mayer et al.'s (2008) four dimensions of emotional intelligence: (i) perceiving emotions, (ii) understanding emotions, (iii) managing emotions and (iv) using emotions. Data collected from 290 employed students was analysed. Turnipseed (2018) reported that three of the emotional intelligence dimensions had positive relationships with both OCB-I and OCB-O. The three dimensions were (i) perceiving emotions, (ii) understanding emotions and (iii) managing emotions. No positive relationship was found between the fourth dimension (using emotions) and OCB. Turnipseed (2018) stated that a possible explanation for this finding is that 'using emotions' could have longer term advantages than the other dimensions. If so, it might not display a strong link to OCB, which is more immediate. The self-management of emotion dimension accounted for the largest variance in the OCB, including both OCB-I and OCB-O. This finding supported the decision to focus on EM in the present study.

Turnipseed and Rassuli (2005) explain that OCB-O includes defending the institution if it is challenged and encouraging others to contribute to the

organisation. Having to speak positively about the organisation might not necessarily be easy; employees may have personal conflicts with the rules or policies of the organisation. Defending an organisation and encouraging others to invest in it can require great emotional maturity and EM, so as to separate one's personal feelings from the situation at hand.

A positive relationship between EM – referring to the management of emotions in oneself and others – and OCB was thus hypothesised in this study. Based on the preceding discussion, EM was expected to display a positive and statistically significant influence on both OCB-O and OCB-I.

<u>Hypothesis 3</u>: Emotional management positively influences OCB-O

<u>Hypothesis 4</u>: Emotional management positively influences OCB-I

2.6.4 Leader–member exchange and OCB

A high quality of LMX is characterised by strong trust and respect between the employee and the leader. Additionally, as a form of a social exchange, it is characterised by reciprocity. Hence, if an employee perceives the LMX to be of a high quality, they may be inclined to engage in behaviour such as OCB, which will be viewed favourably by the leader.

In an empirical study, Wang et al. (2005) explored the mediatory role of LMX in the relationships between transformational leadership, on the one hand, and employee performance and OCB on the other. They analysed data collected from 162 leader–subordinate dyads in various organisations in China. The authors reported that LMX did mediate the relationship between transformational leadership behaviours and OCB. This result indicates that a high quality of relationship between a leader and subordinate can result in the follower exhibiting behaviour that is not formally required but is advantageous for the organisation.

Similarly, a positive correlation between LMX and OCB was reported in a more recent study by Wang et al. (2010). The authors empirically analysed data from a sample of 214 leader–employee dyads in a Chinese family business. They

examined the effect of LMX on OCB and whether this relationship was mediated by status and traditionalism. The findings confirmed a significant positive correlation between LMX and OCB, as the authors had hypothesised. To ensure an LMX of high quality, supervisors show trust and provide support to their subordinates (Liden et al., 1997). In turn, subordinates exhibit behaviour that is not formally required by their roles. This extra-role behaviour or OCB is beneficial for other employees and for the success of the organisation.

Nougarou (2017) explored the impact of interpersonal factors on OCB. The analysis was based on a sample of 325 individuals. The results revealed a positive relationship between LMX and OCB and between TMX and OCB, indicating that LMX and TMX can be viewed as antecedents to OCB. Nougarou (2017) furthermore reported that LMX and TMX were more strongly associated with OCB-O than with OCB-I. The relationship between TMX and OCB is discussed further in section 2.5.5.

One of the characteristics of high-quality LMX is that the parties feel supported. Xiang et al. (2017) stated that according to organisational support theory, if employees experience support for their work, they are likely to engage in actions that are beneficial to the organisation. This reasoning suggests a correlation between LMX and OCB-O. In the literature review, no studies were identified that examined the relationship between LMX and OCB in the higher education sector specifically. However, the mechanism is expected to be the same in this sector. Thus, a positive relationship between LMX and OCB was hypothesised in the current study. LMX relationships of high quality move beyond the formal employment requirements and have a strong social element, including mutual trust and obligation (Martin et al., 2016). Conceptually, these characteristics appear to foster OCB. Hence, it is expected that the LMX positively influences both OCB-O and OCB-I.

Hypothesis 5: LMX positively influences OCB-O

Hypothesis 6: LMX positively influences OCB-I

2.6.5 Team-member exchange and OCB

A high quality of TMX comprises sharing ideas, expertise, feedback and effort among colleagues (Farmer et al, 2015). TMX is also characterised by mutual trust and respect and cohesiveness. These attributes among employees manifest in their attitudes and behaviours at work, which are likely to affect their colleagues as well as the organisation.

Using a sample of 236 managers in a bank and their subordinates, Farmer et al. (2015) explored the effects of TMX in the workplace. One of the findings was a positive relationship between TMX and OCB (Farmer et al., 2015). This finding reveals that the more an employee identifies with their colleagues, the more they will engage in helping and in citizenship behaviours directed at their colleagues (Farmer et al., 2015). Dasgupta (2020) similarly explored the effect of certain constructs on OCB and reported results that corroborate Farmer et al.'s (2015) finding that TMX influences OCB.

Malingumu et al. (2016) studied the link between servant leadership, OCB and creativity. They also considered the indirect role of TMX. The results indicated a positive relationship between TMX and OCB. Specifically, TMX was positively related to both OCB-I and OCB-O (Malingumu et al., 2016). This means that if employees perceive their social exchanges with team members to be of a high quality, they are likely to engage in extra-role behaviours that benefit their colleagues and the organisation.

Based on the literature, in this study a positive relationship between TMX and OCB was hypothesised. It was expected that TMX would positively influence both OCB-O and OCB-I.

Hypothesis 7: TMX positively influences OCB-O

Hypothesis 8: TMX positively influences OCB-I

The preceding sections have drawn on literature to formulate the hypotheses regarding associations between the variables of interest. These are:

- EM and LMX

- EM and TMX
- EM and OCB

It was further hypothesised that LMX and TMX both positively affect OCB. Hence, it was further hypothesised that LMX and TMX both act as mediators in the association between EM and OCB. The following hypotheses were therefore also formulated:

Hypothesis 9: The relationship between EM and OCB-O is mediated by LMX

Hypothesis 10: The relationship between EM and OCB-O is mediated by TMX

Hypothesis 11: The relationship between EM and OCB-I is mediated by LMX

Hypothesis 12: The relationship between EM and OCB-I is mediated by TMX

In addition to the positive impact that EM has on LMX and TMX, these constructs may also act as mitigators regarding negative organisational outcomes – such as CWB and the intention to quit. In the next section, CWB is discussed.

2.7 Counterproductive workplace behaviour

2.7.1 Conceptualising the construct

Spector and Fox (2005) view CWB as one of 10 constructs related to negative work behaviour. The others include aggression, bullying, deviance, emotional abuse, incivility, mobbing, retaliation, revenge and violence. The nature of these behaviours indicates they can be grouped into behaviours that are directed at people, whether directly or indirectly, and behaviours directed at the organisation.

Pearson et al. (2005) view negative behaviour differently (see Figure 2.4). These authors see the separate behaviours as dimensions of CWB. Figure 2.3 and Figure 2.4 illustrate the differences between these two perspectives.
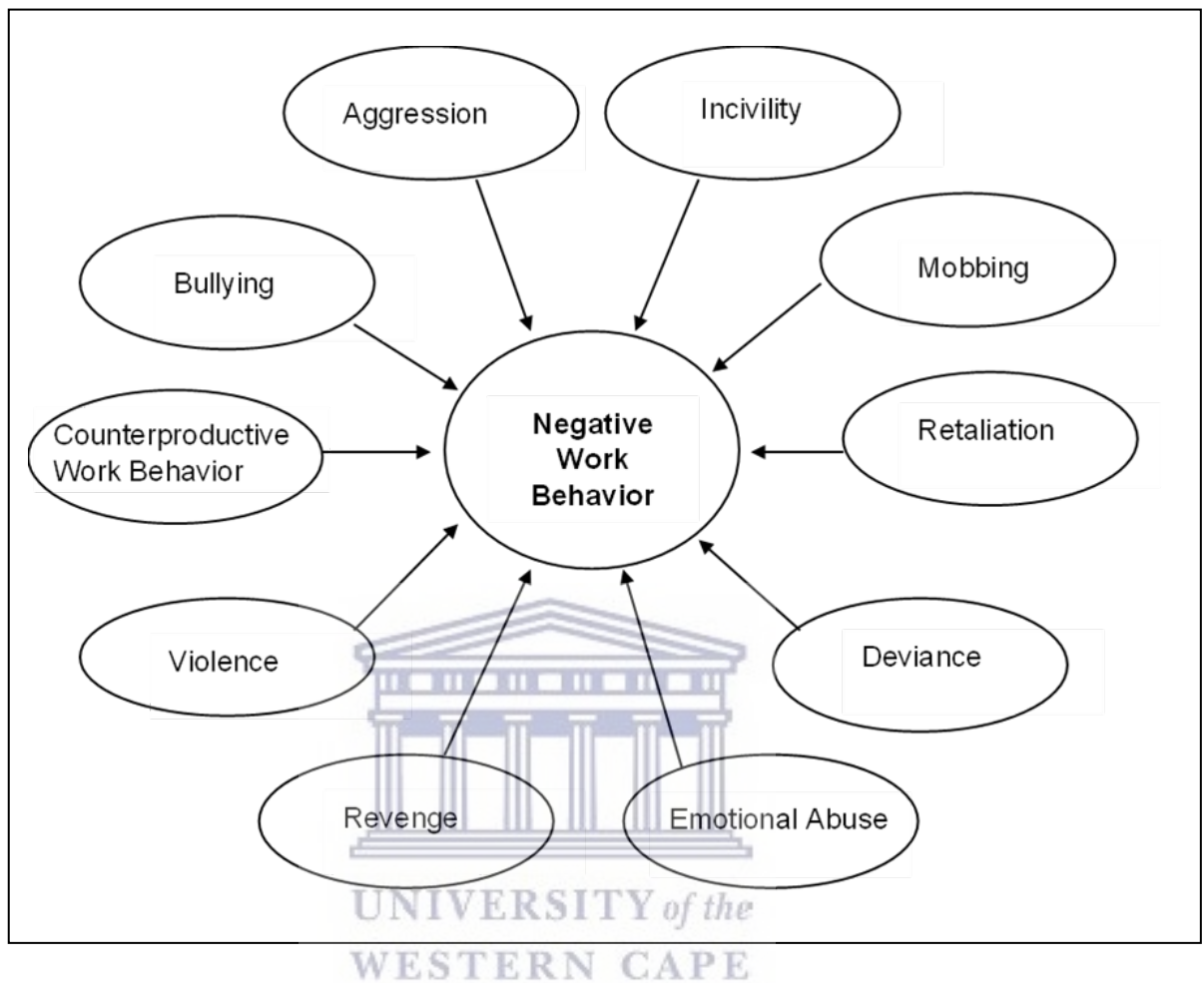
Figure 2. 3: Constructs associated with negative behaviour according to Spector and Fox (2005)
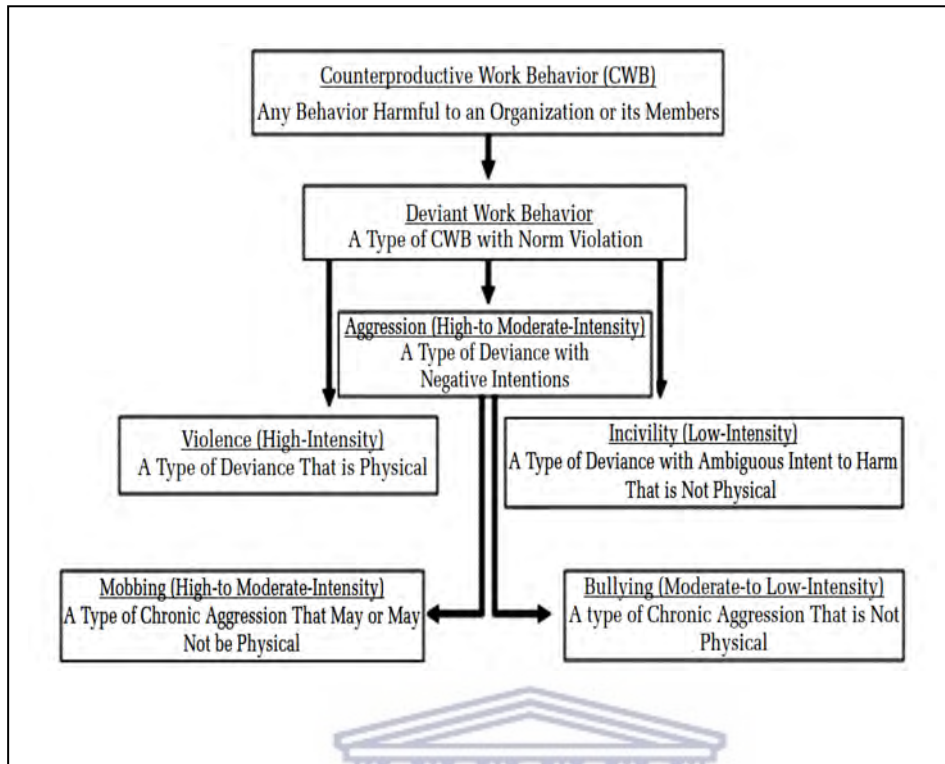
Figure 2. 4: Counterproductive workplace behaviours according to Pearson et al. (2005, p. 191)

Robinson and Bennett (1995) argue that CWB refers to employee behaviour that is detrimental to the organisation and/or its employees. Such behaviour is contrary to organisational objectives and therefore goes against the interest of the organisation. The scope of CWB is wide; it involves behaviour that is destructive to employees or to the organisation's clients as well as damaging to the organisation as a whole. Examples of CWB include employees who deliberately work slowly, take extended breaks from work or damage property. The behaviours also include theft, gossip, harassment, physical and verbal abuse and accepting bribes (Raman et al., 2016).

Although such behaviour occurs regularly in workplaces, it is concerning that instances are not always noticed or reported (Bennett & Robinson, 2000). According to Raman et al. (2016), research has shown that employees' CWB leads to significant costs for organisations. Given that the effects of CWB are prevalent as well as being difficult to detect and costly, the topic is worth investigating. It is important to understand not only the effects of CWB but also

the factors that cause CWB. This insight can help organisations to prevent or mitigate the impact of such behaviour. It can be argued that CWB may be counteracted by building a strong organisational culture based on EM, LMX and TMX. Section 2.7.2 discusses the antecedents and outcomes of CWB.

2.7.2 General antecedents and outcomes

It is clear that CWB is a negative behaviour with adverse effects for an organisation. These effects are detrimental to the effective functioning of the organisational and its employees (Robinson & Bennett, 1995). Counterproductive behaviour in an organisation has a negative influence on employee motivation (Stewart et al., 2009) and causes interpersonal conflict (Fox et al., 2001).

Raman et al. (2016) conducted an empirical study on CWB among employees in Malaysia. The purpose of the study was to explore the direct and indirect impact of personality, emotional intelligence, affectivity, emotional labour and emotional exhaustion on employees' CWB. The sample consisted of 519 employees from the government sector. Data was collected through questionnaires and was analysed using structural equation modelling (SEM). The results showed that two 'big five' personality dimensions directly affected CWB, namely conscientiousness and openness. Specifically, there was a negative relationship between conscientiousness and openness, indicating that the higher an employee rated in conscientiousness and openness, the less likely they were to exhibit CWB (Raman et al., 2016). Furthermore, negative affectivity, emotional intelligence and emotional exhaustion also directly affected employees' CWB. Emotional intelligence was negatively associated with CWB, whereas negative affectivity and emotional exhaustion were positively associated with CWB. The authors reported that the construct that had the most significant link with CWB was emotional exhaustion (Raman et al., 2016).

Aljawarner and Atan (2018) point out that workplace incivility – which includes behaviours that have been described as characteristic of CWB – is often tolerated in organisations. That is, the organisation's management does not respond appropriately to such behaviour and fails to protect victims of such

behaviour. This passivity creates an organisational climate that allows for workplace incivility (Aljawarner & Atan, 2018). The authors explain that these behaviours often lead to conflict among employees, giving rise to negative emotions and at times adversely affecting employees' performance in their jobs.

Another factor that has been found to affect CWB is LMX (Chernyak-Hai & Tziner, 2014). Research has shown that the better the quality of the LMX, the less likely are employees to engage in CWB. The relationship between EM and CWB and that between LMX and CWB is discussed in sections 2.7.3 and 2.7.4 respectively.

2.7.3 Relationship between EM and CWB

EM involves being able to understand and regulate one's own emotions and to influence the emotions of others. By contrast, CWB involves deviant behaviour at work that could negatively impact the employees and the organisation. Research has shown that employees typically manifest CWB as a result of negative emotions or stress (Makhdoom et al., 2019).

Aljawarneh and Atan (2018) explain that interpersonal deviance is a form of workplace incivility, and that workplace incivility leads to negative emotions in those who are subject to it. Hence, there appears to be a link between EM and CWB. Specifically, employees with strong EM skills can be expected to control their negative emotions in a constructive manner, which would make them unlikely to engage in CWB. Likewise, those with strong EM skills who are on the receiving end of CWB could probably handle such behaviour and the resulting emotions constructively.

Research has found a significant relationship between emotional intelligence and CWB. For example, Raman et al. (2016) explored the relationship between certain variables and CWB in a sample of employees in the government sector in Malaysia. As referred to in section 2.7.2, the results indicated a negative relationship between emotional intelligence and CWB, which means that individuals with high emotional intelligence displayed a low prevalence of CWB. Emami (2014) similarly reported a relationship between emotional intelligence

and CWB. In this empirical study, the author collected data through questionnaires among employees of a project management company in Iran. The results were derived through SEM and showed a significant negative correlation between emotional intelligence and CWB. In the present study, a negative relationship between emotional intelligence (and specifically EM) and CWB was hypothesised and tested.

Côté et al. (2011) highlight that most researchers have reported on the positive effects of emotional intelligence skills and their development. The authors explain that although such skills do have benefits, they may also be associated with negative behaviour. Their study focused on EM as a facet of emotional regulation. The authors refer to research that has shown a positive association between emotional regulation and goal achievement. They argue that depending on an individual's personality characteristics and what would benefit them in a situation, emotional regulation can be a part of deviant behaviour (Côté et al., 2011). That is, individuals could use their emotional intelligence to manipulate others so as to benefit themselves. However, in the present study, it is generally expected that employees who have a high level of emotional intelligence would not engage in CWB.

<u>Hypothesis 15</u>: Emotional management negatively influences CWB

2.7.4 Relationship between LMX and CWB

Research results for the association between LMX and CWB have been contradictory (Shkoler et al., 2019). Whereas some researchers have reported a significant correlation between the two constructs, others have reported no significant relationship.

Chung and Jeon (2020) point out that if employees regard the quality of the LMX as low, they are not likely to be committed. They may exhibit negative attitudes not only toward their tasks but also toward the leaders (Chung & Jeon, 2020).

Chernyak-Hai and Tziner (2014) studied employees at Israeli electric and electronic device companies. They analysed the relationships between perceived organisational distributive justice, the ethical climate and CWB. They

also explored the mediatory role of LMX. Data was collected through questionnaires. The results indicated that LMX mediated the negative relationship between perceived organisational distributive justice and organisational ethical climate. In addition, LMX also mediated the negative relationship between perceived organisational distributive justice and CWB. These findings reveal a negative correlation between LMX and CWB. Hence, if an employee perceives LMX to be of a high quality, they are relatively unlikely to engage in CWB. It can be reasoned that with a good quality of LMX, employees enjoy a strong relationship with their leaders and feel valued and trusted, and they probably do not want to damage that good relationship. Their positive feelings would enhance the sense of loyalty to the leader, resulting in good behaviour with positive effects on the organisational outcomes.

In the present study, the correlation between LMX and CWB is analysed. A significant relationship between LMX and CWB was hypothesised, as follows:

Hypothesis 16: LMX negatively influences CWB

2.7.5 Relationship between TMX and CWB

Few studies have analysed the relationship between TMX and CWB (Shkoler et al., 2019). Jian and Ting (2014) analysed the relationship between LMX and TMX on the one hand and OCB on the other, including the mediating effect of a sense of fairness in the workplace. The researchers collected data from 231 employees across different levels over a period of 25 days. Among other results, TMX and CWB were found to be negatively related (Jian & Ting, 2014). This shows that if employees perceive their relationships with colleagues to be of a good quality, they are relatively unlikely to engage in deviant behaviour at work.

Shkoler et al. (2019) explored the association between TMX and CWB through two studies. The first study's sample was 221 Israeli employees and the second was 186 American employees. Data was collected to examine the effect of social exchanges in the workplace on CWB. Specifically, the authors analysed the effect of both LMX and TMX on CWB. Contrary to the result reported by Jian

and Ting (2014), Shkoler et al. (2019) found no significant correlation between TMX and CWB-O or CWB-I.

In the present study, a negative relationship between TMX and CWB was hypothesised.

<u>Hypothesis 17</u>: TMX negatively influences CWB

In addition to the effect on OCB and CWB, the quality of LMX and TMX has been shown to influence employees' intention to leave an organisation. The next section discusses the intention to quit.

2.8 Intention to quit

2.8.1 Conceptualising the construct

The concept of employee turnover is quite specific. By contrast, 'turnover intention' refers to the degree to which an employee intends to voluntarily resign from the organisation (Wang et al., 2017). More specifically, it indicates that an employee is considering leaving, despite having the option of continued employment with their current employer (Vermooten et al., 2019). Turnover is voluntary. Given its negative impact and costs (discussed in section 2.8.2), it is valuable to understand which factors can lead to an employee intending to quit.

2.8.2 General antecedents and outcomes

The intention to quit is associated with negative outcomes. For example, turnover intention has been linked to employees looking for alternative employment (Sousa-Poza & Henneberger, 2004), a decline in service by employees (Karatepe & Ngeche, 2012) and a negative effect on the remaining employees (Hosain, 2018). These influences in turn lead to a decline in overall organisational effectiveness (Karatepe & Ngeche, 2012). In addition, further outcomes include a financial cost incurred by the organisation because of the need to recruit and train new employees or to employ temporary staff (Morrell et al., 2004).

Takawira et al. (2014) explored the relationships between job embeddedness, work engagement and turnover intention. The authors collected data from 153 employees at an HEI in South Africa. The results showed significant negative relationships between job embeddedness and turnover intention and between work engagement and turnover intention. These findings show that the more an employee feels they fit in or are compatible with their job (job embeddedness), the less likely they are to develop an intention to quit (Takawira et al., 2014). Similarly, employees who rated high on work engagement felt dedicated, significant and inspired at work were relatively unlikely to want to quit. Based on these results, the authors recommend that employers should consider the influence of job embeddedness and work engagement when developing their strategies to retain employees.

Walden and Kingsley Westerman (2017) similarly point out that an employee's level of organisational commitment affects the relationship between that employee and the organisation. This effect arises partly through turnover intention. In other words, organisational commitment influences an employee's intention to quit.

Hosain (2018) explored the link between emotional intelligence and turnover intention. The study also considered the possible effect of leadership behaviour on this link; the results showed that leadership behaviour did affect the relationship between emotional intelligence and intention to quit. Because leadership behaviour influences the intention to quit, leadership behaviour can be viewed as an antecedent of turnover intention.

Two further constructs that have been shown to be related to turnover intentions are emotional intelligence (Bhtanagar, 2013) and LMX (Wang et al., 2017). Emotional intelligence abilities have been shown to assist in coping with stress, and employees who display high emotional intelligence can manage stress effectively. It can be argued that this resilience helps to counter the negative effects of adverse situations at work, which could mean that employees with high emotional intelligence are relatively unlikely to develop the intention to quit.

It is therefore hypothesised that emotional intelligence is negatively related to the intention to quit.

A high quality of LMX is characterised by a good relationship between the leader and the employee. It can be argued that the employee in this situation will feel loyal to the leader and be unlikely to have the intention to leave. Therefore, it is expected that LMX will be negatively related to the intention to quit. The relationship between emotional intelligence and turnover intention and that between LMX and turnover intention are discussed in sections 4.6.3 and 4.6.4 respectively.

2.8.3 Relationship between EM and the intention to quit

Research results regarding the directionality of the relationship between emotional intelligence and turnover intention have been inconsistent. It is thus not clear whether this is a positive or inverse relationship. Hosain (2018) explored the relationship between emotional intelligence and turnover intention using data from a sample of 927 bank employees in Bangladesh. The results revealed a positive relationship between emotional intelligence and turnover intention, which means that employees with high emotional intelligence were likely to develop the intention to quit. Employees with a lower emotional intelligence tended to have a lesser intention to quit.

However, the findings of Bhtanagar (2013) contradicted those of Hosain (2018). Bhtanagar (2013) explored the link between emotional skills and turnover intention among university employees in India. Data was collected from 80 academic staff members from various private universities through questionnaires. The results showed that emotional intelligence significantly influenced their turnover intentions, with the relationship being negative. Hence, the higher an employee's emotional intelligence, the less likely they were to resign (Bhtanagar, 2013). A limitation of that study was the small sample. However, the same relationship had been reported by Jordan and Troth (2011). The latter authors also found that LMX mediated the effect of emotional intelligence on turnover intention.

Lai et al. (2019) studied workplace relationships and turnover intention. They explain that affective states are ignited when an employee perceives their relationship with the leader to be poor. This perception can cause negative emotions, which in turn can evoke the intention to quit (Lai et al., 2019). However, if an employee has strong EM skills, they would be able to control their emotions and act appropriately. These skills could even help foster a better quality of LMX. This reasoning supports the argument made in the present study that EM is negatively correlated to the intention to quit.

Employee engagement has been shown to be related to turnover intention. For example, Schaufeli and Bakker (2004) reported that high levels of work engagement had a negative relationship with turnover intention. Vashisht (2018) explains that employees who have high emotional intelligence are able to tolerate negative emotions and pressure and so manage emotions and react in an appropriate manner. Consequently, those with high emotional intelligence – and therefore strong EM skills – tend to display high levels of commitment to their organisation. The results of research by AlMazrouei et al. (2015) similarly support the notion that emotional intelligence is negatively related to turnover intention because of enhanced engagement.

In the present study, a statistically significant relationship between EM and the intention to quit was hypothesised and tested.

Hypothesis 18: Emotional management negatively influences ITQ.

2.8.4 Relationship between LMX and the intention to quit

Using data from a sample of 578 employees at a pathology firm in Australia, Jordan and Troth (2011) empirically examined the mediating role of LMX on the relationship between employees' emotional intelligence and their turnover intentions as well as their job satisfaction levels. The results showed a significant positive correlation between emotional intelligence and job satisfaction and a negative correlation between emotional intelligence and turnover intention. In addition, the results indicated that LMX fully mediated the relationships between emotional intelligence and both job satisfaction and turnover intention. The more

an employee can control their own emotions and influence the emotions of other people, the better the quality of their relationships with supervisors. LMX is characterised by loyalty, contribution and affect. Therefore, a high quality of LMX manifests as loyalty, contribution and positive affect between employees and their leaders. These qualities are related to high levels of job satisfaction among employees, which would reduce the intention to quit (Jordan & Troth, 2011).

A study by Saeed et al. (2014) corroborated the results reported by Jordan and Troth (2011). Saeed et al. (2014) examined the impact of five variables: (i) job satisfaction, (ii) job performance, (iii) LMX, (iv) emotional intelligence and (v) organisational commitment on turnover intention. Using questionnaires, the authors collected data from 166 employees in Bahawalpur in Pakistan. The results showed negative correlations between, on the one hand, emotional intelligence, job performance, job satisfaction and LMX, and, on the other hand, turnover intention. Hence, the employees were unlikely to quit their jobs if they had high emotional intelligence, displayed high levels of performance at work, felt satisfied at work and enjoyed a good quality of relationship with their supervisor.

To the researcher's knowledge, no studies have revealed results that disconfirm a negative relationship between LMX and intention to quit. In this study, therefore, it was hypothesised that a negative relationship exists between the quality of LMX and employees' intention to quit.

Hypothesis 19: LMX negatively influences ITQ.

2.8.5 Relationship between TMX and the intention to quit

Rutishauser and Sender (2019) focused on TMX as a source of employee engagement and its effect on turnover intention. In addition, they considered the moderating effect of culture. The authors collected data from 6664 employees in 14 countries. The results revealed a negative correlation between TMX and turnover intention. Based on these findings, the present study hypothesised a negative relationship between TMX and the intention to quit.

Chung and Jeon (2020) analysed the impact of relationships on employees' job satisfaction and intention to quit. The sample was 334 employees from the airline industry, and data was collected through questionnaires. The approach was the same as in the present study; that is, to assess the social relationships in the work environment, the authors examined LMX and TMX. The results revealed that both LMX and TMX were positively associated with job satisfaction, which in turn curbed the intention to quit. Furthermore, the findings suggested that job satisfaction indirectly affected the association between LMX and turnover intention but not between TMX and turnover intention (Chung & Jeon, 2020).

Not in complete agreement with the above findings, Lai et al. (2019) argue that high-quality TMX does not always decrease the intention to quit. The authors explored the association between workplace relationships and the intention to quit. To analyse workplace relationships, they assessed LMX and TMX. They proposed that the relationship between TMX and intention to quit is curvilinear. The reasoning is as follows. If the employees perceive the quality of the TMX to be low or moderate, they can easily give and receive mutual assistance; in such cases, helping each other is beneficial for accomplishing tasks and gaining high performance scores. However, if the TMX is perceived to be high, employees may experience pressure to help others, which can tax their time and energy. Being in this situation could thus trigger employees' intention to quit.

In the present study, a negative relationship between TMX and intention to quit is hypothesised.

Hypothesis 20: TMX negatively influences ITQ.

The preceding discussions have drawn on literature to formulate hypotheses about the associations between

- EM and LMX
- EM and TMX
- EM and CWB
- EM and intention to quit

It was further hypothesised that the LMX and TMX negatively affect CWB and the intention to quit. It is thus hypothesised that LMX and TMX act as mediators in the association between EM and CWB and between EM and the intention to quit. The following hypotheses were therefore also tested:

Hypothesis 21: The relationship between EM and CWB is mediated by LMX

Hypothesis 22: The relationship between EM and CWB is mediated by TMX

Hypothesis 23: The relationship between EM and ITQ is mediated by LMX

Hypothesis 24: The relationship between EM and ITQ is mediated by TMX

2.9 Hypotheses

The main hypothesis of this study is that the structural models depicted in Figure 2.5 and Figure 2.6 provide a valid account of the correlation between the variables of interest. These are EM, OCB, CWB and the intention to quit, all self-reported by the employee. The same hypothesis is presented in the form of two models. Model 1 (Figure 2.5) portrays the hypothesised relationships between EM, LMX, TMX and OCB. It should be recalled that OCB is a positive organisational outcome variable. Model 2 (Figure 2.6) portrays the hypothesised relationships between EM, LMX, TMX and the outcome variables of CWB and intention to quit (i.e. the negative outcomes).

The main hypothesis is broken down into several detailed hypotheses. These are based on the dimensions of the various constructs (EM, LMX, TMX, OCB, CWB and intention to quit) and the proposed relationships between the dimensions.
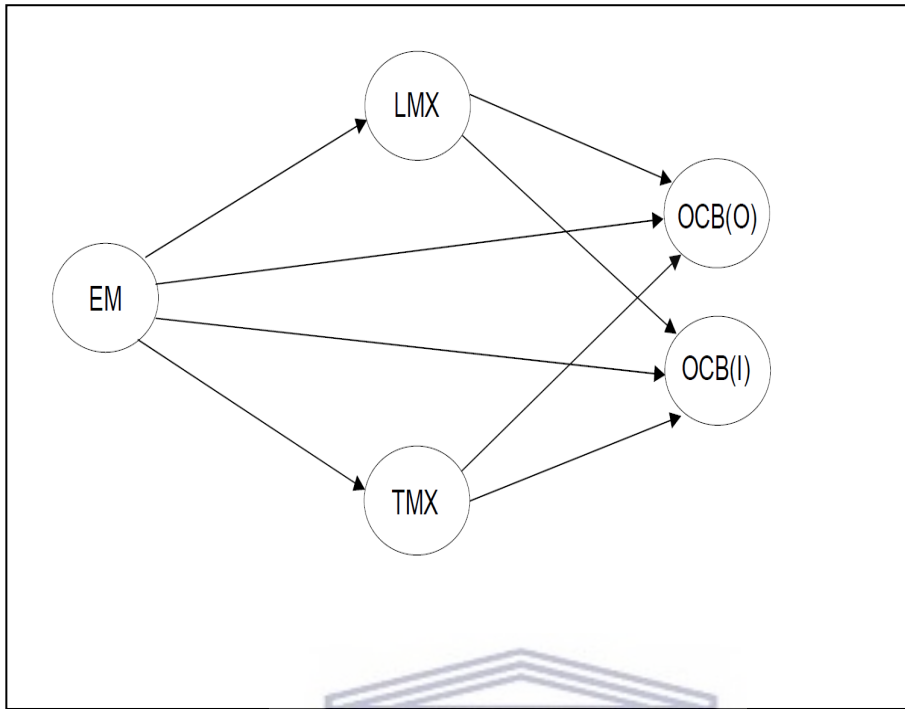
Figure 2. 5: Model 1: Conceptual model for the effect of EM on OCB. The mediating roles of LMX and TMX are shown.

NOTE: EM: Emotional Management; TMX: Team-member Exchange; LMX: Leader–member Exchange; OCB: Organisational Citizenship Behaviour
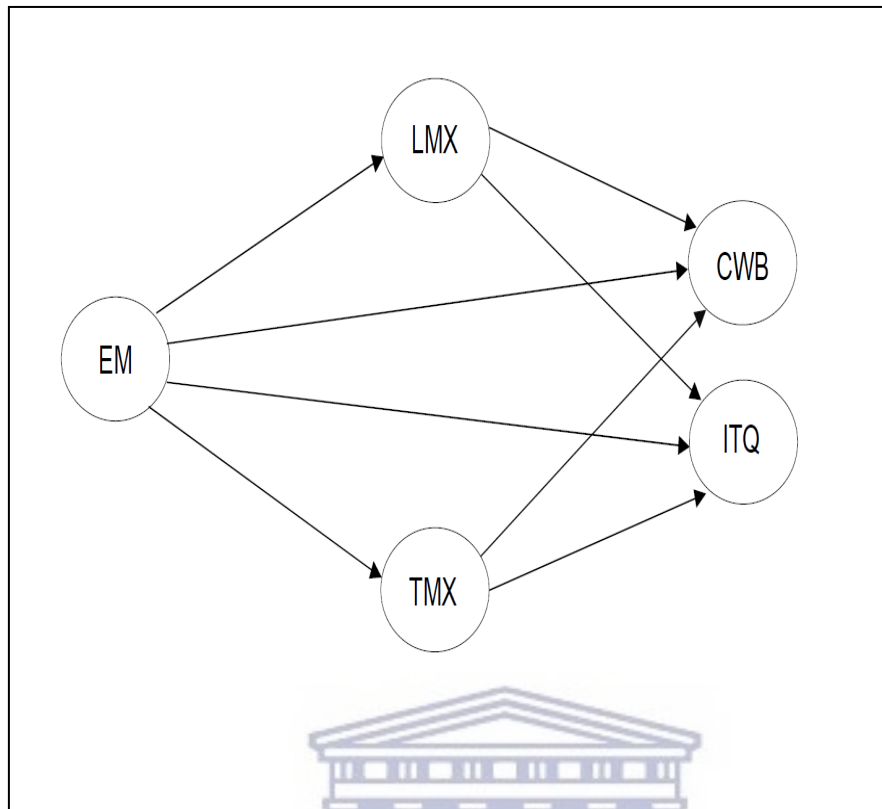
Figure 2. 6: Model 2: Conceptual model for the effect of EM on intention to quit and CWB The mediating roles of LMX and TMX are shown.

NOTE: EM: Emotional Management; TMX: Team-member Exchange; LMX: Leader–member Exchange; CWB: Counterproductive Workplace Behaviour; ITQ: Intention to Quit

Section 2.2 provided the context of the present study, including a discussion of the theoretical frameworks relevant to the study. Sections 2.3 to 2.8 comprised a discussion based on a literature review of the constructs examined in the present study. Building on these discussions, the following hypotheses were developed based on all of the relationships included in the two conceptual models:

Model 1:

Hypothesis 1: EM positively influences LMX

Hypothesis 2: EM positively influences TMX

Hypothesis 3: EM positively influences OCB-O

Hypothesis 4: EM positively influences OCB-I

Hypothesis 5: LMX positively influences OCB-O

Hypothesis 6: LMX positively influences OCB-I

Hypothesis 7: TMX positively influences OCB-O

Hypothesis 8: TMX positively influences n OCB-I

Hypothesis 9: The relationship between EM and OCB-O is mediated by LMX

Hypothesis 10: The relationship between EM and OCB-O is mediated by TMX

Hypothesis 11: The relationship between EM and OCB-I is mediated by LMX

Hypothesis 12: The relationship between EM and OCB-I is mediated by TMX

Model 2:

Hypothesis 13: EM positively influences LMX

Hypothesis 14: EM positively influences TMX

Hypothesis 15: EM negatively influences CWB

Hypothesis 16: LMX negatively influences CWB

Hypothesis 17: TMX negatively influences CWB

Hypothesis 18: EM negatively influences intention to quit

Hypothesis 19: LMX negatively influences intention to quit

Hypothesis 20: TMX negatively influences intention to quit

Hypothesis 21: The relationship between EM and CWB is mediated by LMX

Hypothesis 22: The relationship between EM and CWB is mediated by TMX

Hypothesis 23: The relationship between EM and intention to quit is mediated by LMX

<u>Hypothesis 24</u>: The relationship between EM and intention to quit is mediated by TMX

2.10 Summary

This chapter started with a discussion about the research context. The two theories that provide the foundation of the study were then explained. This was followed by a literature review regarding the constructs explored in the current research, including the hypothesised links that were analysed. The next chapter discusses the research methodology used in this study.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

Chapter 1 introduced the research question and problem statement. In brief, the aim of this study is to conceptualise structural models that capture the conceptual linkages that explain positive and negative organisational outcomes. Chapter 2 reviewed the literature, with a focus on identifying the theoretical correlates among the organisational outcomes and OCB, CWB and turnover intention. The scope is limited to HEIs. A structural model was conceptualised and specific relationships were hypothesised, which were analysed statistically.
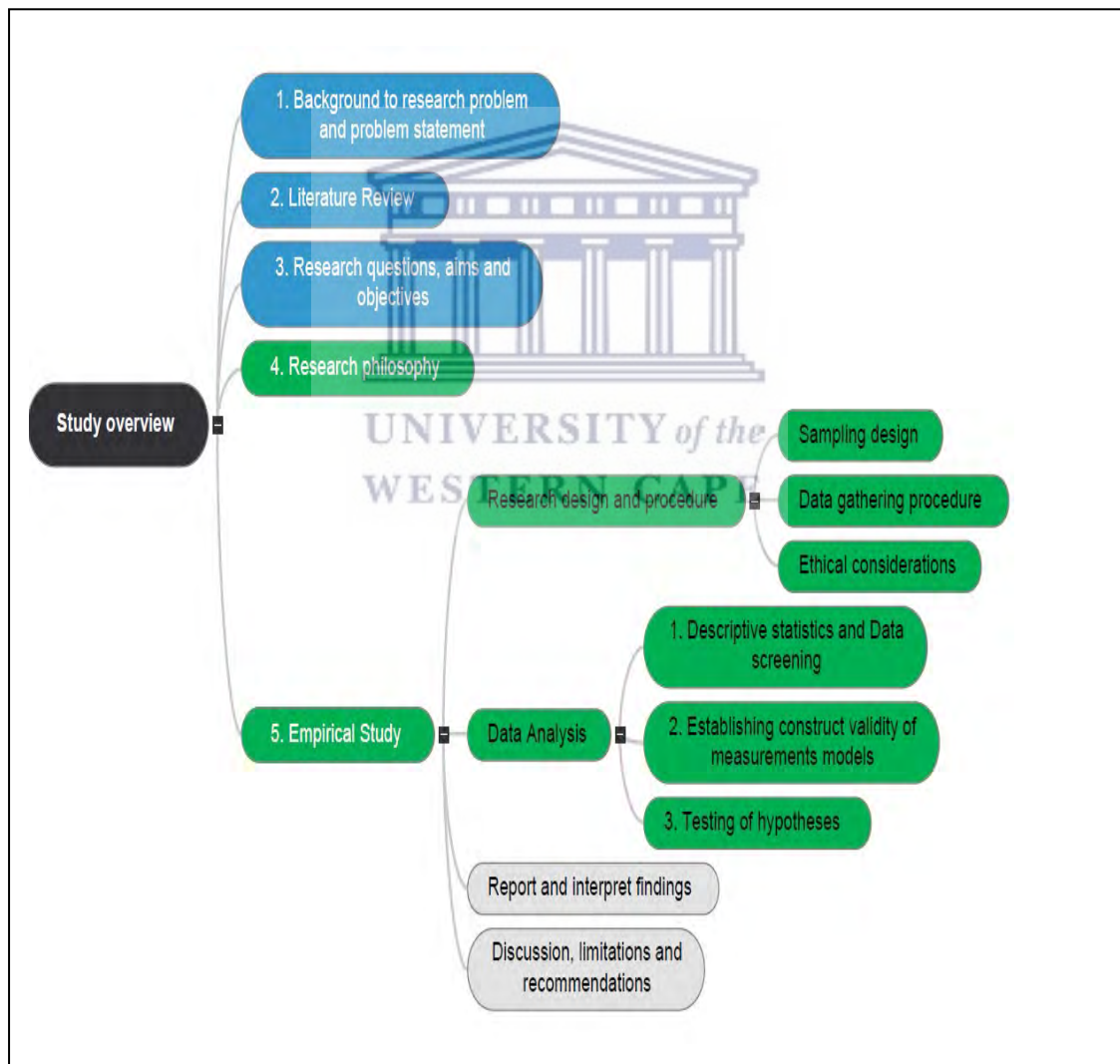
Figure 3. 1: Study overview: Focus areas for Chapter 3 are highlighted in green

The steps highlighted in green in Figure 3.1 represent the aspects discussed in this chapter. The chapter explains the research methodology that was applied to assess the hypothesised relationships between the constructs. In the statistical analysis, the variables were represented as EM, LMX, TMX, OCB, CWB and ITQ. These acronyms refer, respectively, to emotional management, leader–team exchange, team-member exchange, organisational citizenship behaviour, counterproductive work behaviour and intention to quit.

Research methodology pertains to 'the systematic investigation of the various rational and procedural principles and processes' that guide a study (Delanty & Strydom, 2003, p.4). The chapter therefore includes a discussion about the research design of this study. The study population, the sampling method and the data analysis techniques are also described. Ethical considerations are examined, including how these concerns were managed while conducting the study. The instruments used to measure the various constructs are also discussed.

3.2 Research questions and hypotheses

This study was guided by the following overarching research question:

What roles do EM, LMX and TMX play in determining the key organisational outcomes within HEIs?

The main research question was furthermore broken down into the following sub-questions, all related to the HEI setting:

1. What effect does EM have on LMX and TMX?
2. What effect does EM have on employees' ITQ?
3. How do EM and the perceived quality of relationships, in the form of LMX and TMX, affect the manifestation of CWB among employees?
4. What roles do EM and relationship quality (LMX and TMX) play in determining the extent to which employees engage in OCB at work?
5. Are the two proposed models equivalent for both academic and administrative employees?

The researcher addressed these questions through the conceptualisation of two models. The rationale was to isolate the prosocial outcome, OCB, from the negative outcomes, namely CWB and the intention to quit. Furthermore, there was no theoretical justification to group these outcome variables into a single – and thus unnecessarily complicated – model. An additional argument for having two models is that it was expected that the mechanisms that operate between EM and LMX and TMX would manifest differently for OCB compared with CWB. Model 1 captured the relationships between EM, LMX, TMX and OCB. Model 2 captured the relationships between EM, LMX, TMX and CWB and intention to quit. The research questions led to the formulation of two structural models that contained the following hypotheses:

Model 1:

- H_1: EM positively influences LMX
- H_2: EM positively influences TMX
- H_3: EM positively influences OCB-O
- H_4: EM positively influences OCB-I
- H_5: LMX positively influences OCB-O
- H_6: LMX positively influences OCB-I
- H_7: TMX positively influences OCB-O
- H_8: TMX positively influences OCB-I
- H_9: The relationship between EM and OCB-O is mediated by LMX
- H_{10}: The relationship between EM and OCB-O is mediated by TMX
- H_{11}: The relationship between EM and OCB-I is mediated by LMX
- H_{12}: The relationship between EM and OCB-I is mediated by TMX

Model 2:

- H_{13}: EM positively influences LMX
- H_{14}: EM positively influences TMX
- H_{15}: EM negatively influences CWB
- H_{16}: LMX negatively influences CWB
- H_{17}: TMX negatively influences CWB

- H$_{18}$: EM negatively influences ITQ
- H$_{19}$: LMX negatively influences ITQ
- H$_{20}$: TMX negatively influences ITQ
- H$_{21}$: The relationship between EM and CWB is mediated by LMX
- H$_{22}$: The relationship between EM and CWB is mediated by TMX
- H$_{23}$: The relationship between EM and ITQ is mediated by LMX
- H$_{24}$: The relationship between EM and ITQ is mediated by TMX

3.3 Research philosophy

According to Saunders et al. (2019, p. 130), research philosophy 'refers to a system of beliefs and assumptions about the development of knowledge'. It forms the foundation of the research, including decisions pertaining to the research strategy and data collection as well as the analyses to be employed (Zukauskas et al., 2018). To achieve quality research, it is imperative that the selected research design should adequately support the research philosophy.

Three main assumptions are used to identify a research philosophy. These assumptions relate to the ontology, epistemology and axiology of a study. Dredge et al. (2014) explain that these three aspects form the basis upon which individuals understand the world. Ontology has to do with assumptions relating to the nature of reality; this aspect affects the way a researcher perceives and studies the research topic. Examples of topics include institutions, leaders and workplace events.

Epistemology is less abstract than ontology (Saunders et al., 2019). It refers to a researcher's assumptions about knowledge and is concerned with what should be considered acceptable and valid knowledge and how that knowledge can be communicated. Lastly, axiology relates to values and ethics, or a sense of what is good (Dredge et al., 2014). This area tends to be neglected. The value of something can lie in its intrinsic characteristics, meaning it is considered as having value 'in its own right' (Dredge et al., 2014, p.31). Alternatively, something can have value based on its extrinsic characteristics, whereby its value pertains to something else.

Table 3.1 (adapted from Saunders et al., 2019) presents examples of questions that can be addressed according to each assumption table.

Table 3. 1

Philosophical assumptions

Assumption type	Questions
Ontology	What is the nature of reality?
	What is the world like?
	What are organisations like?
	What is it like being a manager or being managed?
Epistemology	How can we know what we know?
	What is considered acceptable knowledge?
	What constitutes good quality data?
	What kinds of contribution to knowledge can be made?
Axiology	What is the role of values in research?
	Should we try to be morally neutral when we do research, or should we let our values shape research?
	How should we deal with the values of research participants?

Source: Saunders et al. (2019, p. 135).

The research philosophy reflects the researcher's way of thinking and how the development of knowledge is to be implemented. Therefore, philosophical viewpoints differ from one researcher to the next (Zukauskas et al., 2018).

There are five main research philosophies in the field of business and management (Saunders et al., 2019). These five paradigms are positivism, critical realism, interpretivism, postmodernism and pragmatism. The positivist paradigm is based on the ontological belief that there is an objective reality. With regard to epistemology, it is believed that knowledge is scientific and the best way to expand it is through scientific methods (O'Leary, 2017). Regarding axiology, the positivist researcher assumes an objective position and is detached from the object of the research.

The critical realist's ontological perspective is that the existence of the world and truth are independent of people's perceptions or understanding (O'Leary, 2017). Here, the epistemological view and axiology is that knowledge draws on history; furthermore, the values, views and experience of the researcher must be acknowledged. Nonetheless, the researcher attempts to limit their bias and to remain objective.

The third philosophical paradigm is the interpretivist position. The ontological assumption is that reality and the researcher are connected (Zukauskas et al., 2018). With regard to epistemology and axiology, it is believed that knowledge is based on experiences and the researcher's interpretation and values form part of the research. The researcher is therefore subjective.

The postmodernist paradigm assumes the ontological view that reality is complex and is socially constructed. The epistemological position is that knowledge should draw on a focus on absences and repressed meanings and on interpretation. The researcher's subjective values are again considered.

The final philosophical paradigm is pragmatism. The ontological view is that reality is ambiguous and is a consequence of ideas. With regard to epistemology and axiology, the belief is that knowledge is drawn from experience, and the researcher's values and beliefs are constituted in the research.

Table 3.2 illustrates each assumption type in relation to the five paradigms. Typical research methodologies used for each philosophical position are listed. The five philosophies clearly differ, and each one provides important guidance for the management of relevant research projects.

In the present study, the researcher's viewpoint is that to translate hypotheses into knowledge, it is best to work with perceived evidence in an objective manner and to analyse the data scientifically. Generalisable results are upheld as the ideal. These aims are usually accomplished by examining what people do and the characteristics of their behaviour (O'Leary, 2017). In this approach, the best way to conduct research objectively is by collecting data through questionnaires, as this is a process in which the researcher is not directly involved and therefore does not influence the results. Drawing on the information presented in Table 3.2, this preference falls within the positivist paradigm. Indeed, this is the position taken by the researcher in the present study. In this philosophy, the researcher detaches from personal issues and conducts the research independently (Zukauskas et al., 2018).

The positivist approach aims to explain the causes of observable, measurable behaviour. The researcher works with observable social reality to produce insightful generalisations. The current study adopted the positivist paradigm to critically examine the relationships between the study variables with reference to employees in the higher education environment. The main reason for choosing this approach was to obtain reliable results using data that were specific and precise. Future research on similar topics can thus draw on this study to further expand the knowledge in this field. Additionally, the findings from the selected universities can be generalised to the rest of South African universities in which similar conditions prevail.

Table 3. 2

Comparison of the five main research philosophies

Philosophical position	Ontology	Epistemology	Axiology	Typical methods
	(nature of reality or being)	(what constitutes acceptable knowledge)	(role of values)	
Positivism	Real, external, independent	Scientific method	Value-free research Researcher is detached, neutral and independent of what is researched	Typically deductive, highly structured, large samples, measurement, typically quantitative methods of analysis, but a range of data can be analysed
	One true reality (universalism)	Observable and measurable facts		
	Granular (things)	Law-like generalisations	Researcher maintains objective stance	
	Ordered	Numbers		
		Causal explanation and prediction as contribution		
Critical realism	Stratified/layered (the empirical, the actual and the real)	Epistemological relativism	Value-laden research Researcher acknowledges bias by world views, cultural experience and upbringing	Retroductive, in-depth historically situated analysis of pre-existing structures and emerging agency.
	External, independent	Knowledge historically situated and transient	Researcher tries to minimise bias and errors	Range of methods and data types to fit subject matter
	Intransient	Facts are social constructions		
	Objective structures	Historical causal explanation as contribution	Researcher is as objective as possible	

	Causal mechanisms			
Interpretivism	Complex, rich	Theories and concepts too simplistic	Value-bound research Researchers are part of what is researched, subjective	Typically inductive.
	Socially constructed through culture and language	Focus on narratives, stories, perceptions and interpretations	Researcher interpretations key to contribution	Small samples, in-depth investigations, qualitative methods of analysis, but a range of data can be interpreted
	Multiple meanings, interpretations, realities Flux of processes, experiences, practices	New understandings and worldviews as contribution	Researcher reflexive	
Postmodernism	Nominal	What counts as 'truth' and 'knowledge' is decided by dominant ideologies	Value-constituted research	Typically deconstructive – reading texts and realities against themselves
	Complex, rich	Focus on absences, silences and oppressed/ repressed meanings, interpretations and voices	Researcher and research embedded in power relations Some research narratives are repressed and silenced at the expense of others	In-depth investigations of anomalies, silences and absences
	Socially constructed through power relations Some meanings, interpretations, realities are dominated and silenced by others Flux of processes, experiences, practices	Exposure of power relations and challenge of dominant views as contribution	Researcher radically reflexive	Range of data types, typically qualitative methods of analysis
Pragmatism	Complex, rich, external	Practical meaning of knowledge in specific contexts	Value-driven research	Following research problem and research question

'Reality' is the practical consequences of ideas	'True' theories and knowledge are those that enable successful action	Research initiated and sustained by researcher's doubts and beliefs	Range of methods: mixed, multiple, qualitative, quantitative, action research
Flux of processes, experiences and practices	Focus on problems, practices and relevance	Researcher reflexive	Emphasis on practical solutions and outcomes
	Problem solving and informed future practice as contribution		

Source: adapted from Saunders et al. (2019, p.144-145).

3.4 Research design and procedure

The aim of planning the research design is to provide for and outline all the steps that need to be followed to achieve the desired outcomes of the study. The research design can be considered a plan in which specific research methods and processes are combined, with a view to acquiring a reliable and valid dataset for analyses and interpretation. According to Saunders et al. (2019), research design refers to the general plan which lays out how the research questions will be addressed by the researcher. The plan should clearly state the resources used to collect data and how the data is analysed. Possible constraints in terms of time or location and financial or other resources should also be considered. One of the aims of devising the research design is to enable the researcher to make appropriate research decisions and to maximise the validity of the procedures and outcomes.

According to Perri 6 and Bellamy (2012), research designs are either observational or experimental – or a combination of both aspects. In experimental research, the researcher has control over variables that may have a causal effect on the outcomes, allowing only one variable to exert an effect (Kerlinger, 1986). By contrast, for studies where the results are to be interpreted (as was the case in the present study), an observational research design is more suitable than an experimental design (Perri 6 & Bellamy, 2012). A key reason is that in a social science context, the need to try and control influencing factors could hamper the understanding and interpretation of the process to be explored.

In observational research, the researcher typically exercises control over three aspects. These are (i) the categories employed for the topic of interest; (ii) the method of data creation, collection and analysis; and (iii) the analytical techniques employed to examine the data (Perri 6 & Bellamy, 2012). These types of control differ from that in experimental research, such as laboratory experiments. Nonetheless, these controls place the researcher in a favourable position regarding the merits of the interpretation of the results. This is because the observational design allows the researcher to analyse real-life situations which have not themselves been controlled (Perri 6 & Bellamy, 2012).

Due to the nature and complexity of the identified research problem, the research questions and objectives gave direction to structure an appropriate research design in order to achieve the research objectives. A quantitative approach was followed for the collection of primary data, which was mainly participants' responses to questionnaires. The literature sources were utilised as a theoretical basis to identify the proposed relationships between the variables explored in this study. The researcher conducted an empirical study, using surveys, to gain insight into the typical experiences of the participants. The aim was to deduce sound conclusions. The study is therefore quantitative and explanatory, as it investigates the hypothesised relationships between various constructs. The design can also be described as *ex post facto* because the author was unable to manipulate the independent variables.

The data used in the study was cross-sectional rather than longitudinal. In other words, the data was collected from the sample during a relatively short period, avoiding long gaps in time. Cross-sectional methodology is the most frequently used design in social science research (Allen, 2017). Furthermore, a cross-sectional study differs from a case-control or a cohort study. In cross-sectional studies, the participants are selected according to inclusion and exclusion criteria set by the researcher (Setia, 2016).

A limitation of using a cross-sectional design is that causality cannot be properly investigated, given that the measurement occurs only once or over a short period. Another limitation is that should model parameters vary over time, the statistical validity of inferences based on the results may be questionable (Bowen & Wiersema, 1999). In other words, the same type of study could render different results if done at another time (Levin, 2006).

Despite these limitations, the use of a cross-sectional design has advantages. As pointed out by Setia (2016), it tends to be more cost-effective than other designs and allows studies to be conducted relatively quickly. Another advantage is that, because the data is collected from a sample of the population, the prevalence of the inferred results can be estimated (Levin, 2006).

According to O'Leary (2014), surveying (the method used in this study) is a process through which the researcher gathers data by means of a questionnaire. A survey is an enquiry concerning the dimensions of a specific phenomenon over a sustained

period. This approach helps the researcher to gain insight into the situation being studied. A survey method was selected for this study to afford the opportunity for in-depth investigation of the relationships among the constructs being explored. The focus was employees in HEIs in South Africa.

3.4.1 Sampling design

In a study, the 'target population' refers to the full set of cases from which the sample is drawn. The sample is thus a subset that is selected for the study (Sharma, 2017). A sample should represent the population of interest as precisely as possible, and a representative sample should accurately portray the characteristics of the whole population. Ideally, the whole target population would be used in a study, but this is not practically possible (Acharya et al., 2013). A sample of the population is therefore used.

3.4.1.1 Target population and the sample

In this study, the target population was the academic and administrative employees at HEIs in South Africa. According to the Department of Higher Education and Training (DHET, 2019), there were 26 public universities in the country in 2019, with a reported total of 64,124 employees. Among them, 31.03% were academic employees and the rest (68.97%) were non-academic employees. Furthermore, 45.76% of the employees were male, and 54.24% were female.

'Sampling' refers to a technique or process used by researchers to select a limited number of individuals or items to represent the target population (Sharma, 2017). A representative sample means that the findings from the analysis can be generalised. In quantitative research, the larger the sample, the greater the accuracy of the data; that is, a low sampling error can be assumed. In addition, larger samples generate more relevant data. Although representativeness is a key factor in making decisions about the sampling strategy to be adopted (Salkind, 2012), additional factors should also be considered. They include the availability of a suitable sampling frame, the accessibility and geographic dispersion of the target population, the heterogeneity or homogeneity of the population (i.e. the uniformity of its composition or character) and the time frame and resources available for the research (Saunders et al., 2019).

3.4.1.2 Sampling strategies

Two main sampling strategies can be used in a survey. They are probability sampling and non-probability sampling.

a) Probability sampling

Probability sampling is also known as random sampling (Sharma, 2017). In this procedure, each element in the population has a known probability of being selected for the sample; that is, every item or person has an equal chance of being chosen to be part of the sample. Probability sampling involves selecting a random sample from a list containing the names of everyone in the population being studied. According to Sharma (2017), the main techniques which can be used to select a probability sample are simple random sampling, systemic sampling, stratified random sampling and cluster sampling. This sampling type is linked with strictly quantitative work and is required for the most rigorous statistical analyses.

b) Non-probability sampling

Non-probability sampling does not use random selection to choose an item or person to be included in the sample. In such procedures, the probability of selection is unknown for each element of the population. Therefore, each item or person does not have an equal chance of being included in the sample. Non-probability sampling is also known as judgmental sampling. The main techniques used to select a non-probability sample are convenience sampling, quota sampling, snowball sampling (Gorard, 2003), and purposive sampling (Kerlinger, 1986).

3.4.1.3 Sampling procedure in the current study

The most suitable sampling method was convenience sampling. Convenience sampling entails the use of individuals or units that are conveniently available (Zikmund et al., 2010). In the present study, all respondents were included given that they all were employed at an HEI in South Africa. Convenience sampling is used to gain as many completed datasets as possible, as quickly as possible (Zikmund et al., 2010). However, results based on convenience samples cannot be generalised beyond the target population.

For the purpose of this research, units of analysis were sampled from the target population, which was academic and administrative employees in HEIs in South Africa. Data was collected from five public HEIs in South Africa. In the five selected HEIs, there were 16,905 permanent employees at the time of the study, of whom 31.31% were academic employees and 68.69% were non-academic employees (DHET, 2019). It should be noted that the statistics reported by the DHET include only permanent employees, whereas in this study, temporary employees were also invited to participate. Hence, the population from which the sample was drawn was larger than 16,905.

An email was sent out to all the employees of the participating universities. Participation was voluntary, and those who decided to participate could follow the link provided in the email. All employees were welcome to participate, regardless of the capacity in which they were employed (i.e. part-time, fulltime, permanent or temporary). From the five participating universities, a total of 627 employees participated by completing the questionnaire. This sample constituted 3.7% of all the individuals employed by the participating institutions.

3.4.1.4 Sample size considerations

As already explained, a sample is a portion of the population chosen to represent the entire population. The sample size is the actual number of units or persons selected to participate in the study. The minimum sample size required for SEM is partly based on the ratio of the sample size (N) to the number of model parameters being analysed (Gorard, 2003; Jackson, 2003). Although authors have offered diverse recommendations, a minimum ratio of 10 : 1, meaning 10 estimations for each parameter, appears to be acceptable (e.g. Gorard, 2003). However, when the maximum likelihood estimation method is used, a ratio of 20 : 1 is ideal (Jackson, 2003).

Another point of consideration regarding the recommended minimum sample size is the power of the analysis (Gorard, 2003). The power of an analysis refers to its ability to accurately determine when a null hypothesis should be rejected. Gorard (2003) highlights that small samples may compromise statistical findings and lead to incorrect conclusions. One error that could arise is that the researcher incorrectly rejects a null

hypothesis despite it actually being true, known as a Type I error. Another error is when the researcher incorrectly fails to reject the null hypothesis (i.e. a Type II error).

In the social sciences, SEM is a crucial analytical tool (Hair, 2020). It is a suitable statistical technique for large samples (Brown, 2006; Kline, 2005; Tabachnick & Fidell, 2007). Small samples lead to weaker covariance estimates than would be the case with larger samples. The results of analyses are known to be strongly affected by the sample size (Kyriazos, 2018). With the use of SEM, the chi-square statistic has been shown to be particularly affected by the sample size (Chen & Land, 1990; Shi et al., 2019). There seems to be agreement among researchers that a large sample is ideal; however, there is less agreement regarding the minimum sample size (Marsh & Hau, 1999).

Barrett (2007) points out that studies submitted to journals were typically rejected if they used SEM with a sample of less than 200 units. The reason was the low statistical power associated with small samples. A point of concern in SEM studies is the congruence between the observed population covariance matrix and the reproduced population covariance. The concern is whether the similarity is due to the model's accuracy or to the test being unable to identify model errors (MacCullum et al., 1996). Statistical power is therefore critical, as it provides a level of confidence in the value of the proposed model under the root mean square error of approximation (RMSEA). Power is also a key factor in the observation of true correlations in the data (Kyriazos, 2018). In the current study, the researcher aimed to recruit a sample big enough to estimate RMSEA with 80% statistical power for both the proposed theoretical models. More information regarding the estimated sample sizes using this assumption is provided in the next section.

Wolf et al. (2013) point out that there does not seem to be one guideline that is perceived as the best to follow when determining the minimum sample size required. Potentially the most informative guide on the required sample size for SEM models is statistical power. Statistical power is directly related to the sample size (Kim, 2009). Using the approach by MacCallum et al. (1996), power analyses were conducted for all SEM models tested in the current study to establish the ideal minimum sample size. For Model 1, which had 1069 degrees of freedom, the estimated sample size was 31.93. For Model 2, which had 1023 degrees of freedom, the estimated sample size

was 32.71. MacCallum et al. (1996) caution against the use of sample sizes which are too small. With regard to SEM models, Juengst et al. (2017) point out that models with many degrees of freedom and a desired power estimate of 0.80 function acceptably with a sample size of around 140.

Although the sample in the present study is small considering the size of the target population, the aim of the analysis was not to provide results that could be generalised to other HEIs. The aim was to conceptualise structural models to capture the conceptual linkages that could explain positive and negative organisational outcomes. It was therefore decided that the sample was sufficient, as it balanced the need for statistical power with representativeness.

3.4.2 Data cleaning and sample characteristics

Among the 627 individuals who responded to the questionnaire, most completed the whole questionnaire, omitting no items. However, many people completed only half of the questionnaire, and some respondents left the final 25% of questions unanswered.

Given the number of participants who omitted the last part of the questionnaire, it can be reasoned that they might have experienced boredom and fatigue. In addition, one section of the questionnaire may have caused some respondents to feel uncomfortable, as it dealt with items related to CWB. It is understandable that individuals would be hesitant to answer questions admitting that they had engaged in counterproductive behaviour – such as theft – in the workplace. However, the CWB section of the questionnaire appeared toward the end of the questionnaire. Hence, participants may have experienced fatigue and left it incomplete for that reason.

Regarding the missing values in the data collected, 18 respondents did not answer 45% of the items; seven respondents did not answer 55% of the items; eight respondents did not answer 62% of the items; and 62 people did not answer 79% of the items. The structure of the missing items indicated that they were not missing at random. Therefore, it was not permissible to conduct missing value imputation on the data. Typically, data needs to meet the assumptions of missing at random or missing completely at random for missing value imputations to be conducted (Arel-Bundock & Pelc, 2018; Van Buuren, 2012). Therefore, given the large proportion of non-random

missing data, the researcher decided to remove cases that displayed more than 25% of missing values, as opposed to doing missing value imputations.

Deleting a case (participant) in a listwise manner means completely eliminating that case from the analysis. This approach is not advisable as it could create bias in the parameter estimates (Hayes et al., 2015; Vogt, 1999). Also, given the relatively large sample and the modest sample size requirement to achieve statistical power of 80% under RMSEA estimation, listwise deletion of cases was a reasonable compromise. The final sample used for the analyses was 523 respondents. All these 523 questionnaires were complete.

Considering the above points, as well as the discussion in section 3.4.1.4, the sample of 523 appeared sufficient to ensure a 0.80 power level. That is, the probability of correctly rejecting an incorrect model was high, considering the many degrees of freedom in each model.

Table 3.3 presents the characteristics of the sample in this study. In the final sample of 523 participants, 172 were males and 343 were females. Academic employees made up 52.2% of the sample, and the remaining 47.8% were administrative employees. With regard to the length of service reporting to their manager at the time of completing this survey, the most representative category (32.7%) of the sample indicated a tenure of more than 10 years. This was followed by a proportion of 23.3% indicating a tenure of between three and five years. Almost half of the sample (49.3%) indicated that Afrikaans was their first language, and 32.7% chose English as their first language.

Table 3. 3

Frequency distribution of demographic characteristics of the sample (n = 523)

Characteristic	Frequency	Percentage
Gender		
Male	172	32.9
Female	343	65.6
Prefer not to say	8	1.5
Position		
Academic	273	52.2
Administrative	250	47.8
Tenure (reporting to current manager)		
Less than 1 year	57	10.9
1–2 years	82	15.7
3–5 years	122	23.3
6–8 years	68	13.0
9–10 years	23	4.4
More than 10 years	171	32.7
Home language		
Afrikaans	258	49.3
English	171	32.7
Xhosa	20	3.8
Venda	4	.8
Zulu	6	1.1
Ndebele	1	.2

91

South Sotho	21	4.0
North Sotho	2	.4
Tswana	11	2.1
Swazi	2	.4
Other	27	5.2

The following section discusses the ethical considerations of the study. It explains the process followed to collect data, including how the researcher approached the participants and what was communicated.

3.4.3 Data collection and ethical considerations

A pilot study is a small-scale research project conducted before the main study. It collects data from respondents as a preliminary step before the formal data collection stage. In the present study, a formal pilot study was not necessary as the instruments had been validated in previous studies. However, before the data collection process commenced, the questionnaire was completed by 10 randomly selected individuals. The aim was to test the survey method and not necessarily the items. These individuals were therefore not necessarily HEI employees. This step ensured that the online survey worked well, and that participants would not have any difficulty or misunderstand the instructions when completing the questionnaire. From this pilot stage, no concerns were flagged.

Data collection was guided by the ethical guidelines from the participating HEIs. The ethical clearance certificates for each research site are included in Appendix A. The guidelines of ethical boards across HEIs in South Africa are fairly consistent. Some of the most important considerations for data collection include the principles of non-coercion, withdrawal without sanction, anonymity, non-maleficence and confidentiality.

To protect the rights of participants, the researcher explained the purpose of the study in the information letter included in the questionnaire. If respondents required further clarification, the researcher was available to attend to their questions or concerns via email. All participants were older than 18 years and indicated their informed consent before commencing with the online questionnaire. Furthermore, participation in the study was voluntary and nobody was obliged or pressured to participate. The participants were informed that they could withdraw from the study should they feel a need to do so, at any stage.

The questionnaire included information section about any potential risks the participants might encounter. No anticipated harm was envisioned through participation in the study. However, respondents could access debriefing from a

registered psychologist, through contacting the principal researcher, if they experienced an adverse emotional response to participating in the study.

The participants were also informed that all data gathered would be kept confidential and that no individual data would be shared with management in the HEI. Depending on when ethical clearance was obtained from the participating HEIs, the questionnaire was sent between October 2019 and August 2020. All the responses were kept anonymous and there was no personal identification information required in the questionnaire. Data was collected through questionnaires which were distributed electronically. Furthermore, it was pointed out that the data gathered was for research purposes only.

Participants were invited to complete the questionnaire (see Appendix B) by following a link in an invitation email. Collecting data online enabled the researcher to gather responses from HEIs across South Africa. All respondents were employees at an HEI when they completed the questionnaire. The participants were therefore deemed dependable and trustworthy sources of information required to achieve the research goal.

3.5 Measurement instruments

Primary data was collected through the administration of established questionnaires that had already been validated and were well structured. A main focus of the literature review was to identify research instruments with robust validity and reliability. To this end, various measures were considered to operationalise each of the latent variables in the two structural models. Table 3.4 provides a summary of the information regarding the measurement instruments that were considered and ultimately used in this study.

Table 3. 4

Summary of measurement instruments

Construct	Measurements considered	Measurement used	Description	Dimensions and number of items
Biographical information	Categorical or nominal data Descriptive statistics	Self-report questionnaire	The biographical section of the questionnaire was developed to gather demographic data	Age, gender, position, education, work experience and tenure at current organisation; length of service reporting to the current manager
Emotional Management	(1) Emotional and Social Competence Inventory (ESCI) developed by Daniel Goleman, Richard Boyatzis and Hay Group. (2) Assessing Emotions Scale (AES) developed by Schutte et al. (2009)	AES score (Schutte et al., 1998)	The items of this instrument assess the individual's skills relating to EM in the self as well as the EM of others	Two dimensions, 17 items
Leader–Member Exchange	(1) 7-item LMX survey developed by Graen and Uhl-Bein (1995)	7-item LMX survey developed by Graen and Uhl-Bein (1995)	This instrument assesses the perceived quality of the relationship between an employee and their leader	One dimension; 7 items
Team-Member Exchange	(1) 10-item TMX scale from Seers et al. (1995) (2) 18-item TMX scale from Seers (1998)	TMX scale from Seers et al. (1995)	This instrument assesses the perceived quality of the relationship between an employee and their team members	One dimension; 10 items

Organisational Citizenship Behaviour	(1) OCB measurement instrument developed by Podsakoff and MacKenzie in 1994; (2) 16-item scale developed by Smith et al. in 1983; (3) Organisational Citizenship Behaviour Checklist (OCB-C) developed by Fox and Spector (2009)	OCB-C score (Fox and Spector, 2009)	This instrument assesses OCB directed at the organisation, as well as OCB directed toward individuals	Two dimensions; 20 items
Counterproductive Workplace Behaviour	(1) CWB checklist developed by Spector et al. in 2006; (2) Workplace Deviance Scale developed by Bennett and Robinson (2000)	Workplace Deviance Scale developed by Bennett and Robinson (2000)	This instrument measures employee behaviour that is detrimental to the organisation or individuals in the organisation	Two dimensions; 19 items
Intention to Quit	(1) two-item measure developed by Spector et al. (1988); (2) a three-item measure from the 3-item intention scale from the Michigan Organisational Assessment Questionnaire (MOAQ) by Cammann et al. (1979); (3) Turnover Intentions Scale (TIS-6) developed by Roodt (2004)	Turnover Intentions Scale (TIS-6) developed by Roodt (2004)	This scale assesses an individual's intention to leave their current workplace	One dimensions; 6 items

The final questionnaire sent out to participants comprised seven sections. The first section gathered demographic data – such as age, gender, position in institute and language. The second section examined the emotional regulation items of emotional intelligence. The third section consisted of questions to rate LMX and assess employees' perceptions of their relationships with their immediate superiors. Employees' views regarding the relationships within their teams were examined in the fourth section. In the fifth section, employees' OCB was assessed. The sixth section examined CWB, and the final section investigated the employees' intention to quit.

Standardised measuring instruments were utilised to measure the variables included in this study. On the basis of the literature review, six instruments were identified as being reliable, valid and applicable for the study. These instruments were combined into a consolidated electronic questionnaire, with an additional section on biographical information. A general discussion of each instrument's content, structure and psychometric features as presented in the literature is provided in sections 3.5.2 to 3.5.7 below.

3.5.1 Biographical questionnaire

This part of the questionnaire gathered the demographic data of the respondents such as their age, gender, position, education, work experience, and tenure at current organisation as well as length of service while reporting to the current manager.

3.5.2 Emotional intelligence

Initially, the researcher considered using the Emotional and Social Competence Inventory (ESCI) developed by Daniel Goleman, Richard Boyatzis and the Hay Group. However, mainly due to issues regarding accessibility, the Assessing Emotions Scale (AES) developed by Schutte et al. (1998) was used instead. The AES dimensions allowed the researcher to focus on the two dimensions of interest, namely EM of the self and of others.

The AES is one of the most frequently used instruments to assess emotional intelligence in South African studies (Nel et al., 2015). This is a 33-item self-report questionnaire, which assesses the following dimensions of emotional intelligence: (i) perception of emotions, (ii) managing of emotions in the self, (iii) managing others'

emotions (or social skills) and (iv) utilising emotions (Schutte et al., 2009). The instrument employs Likert-type response scales, ranging from 1 (strongly disagree) to 5 (strongly agree).

In the development of the AES, using a sample of 346 individuals, Schutte et al. (2009) reported an internal consistency (Cronbach's alpha) of 0.90. Various other studies have since reported good internal consistency for this instrument, with a mean alpha of 0.87 (Schutte et al., 2009). The instrument had previously been used by Schutte et al. (2001) with a sample that included university employees; that study explored the relationship between emotional intelligence and interpersonal relationships. The instrument has been used widely in multiple studies which have confirmed its validity and reliability (Schutte et al., 2009).

Jonker and Vosloo (2008) conducted a study using the original (1998) version of the instrument with a South African sample. The sample consisted of 341 individuals who were students at an HEI. In that study, emotional intelligence had six dimensions: positive affect, emotion–others, happy emotions, emotions–own, non-verbal emotions and EM. The authors reported Cronbach's alpha coefficients ranging between 0.54 and 0.73 for these dimensions. The six-factor structure reported by Jonker and Vosloo (2008) is contrary to the four-dimension structure the present study was based on (Schutte et al., 2009).

Anglim et al. (2020) also used the AES to examine emotional intelligence and personality, with an Australian sample. The sample consisted of 1403 employees from a consultancy organisation, including a range of industries (which were not specified). Regarding the reliability of the measurement instrument, Cronbach's alpha was 0.87 for the overall instrument. Cronbach's alpha values for the four dimensions ranged between 0.57 and 0.85.

Bar-On et al. (2007) point out that the AES (Schutte et al., 1998) has received the most experimental consideration. Its internal consistency estimates are usually above 0.9 and test-retest reliability values are around 0.78 (Schutte et al., 1998); hence, the instrument is highly reliable. A limitation of this instrument is that it appears to lack structure. Some studies report a six-dimensional structure and others only four. This

inconsistency is particularly evident in research involving South African samples (Nel et al., 2015).

In the present study, the researcher used only the 17 items that pertain to the EM dimensions of emotional intelligence. An example item relating to managing emotions in oneself is 'When I am faced with obstacles, I remember times I faced similar obstacles and overcame them.' An example of an item related to the managing of emotions in others is 'Other people find it easy to confide in me'. Regarding these EM dimensions, Schutte et al. (2009) noted that the Cronbach's alpha values reported in a previous study were 0.63 for managing own emotions and 0.66 for managing others' emotions.

3.5.3 Leader–member exchange

In this study, the 7-item LMX survey by Graen and Uhl-Bein (1995) was adapted and used to measure LMX. In the original questionnaire, the leader is referred to as 'the supervisor'. However, because 'supervisor' sometimes carries a different meaning for academic employees, in the current study, 'my supervisor' was replaced with 'the person I report to'.

The scale has shown consistently acceptable reliability and validity measures for a range of different contexts (Waglay et al., 2020). No other instrument was considered for assessing LMX in this study. The instrument employs a 5-point response scale, ranging from 1 (strongly disagree) to 5 (strongly agree). An example of an item is 'Regardless of how much formal authority the person I report to has built into his/her position, he/she would be personally inclined to use his/her power to help me solve problems in my work.'

The original version of the questionnaire developed by Scandura and Graen (1984) was used with a South African sample by Els et al. (2016). In that study, a sample of 213 employees at a financial institution was used, and the authors explored the mediating role of LMX in the relationship between the use of employees' strengths and work engagement. They reported a reliability coefficient of 0.93 for the original scale. More recently, Waglay et al. (2020) used the updated version of the LMX survey, which was also used in the current study. Waglay et al. (2020) used a sample of 226

employees at an international banking institution in South Africa and reported a Cronbach's alpha coefficient of 0.92.

The instrument is based on the conceptualisation that LMX has three elements: (i) respect, (ii) trust and (iii) obligation (Graen & Uhl-Bien, 1995). The authors explain that although LMX has many dimensions, because the dimensions are highly correlated, they can be captured as a single measure of LMX. Regarding the reliability of the scale, Graen and Uhl-Bien (1995) reported that the prevalent finding across studies was that the scale is unidimensional and attains Cronbach alphas ranging between 0.80 and 0.90.

Furunes et al. (2015) used the LMX-7 scale to study poor-quality leader–member relationships. The sample consisted of 409 teachers from random primary and secondary schools in Norway. The authors reported that the LMX-7 scale showed strong construct validity, and that the reliability was also good, with reported Cronbach's alpha values above 0.90. The LMX-7 scale was also used in a study by Carnevale et al. (2020), who reported strong reliability, with a Cronbach's alpha value of 0.90.

A limitation of this measure relates to a criticism of the LMX theory. The critique is that the theory does not account for how other factors, such as justice (Khalid et al., 2014) and communication (Mueller & Lee, 2002), could affect an employee's perception. Those perceptions would in turn influence the establishment and fostering of LMX relationships.

3.5.4 Team-member exchange

The 10-item questionnaire by Seers et al. (1995) was used to measure employees' perceptions of the quality of their relationships with other team members. This instrument is one of the most commonly used assessments of TMX and has shown good reliability in numerous studies. To the researcher's knowledge, no other study has applied this 10-item scale in a South African context. However, some studies have employed a different version of the instrument using a South African sample. For example, Kotze (2008) used an 18-item version of the scale to assess TMX in a study that explored factors affecting team climate. The author used a sample of 190 employees from different organisations across South Africa, including government

departments, the IT industry and higher education. Analysis of the TMX construct revealed three factors, and each factor had an alpha coefficient above 0.75 (Kotze, 2008). The same instrument was used in an empirical study, with a reported alpha reliability of 0.83 (Seers, 1989).

A longer version of the instrument was considered for the present study, but it was then decided to use the 10-item measure. The 10-item instrument uses a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). An example item is 'Other colleagues of my team usually let me know when I do something that makes their job easier (or harder).'

This measure of TMX was used by Wijaya (2020), who examined TMX and employee job satisfaction. The sample consisted of 172 employees working at an international airport in Indonesia. The author had to remove two items in the scale, but nonetheless reported good reliability, with a Cronbach's alpha value of 0.79 (Wijaya, 2020).

A limitation of the instrument is that it assesses an employee's perceived quality of relations with their team members alone. Social exchanges in the workplace can develop beyond the immediate team (Lee, 2020), which could also impact the employee outcomes. These outcomes are pertinent to the present study, and this limitation should be kept in mind.

3.5.5 Organisational citizenship behaviour

Common measures of OCB include an instrument developed by Podsakoff and Mackenzie (1994) and a 16-item scale developed by Smith et al. (1983). For the present study, the Organisational Citizenship Behaviour Checklist (OCB-C) by Fox and Spector (2009) was used to assess OCB. The 20-item version was used, which employs a 5-point response scale ranging from 1 (never) to 5 (every day). This instrument was chosen as it assesses OCB in terms of the two dimensions of interest in the present study: OCB directed at the organisation (OCB-O) and OCB directed at colleagues (OCB-I).

Seven items measure OCB-O and 13 measure OCB-I. An internal consistency reliability score of 0.78 (coefficient alpha) was reported for the initial scale (Fox et al., 2009). An example of an item measuring OCB-O is 'Gave up meal and other breaks

to complete work.' An example of an item measuring OCB-I is 'Lent a compassionate ear when someone had a personal problem.'

DeShong et al. (2017) used the 20-item OCB checklist with a sample of 163 psychology students at a university in the United States. The authors reported that the internal consistency was excellent, with a Cronbach's alpha score of 0.93. The authors reported on the reliability of the measure as a whole and did not present information about the internal consistency of the two dimensions assessed by the scale.

Mafini (2015) explored factors that affected performance among a South African sample; the study included the use of the OCB checklist. The sample consisted of 264 employees in six governmental departments in South Africa. The author confirmed that the instrument was validated and attained a reliability estimate of 0.873 in that study. However, a limitation of this instrument is that it uses self-ratings. Khalid and Ali (2005) point out that self-rated responses do not always correlate highly with peer-rated or leader-rated responses.

3.5.6 Counterproductive workplace behaviour

A measure of CWB considered for use in this study was the CWB checklist (Spector et al., 2006). The checklist assesses the CWB construct in terms of five dimensions: abuse, production deviance, sabotage, theft and withdrawal. However, the current researcher focused only on two CWB dimensions, namely CWB-O and CWB-I. Therefore, the Workplace Deviance Scale developed by Bennett and Robinson (2000) appeared more suitable. This 19-item self-rated instrument has a 7-point response scale ranging from 1 (never) to 7 (daily). The scale measures CWB directed at the organisation (CWB-O) and that which affects individuals (CWB-I).

An example of an item related to CWB-O is 'Spent too much time fantasizing or daydreaming instead of working.' An example of an item assessing CWB-I is 'Said something hurtful to someone at work.' Bennett and Robinson (2000) reported acceptable internal reliability scores of 0.81 for CWB-O and 0.78 for CWB-I.

This scale was used by Lim et al. (2016) to study the effect of personality on deviant behaviour in the workplace. Their sample comprised 200 volunteers in emergency relief centres in Malaysia. The reported reliability for the subscale on deviant behaviour

directed at individuals was 0.84 (Cronbach's alpha), whereas for deviant behaviour directed at the organisation the alpha value was 0.80. A Cronbach's alpha value of 0.90 was reported for the total scale.

A study using a South African sample and the same instrument was conducted by Swanepoel (2012). The sample consisted of 292 employees from various industries in South Africa. For the subscale that measured deviance directed at individuals, strong internal consistency (0.81) was reported. An acceptable internal consistency estimate of 0.78 was reported for the organisational subscale.

Similar to the discussion about the OCB checklist, a limitation of the Workplace Deviance Scale is that individuals must rate themselves. Self-rated responses may be altered by favourable exaggerations and do not always correlate highly with peer-rated or leader-rated responses. Furthermore, in the case of deviance, participants may tend to underrepresent the truth of their deviant behaviour.

3.5.7 Intention to quit

A few measurement options were available to assess employees' turnover intentions. Examples were a 2-item measure developed by Spector et al. (1988) and the 3-item intention scale by the Michigan Organisational Assessment Questionnaire (MOAQ; Cammann et al., 1979). The researcher opted to use a slightly more comprehensive scale, the 6-item Turnover Intentions Scale (TIS-6) to measure employees' intention to quit.

The initial questionnaire developed by Roodt (2004) has 15 items. An example item is 'How likely are you to accept another job at the same compensation level should it be offered to you?' The response scale ranges from 1 (never) to 100 (always). In 2013, Bothma and Roodt reported that the TIS-6 was a reliable measure of turnover intentions and attained an alpha coefficient of 0.80 with their sample (Bothma & Roodt, 2013). The TIS-6 was also by Muazzam et al. (2020), who explored the intention to quit and bullying in the workplace. The authors reported a Cronbach's alpha of 0.82 for the TIS-6 scale.

The TIS-6 was used by Stevens (2015) to explore factors affecting turnover intentions among employees in different industries. The majority (73.3%) of the responses came

from employees in the retail industry. That study was focused on South African employees, and a sample of 135 individuals was used. Stevens reported a Cronbach's alpha coefficient of 0.87 for the instrument.

Considering the wording of the items, a possible limitation of using this instrument is that is does not capture in detail the reasons behind an employee's intention to quit. This insight could be more valuable than merely knowing about the intention.

3.6 Data analysis

In this section, the data analysis techniques used to test the research hypotheses are discussed. Characteristics of the measurement instruments are also described. Data analysis refers to the process of inspecting and examining raw data to extract meaningful information. It involves the statistical organisation and interpretation of numerical information. In addition, data analysis helps researchers to find patterns that are meaningful and to properly describe the inherent characteristics of, and relationships among, the phenomena under study (Glen, 2006).

Once the data was collected, the information was exported into an MS Excel document for the purposes of data analyses. Preliminary analyses were conducted to screen the data for correctness and statistical outliers. The preliminary analysis was also used to assess the suitability of the data for multivariate statistical techniques, which would be used to empirically validate the substantive hypotheses. The process of data analysis followed in this study can be depicted in three stages. Figure 3.2. provides an overview of each stage, and they are discussed in the following sections.

(i) Descriptive statistics and data screening

(ii) Establishing construct validity

(iii) Empirical testing of relationships
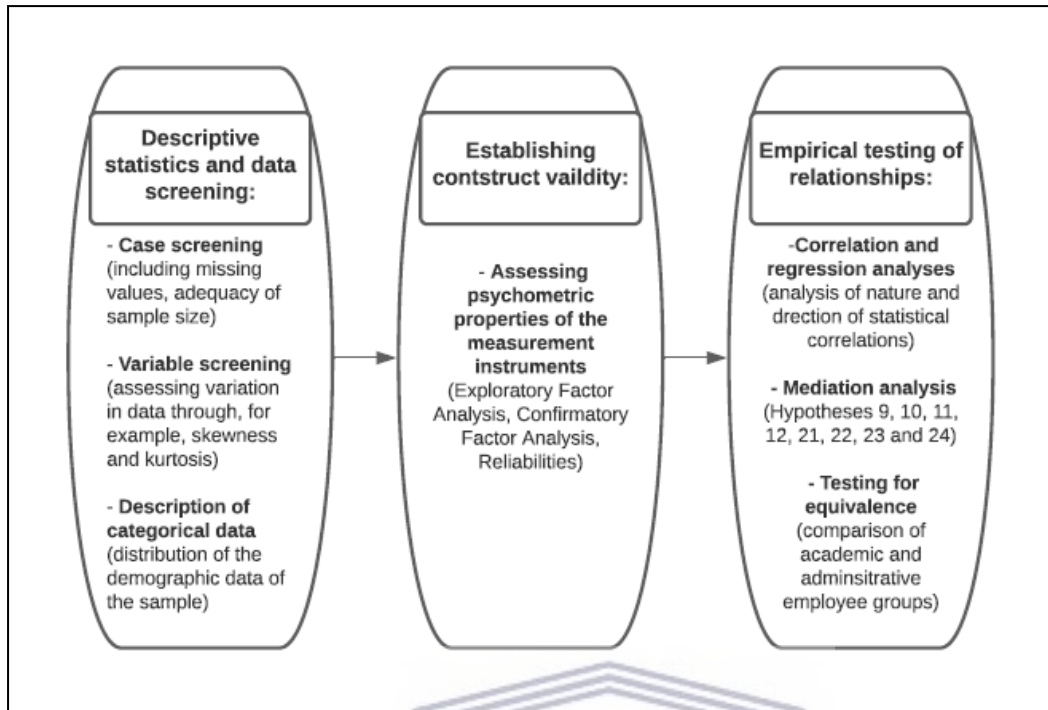
Figure 3. 2: Overview of the data analysis process

3.6.1 Descriptive statistics and data screening

During this stage, the data was checked for accuracy of data, missing cases and distribution of scores. In relation to the distribution of scores, the skewness and kurtosis of the data was important. Confirmatory factor analysis (CFA) and SEM assume multivariate normality, homoscedasticity of residuals and linearity. These assumptions were all tested using the descriptive statistics in SPSS (Version 27).

3.6.1.1 Case screening

The cases were screened for missingness, outliers and out-of-range responses. The missing cases and their potential reasons were discussed in section 3.4.2. Because of the large number of missing cases, the method of imputing missing values was not suitable, as this could negatively affect the accuracy of the analysis and therefore also the interpretation of the results.

3.6.1.2 Variable screening

a) Linearity

The assumption of linearity is that the dependent and independent variables being analysed are related to each other in a linear way (Meyers et al., 2017; Tabacknik & Fidell, 2014). Linearity is confirmed when the correlation between the dependent and independent variables is portrayed as a relatively straight line on a scatterplot (Tabachnick & Fidell, 2019). This assumption was assessed through the visual inspection of scatterplots. Where there is a normal distribution of variables and a linear relation, the scatterplot generates an oval-shaped outcome. This shape would indicate that regression and SEM analyses may be performed (Pallant, 2016).

b) Homoscedasticity of residuals

One of the assumptions of linear regression is that homoscedasticity exists. Homoscedasticity means that the variance in the scores of one variable is approximately similar to the variance in the scores of the other variables (Tabacknik & Fidell, 2014). This means that the error variance across the variables is consistently spread out. The relationship between the variables is said to be homoscedastic if the assumption of normality is met. Homoscedasticity is therefore related to the normality assumption (Lomax & Hahs-Vaughn, 2012). Normality is discussed in paragraph (d) below.

A violation of this assumption is referred to as heteroscedascity. This feature could result in inaccurate outcomes being reported, which would potentially decrease the quality of the whole analysis.

Homoscedasticity is assessed through a visual inspection of bivariate scatterplots. If the assumption is met, the points on the scatterplot generally have the same width, with some grouping toward the middle (Tabacknik & Fidell, 2014).

c) Multicollinearity

A situation in which variables in a correlation matrix are too strongly correlated is referred to as multicollinearity (Allen, 1997; Tabacknik & Fidell, 2014). This problem occurs when the correlation (r) between variables has a coefficient value of 0.90 or

higher. Multicollinearity negatively impacts the regression estimates, causing correlations to be statistically not significant (Allen, 1997). Furthermore, the presence of multicollinearity may lead to incorrect path coefficients in SEM models. For example, results may show a correlation in the opposite direction from what was expected based on the prior theory.

One measure of multicollinearity is tolerance. This is the percentage of variance in the independent variable that is not accounted for by the other independent variables. A tolerance value lower than 0.20 is concerning; tolerances below 0.10 are indicative of multicollinearity (Field, 2018; Pallant, 2016). Another way multicollinearity is assessed is through variance inflation factors (VIFs). The VIF is the reciprocal of the tolerance value (Vogt & Johnson, 2016) and represents the degree to which standard errors are inflated as a result of collinearity. VIF values above 10 are considered to be problematic. In the context of SEM, multicollinearity can be assessed by high correlations between latent variables in the phi matrix. Typically, values in excess of 0.80 can be regarded as dependent. Such high correlations indicate a violation of the assumption of independence (Hildreth, 2013).

d) Normality

The frequencies and distribution of the data were studied. The researcher considered the information pertaining to means, standard deviations, skewness and kurtosis. The researcher also performed a visual check of the distribution of the data. Histograms were studied to observe the skewness and kurtosis and to compare the actual distribution to the hypothetical normal distribution. In a normal distribution, the median, mean and mode scores are the same, and the variable's scores are clustered around the mean in a symmetrical bell-shaped curve (Vogt, 1999). When distributions are distributed non-normally, this could lead to inaccurate correlations and significance results (Osborne & Water, 2002).

Visual observation of the data plots allows the researcher to investigate the skewness and kurtosis of the dataset, and outliers can be identified. When observing skewness, the researcher generally looks at the tail of the curve. If the value is zero, the curve is symmetric. If the values are positive, the curve is skewed to the right (Blanca et al., 2013) and the tail is longer on the right side than the left. Negative values imply a skew

to the left, with the tail being longer in the left direction. The greater the absolute value, the greater the skew.

Kurtosis has to do with the peaks or flatness of the curve compared to a normal distribution (Blanca et al., 2013). Values of zero indicate that the dataset reflects the same kurtosis as that of a normal distribution. When the values are near zero, the curve is described as mesokurtic. Positive values indicate a more peaked curve (leptokurtic), whereas negative values indicate a flatter curve (platykurtic). The greater the absolute value, the greater the kurtosis.

Lei and Lomax (2005) point out that if the absolute values of skewness and kurtosis are less than 1, the curve is considered to display slight non-normality. Values between 1 and 2.3 are considered to be moderate non-normality, whereas values greater than 2.3 are regarded as severe non-normality. Examination of these values can assist the researcher in identifying outliers in the dataset. The removal of outliers could result in a more normal distribution of scores.

The skewness and kurtosis of the dataset used in this study are explained in Chapter 4. The skewness of variables affect the estimations in SEM. In particular, the use of a maximum likelihood estimator when the data is not normally distributed can lead to biased parameter estimates in SEM. Using the robust maximum likelihood estimator is recommended for when the data is skew (Bandalos, 2014; Kline, 2015).

3.6.2 Construct validity

Although the validity and reliability of the measuring instruments have been widely reported in the literature, the instruments were developed in countries other than South Africa. Not all of these instruments have been validated in the local context. It was thus important to establish the measurement integrity of the scale prior to specifying the structural model. If the measurement properties of the structural model were ambiguous, the path coefficients would be difficult to interpret with certainty.

Anderson and Gerbing (1988) recommend that a two-step approach be used in the estimation and evaluation of path models using SEM. The idea is that the measurement quality of the latent variables should be confirmed to avoid spurious relationships in the structural model. Once the quality of the measurement models is

confirmed, the structural components of the model can be interpreted with confidence (O'Rourke & Hatcher, 2013).

The measurement quality of the instruments used in this study was assessed through the following steps:

1. conducting exploratory factor analyses (EFAs) for each instrument. The aims were
   - to confirm the theorised factor structure of the relevant constructs
   - to reduce the data

2. establishing the best fit measurement model for each construct through CFA

3. establishing the internal consistency of instruments through by item analysis.

These steps enhanced the construct validity of the measures and the internal consistency. EFA and CFA assess the internal structure of measurement scales to establish their construct validity. Failing to conduct factor analyses has an adverse effect on the interpretation of results (Preacher & MacCallum, 2002). Although most of the measures have established construct validity, the researcher found some models that did not fit the data satisfactorily. Hence, it was decided to conduct EFA prior to CFA. MPlus version 8.1 was used to perform EFA, CFA and all SEM analysis in this study. The next section expands on how EFA was applied.

3.6.2.1 Exploratory factor analysis

EFA is an exploratory technique used to establish the ideal number of factors (indicated by the eigenvalues) in a variable. The analysis indicates how many main factors occur and the pattern of factor loadings (Matsunaga, 2010). In this study, EFA was used to explore the data, validate the research instruments, and find information on the number of factors needed to best represent the data.

The general aim of EFA is thus to assess the dimensionality of a group of items by revealing the smallest number of factors required to explain the correlations between items. The results of the analysis may necessitate some changes in the relevant instrument – for example, by deleting poor items (Brown, 2015). EFA therefore aids in construct validation (Brown, 2015). In short, EFA is a multivariate statistical method

used to uncover the underlying structure of a set of variables and to identify the pattern of loadings (Norris & Lecavalier, 2010).

Before the factor analyses were conducted, the dataset was assessed for factor analysability. The Keiser-Meyer-Olkin (KMO) index of sampling adequacy was used to measure whether the dataset was suitable. KMO values can range between 0 and 1. According to Tabachnik and Fidell (2001), the score should be at least 0.60 to indicate analysability.

Another piece of information that was considered in the EFA was the communalities. These values indicate how much variance is accounted for by common variance (Child, 2006). Ideally, the maximum likelihood extraction scores should be above 0.200 and below 0.900. The communality values were therefore considered when flagging problematic items. Specifically, if the communality value was too low or too high (i.e. approaching 1), the item was considered for removal. It has been suggested that items with communality values below 0.200 be considered for removal (Child, 2006).

Further to flagging problematic items, the researcher also considered the cross-loading of items on two factors. If there were cross-loading items, the items with loadings greater than or equal to 0.30 for the target construct were retained, provided that significant loadings on two factors (where applicable) differed by at least 0.25 (Matsunaga, 2010).

The following normative values, suggested by Comrey and Lee (1992), were used to assess the magnitude of EFA factor loadings. In addition, the factor loadings of the items were considered in decisions regarding construct validity. Loading scores below 0.450 are considered weak; values between 0.450 and 0.550 are deemed moderate, and values between 0.550 and 0.630 indicate strong loadings. Scores in excess of 0.630 are considered to be very good, and scores above 0.710 are regarded as excellent (Comrey & Lee, 1992).

In the current study, communality values of 0.100 and factor loadings of 0.300 were set as the minimum cut-off values for the EFA solutions.

The eigenvalues were also considered during the EFA. Eigenvalues indicate the total variance within each item that is explained by the various factors (Brown, 2015). Theoretically, eigenvalues can be positive or negative. Values greater than zero were interpreted as good. Because variance cannot be negative, if an eigenvalue is negative, this indicates a poorly developed model. Each eigenvalue greater than 1 represents a possible factor or dimension within the relevant construct.

Two types of rotations are used when performing EFAs. The first type is orthogonal rotation, which constrains the factors to be uncorrelated. The second type, oblique rotation, permits the factors to be correlated with one another (Brown, 2015). In this study, promax rotation was used; this is a hybrid version in which both rotation types are applied. The results indicate whether a solution is orthogonal or oblique. A benefit of this method is that it allows for the simple analysis of a model that has many constructs. Promax rotation starts by rotating the factors orthogonally, and then obliquely, allowing for factors to correlate with each other (Brown, 2015). However, if the factors are truly orthogonal, the promax will rotate the factors at right angles (Allen, 2017; Brown, 2015).

A distinction is made between an unrestricted and a restricted EFA. In an unrestricted solution, there is no restriction on the factors; therefore, unrestricted solutions can be revealed through orthogonal rotation. All solutions will obtain the same fit (Ferrando & Lorenzo-Seva, 2000). In contrast, restrictions are imposed on the factors in a restricted solution. A restricted solution is not possible when rotating an unrestricted solution (Ferrando & Lorenzo-Seva, 2000).

The factor extraction employed in this study was the maximum likelihood method. A notable advantage of this type of extraction is that it provides a statistical assessment of how accurately the correlations among the items (shown in the factor matrix) indicate the relationships among the items in the input data (Brown, 2015). Brown (2015) highlights that a theoretical understanding of the measure is valuable when interpreting the factors and assessing the factor structures. This point is important when EFA is used in a confirmatory fashion (i.e. to establish existing factor structures). Performing an unrestricted factor analysis along with CFA has shown to be valuable, as it permits the researcher to establish whether anything was overlooked during the

restricted analysis (McDonald, 2005). Consistency in the outcomes of both these analyses provides extra support regarding the factor structure.

Henson and Roberts (2006) contend that EFA and CFA should not be performed on a single dataset. This argument is supported by Green et al. (2016), who assert that performing an EFA and CFA on the same dataset does not provide any additional useful information. Green et al. (2016) argue that performing CFA after EFA could be misleading. However, Fabrigar et al. (1999) argue that EFA results generated with pre-specified conditionalities can provide incremental information regarding the key model parameters of the restricted CFA model. This approach led McDonald (2005) to suggest that EFA can be applied in a confirmatory fashion. McDonald (2005, p. 171) substantiated this methodological stance by stating:

There is a case for accompanying a restricted, fully confirmatory factor analysis, in which the pattern of the entire factor loading matrix has been specified on substantive grounds, by a parallel unrestricted factor analysis that is also confirmatory in intention. This allows us to see if anything has been missed by the former. If the two analyses are essentially consistent, the overall weight of evidence is increased. If there are points of inconsistency, these may lead – at least as safely as the use of modification indexes – to modified hypotheses for further test.

In the current study, this parallel methodology was employed in that EFA was used in a semi-confirmatory fashion to specify a known structure for the data. Possible areas of misfit were identified and investigated again with CFA. The evidence obtained from the two techniques was used to revise any measurement instruments that had problematic parameters.

SPSS was used to evaluate the dimensionality of the scales and subscales. As recommended by Brown (2006), the maximum likelihood estimation with promax rotation was applied.

3.6.2.2 Confirmatory factor analysis

In contrast to EFA, which is used to generate a new theory, CFA is used to test existing theory. The researcher hypothesises an a priori model of the underlying structure of the target construct and examines whether this model fits the data adequately

(Matsunaga, 2010). Unlike EFA, CFA allows the researcher to specify relationships among the indicators. The acceptability of the model is expressed as an index of fit.

To test the model fit, the researcher considered various pieces of information from the CFA. This information included the values from the chi-square test of model fit, the RMSEA and the standardised root mean square residual (SRMR). The incremental fit indices that were considered were the confirmatory factor index (CFI) and the Tucker-Lewis index (TLI).

The RMSEA is an 'error of approximation' index that indicates the 'extent to which a model fits reasonably well in the population (as opposed to testing whether the model holds exactly in the population)' (Brown, 2015, p.71). The RMSEA is sensitive to the number of parameters in the model but is not really affected by the sample size (Brown, 2015).

Theoretically, the SRMR refers to the average difference between the observed correlations of the input data and the correlations expected in the model. At a practical level, the SRMR is a 'positive square root average' (Brown, 2015, p. 70). The SRMR value is interpreted similarly to RMSEA. RMSEA values between 0 and 0.05 indicate a good fit, and values between 0.05 and 0.08 indicate an acceptable fit (Browne & Cudeck, 1993 as cited in Brown, 2015). Values above 0.08 indicate a poor fit. Hence, for both SRMR and RMSEA, values below 0.08 indicate an acceptable fit and are desirable in that sense (Hu and Bentler, 1999). For CFI and TLI, the values should be 0.900 or larger to indicate a good fit (Bentler, 1990).

In addition to insight about the model fit, CFA provides valuable information regarding the model parameters. The most important parameters typically reported for CFA models include the standardised factor loadings, residuals and R-squared values. As explained by Brown (2015, p.115), in CFA a standardised factor loading can be interpreted as the correlation between an indicator and a factor. Factor loadings of 0.30 or higher are generally required for the factor to be considered salient (Brown, 2015, p.115). The R-square estimates can be viewed as the reliability of the indicator; the value represents the ratio of true variance over the total variance explained.

The standardised error variance is also referred to as residual variance. This figure indicates the amount of variance not accounted for by the model. Specifically, the

standardised residual variance reflects the extent to which variance is due to random error versus systematic variance. According to Jöreskog and Sörbom (1996), squared multiple correlation values can be understood as variable validity coefficients, which indicate how well the indicators reflect variance in the latent variable.

The standardised phi matrix reflects the correlations between the analysed latent variables (Jöreskog & Sörbom, 1996). Extreme correlations should be interpreted carefully, as they could indicate a lack of discriminate validity between the latent variables (Diamantopoulos & Siguaw, 2000). Correlation coefficient values higher than 0.90 could indicate collinearity (Kerlinger & Lee, 2000). This general cut-off was applied in the current study. To evaluate the discriminant validity of the latent variables, the researcher assessed the intercorrelations among those variables through EFA.

In summary, to test for model fit, the researcher considered various pieces of information from the CFA results. This included the values of the chi-square test of model fit, the RMSEA and the SRMR. The incremental fit indices used were the CFI and the TLI. The criteria for these various indices are summarised in Table 3.5. The results of the CFA are presented in Chapter 4.
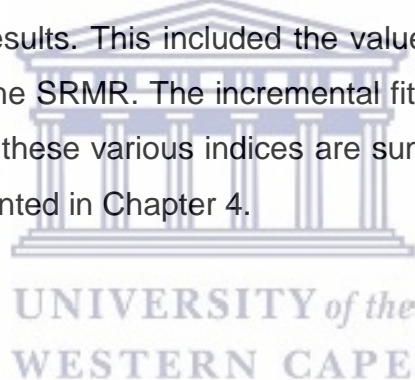
Table 3. 5

Criteria for goodness of fit indices and model parameters

Index	Criteria
Absolute Fit	
chi-square	If the chi-square value is not statistically significant (p ≥ 0.05), the model is supported
RMSEA (root mean square error of approximation)	RMSEA values between 0 and 0.05 indicate good fit, and values between 0.05 and 0.08 indicate acceptable fit (Browne & Cudeck, 1993 as cited in Brown, 2015). Values above 0.08 are indicative of poor fit
SRMR (standardised root mean square residual)	Values below 0.08 are desired for an indication of acceptable fit (Hu and Bentler, 1999)
Incremental Fit	
CFI (confirmatory factor index)	Values should be 0.900 and bigger to indicate good fit (Bentler, 1990)
TLI (Tucker-Lewis index)	Values should be 0.900 and bigger to indicate good fit (Bentler, 1990)
Model parameters	
Standardised factor loadings	Values of 0.70 and higher are ideal. A minimum of 0.30 is acceptable (Hair et al., 2006)
Standardised residuals	Absolute values greater than 2.00 are problematic (Haberman, 1973)
R-squared (coefficient of determination)	Values < 0.3 are very weak. Values between 0.3 and 0.5 are weak. Values of 0.5 to 0.7 are moderate. Values above 0.7 are strong (Zikmund, 2000)

3.6.2.3 Item analysis: Reliability

Another criterion of an instrument's quality is its reliability. This concept refers to the instrument's ability to provide consistent results across settings or over time (De Souza

et al., 2017). An instrument is reliable if the response remains the same under repeated observations, particularly under similar conditions. Saunders et al. (2015) note that reliability pertains to replication and consistency. Table 3.6 presents issues that can impede an instrument's reliability. The four aspects highlighted are participant error, participant bias, researcher error and researcher bias (Saunders et al., 2012, p.192).

Table 3. 6

Threats to reliability

Threat	Definition and explanation
Participant error	Any factor which adversely alters the way in which a participant performs. For example, asking a participant to complete a questionnaire just before a lunch break may affect the way they respond compared to choosing a less sensitive time (i.e. they may not take care and hurry to complete it)
Participant bias	Any factor which induces a false response. For example, conducting an interview in an open space may lead participants to provide falsely positive answers where they fear they are being overheard, rather than retaining their anonymity
Researcher error	Any factor which alters the researcher's interpretation. For example, a researcher may be tired or not sufficiently prepared and misunderstand some of the more subtle meanings of his or her interviewees
Researcher bias	Any factor which induces bias in the researcher's recording of responses. For example, a researcher may allow her or his own subjective view or disposition to get in the way of fairly and accurately recording and interpreting participants' responses

Singh (2017) points out that the reliability of an instrument can be expressed in various ways. The main aspects are test-retest reliability, internal consistency, inter-rater reliability, split-half reliability and the standard error of measurement.

The most commonly used test of reliability in business and social sciences is Cronbach's alpha statistic (Agbo, 2010; Cortina, 1993; Singh, 2017). This test indicates the degree of internal consistency of a measuring instrument or scale. Through item analysis, problematic items can be identified and considered for removal because of their misfit within the scale (Maree & Creswell, 2016). Item analysis aids

the researcher in detecting items which do not help to describe or assess a construct's dimensions (Theron, 2007). The removal of these items would enhance the measurement's reliability.

Measurement scales with a Cronbach's alpha coefficient below 0.70 are regarded as having limited reliability. Coefficients ranging between 0.70 and 0.79 are deemed to be adequate. Coefficients between 0.80 and 0.89 are considered to be good, and values above 0.90 are regarded as excellent (Nunnally, 1967).

Before evaluating the hypothesised relationships of the conceptual model, the researcher assessed the internal consistency of the responses to the questionnaire items. This was done through a separate item analysis using SPSS version 27. Based on the results, it was established whether each construct (and its dimensions) displayed acceptable reliability. Where deemed necessary, the deletion of items was considered.

The Cronbach alpha method is based on classic test theory. This theory proposes that measurement scales to assess behaviour are open to error. Cronbach's alpha provides an estimate of reliability by quantifying how strongly the items in a scale are correlated. Furthermore, the Cronbach's alpha test assumes that there are multiple items assessing a single unidimensional construct. Hence, a limitation of this coefficient is that it is strongly affected by the number of items in the scale.

A requirement for the Cronbach's alpha test is tau equivalence. Tau equivalence assumes that the scale items contribute equally to the true and total variance in the scores and that measurement error occurs randomly. Raykov (1997) point out that the true reliability may be underestimated if the requirement of tau equivalence is not met by the dataset.

In addition to this, the value of Cronbach's alpha if an item is deleted is arguably the most important aspect to consider (Gliem & Gliem, 2003). Raykov (2008) explains that although the deletion of an item may show to increase the scale's reliability, it could however result in a decrease of validity, which is a significant facet when it comes to the quality of scales assessing behaviour. Researchers are therefore cautioned to be careful when considering Cronbach's alpha if an item is deleted.

In addition to the Cronbach's alpha, the correlation between items of the scales were also analysed. A higher correlation showed that the items were more related, indicating that the items assess the same latent variable. In this regard, correlations (r) with values of 0.10 and lower were considered to be weak. Values of 0.30 and higher were regarded as moderate, and values of 0.50 and above were indicative of strong relationships (Cohen, 1988). Pallant (2011) noted that items with inter-item correlations lower than 0.30 are probably measuring different constructs. However, according to Nunnally (1978), item–total correlations of 0.20 or higher indicate that the item is relevant to or coherent with the overall scale.

Table 3. 7

Summary of reliability criteria applied in this study

Assessment	Criteria
Reliability of measurement instruments	Cronbach's alpha Alpha coefficient values above 0.90 are excellent. Values between 0.800 and 0.89 are good. Values between 0.70 and 0.79 are adequate. Values below 0.70 indicate limited applicability (Nunnally, 1967)
Item–total correlations	Correlations can be classed as weak (r = 0.10), moderate (r = 0.30), or strong (r = 0.50 or higher; Cohen, 1988)

3.6.3 Structural equation modelling

SEM is a data analysis technique which is used to assess hypotheses formulated based on theoretical reasoning. These hypotheses are typically about correlations between the measured variables and/or any latent variables (Mueller & Hancock, 2010). Furthermore, SEM is an analytical process which includes model conceptualisation, parameter identification and estimation, assessment of the fit between data and model, and potential model specification (Mueller & Hancock, 2010).
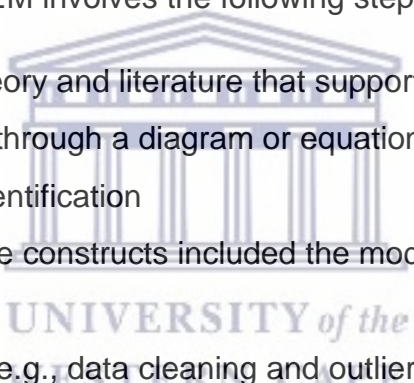
Through factor and regression analyses, SEM evaluates the quality of the measurement as well as the strength of correlations between variables. In other words, it assesses the structural model (Hair et al., 2014; Meyers et al., 2017). In terms of the

structural model, the R-square value indicates how much variance in the dependent variables is explained by the direct or indirect or mediation effects in the model. Chin (1998) suggests that values of 0.67 or more are considered to be significant.

Liu et al. (2011) point out higher-order constructs need to be included in a network with other variables, modelled as antecedent and outcome variables, to assess the relationships in the nomological network. For the purposes of this study, SEM was a relevant technique because the aim was not only to compare models but also to test the theoretical relationships between the variables, in various structural configurations. This type of analysis is aimed at establishing the nomological validity of constructs. 'Nomological validity' refers to whether a model displays the relationships that are expected in line with the theoretical arguments provided by the researcher.

According to Suhr (2006), SEM involves the following steps:

- reviewing the relevant theory and literature that support the conceptual model
- specifying a model (e.g., through a diagram or equations)
- determining the model identification
- selecting measures for the constructs included the model
- data collection
- initial statistical analysis (e.g., data cleaning and outlier identification)
- estimating model parameters
- assessing the fit of the model
- respecifying the model if required
- presenting and interpreting the results

One of the main strengths of SEM is its ability to specify measurement and structural relations in a single step. This allows for the separation of measurement and common variance in measurement models (Bollen & Long, 1993). Accounting for measurement error is important so that the results from the data can be reported as accurately as possible; doing so produces unbiased estimates of the relationships between the constructs. Another advantage of using SEM is that the researcher can assess the tenability of the model at a global level (i.e., model fit) and at a granular level (i.e., regarding the model parameters).

In this study, SEM was used to test the nomological validity of two complementary models. The hypotheses are summarised in Table 3.8 and the models are depicted in Figures 3.3. and 3.4. Figure 3.3 is a visual illustration of the variables and paths hypothesised in Model 1. Figure 3.4 is a visual illustration of the variables and paths hypothesised in Model 2.

Table 3. 8:

Hypothesised relationships

Number	Research hypothesis	Statistical hypothesis (null and alternative)
Model 1:		
Hypothesis 1	EM positively influences LMX	H_{01}: $\gamma_{11} = 0$; $Ha1$: $\gamma_{11} > 0$
Hypothesis 2	EM positively influences TMX	H_{02}: $\gamma_{21} = 0$; H_{a2}: $\gamma_{21} > 0$
Hypothesis 3	EM positively influences OCB-O	H_{03}: $\gamma_{31} = 0$; H_{a3}: $\gamma_{31} > 0$
Hypothesis 4	EM positively influences OCB-I	H_{04}: $\gamma_{41} = 0$; H_{a4}: $\gamma_{41} > 0$
Hypothesis 5	LMX positively influences OCB-O	H_{05}: $\beta_{31} = 0$; H_{a5}: $\beta_{31} > 0$
Hypothesis 6	LMX positively influences OCB-I	H_{06}: $\beta_{41} = 0$; H_{a6}: $\beta_{31} > 0$
Hypothesis 7	TMX positively influences OCB-O	H_{07}: $\beta_{32} = 0$; H_{a7}: $\beta_{32} > 0$
Hypothesis 8	TMX positively influences OCB-I	H_{08}: $\beta_{42} = 0$; H_{a8}: $\beta_{42} > 0$
Hypothesis 9	The relationship between EM and OCB-O is mediated by LMX	H_{09}: $\gamma_{11} \beta_{31} = 0$; H_{a9}: $\gamma_{11} \beta_{31} > 0$
Hypothesis 10	The relationship between EM and OCB-O is mediated by TMX	H_{010}: $\gamma_{21} \beta_{32} = 0$; H_{a10}: $\gamma_{21} \beta_{32} > 0$
Hypothesis 11	The relationship between EM and OCB-I is mediated by LMX	H_{011}: $\gamma_{11} \beta_{41} = 0$; H_{a11}: $\gamma_{11} \beta_{41} > 0$
Hypothesis 12	The relationship between EM and OCB-I is mediated by TMX	H_{012}: $\gamma_{21} \beta_{42} = 0$; H_{a12}: $\gamma_{21} \beta_{42} > 0$
Model 2:		
Hypothesis 13	EM positively influences LMX	H_{013}: $\gamma_{11} = 0$; H_{a13}: $\gamma_{11} > 0$
Hypothesis 14	EM positively influences TMX	H_{014}: $\gamma_{21} = 0$; H_{a14}: $\gamma_{21} > 0$
Hypothesis 15	EM negatively influences CWB	H_{015}: $\gamma_{51} = 0$; H_{a15}: $\gamma_{51} < 0$
Hypothesis 16	LMX negatively influences CWB	H_{016}: $\beta_{51} = 0$; H_{a16}: $\beta_{51} < 0$
Hypothesis 17	TMX negatively influences CWB	H_{017}: $\beta_{52} = 0$; H_{a17}: $\beta_{52} < 0$
Hypothesis 18	EM negatively influences ITQ	H_{018}: $\gamma_{61} = 0$; H_{a18}: $\gamma_{61} < 0$
Hypothesis 19	LMX negatively influences ITQ	H_{019}: $\beta_{61} = 0$; H_{a19}: $\beta_{61} < 0$
Hypothesis 20	TMX negatively influences ITQ	H_{020}: $\beta_{62} = 0$; H_{a20}: $\beta_{62} < 0$
Hypothesis 21	The relationship between EM and CWB is mediated by LMX	H_{021}: $\gamma_{11} \beta_{51} = 0$; H_{a21}: $\gamma11 \beta_{51} < 0$
Hypothesis 22	The relationship between EM and CWB is mediated by TMX	H_{022}: $\gamma_{21} \beta_{52} = 0$; H_{a22}: $\gamma_{21} \beta_{52} < 0$
Hypothesis 23	The relationship between EM and ITQ is mediated by LMX	H_{023}: $\gamma_{11} \beta_{61} = 0$; H_{a23}: $\gamma_{11} \beta_{61} < 0$
Hypothesis 24	The relationship between EM and ITQ is mediated by TMX	H_{024}: $\gamma_{21} \beta_{62} = 0$; H_{a24}: $\gamma_{21} \beta_{62} < 0$
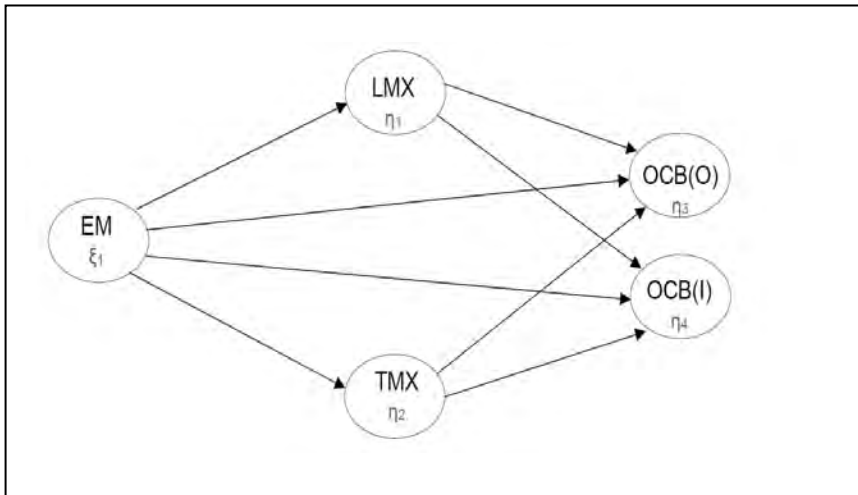
Figure 3. 3: SEM Model 2
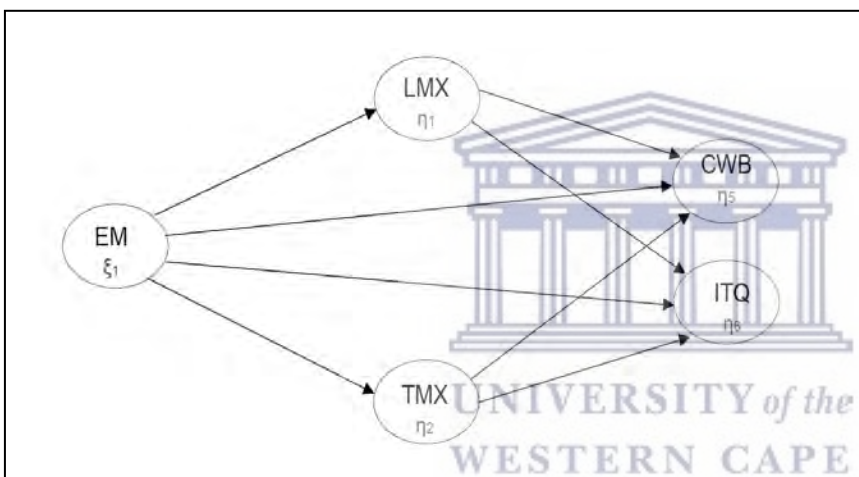
Figure 3. 4: SEM Model 2

3.6.3.1 Direct and indirect effects

A relationship between an independent variable (X) and a dependent variable (Y), in which no other variables or influences are considered, is a direct effect. Put simply, the independent variable directly influences the dependent variable. However, to gain a more accurate understanding of the effect of one variable on another, researchers also explore further variables (Mathieu & Taylor, 2006) and how they influence the hypothesised relationship. These influences are called indirect effects. They are investigated through mediation analysis and/or moderation analysis.

A moderating variable influences specific aspects of the relationship between the main variables of interest (Baron & Kenny, 1986). These aspects are limited to the strength

and/or the direction of the relationship. Moderation analysis was not applied in this study.

Mediation refers to a different type of indirect effect by a third variable (the mediating variable) in the relationship between the other variables of interest. Researchers differentiate between three types of mediation: indirect effects, partial mediation and full mediation (Mathieu & Taylor, 2006). An indirect mediating effect means there is no statistically significant relationship between X and Y, but there is a significant relationship between the mediating variable (M) and X and between M and Y. The independent variable therefore has an indirect effect on Y.

Partial mediation refers to a significant direct relationship between X and Y, which co-exists with a significant indirect effect between X and Y. In the full mediation scenario, the relationship between X and Y is significant only when M is absent; alternatively, the relationship between X and Y is non-significant when M is present. The mediating variable could help to explain how or why the relationship between the independent and dependent variables arises (Gunzler et al., 2013). In this study, mediation analysis was relevant to hypotheses 9, 10, 11, 12, 21, 22, 23 and 24.

MacKinnon (2008) explains that bias-corrected bootstrapping is a crucial technique in mediation analysis. Bootstrapping is a common technique for resampling, which involves random sampling from the original observations to create new samples. The bias-corrected bootstrapping method eliminates any bias that could be created by the true parameter not being the median of the bootstrap estimates. The importance of bootstrapping lies in its accurate estimation of confidence intervals for the presence of a mediated effect (MacKinnon, 2008).

Mathieu and Taylor (2006) highlight that expected mediated paths should be based on a theoretical foundation and that validity of the constructs should be established before the possible statistical significance of those relationships is analysed. This approach was followed in the current study, as the hypothesised relationships were based on available literature. Before the relationships were analysed, the constructs and measurements used in the two models were assessed for validity through factor analyses.

In this study, the aim was to analyse the mediating effect of both LMX and TMX on the relationship between EM, on the one hand, and, on the other,

- the dependent variables OCB-I and OCB-O in Model 1
- the dependent variables CWB and ITQ in Model 2

The hypothesised mediating effects were analysed using SEM. SEM was chosen as it is a robust multivariate technique that is based on a conceptual model as well as path diagrams and regression equations. SEM enables the study of complex relationships. The main difference between SEM and regression methods is that in a regression model the dependent and independent variables are explicit, whereas in SEM, a variable can be both dependent and independent. That is, the same variable could be a dependent construct in a model while also being an independent construct in other aspects of the model. This characteristic of SEM allows the researcher to infer causal effects (Gunzler et al., 2013).

3.6.3.2 Equivalence testing

Considering the difference in the roles of academic versus administrative employees, it was expected that certain hypothesised paths would differ between the two groups. One way to make this comparison would have been to split the data into two groups (academic employees and administrative employees) and fit a structural model for each group. Thereafter, the regression paths for each model could be assessed. The results would enable a comparison to be made between the two models regarding which paths were statistically significant or not. However, in the present study, a different approach was followed.

With the aim of comparing the academic group to the administrative group, structural equivalence was evaluated. Here, the emphasis is not on the measurement components of the structural model but rather on the structural path coefficients. As stated by Vandenberg and Lance (2000), assessing measurement invariance is a prerequisite when testing for structural invariance. In other words, before the invariance of the parameters in the structural models can be examined, a basic level of measurement invariance must be assumed. According to Byrne (2004), measurement invariance can be established by fitting a series of restrictive tests on

the same measures. Vandenberg and Lance (2000) stated that the following levels of measurement invariance are typically assessed using a bottom-up approach in SEM:

(a) Configural invariance

Configural invariance is also referred to as 'pattern invariance' (Rhudy et al., 2020). In this step, the equivalence of the factor structures is assessed. Specifically, the test results for configural invariance indicate whether the dimensionality of the models holds true for each instance of the measurement (Vandenberg & Lance, 2000). A lack of configural variance would indicate that the number of factors and pattern loadings in the model are the same for each group (Rhudy et al., 2020).

(b) Metric invariance

During this step, an additional constraint is imposed on the model. Here, the factor loadings of like items are constrained to be equal (Vandenberg & Lance, 2000). A finding of metric invariance or weak invariance indicates that the items are loading on the same factors across both groups. In addition, metric invariance indicates that the magnitude of each item loading is the same for both groups (Rhudy et al., 2020).

(c) Scalar invariance

Scalar invariance is also sometimes called 'strong invariance' (Rhudy et al., 2020). Metric invariance must be established before this assessment of measurement equivalence can be conducted. In this step, further equality constraints are placed on like items of the model (Rhudy et al., 2020; Vandenberg & Lance, 2000;).

There remains some disagreement regarding the level of measurement invariance that needs to be established before comparisons of the structural components can be assessed. However, in general, partial metric invariance seems the most liberal acceptable criterion. In other words, when most of the factor loadings are equivalent across the groups, measurement invariance can be assumed, and structural components can be assessed across the groups. Measurement equivalence therefore

provides confidence that the measurements mean the same thing for individuals in different groups (Cheung & Rensvold, 2002). Violating the assumption of measurement equivalence would undermine the strength of the interpretation of the data (Byrne, 2006; Vandenberg & Lance, 2000).

If weak metric invariance is established, the structural relationships contained in the path models can be compared for academic versus administrative staff. To test the structural invariance, the following approach was utilised:

1. Evaluating the configural invariance between the two structural models.
2. Assessing the measurement and structural invariance of the structural models in a single step.

From one step to the next, if a deterioration of fit becomes apparent, this would indicate that the structural models are not applicable in a similar way for the two groups. To assess whether the fit deteriorated, the researcher considered the following values: the Satorra-Bentler chi-square, AIC, BIC, RMSEA, CFI and TLI. Lower AIC and BIC values are indicative of better fit. RMSEA values ranging from 0 to 0.05 suggest a good fit, and CFI and TLI values of at least 0.90 indicate a good fit. According to Cheung and Rensvold (2002), a change of 0.01 or less in the CFI index is small enough to indicate that that the two models do not differ.

If the fit does not deteriorate significantly from one model to the next, the structural models are considered to be equivalent for both groups (academic versus administrative employees). Hence, if the fit across the two groups does not change significantly in any way, the structural models are invariant across the two groups and the structural relationships are similar. The results of the assessment are presented and discussed in Chapter 4.

3.7 Summary

In this chapter, the research questions were articulated, and they provided the starting point for formulating the research plan. The research philosophy and strategies were then discussed. The chapter has also described the research methodology and research design of the study. The data collection methods, instruments used, and the procedure for administering the questionnaires were discussed. Finally, the specific

types of analysis were discussed. The next chapter includes the presentation and interpretation of the research results.

CHAPTER FOUR: RESULTS

4.1 Introduction

The research question guiding this study focused on the relationships between emotional management (EM) and various organisational outcomes. The research setting was higher education institutions (HEIs). The three outcome variables of interest were organisational citizenship behaviour (OCB), counterproductive workplace behaviour (CWB) and the intention to quit (ITQ). The indirect effect of relationship quality on these relationships, assessed through LMX and TMX, was also conceptualised. The main research question was: What roles do EM, LMX and TMX play in determining the key organisational outcomes within HEIs? This question was refined through several sub-questions (see section 1.8).

Two theoretical models were conceptualised to address these questions. Model 1 captures the relationships between EM, LMX, TMX and OCB. Model 2 captures the relationships between EM, LMX, TMX and both CWB and ITQ. This chapter examines whether the results of the data analyses provided empirical support for the proposed models. The results are discussed according to the following topics:

(i) Descriptive statistics and screening of data

(ii) Establishing construct validity of the models: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA)

(iii) Establishing the reliability of measures

(iv) Empirical testing of the theoretical models

The analyses utilised in the study are graphically depicted in Figure 4.1. The step highlighted in green portrays the specific aspects discussed in this chapter.
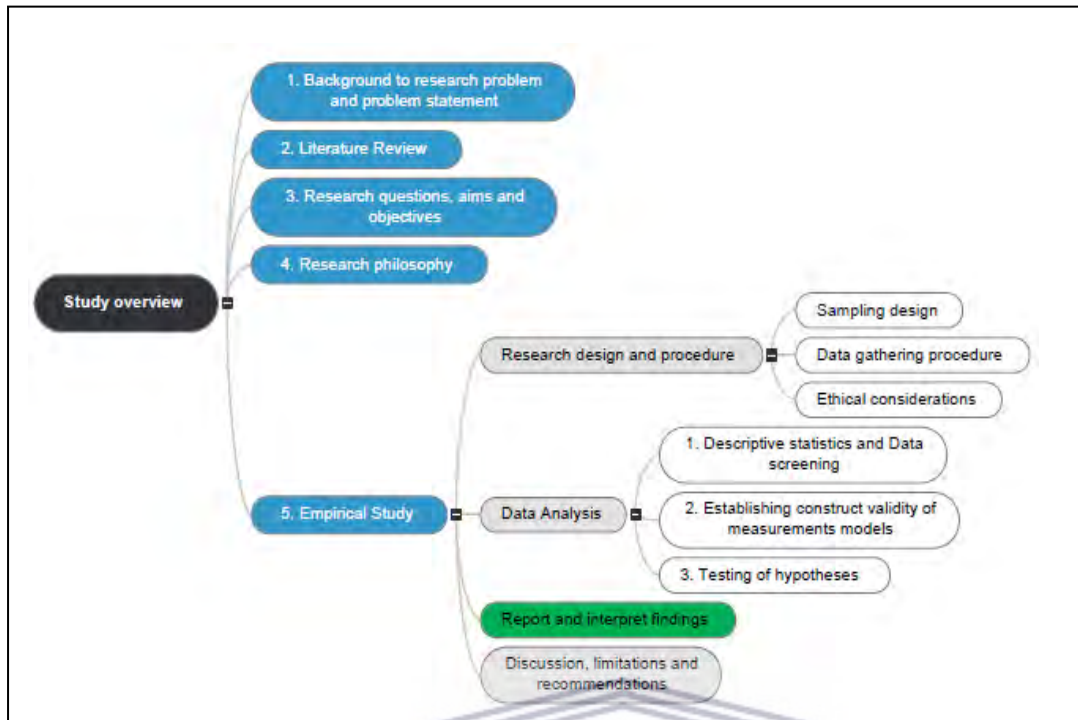
Figure 4. 1: Thesis overview: Focus areas for Chapter 4 are highlighted in green

The results are discussed in this chapter in three segments. First, the assessment and refinement of the measurement scales are presented. Second, the statistical merits of the two proposed structural models are discussed. Finally, the equivalence of the models, without interaction effects, is assessed for the academic versus administrative employees of the five sampled HEIs.

4.2 Descriptive statistics and data screening

The dataset was checked for accuracy and missing values, and potential reasons for missing data were considered. Because the questionnaire was distributed and accessed through an electronic platform, the response options were fixed; furthermore, the chance of participants making typing errors during data capturing was minimal.

The data was screened for multivariate outliers using the Mahalanobis distance and box-and-whisker plots. Although there were statistical outliers, the decision was made to retain these few cases because their response options were valid and did not cause serious suppression effects (Henard, 1998). No transformation procedure was conducted to normalise the data.

In addition to screening the data cases, the researcher also screened the variables. Factor analysis assumes that the data meets the criteria of linearity, homoscedasticity, multicollinearity and normality. If the data does not meet these multivariate assumptions, the results may be inaccurate, and correlations that are in fact significant might not be identified as such.

e) Linearity

When the assumption of linearity is met, the dependent and independent variables are related to each other in a linear manner (Meyers et al., 2017; Tabachnik & Fidell, 2014). The linearity assumption is confirmed when the correlation between these variables appears as a relatively straight line on a scatterplot (Tabachnick & Fidell, 2019). Linearity was assessed in this study through visual inspection of the scatterplots and the correlations between the factor scores.

Table 4.1 presents the correlations between the variables. According to Dohoo et al. (1997), correlations larger than .9 are problematic. In the present study, the correlation coefficients (*r*) between factor scores ranged from -.526 to .423, and were therefore acceptable.

Table 4. 1

Correlations between variables of interest (n=523)

Variable	EM	LMX	TMX	OCB	CWB	ITQ
EM	/					
LMX	.177**	/				
TMX	.423**	.267**	/			
OCB	.344**	-.010	.301**	/		
CWB	-.213**	-.128**	-.129**	.008	/	
ITQ	-.182**	-.526**	-.273**	.064	.215**	/

*Note: ** significant at 0.01 (2-tailed test)*

f) Homoscedasticity of residuals

An assumption of linear regression is that there is homoscedasticity. Homoscedasticity means that the variance in the scores for one variable is approximately similar to the variance in the scores of the other variables (Tabachnik & Fidell, 2014). This condition implies that the error variance across the variables was consistently spread out. The relationship between the variables is homoscedastic if the assumption of normality is

met; hence, homoscedasticity is also related to the normality assumption (Lomax & Hahs-Vaughn, 2012). Normality is discussed in paragraph (d) below in this section.

A violation of this assumption is referred to as 'heteroscedasticity'. This situation can result in inaccurate outcomes being reported, which decreases the quality of the whole analysis.

The assumption of homoscedasticity is inspected through visual observation of bivariate scatterplots. If the assumption is met, the points on the scatterplot generally have the same width, with some clustering toward the middle (Tabacknik & Fidell, 2014). Based on visual inspection of the Q-Q plots and histograms (see Appendix C), it was evident that the data was not normally distributed. For each of the variables, the Q-Q plots showed a fairly linear shape; however, apart from OCB, the histogram shapes were skewed either to the left or to the right and therefore were not normally distributed.

g) Multicollinearity

The condition in which variables in a correlation matrix are too strongly correlated is referred to as 'multicollinearity' (Allen, 1997; Tabacknik & Fidell, 2014). This problem exists when the correlation (r) between variables has a value of 0.900 or higher. Multicollinearity negatively affects the regression estimates, causing correlations to be not statistically significant (Allen, 1997). Furthermore, the presence of multicollinearity may lead to other incorrect regression results. For example, results may indicate a correlation in the opposite direction to that which is expected based on the available theory. In the worst scenario, multicollinearity could prevent any further analysis.

Section 3.6.1.1 (c) discussed how multicollinearity is measured. One of the best assessment methods is scrutiny of the bivariate correlations between factors. The correlation matrix in Table 4.1 indicates that the correlation coefficients ranged between -.526 and .423. When the recommended cut-off of .900 was used, none of the factor scores posed a serious threat in terms of multicollinearity.

(d) Normality

Section 3.6.1.1 (d) discussed how normality can be assessed. The skewness and kurtosis of the items was compared to a normal distribution in terms of shape and form. In addition, the values yielded by the statistical analysis were examined. According to Hair et al. (2016), values can be considered normal if they fall between -1 and +1. In this study, the researcher followed the guidelines provided by Lei and Lomax (2005). Absolute values of skewness and kurtosis that are less than 1 are considered to indicate slight non-normality. Values between 1 and 2.3 are considered to show moderate non-normality, and values greater than 2.3 are regarded as severe non-normality (Lei & Lomax, 2005).

For the EM scale, nine of the 17 items yielded skewness values between 1 and 2.3; all other items had values below 1. For kurtosis, nine items had values above 1, with two (items EM13 and EM15) having absolute values above 2.3.

The LMX scale consisted of seven items, none of which yielded a skewness value above 1. However, one item (LMX5) had a kurtosis value slightly larger than 1. None of the skewness or kurtosis values exceeded 2.3. Therefore, the responses to the scale's items followed a normal distribution.

The TMX scale had 10 items. Two items (TMX3 and TMX7) had absolute skewness values greater than 1, whereas five items had kurtosis values greater than 1. None of the skewness or kurtosis values exceeded 2.3. Therefore, the items in the scale followed a normal distribution.

The OCB scale had 20 items, of which only one item (OCB1) had a skewness value slightly greater than 1. Four items (OCB1, OCB6, OCB14 and OCB15) had kurtosis values greater than 1. None of the skewness or kurtosis values exceeded 2.3. Therefore, the items in the scale followed a normal distribution.

The CWB scale consisted of 19 items, of which only one had a skewness value below 1. Five of the items had skewness values between 1 and 2.3, and 13 items had absolute skewness values which exceeded 2.3. In addition, only one item had a kurtosis value below 1. Three of the items had kurtosis values ranging between 1 and

2.3, and 15 items had kurtosis values exceeding 2.3. Therefore, the items in the scale did not follow a normal distribution.

Finally, the ITQ scale had six items. None of the absolute skewness values were above 1. However, all six items had kurtosis values greater than 1, but none of the kurtosis values exceeded 2.3. Therefore, the items in the scale followed a normal distribution.

Although most items in the dimensions of the scales appeared to follow a normal distribution, some items deviated from the normal distribution. This can result in the inflation of fit indices and model parameters when using maximum likelihood in SEM (Brosseau-Liard et al., 2012). For this reason, the researcher decided to use the robust maximum likelihood method as the estimation technique. Robust maximum likelihood is the preferred method for model estimation when the data does not follow a normal distribution, because the robust methodology allows for enhanced estimates of the standard error (Bentler, 2006).

4.3 Construct validity of the models

The construct validity of the measurement models was established through EFA and CFA. Item analysis was also used in this examination.

4.3.1 EFA results

During this stage of the data analysis, semi-confirmatory EFA was conducted for each dimension. The goal was to establish the dimensionality of the measures and identify possible areas of misfit. Problematic items were either deleted from the scales based on the EFA results, or were flagged for deletion after the CFA analyses. The following processes and criteria were used to assess the results from EFA:

- Items with extremely low (< 0.100) or high (>0.900) communality values were flagged as being potentially problematic (Eaton et al., 2019).
- Less than three items loading on a specific factor could indicate an under-identified factor (Costello & Osborne, 2005).
- Cross-loadings on multiple factors, where the difference between the primary and secondary loadings was less than 0.250 (Hair et al., 2014).
- Factor loadings less than 0.300 were considered problematic (Hair et al., 2013).

In cases where multiple items in a scale were problematic and the factor structure was diffuse, the researcher removed only one item at a time and then reran the analyses. A minimum of three items was retained in each scale or dimension. Maximum likelihood with promax rotation was used to specify the EFA models.

4.3.1.1 Emotional management

In this study, the focus was on the EM dimensions of emotional intelligence. In the total scale, 17 items measured EM (Schutte et al., 2009), with nine of those assessing EM related to the self, labelled 'EM-S' in this discussion. The other eight items measured EM related to other people, labelled 'EM-O'. EFAs were conducted for EM-S and EM-O separately.

Emotional Management (Self)

Before the analysis, one item (EM15) was reverse scored as it was negatively worded. The initial round of EFA provided a Keiser-Meyer-Olkin (KMO) value of 0.864 and revealed that item EM15 had the lowest communality value, at 0.104. However, all items met the minimum criterion of 0.100 for communality values, with values ranging between 0.104 and 0.506. The results also contained two eigenvalues greater than 1, indicating two possible unique factors within the scale.

Following the initial EFA, an unrestricted EFA was conducted. Again, two main eigenvalues emerged, indicating that two factor structures might be present in the data. The results revealed that the first factor explained 20.83% of the common variance, and the second factor explained 19.63%. Furthermore, item EM17 had a high communality value of 0.990. This is referred to as a 'Heywood case', a term used when a parameter falls beyond the desired range (Brown, 2015). Such cases usually emerge when a sample is too small or there are too many extracted factors. Item EM17 read, 'I use good moods to help myself keep trying in the face of obstacles.' A possible explanation for the result showing that this item was problematic could be that the meaning of its wording was ambiguous. Based on this result, the decision was made to delete item EM17 and then rerun the EFA model.

The final EFA results for the EM-S scale returned a KMO value of 0.859, indicating that the data could be factor analysed. In addition, acceptable communality values

were revealed, with item EM15 reporting the lowest value at 0.123. This item was flagged as a possible problematic item but was not deleted at this stage. Item EM15 was the only reverse-scored item; it read 'When I am faced with a challenge, I give up because I believe I will fail.' This ambiguous wording could explain why this item was revealed as a potentially problematic item.

Table 4.2 indicates that only one eigenvalue bigger than 1 was extracted. Its total value was 3.213, explaining 32.088% of the common variance. The balance of evidence suggests that the revised eight-item measure can be considered unidimensional and as displaying construct validity.

Table 4. 2

Eigenvalues of the EM-S dimension

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.213	40.158	40.158	2.567	32.088	32.088
2	.910	11.378	51.537			
3	.877	10.968	62.504			
4	.720	8.996	71.500			
5	.659	8.238	79.738			
6	.599	7.489	87.227			
7	.565	7.068	94.296			
8	.456	5.704	100.000			

The factor loadings for this scale ranged between 0.350 and 0.697, as shown in Table 4.3. The only item with a poor factor loading was item EM15, which had already been flagged as a poor item, which had a loading of 0.350. Although this loading was low, it met the criterion for a minimum of 0.300.

Table 4. 3

Factor loadings of the EM-S dimension

Factor	Item Description	Factor Loading
EM2	When I am faced with obstacles, I remember times I faced similar obstacles and overcame them.	.575
EM3	I expect that I will do well on most things I try.	.530
EM5	I expect good things to happen.	.677
EM7	When I experience a positive emotion, I know how to make it last.	.697
EM9	I seek out activities that make me happy.	.485
EM11	I have control over my emotions.	.515
EM12	I motivate myself by imagining a good outcome to tasks I take on.	.623
EM15	When I am faced with a challenge, I give up because I believe I will fail.	.350

The EFA results suggested that the EM-S measure was unidimensional and that all items except item 17 contributed to the latent construct.

4.3.1.2 Emotional management (Others)

The initial restricted EFA revealed an acceptable KMO value of 0.788. However, one item (EM1) had a notably low communality value (i.e., below 0.100), of 0.050. Other items with low communality values were EM6, at 0.102, and EM10, at 0.150. The results also indicated two eigenvalues greater than 1; these values were 2.650 and 1.059. This result indicated that there might be two factors within the EM-O scale.

Subsequently, an unrestricted EFA was specified with two factors. In the unrestricted EFA, two eigenvalues emerged again. The first factor explained 25.118% of the variance and the second factor explained 5.342% of the variance (Table 4.4).

Table 4. 4

Eigenvalues of the EM-O dimension

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	2.650	33.123	33.123	2.009	25.118	25.118	1.922
2	1.059	13.237	46.359	.427	5.342	30.460	1.280
3	.974	12.175	58.534				
4	.854	10.676	69.210				
5	.737	9.208	78.418				
6	.648	8.103	86.521				
7	.573	7.160	93.681				
8	.506	6.319	100.000				

Item ER6 seemed problematic as it cross-loaded on both factors, with the loading on the second factor being rather strong. The item was not removed but was flagged as being potentially problematic.

As explained by Hayton et al. (2004), there is a limitation to using eigenvalues to assess the number of factors present in a scale. This approach used alone may lead to overestimation, referred to as 'over-factoring', due to sample error. Given the large discrepancy of common variance explained by the first factor in comparison with the second factor – the results seem to suggest that the solution is unidimensional and there is little reason to extract a second factor beyond the first factor. For this reason, the author decided to fit a restricted one-factor EFA solution to the data.

The final EFA results for the ER(O) scale indicated an acceptable KMO of 0.788 and strong positive communalities values. The exception was item EM1, which had a value of 0.052. The factor loadings of the eight items are presented in Table 4.5, showing that all items apart from EM1 (0.224) met the minimum criterion of a 0.300 loading.

Table 4. 5

Factor matrix of the EM-O dimension

Item	Item Description	Factor Loading
EM1	I know when to speak about my personal problems to others.	.224
EM4	Other people find it easy to confide in me.	.475
EM6	I like to share my emotions with others.	.320
EM8	I arrange events others enjoy.	.488
EM10	I present myself in a way that makes a good impression on others.	.387
EM13	I compliment others when they have done something well.	.570
EM14	When another person tells me about an important event in his or her life, I almost feel as though I experienced this event myself.	.627
EM16	I help other people feel better when they are down.	.691

Considering all the information provided by the EFA results, the researcher flagged items EM1 and EM6 as problematic items to be investigated in more detail in the CFA. The balance of evidence suggested that the EM-O measure could be considered unidimensional and as having construct validity.

4.3.1.3 Leader–member exchange

A restricted and an unrestricted EFA was specified for the LMX scale. Both results revealed a high KMO score of 0.935 and acceptable communality scores, ranging from 0.570 to 0.789. In both EFA solutions, only one eigenvalue greater than 1 was extracted; its total value was 5.117 and it explained 68.779% of the common variance. The EFA results are summarised in Table 4.6.

Table 4. 6

Eigenvalues for the LMX scale

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.117	73.101	73.101	4.815	68.779	68.779
2	.483	6.899	80.000			
3	.385	5.504	85.505			
4	.342	4.892	90.397			
5	.260	3.720	94.117			
6	.225	3.220	97.337			
7	.186	2.663	100.000			

Furthermore, the results showed strong factor loadings, ranging from 0.755 to 0.888. The factor loadings of the scale are presented in Table 4.7, and it is evident that none of the items appeared to be problematic.

Table 4. 7

Factor matrix for the LMX scale

Item	Item Description	Factor loading
LMX1	I usually know where I stand with the person I report to.	.759
LMX2	The person I report to understands my job problems and needs.	.871
LMX3	The person I report to recognises my potential.	.851
LMX4	Regardless of how much formal authority the person I report to has built into his/her position, he/she would be personally inclined to use his/her power to help me solve problems in my work.	.794
LMX5	I can count on the person I report to "bail me out" at his/her expense, when I really need it.	.755
LMX6	I have enough confidence in the person I report to that I would defend and justify her/his decision if she/he were not present to do so.	.876
LMX7	How would you characterise your working relationship with the person you report to?	.888

Based on the EFA for this scale, no items were found to be problematic, and it was concluded that all the items contributed to measuring the construct of interest. Furthermore, it was concluded that the LMX scale was a unidimensional measure and was construct-valid.

4.3.1.4 Team-member exchange

Due to an administrative error during the preparation of the questionnaire, item TMX5 had to be deleted before the data was analysed. Thereafter, restricted and unrestricted EFAs were performed for the TMX scale. The restricted EFA yielded a KMO value of 0.845. The results also yielded two eigenvalues above 1, which according to the Kaiser-Guttman rule indicated the presence of two underlying factors in the data.

An unrestricted EFA was subsequently performed. In this second round of EFA analyses, the KMO value remained unchanged at 0.845. Only item TMX3 showed a low communality value (0.194), which nonetheless met the minimum criterion of 0.100. The other items had communality values ranging from 0.389 to 0.688. The unrestricted EFA again revealed two eigenvalues, as presented in Table 4.8. The first factor had

an eigenvalue of 3.964, explaining 38.802% of the common variance. The second factor had a value of 1.477, explaining 11.605% of the common variance.

Table 4. 8

Eigenvalues of the TMX scale

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3.964	44.043	44.043	3.492	38.802	38.802	2.964
2	1.477	16.410	60.454	1.044	11.605	50.407	2.820
3	0.793	8.808	69.262				
4	0.682	7.576	76.838				
5	0.554	6.159	82.996				
6	0.446	4.955	87.951				
7	0.422	4.687	92.639				
8	0.362	4.023	96.661				
9	0,300	3.339	100.000				

The pattern matrix shown in Table 4.9 portrays the item loadings on the two factors. The rotated loadings suggested that items TMX1, TMX2, TMX3, TMX4 and TMX10 loaded on the first factor, whereas items TMX6, TMX7, TMX8 and TMX9 loaded on the second factor.
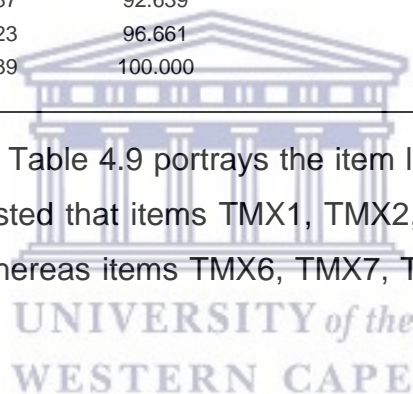
Table 4. 9

Pattern matrix for the TMX scale

	Factor	
	1	2
TMX1	**0.765**	
TMX2	**0.788**	
TMX3	**0.394**	
TMX4	**0.818**	
TMX6		**0.633**
TMX7		**0.532**
TMX8		**0.832**
TMX9		**0.814**
TMX10	**0.495**	0.255

Note. Cells are blank if values were below 0.20 to highlight the pattern of salient loadings.

The wording of the items in the TMX scale are presented in Table 4.9. The wording of items were considered with reference to the factors on which the items had loaded.

Items loading onto the first factor (i.e., TMX1, TMX2, TMX3, TMX4 and TMX10) were relevant to task-related aspects. By contrast, the items loading onto the second factor (i.e., TMX6, TMX7, TMX8 and TMX9) were more related to pro-social acts in the workplace. This outcome is congruent with the explanation of TMX offered by Wang and Pan (2018). Wang and Pan (2018) reviewed TMX and reported that the construct might have two sub-dimensions. Accordingly, they found that TMX was either task-oriented or relationship-oriented (Wang & Pan, 2018).

Based on the split in the factor scores as well as the research findings by Wang and Pan (2018), it was therefore decided to treat the construct of TMX as two-dimensional scale with the first factor named TMX–Task and the second factor named TMX–Social. Table 4.10 presents the factor loadings for TMX–Task derived from the scale. These loadings ranged from 0.394 to 0.818. Based on the overall EFA results, no items were flagged as problematic.

Table 4. 10

Factor loadings for the TMX–Task dimension

Item	Item Description	Factor loading
TMX1	Other colleagues of my team understand my problems and needs.	0.765
TMX2	Other colleagues of my team usually let me know when I do something that makes their jobs easier (or harder).	0.788
TMX3	I usually let other colleagues of my team know when they have done something that makes my job easier (or harder).	0.394
TMX4	Other colleagues of my team recognise my potential.	0.818
TMX10	The other colleagues of my team are willing to help me finish work that was assigned to me.	0.495

Table 4.11 presents the loadings on the second factor, TMX–Social. These loadings ranged from 0.532 to 0.832.

Table 4. 11

Factor loadings for the TMX–Social dimension

Item	Item Description	Factor loading
TMX6	I am flexible about switching job responsibilities to make things easier for other colleagues.	0.633
TMX7	In busy situations, other colleagues often ask me to help out.	0.532
TMX8	In busy situations, I often volunteer my efforts to help my colleagues.	0.832
TMX9	I am willing to help finish work that had been assigned to other colleagues.	0.814

4.3.1.5 Organisational citizenship behaviour (organisation)

A restricted and an unrestricted EFA was performed for the OCB-O scale. Both sets of results revealed a high KMO score of 0.822. In the unrestricted solution, the communality values were all above the minimum of 0.100 and ranged between 0.170 and 0.771. Only one eigenvalue greater than 1, namely 3.372, was reported, explaining 39.495% of the common variance. The eigenvalues for the OCB-O are presented in Table 4.12.
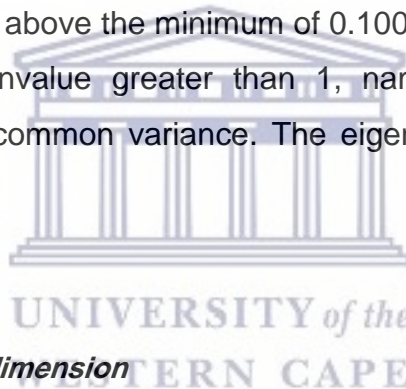
Table 4. 12

Eigenvalues for the OCB-O dimension

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.372	48.170	48.170	2.765	39.495	39.495
2	.852	12.167	60.336			
3	.748	10.683	71.019			
4	.665	9.495	80.514			
5	.603	8.615	89.130			
6	.553	7.896	97.026			
7	.208	2.974	100.000			

Furthermore, the results showed that item OCB16 had the lowest communality value (0.170) but an acceptable factor loading of 0.412. The other items had acceptable factor loadings ranging from 0.459 to 0.878. The loadings are presented in Table 4.13.

Table 4. 13

Factor matrix for the OCB-O dimension

Item	Item Description	Factor Loading
OCB4	Helped new employees get oriented to the job.	.569
OCB8	Offered suggestions to improve how work is done.	.856
OCB9	Offered suggestions for improving the work environment.	.878
OCB13	Volunteered for extra work assignments.	.562
OCB15	Said good things about your employer in front of others.	.459
OCB16	Gave up meal and other breaks to complete work.	.412
OCB19	Decorated, straightened up, or otherwise beautified common work space.	.490

From the EFA results it is clear that all the items contributed to reflecting the OCB-O construct. The researcher concluded that the OCB-O scale was a unidimensional measure and displayed construct validity.

4.3.1.6 Organisational citizenship behaviour (I)

For the OCB-I scale, the restricted EFA yielded a KMO value of 0.894. The communalities ranged between 0.159 and 0.595. Item OCB1 had the lowest value of 0.159 in the restricted solution; nonetheless, this value was above the cut-off of 0.100. The results also showed two eigenvalues greater than 1, which suggested two factors underlying the items.

An unrestricted EFA was then performed. The KMO value remained unchanged at 0.894, and the communality value of item OCB1 was still low, at 0.155. The other items had communality values ranging from 0.317 to 0.856, which were all acceptable. Again, two main eigenvalues were reported, as presented in Table 4.14. The first factor had a total value of 6.101 and explained 41.968% of the common variance. The second factor had a total value of 1.327, explaining 8.121% of the common variance.

Table 4. 14:

Eigenvalues for the OCB-I dimension

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6.101	46.933	46.933	5.456	41.968	41.968	4.880
2	1.327	10.205	57.138	1.056	8.121	50.089	4.694
3	.957	7.362	64.500				
4	.761	5.854	70.355				
5	.676	5.199	75.554				
6	.630	4.845	80.399				
7	.564	4.337	84.736				
8	.481	3.703	88.439				
9	.424	3.261	91.700				
10	.370	2.846	94.546				
11	.291	2.239	96.786				
12	.262	2.014	98.799				
13	.156	1.201	100.000				

The pattern matrix in Table 4.15 indicates the pattern of factor loadings. Items OCB7, OCB10, OCB11, OCB12, OCB14, OCB17 and OCB20 loaded onto the first factor, whereas items OCB1, OCB2, OCB3, OCB5 and OCB6 loaded more strongly on the second factor. Item OCB18 was a cross-loaded item, since the difference between the primary and secondary loadings was less than 0.250.

Table 4. 15

Pattern matrix for the OCB-I dimension

	Factor	
	1	2
OCB1		**.275**
OCB2		**.494**
OCB3	.240	**.472**
OCB5		**.995**
OCB6		**.941**
OCB7	**.556**	
OCB10	**.706**	
OCB11	**.826**	
OCB12	**.829**	
OCB14	**.444**	.223
OCB17	**.534**	.288
OCB18	.336	**.422**
OCB20	**.500**	.234

Note. Cells are blank if values were below 0.20, so that the pattern of salient loadings is clear.

OCB-I is relevant to organisational citizenship behaviour that is directed at individuals. The wording of the items and the way in which the results were grouped into two factors suggests that one factor had an element of task support, whereas the second factor had an element of social support. An example of an item that was related to task support was item OCB10: 'Finished something for co-worker who had to leave early.' An example of an item related to social support is item OCB6: 'Lent a compassionate ear when someone had a personal problem.'

The researcher did not find any literature that supports the split of OCB-I into two dimensions. However, the typology of OCB classifies OCB-O as including conscientiousness, civic virtue and sportsmanship, whereas OCB-I includes altruism and courtesy. These distinctions might help to explain why OCB-I was split into two factors during this EFA.

The essence of altruism and courtesy would thus be classified as OCB directed to other individuals (Podsakoff, et al., 2014). However, a further distinction can be made. Altruism in the workplace refers to behaviour which is positive and task-related, such as offering help to a colleague. By contrast, 'courtesy' refers to kind and polite

behaviour directed to others, portraying a more social element of the factor. This distinction could explain the outcome of OCB-I constituting two factors. Based on the foregoing argument, it was decided to label the two factors that emerged in the EFA as follows: OCB-I – Altruism and OCB-I – Courtesy.

4.3.1.7 Counterproductive workplace behaviour (individual)

For the CWB-I dimension, the restricted EFA yielded a KMO value of 0.713. In this restricted solution, three of the seven items had communality values below the minimum cut-off of 0.100. These were items CWB3 (0.088), CWB4 (0.066) and CWB5 (0.008). The results also indicated two eigenvalues greater than 1, suggesting that the scale might have two factors.

An unrestricted EFA was then conducted. The KMO value remained unchanged at 0.713, and only one communality value was below 0.100, for item CWB5 (0.022). The rest of the items had communality values ranging between 0.095 and 0.519. Again, two eigenvalues greater than 1 were revealed, as presented in Table 4.16. The first factor explained 22.289% of the common variance, and the second factor explained 6.454% of the common variance.

Table 4. 16

Eigenvalues of the CWB-I dimension

		Initial Eigenvalues			Extraction Sums of Squared Loadings		Rotation Sums of Squared Loadings
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	2.173	31.040	31.040	1.560	22.289	22.289	1.440
2	1.139	16.269	47.309	.452	6.454	28.743	1.113
3	.975	13.929	61.238				
4	.865	12.361	73.598				
5	.721	10.303	83.901				
6	.607	8.667	92.568				
7	.520	7.432	100.000				

The pattern matrix (see Table 4.17) displays the salient factor loadings. Items CWB2, CWB6 and CWB7 loaded onto the first factor, whereas items CWB1, CWB3, CWB4, and CWB5 loaded onto the second factor.

Table 4. 17

Pattern matrix for the CWB-I dimension

	Factor	
	1	2
CWB1		**.657**
CWB2	**.626**	
CWB3		**.473**
CWB4		.261
CWB5		
CWB6	**.656**	
CWB7	**.631**	

Note. Cells are blank if values were below 0.20, so that the pattern of salient loadings is clear.

Despite the empirical results, no theoretical rationale could be found for splitting the CWB-I scale into two factors. Hence, the author retained a single-factor solution. Although there was some structure in the pattern matrix that may indicate a second factor, the common variance explained by that factor was minimal (6.45%). In addition, the restricted single-factor solution indicated relatively strong factor loadings, with the exception of items CWB4 (0.257) and CWB5 (0.089). At this stage it was decided to retain items CWB2, CWB6 and CWB7 for further consideration during the CFA process. The scale contained relatively few items, and deleting any items would reduce that already small number further. If the three items were still found to be problematic in the CFA, they would be considered for deletion.

4.3.1.8 Counterproductive workplace behaviour (organisation)

Restricted EFAs were performed for the CWB-O scale. From the initial restricted EFA, the results showed a KMO value of 0.760. In the restricted solution, five of the 12 items obtained communalities below the minimum of 0.100. The items with low communality values were CWB8 (0.070), CWB10 (0.054), CWB13 (0.042), CWB17 (0.028) and CWB19 (0.002). In addition, there were four eigenvalues greater than 1, suggesting that the scale had four factors.

To assess the dimensionality of the items, the researcher then performed an unrestricted EFA. The communality value of one item still indicated a problem as it was below the cut-off of 0.900; this was CWB17 (0.056). Furthermore, the

communality values of items CWB10 and CWB13 were above 0.900. Four eigenvalues were greater than 1.

At this stage, considering the communality values, the researcher decided to delete items CWB10, CWB13 and CWB17 and conduct another unrestricted EFA. The results of this unrestricted EFA showed a KMO value of 0.812. The communalities of all items were above the 0.100 minimum requirement, but item CWB8 obtained a low value of 0.095. In addition, the communality value of item CWB19 was above 0.900. Three eigenvalues greater than 1 were reported, two of which explained a substantial proportion of common variance (11.520% and 27.256% respectively). A third factor accounted for 4.308% of the common variance.

Considering the results, the researcher then decided to further delete items CWB8 (0.095) and CWB19 (0.999). Both of these items had problematic communality values and factor loadings. A fourth round of unrestricted EFA was then performed with the remaining seven items. The results revealed a KMO score of 0.828. All the items obtained communalities above 0.100, ranging from 0.160 to 0.622. As presented in Table 4.18, there was one eigenvalue greater than 1, at 2.959, which explained 33.442% of the common variance.
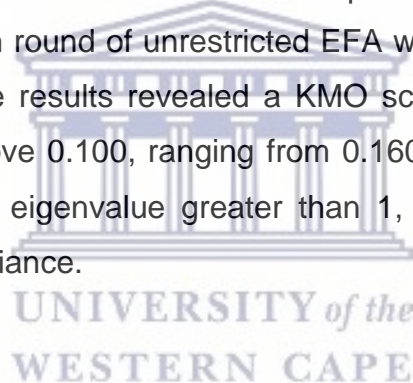
Table 4. 18

Eigenvalues of the CWB-O dimension

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.959	42.277	42.277	2.341	33.442	33.442
2	.910	12.996	55.272			
3	.832	11.890	67.162			
4	.719	10.270	77.432			
5	.601	8.581	86.014			
6	.581	8.297	94.311			
7	.398	5.689	100.000			

Table 4.19 displays the factor loadings for the final revised scale. All items met the minimum criterion of 0.30. The items had acceptable factor loadings ranging between 0.400 and 0.789.

Table 4. 19

Factor matrix for the CWB-O dimension

Item	Item Description	Factor Loading
CWB9	Spent too much time fantasising or daydreaming instead of working.	.621
CWB11	Taken an additional or longer break than is acceptable at your workplace.	.789
CWB12	Come in late to work without permission.	.671
CWB14	Neglected to follow your boss's instructions.	.465
CWB15	Intentionally worked slower than you could have worked.	.516
CWB16	Discussed confidential company information with an unauthorised person.	.400
CWB18	Put little effort into your work.	.491

In summary, five items were removed from the CWBO-scale. As stated by Costello and Osborne (2005), a factor can be considered weak if it is measured by fewer than three items. A factor measured by at least five items, all of which load strongly (0.5 or higher), would be considered robust (Costello & Osborne, 2005). It is thus not ideal to remove several items. However, it was imperative to work with relatively pure factors, namely, free from error and cross-loadings, to construct and specify the structural models. Hence, the researcher removed items if doing so improved the structure of the scale. The balance of evidence suggested that the revised measure was valid and unidimensional.

4.3.1.9 Intention to quit

The EFA for the ITQ scale revealed a good KMO score of 0.883 and acceptable communality scores of between 0.360 and 0.790. There was one eigenvalue greater than 1, at 3.859, which explained 57.553% of the common variance. These results are presented in Table 4.20.

Table 4. 20

Eigenvalues of the ITQ scale

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.859	64.324	64.324	3.453	57.553	57.553
2	.706	11.770	76.094			
3	.480	8.004	84.098			
4	.429	7.152	91.250			
5	.325	5.425	96.675			
6	.199	3.325	100.000			

Furthermore, the results indicated strong factor loadings, ranging from 0.600 to 0.889. The loadings are presented in Table 4.21.

Table 4. 21

Factor matrix for the ITQ scale

Item	Item Description	Factor loading
ITQ1	How often have you considered leaving your job?	.889
ITQ2	How satisfying is your job in fulfilling your personal needs?	.600
ITQ3	How often are you frustrated when not given the opportunity at work to achieve your personal work-related goals?	.695
ITQ4	How often do you dream about getting another job that will better suit your personal needs?	.887
ITQ5	How likely are you to accept another job at the same compensation level should it be offered to you?	.780
ITQ6	How often do you look forward to another day at work?	.652

The CFA results indicated that no items in the scale were problematic. The evidence therefore suggests that the ITQ scale was a unidimensional measure and displayed construct validity.

4.3.2 Confirmatory factor analysis results

CFA using SEM was employed to assess the quality of the measurement instruments. CFA is generally regarded as a robust statistical technique and is used to examine the overall fit of a theoretical model against a dataset (Kline, 2005). In addition, CFA is suited for assessing the cross-contextual replication of factor structures if well-validated measures are used in a study. Such validated measures allow for the assumption that all designated indicators have moderately strong and homogenous relationships with the underlying factor (Brown, 2006; Marsh & Hau, 1999).

Fabrigar et al. (1999) argue that EFA results generated with pre-specified conditionalities can provide incremental information regarding the key parameters of a restricted CFA model. In the previous section, the unidimensionality of all measures was assessed. The goal in this section is to confirm the factor structures. It would have been ideal to confirm the CFA results using an independent sample to avoid sample-specific results. However, the researcher lacked access to an independent sample and the final dataset was too small to separate into calibration and validation subsets.

Table 4.22 shows the criteria considered for the absolute and incremental fit indices considered during the analysis. The results for each of the variables are discussed in the subsequent sections.

Table 4. 22

Criteria for model fit indices

Index	Criteria
Absolute Fit:	
Chi-square	If the chi-square value is not statistically significant (p ≥ .050), the model is supported.
RMSEA (root mean square error of approximation)	RMSEA values between 0 and 0.050 indicate a good fit, and values between 0.050 and 0.080 indicate an acceptable fit (Browne & Cudeck, 1993 as cited in Brown, 2015). Values above 0.080 are indicative of a poor fit.
SRMR (standardised root mean square residual)	Values below 0.080 indicate an adequate fit (Hu and Bentler, 1999).
Incremental Fit:	
CFI (confirmatory factor index)	Values of 0.900 or more indicate a good fit (Bentler, 1990).
TLI (Tucker-Lewis index)	Values of 0.900 or more indicate a good fit (Bentler, 1990).

4.3.2.1 Emotional management (self)

During the EFA stage, item EM17 was identified as being potentially problematic in the EM-S scale. A CFA model was specified to include all the original items. Another CFA model was specified in which item EM17 had been removed. Overall, the fit indices were improved by the deletion of item EM17.

For the revised model, the chi-square statistic was x^2 (20, n = 523) = 37.170, *p* <.05 (Δchi-square = -33.820). As noted in Table 4.23, the RMSEA and SRMR values were, respectively, 0.041(ΔRMSEA = -0.015) and 0.032 (ΔSRMR= -0.008). These values indicate a good fit. Additionally, the CFI (0.972; ΔCFI = 0.029) and TFL (0.961; ΔTLI = 0.038) values indicated that the revised CFA model fitted the data well.

Table 4. 23

Fit indices for EM-S

	Indices		
		Absolute	**Incremental**
Chi-square	37.17		
RMSEA			
Estimate (90% C.I.)	0.041	(0.019 0.061)	
Probability RMSEA ≤.05	0.763		
SRMR	0.032		
CFI			0.972
TLI			0.961

The CFA results also indicated strong standardised factor loadings, suggesting that the items reflected a large proportion of common variance relative to error variance. The results are presented in Table 4.24. All standardised factor loadings were above 0.300 and were statistically significant at *p* <.05. Table 4.24 also shows the R-squared values. Item EM 15 obtained a relatively low R-square value; however, considering the fit of the CFA and the relatively small number of items in the dimension, the researcher decided not to delete the item.

Table 4. 24

Standardised solution and R-squared values of EM-S

Item	Estimate	S.E.	Est./S.E.	p-value	R-squared estimate
ER2	0.575	0.047	12.113	0.000	0.331
ER3	0.530	0.043	12.193	0.000	0.281
ER5	0.677	0.036	18.648	0.000	0.458
ER7	0.697	0.032	21.628	0.000	0.486
ER9	0.485	0.045	10.828	0.000	0.235
ER11	0.515	0.047	10.929	0.000	0.265
ER12	0.623	0.038	16.211	0.000	0.388
ER15	0.350	0.054	6.544	0.000	0.123

Overall, the results indicate that the model fitted the data well. The measurement model, in its revised configuration, could therefore be included in the structural model.

4.3.2.2 Emotional management (others)

During the EFA stage, items EM1 and EM6 were flagged as possible problematic items in the EM-O scale. A CFA model was then specified in which these two items

were retained, and the chi-square statistic was found to be X^2 (20, n = 523) = 56.38, *p* <.001. A summary of the fit indices appears in Table 4.25. The RMSEA value of 0.059 and the SRMR value of 0.041 indicate a good model fit. The values of the incremental fit indices, CFI and TLI, were 0.922 and 0.890 respectively. The TLI value was just below the normative value of 0.900, but all other values were acceptable.

Table 4. 25

Fit indices for EM-O

	Indices		
	Absolute		**Incremental**
Chi-square	56.38		
RMSEA			
Estimate (90% C.I.)	0.059	(0.041 0.077)	
Probability RMSEA ≤.05	0.191		
SRMR	0.041		
CFI			0.922
TLI			0.890

The CFA results also indicated acceptable standardised factor loadings for the items of the EM-O scale. This result indicated that the items reflected a large proportion of common variance relative to error variance. The standardised factor loadings are presented in Table 4.26. Apart from item EM1, all the standardised factor loadings were above 0.300 and were statistically significant at *p* <.05. Although item EM6 had been flagged during EFA, it did not seem problematic in the CFA and was therefore retained. As presented in Table 4.26, items EM1, EM 6 and EM10 obtained weak R-square values. Nonetheless, the researcher decided to retain all the items.

Table 4. 26

Standardised solution and R-squared values of EM-O

Item	Estimate	S.E.	Est./S.E.	p-value	R-squared estimate
EM1	0.223	0.061	3.677	0.000	0.050
EM4	0.475	0.050	9.495	0.000	0.226
EM6	0.320	0.052	6.111	0.000	0.102
EM8	0.488	0.045	10.820	0.000	0.238
EM10	0.387	0.056	6.919	0.000	0.150
EM13	0.570	0.057	9.957	0.000	0.324
EM14	0.627	0.038	16.690	0.000	0.393
EM16	0.691	0.043	15.918	0.000	0.477

If the results are considered collectively, the theoretical model seems to fit the data adequately. Hence, the model demonstrated sufficient construct validity to be included in the structural models.

4.3.2.3 Emotional management – total scale

The EM-S and EM-O scales were analysed as separate factors in the EFA analyses. Nonetheless, the researcher had formulated the hypotheses to consider overall EM. Previous research suggests that the dimensions might be strongly correlated, which could cause problems for the estimation of CFA models (Ronkko & Cho, 2020). When latent dimensions are strongly correlated, the covariance matrix cannot invert (Tabachnick & Fidell, 2014). In this study, the standardised covariance between the latent dimensions was 0.990; such a high value is a concern. Therefore, the researcher decided to combine the EM-S and EM-O scales for the CFA. The chi-square statistic was X^2 (104, n = 523) = 362.770, *p* <.05.

As noted in Table 4.27, the RMSEA and SRMR values were 0.069 and 0.061 respectively, indicating an acceptable fit. However, the incremental fit indices, CFI (0.820) and TLI (0.792), were below the normative cut-off of 0.90. In general, the fit of the combined EM scale can be regarded as mixed. The RMSEA and SRMR results indicated relatively small deviations between the sample and reproduced covariance matrices, but the TLI and CFI levels indicated a possible shortcoming.

Table 4. 27

Fit indices for EM

| | Indices | | |
	Absolute		Incremental
Chi-square	362.770		
RMSEA			
Estimate (90% C.I.)	0.069	(0.061 0.077)	
Probability RMSEA ≤.05	0.000		
SRMR	0.061		
CFI			0.820
TLI			0.792

Table 4.28 presents a summary of the CFA results. For the combined EM scale, all standardised factor loadings were above 0.30 and were statistically significant, with p-values below .05. Again, although item EM6 had been flagged during the EFA, the item did not appear problematic during the CFA and was therefore retained. However, some items obtained low R-squared values – notably EM15, EM1, EM4 and EM6.

UNIVERSITY *of the*
WESTERN CAPE
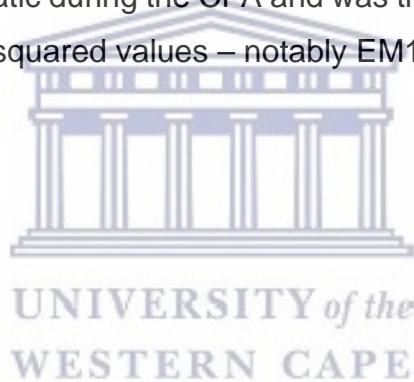
Table 4. 28

Standardised solution and R-squared values for EM

EM item	Estimate	S.E.	Est./S.E.	Two-Tailed p-value	R-squared estimate
ER2	0.547	0.045	12.041	0.000	0.299
ER3	0.506	0.044	11.574	0.000	0.256
ER5	0.652	0.033	19.625	0.000	0.424
ER7	0.699	0.029	24.302	0.000	0.488
ER9	0.504	0.042	11.884	0.000	0.254
ER11	0.481	0.046	10.381	0.000	0.231
ER12	0.605	0.034	17.959	0.000	0.366
ER15	0.323	0.053	6.140	0.000	0.104
ER1	0.331	0.051	6.467	0.000	0.110
ER4	0.395	0.047	8.338	0.000	0.156
ER6	0.306	0.049	6.259	0.000	0.094
ER8	0.501	0.042	11.926	0.000	0.251
ER10	0.480	0.044	10.845	0.000	0.231
ER13	0.507	0.060	8.510	0.000	0.258
ER14	0.501	0.042	11.878	0.000	0.251
ER16	0.453	0.056	8.136	0.000	0.205

Note: Items with low standardised factor loading estimates are highlighted

The weak standardised factor loadings led to a decision to delete the four questionable items and rerun the CFA model. The improved fit is summarised in Table 4.29. For the revised EM scale, the chi-square value was 212.044 (Δchi-square = -101.726). The RMSEA value was 0.075 (ΔRMSEA = -0.006) and the SRMR value was 0.057 (ΔSRMR = -0.004). The values for CFI and TLI had increased to 0.863 (ΔCFI = 0.043) and 0.832 (ΔTLI = 0.040), respectively. Table 4.30 presents the standardised solution and R-squared values for the revised EM scale.

Table 4. 29

Fit indices for revised EM

	Indices		
	Absolute		**Incremental**
Chi-square	212.044		
RMSEA			
Estimate (90% C.I.)	0.075	(0.064 0.086)	
Probability RMSEA ≤.05	0.000		
SRMR	0.057		
CFI			0.863
TLI			0.832

Table 4. 30

Standardised solution and R-square values for the revised EM scale

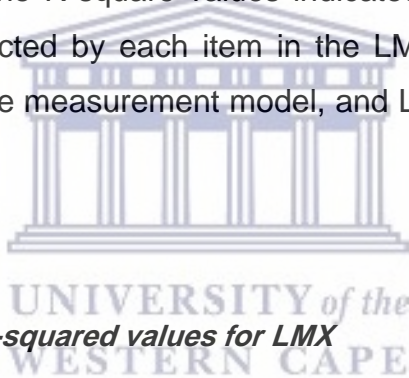| Item	Estimate	S.E.	Est./S.E.	p-value	R-squared estimate
ER2	0.539	0.046	11.780	0.000	5.890
ER3	0.513	0.044	11.754	0.000	5.877
ER5	0.657	0.034	19.160	0.000	9.580
ER7	0.689	0.029	23.743	0.000	11.872
ER9	0.515	0.043	12.092	0.000	6.046
ER11	0.477	0.047	10.220	0.000	5.110
ER12	0.619	0.034	18.173	0.000	9.086
ER8	0.505	0.043	11.796	0.000	5.898
ER10	0.493	0.044	11.107	0.000	5.553
ER13	0.503	0.060	8.383	0.000	4.191
ER14	0.490	0.045	10.997	0.000	5.499
ER16	0.440	0.057	7.729	0.000	3.865

4.3.2.4 Leader–member exchange (LMX)

Fit indices from the CFA analysis of the LMX scale are reported in Table 4.31. The chi-square statistic was x^2 (14, n = 523) = 43.280, p <.05. As noted in Table 4.31, the RMSEA (0.063) and SRMR (0.018) values indicated an acceptable and a good model fit, respectively. Furthermore, the CFI (0.983) and TLI (0.974) values indicated that the model fitted the data well.

Fit indices for LMX

	Indices		
	Absolute		**Incremental**
Chi-square	43.280		
RMSEA			
Estimate (90% C.I.)	0.063	(0.042 0.085)	
Probability RMSEA ≤.05	0.139		
SRMR	0.018		
CFI			0.983
TLI			0.974

The CFA results also revealed acceptable standardised estimates for the items in the LMX scale. These estimates and the R-square values are presented in Table 4.32. All the standardised factor loadings were above 0.300 and were statistically significant, with p-values below .050. The R-square values indicated that a large proportion of common variance was reflected by each item in the LMX measure. These results provide strong support for the measurement model, and LMX was therefore included in the SEM model.

Table 4. 32

Standardised solution and R-squared values for LMX

Item	Estimate	S.E.	Est./S.E.	p-value	R-squared estimate
LMX1	0.759	0.028	26.638	0.000	0.576
LMX2	0.871	0.016	52.800	0.000	0.758
LMX3	0.851	0.019	44.528	0.000	0.725
LMX4	0.794	0.028	28.329	0.000	0.630
LMX5	0.755	0.024	31.988	0.000	0.570
LMX6	0.876	0.013	66.841	0.000	0.767
LMX7	0.888	0.012	71.939	0.000	0.789

4.3.2.5 Team-member exchange (TMX)

During the EFA, two factors emerged for TMX. Considering the item descriptions, the researcher decided to label the first factor TMX–task, and the second TMX–social. To uphold the model's parsimony, the researcher then specified a second-order CFA model for the TMX items. For the purposes of model identification, the second-order factor loadings were constrained to unity. Fit indices from the second-order CFA model are specified in Table 4.33.

The chi-square statistic was X^2 (26, n = 523) = 98.150, p <.05, and the RMSEA (0.073) and SRMR (0.052) values were indicative of an acceptable model fit. Regarding the incremental fit indices, the CFI value of 0.939 and TLI value of 0.916 were higher than the cut-off value (0.900). The results are presented in Table 4.33. Overall, the results suggest that the theoretical model demonstrated a close fit to the empirical data

Table 4. 33

Fit indices for TMX

	Indices		
	Absolute		**Incremental**
Chi-square	98.150		
RMSEA			
Estimate (90% C.I.)	0.073	(0.058 0.088)	
Probability RMSEA ≤.05	0.007		
SRMR	0.052		
CFI			0.939
TLI			0.916

The CFA results also revealed acceptable standardised factor loadings for the items in the total TMX scale. The loadings indicated that the items reflected a high proportion of common variance relative to the error variance. The factor loadings and the R-square estimates for the TMX scale are presented in Table 4.34. All the standardised factor loadings were above 0.300 and were statistically significant, with p-values below .050. Only item TMX3 yielded a weak R-square value. Considering the item's relatively strong standardised factor loading and the limited number of items in the Task dimension, the researcher decided to retain the item.

Table 4. 34

Standardised solution and R-square values for TMX

Factor	Item	Estimate	S.E.	Est./S.E.	p-value	R-squared estimate
TMX-TASK	TMX1	0.806	0.023	35.347	0.000	0.649
	TMX2	0.710	0.035	20.257	0.000	0.505
	TMX3	0.440	0.050	8.730	0.000	0.194
	TMX4	0.764	0.030	25.098	0.000	0.584
	TMX10	0.656	0.033	19.663	0.000	0.464
TMX-SOCIAL	TMX6	0.681	0.038	17.980	0.000	0.408
	TMX7	0.638	0.039	16.432	0.000	0.706
	TMX8	0.840	0.028	29.995	0.000	0.493
	TMX9	0.702	0.034	20.648	0.000	0.431
TOTAL TMX	TMX_TASK	0.612	0.040	15.482	0.000	0.374
	TMX_SOCIAL	0.893	0.049	18.315	0.000	0.797

The balance of evidence indicated that the model fitted the data well. It was therefore concluded that the measurement model, in its current configuration, should be included in the structural model.

4.3.2.6 Organisational citizenship behaviour (O)

During the EFA, no problematic items were flagged. A CFA model was therefore specified including all the items of the OCB-O scale. The chi-square statistic was X^2 (14, n = 523) = 99.620, p <.05.

The RMSEA (0.108) value indicated a poor fit, whereas the SRMR (0.057) value indicated an acceptable fit. Additionally, the CFI (0.903) and TLI (0.900) values confirmed the overall fit of the model to the data. The CFA results also indicated acceptable standardised factor loadings for the items of the OCB-O scale. The loadings and the R-squared estimates for the OCB-O scale are presented in Table 4.35. All the standardised factor loadings were above 0.300 and were statistically significant, with p-values below .050.

Table 4. 35

Fit indices for OCB-O

	Indices		
	Absolute		**Incremental**
Chi-square	99.620		
RMSEA			
Estimate (90% C.I.)	0.108	(0.089 0.129)	
Probability RMSEA ≤.05	0		
SRMR	0.057		
CFI			0.903
TLI			0.855

Table 4.36 shows the R-square values. The R-square value for item OCB16 was notably weak, but the standardised factor loading was higher than 0.300. The overall fit of the scale was satisfactory, so it was decided to retain the item in the scale.

Table 4. 36

Standardised solution and R-squared values of OCB-O

Item	Estimate	S.E.	Est./S.E.	p-value	R-squared estimate
OCB4	0.569	0.039	14.695	0.000	0.324
OCB8	0.856	0.020	43.046	0.000	0.733
OCB9	0.878	0.022	39.692	0.000	0.771
OCB13	0.562	0.039	14.256	0.000	0.316
OCB15	0.459	0.046	9.888	0.000	0.211
OCB16	0.412	0.044	9.331	0.000	0.170
OCB19	0.490	0.044	11.245	0.000	0.240

The balance of evidence indicated that the model fitted the data well. It was therefore concluded that the measurement model, in its current configuration, should be included in the structural model.

4.3.2.7 Organisational citizenship behaviour (I)

During the EFA, two factors emerged within the OCB-I scale. After examining the items' content, the researcher decided to term the two factors 'OCB-I – Task Support' and 'OCB-I – social support'. To attain a parsimonious model, the researcher specified a second-order CFA model for the OCB-I items. For the purpose of model identification, the second-order factor loadings were constrained to unity. Fit indices for the second-order CFA model are listed in Table 4.37. The chi-square statistic was X^2 (64, n = 523) = 378.660, *p* <.05.

Table 4. 37

Fit indices for OCB-I

	Indices		
	Absolute		**Incremental**
Chi-square	378.660		
RMSEA			
Estimate (90% C.I.)	0.097	(0.088 0.107)	
Probability RMSEA ≤.05	0.000		
SRMR	0.065		
CFI			0.865
TLI			0.836

As noted in Table 4.37, the RMSEA (0.097) and SRMR (0.065) values were indicative of a poor fit and an acceptable fit, respectively. Regarding the incremental fit indices, the CFI (0.865) and TLI (0.836) values were both just below the 0.900 cut-off. In general, the fit can be described as mediocre.

The CFA results also revealed adequate standardised estimates of the items in the total OCB-I scale. As explained earlier, these estimates explain each item relative to the scale. The results are presented in Table 4.38. All the standardised factor loadings were above 0.300 and were statistically significant, with p-values below.05. Table 4.38 also lists the R-square values. The R-square value for OCB1 was low, but the researcher decided to retain the item since the standardised factor loading was robust.

Standardised solution and R-square values of OCB-I

Factor	Item	Estimate	S.E.	Est./S.E.	p-value	R-squared estimate
OCB-I-Task Support	OCB7	0.603	0.036	16.612	0.000	0.363
	OCB10	0.693	0.035	20.007	0.000	0.480
	OCB11	0.655	0.035	18.974	0.000	0.429
	OCB12	0.760	0.033	23.170	0.000	0.577
	OCB14	0.626	0.031	20.284	0.000	0.392
	OCB17	0.780	0.026	30.391	0.000	0.609
	OCB18	0.683	0.034	20.073	0.000	0.467
	OCB20	0.707	0.032	21.968	0.000	0.500
OCB-P-Social Support	OCB1	0.375	0.036	10.338	0.000	0.140
	OCB2	0.571	0.041	14.044	0.000	0.326
	OCB3	0.636	0.036	17.600	0.000	0.404
	OCB5	0.917	0.017	55.411	0.000	0.841
	OCB6	0.881	0.018	49.530	0.000	0.775

All the evidence collectively indicated that the second-order CFA model for OCB-I fitted the data reasonably well. However, the fit indices indicated potentially problematic items in the model or areas of misspecification. This point casts some doubt on the construct validity of the CFA model.

4.3.2.8 Counterproductive workplace behaviour (I)

During the EFA, two factors emerged. After considering all the results, the researcher decided to proceed with the CWB-I scale as having a unidimensional factor structure. A CFA model was therefore specified with the CWB-I scale. The chi-square statistic was X^2 (14, n = 523) = 31.54, *p* <.05. As shown in Table 4.39, the RMSEA and SRMR values were 0.049 and 0.046 respectively, indicative of a good fit. The SRMR was 0.046, also indicting a good fit. Additionally, the CFI (0.907) and TLI (0.861) values indicated that the model fitted the data satisfactorily.

Table 4. 39

Fit indices for CWB-I

	Indices		
	Absolute		**Incremental**
Chi-square	31.540		
RMSEA			
Estimate (90% C.I.)	0.049	(0.026 0.072)	
Probability RMSEA ≤.05	0.494		
SRMR	0.046		
CFI			0.907
TLI			0.861

The standardised factor loadings and R-square values of the CWB-I lower-order dimension are reported in Table 4.40. Three of the items had standardised factor loading estimates below 0.3. These were items CWB3, CWB4 and CWB5, with values of 0.296, 0.257 and 0.089 respectively. All other standardised factor loadings were above 0.3 and were statistically significant at p <.05.

Table 4. 40

Fit indices for CWB-I

Item	Estimate	S.E.	Est./S.E.	p-value	R-squared estimate
CWB1	0.379	0.077	4.948	0.000	0.144
CWB2	0.746	0.048	15.405	0.000	0.557
CWB3	0.296	0.072	4.136	0.000	0.088
CWB4	0.257	0.074	3.455	0.001	0.066
CWB5	0.089	0.066	1.357	0.175	0.008
CWB6	0.597	0.066	8.997	0.000	0.357
CWB7	0.536	0.067	8.038	0.000	0.287

Note: Items with standardised factor loading estimates below 0.3 are highlighted

Similarly, the EFA results indicated that item CWB5 had a low communality value of 0.022. The same item obtained a low standardised factor loading in the CFA, and it was thus decided to delete the item and respecify the CFA model.

The revised CFA model yielded a chi-square statistic of x^2 (9, n = 523) = 23.920, p <.05 (Δchi-square = -7.620). The fit indices of the revised CFA model indicated a better fit than the original CFA model. As noted in Table 4.41, the RMSEA (0.056; ΔRMSEA = -0.007) and SRMR (0.049; ΔSRMR = 0.003) values were indicative of a good model

fit. Regarding the incremental fit indices, the CFI was acceptable at 0.910 (ΔCFI = 0.003), whereas the TLI value was below the cut-off of 0.900, at 0.851 (ΔTLI = -0.010). In total, the fit indices indicated a good model fit for the data.

Table 4. 41

Fit indices for CWB-I with item CWB5 deleted

	Indices		
	Absolute		**Incremental**
Chi-square	23.920		
RMSEA			
Estimate (90% C.I.)	0.056	(0.029 0.084)	
Probability RMSEA ≤.05	0.314		
SRMR	0.049		
CFI			0.910
TLI			0.851

The standardised factor loadings are reported Table 4.42. The results indicate that the standardised estimates for items CWB3 and CWB4 were still below .300. The rest of the standardised factor loadings were above 0.300 and were statistically significant with p-values below.05. Given the limited number of items in the scale, it was decided not to delete any other items.

Table 4. 42

Standardised solution and R-squared values of CWB-I with item CWB5 deleted

Item	Estimate	S.E.	Est./S.E.	p-value	R-squared estimate
CWB1	0.376	0.075	5.015	0.000	0.141
CWB2	0.752	0.047	16.017	0.000	0.565
CWB3	0.293	0.070	4.181	0.000	0.086
CWB4	0.256	0.074	3.479	0.001	0.065
CWB6	0.596	0.066	8.983	0.000	0.355
CWB7	0.535	0.067	7.983	0.000	0.286

Note: Items with low standardised factor loading estimates are highlighted

The balance of evidence showed that the model fitted the data adequately. The results indicated that the scale could be included in the structural model.
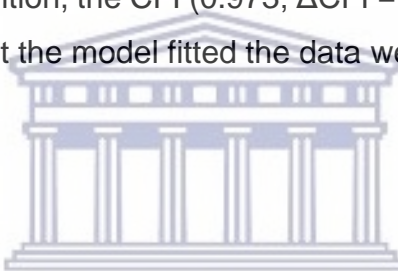
4.3.2.9 Counterproductive workplace behaviour (organisation)

During the EFA, five items were removed from the CWB-O scale: items CWB8, CWB10, CWB13, CWB17 and CWB19. To make sure that the items were also problematic in the CFA configuration, the researcher specified the original measurement model containing all the items. The CFA results indicated that the same five items had low standardised factor loadings (below 0.300). For this reason, the decision to delete these items seemed reasonable. Subsequently, a revised CFA model was specified and the items were omitted from the measure.

The fit indices are reported in Table 4.43. The obtained chi-square statistic was X^2 (14, n = 523) = 23.310, p <.05 (Δchi-square = -126.111). The RMSEA and SRMR values were 0.036 (ΔRMSEA = -0.022) and 0.035 (ΔSRMR = -0.027), which were both indicative of a good fit. In addition, the CFI (0.973; ΔCFI = 0.153) and TLI (0.960; ΔTLI = 0.180) values indicated that the model fitted the data well.

Table 4. 43

Fit indices for CWB-O

	Indices		
	Absolute		Incremental
Chi-square	23.310		
RMSEA			
Estimate (90% C.I.)	0.036	(0.000 0.060)	
Probability RMSEA ≤.05	0.811		
SRMR	0.035		
CFI			0.973
TLI			0.960

The CFA results also indicated acceptable standardised factor loadings for the items in the total CWB-O scale. Hence, the items reflected large proportions of the common variance. These results are presented in Table 4.44. All the standardised factor loadings were above 0.300 and were statistically significant, with p-values below.05. Table 4.43 also presents the R-squared values. The R-squared value of item CWB16 was low and a cause for concern, but it was decided to retain the item since its standardised factor loading was adequate.

Table 4. 44

Standardised solution and R-squared values for CWB-O

Item	Estimate	S.E.	Est./S.E.	p-value	R-squared estimate
CWB9	0.621	0.042	14.840	0.000	0.385
CWB11	0.789	0.034	23.472	0.000	0.622
CWB12	0.671	0.044	15.210	0.000	0.450
CWB14	0.465	0.062	7.452	0.000	0.216
CWB15	0.516	0.064	8.104	0.000	0.266
CWB16	0.400	0.057	7.000	0.000	0.160
CWB18	0.491	0.064	7.622	0.000	0.241

Considering the balance of evidence, the construct validity of the measure appeared sufficient. Therefore, the CWB-O scale was included in the structural model.

4.3.2.10 CWB – total scale

For the purpose of model parsimony, it was decided to specify a second-order CFA model on the CWB-I and CWB-O items. For model identification, the second-order factor loadings were constrained to unity. Fit indices of the second-order CFA model are specified in Table 4.45. The results included a chi-square statistic of X^2 (64, n = 523) = 103.640, p <.05. The RMSEA and SRMR values, 0.035 and 0.047 respectively, indicated a good fit. Additionally, the CFI (0.941) and TLI (0.928) values showed that the model fitted the data.

Table 4. 45

Fit indices for higher-order CWB

		Indices	
		Absolute	**Incremental**
Chi-square	103.640		
RMSEA			
Estimate (90% C.I.)	0.035	(0.022 0.047)	
Probability RMSEA ≤.05	0.985		
SRMR	0.047		
CFI			0.941
TLI			0.928

The CFA results revealed acceptable standardised factor loadings of the items of the total CWB scale, indicating that the items reflected large proportions of the common

166

variance. The results are presented in Table 4.46. All the standardised factor loadings were above 0.300 and were statistically significant, with p-values below .050. Table 4.46 includes the R-squared values, which were low for the items CBW1, CWB3, CWB4 and CWB16. However, since five items had already been deleted from this scale, the researcher was reluctant to delete any more.

Table 4. 46

Standardised solution and R-squared values of higher-order CWB

Factor	Item	Estimate	S.E.	Est./S.E.	p-value	R-squared estimate
CWB-O	CWB9	0.625	0.041	15.137	0.000	0.391
	CWB11	0.784	0.033	23.477	0.000	0.615
	CWB12	0.670	0.043	15.566	0.000	0.449
	CWB14	0.470	0.061	7.641	0.000	0.221
	CWB15	0.516	0.063	8.177	0.000	0.267
	CWB16	0.404	0.055	7.325	0.000	0.163
	CWB18	0.496	0.064	7.793	0.000	0.246
CWB(P)	CWB1	0.395	0.079	4.980	0.000	0.156
	CWB2	0.717	0.047	15.216	0.000	0.514
	CWB3	0.300	0.070	4.260	0.000	0.090
	CWB4	0.264	0.073	3.638	0.000	0.070
	CWB6	0.632	0.070	9.044	0.000	0.400
	CWB7	0.535	0.068	7.819	0.000	0.286
CWB_TOTAL	CWB_O	0.483	0.064	7.601	0.000	0.233
	CWB_P	0.851	0.113	7.522	0.000	0.724

Note: Items with low standardised factor loading estimates are highlighted

4.3.2.11 Intention to quit

A CFA model was specified for the ITQ scale, including all six items. The chi-square statistic was x^2 (9, n = 516) = 40.790, p <.05. As presented in Table 4.47, the RMSEA estimate had a value of 0.083, which indicated a poor fit. However, the SRMR value was 0.036, indicating a good fit. In addition, the CFI (0.970) and TLI (0.950) values reported that the model fit the data well.

Table 4. 47

Fit Indices for ITQ

	Indices	
	Absolute	**Incremental**
Chi-square	40.79	
RMSEA		
Estimate (90% C.I.)	0.083 (0.058 0.109)	
Probability RMSEA ≤.05	0.016	
SRMR	0.036	
CFI		0.970
TLI		0.950

The CFA results also revealed acceptable standardised estimates of the items in the ITQ scale. The standardised estimates and the R-squared estimates are presented in Table 4.48. All the standardised factor loadings were above 0.600 and were statistically significant, with p-values below .050. The R-squared values were all strong and statistically significant.

Table 4. 48

Standardised solution and R-squared values of ITQ

Item	Estimate	S.E.	Est./S.E.	p-value	R-squared estimate
ITQ1	0.890	0.015	59.698	0.000	0.793
ITQ2	0.607	0.039	15.544	0.000	0.369
ITQ3	0.702	0.028	25.246	0.000	0.492
ITQ4	0.889	0.015	58.181	0.000	0.790
ITQ5	0.783	0.025	31.931	0.000	0.614
ITQ6	0.658	0.032	20.322	0.000	0.433

The balance of evidence indicated no concerns about construct validity. The measurement model appeared to fit the data well and the ITQ scale was therefore included in the structural model.

4.3.3 Item analyses

4.3.3.1 Reliability statistics

Item analysis was conducted to assess the internal consistency of the various scales used in this study. Internal consistency refers to the extent to which the items in a scale all measure the same construct (Tavakol & Dennick, 2011). The aim is to

determine if there are any items that impair the reliability of the scale. Cronbach's alpha coefficient is commonly used in this assessment, and that approach was followed in the current study. The value of alpha is affected by the number of items in the scale and the inter-relations between the items, as well as by dimensionality (Cortina, 1993). Hence, the dimensionality was established before conducting the item analysis.

Generally, Cronbach's alpha of at least 0.700 is recommended to ascertain reliability (Nunnally & Bernstein, 1994). Furthermore, the inter-item correlations were considered. This statistic indicates the extent to which the scores for an item are correlated with the scores for the total scale (Furr & Bacharach, 2008). A minimum value of .300 for corrected inter-item correlations is recommended (Hellström et al., 2019). Table 4.49 provides a summary of the results for each scale after the removal of poorly performing items during EFA and CFA.

Table 4. 49

Results of reliability analysis

Scale	Number of items deleted during EFA and CFA	Final Number of Items in Scale	Mean	Variance	Std. Deviation	Cronbach's Alpha
EM	5	12	49.060	36.547	6.045	0.826
LMX	-	7	24.283	55.498	7.450	0.938
TMX-I	-	5	18.107	12.073	3.475	0.805
TMX-S	-	4	16.212	6.378	2.526	0.799
TMX Total	-	9	34.320	26.838	5.181	0.838
OCB-O	-	7	22.667	29.180	5.402	0.813
OCB-I – Task	-	8	23.256	43.126	6.567	0.876
OCB-I – Social	1	5	16.245	16.151	4.019	0.815
OCB Total	-	13	39.500	94.304	9.711	0.903
CWBO	5	7	11.711	25.612	5.061	0.766
CWB-I	-	6	8.642	8.418	2.901	0.584
CWB Total	-	13	20.350	44.271	6.654	0.762
ITQ	-	6	260.610	27686.867	166.394	0.888

It is evident from Table 4.49 that Cronbach's alpha for most of the scales was acceptable, with values above 0.700. The only scale with a low reliability value was the CWB-I scale. The means and variances are also reported for each scale. The ITQ and OCB-I total scores yielded the largest variance and standard deviation values, which indicates that individual scores varied greatly around the mean. TMX–Social and CWB-I had low standard deviations, which suggests that the measures were closely clustered around the mean. In the following paragraphs, the item-level statistics are reported for each scale.

The EM scale consisted of 12 items. The results of the item analysis are presented in Table 4.50. Cronbach's alpha for the EM scale was 0.826, indicative of good reliability. Furthermore, all of the item–total correlations were above .300. No item deletion would result in an increase in Cronbach's alpha, which suggests that all items contributed to the internal consistency of the measure.

Table 4. 50

Item–total statistics for EM

	EM Scale (Cronbach's alpha = 0.826)	
Item	**Corrected Item–Total Correlation**	**Cronbach's Alpha if Item Deleted**
ER2	0.482	0.813
ER3	0.452	0.816
ER5	0.579	0.804
ER7	0.614	0.800
ER9	0.466	0.814
ER11	0.411	0.819
ER12	0.556	0.806
ER8	0.465	0.816
ER10	0.457	0.815
ER13	0.473	0.815
ER14	0.450	0.816
ER16	0.424	0.817

The LMX scale consisted of 16 items. The results of the item analysis are presented in Table 4.50. Cronbach's alpha for the LMX scale was 0.938, indicative of good

reliability. Furthermore, all the item–total correlations were above .300, ranging from .729 to .854. No item deletion would result in an increase in Cronbach's alpha, which implies that all items contributed to the internal consistency of the measure.

Table 4. 51

Item–total statistics for LMX

LMX Scale (Cronbach's alpha = 0.938)		
Item	Corrected Item–Total Correlation	Cronbach's Alpha if Item Deleted
LMX1	0.729	0.934
LMX2	0.844	0.923
LMX3	0.811	0.926
LMX4	0.772	0.930
LMX5	0.731	0.934
LMX6	0.841	0.924
LMX7	0.854	0.923

The TMX-I scale consisted of five items. The results of the item analysis are presented in Table 4.52. Cronbach's alpha for the TMX-I scale was 0.805, indicative of good reliability. Furthermore, all the item–total correlations were above .300, ranging between .405 and .684. The results showed that deleting item TMX3 would increase Cronbach's alpha to 0.817; nonetheless, no items were considered for deletion.

Table 4. 52

Item–total statistics for TMX-I

TMX-I Dimension (Cronbach's alpha = 0.805)		
Item	Corrected Item–Total Correlation	Cronbach's Alpha if Item Deleted
TMX1	0.684	0.737
TMX2	0.647	0.752
TMX3	0.405	0.817
TMX4	0.666	0.745
TMX10	0.568	0.779

The TMX-S scale consisted of four items. The results of the item analysis are presented in Table 4.53. Cronbach's alpha for the TMX-S scale was 0.799, indicative of good reliability. Furthermore, all the item–total correlations were above .300, ranging between 0.538 and 0.718.

Table 4. 53

Item–total statistics for TMX-S

TMX-S Dimension (Cronbach's alpha = 0.799)		
Item	**Corrected Item–Total Correlation**	**Cronbach's Alpha if Item Deleted**
TMX6	0.608	0.751
TMX7	0.538	0.789
TMX8	0.718	0.703
TMX9	0.603	0.754

A higher-order hierarchical CFA model was specified in this study. The first-order factors were TMX-I and TMX-S, which meant that the item analysis needed to be conducted on the total scale. The results of the item analysis are presented in Table 4.54. Cronbach's alpha for the total TMX scale was 0.838, indicating good reliability. Furthermore, all the item–total correlations were above .300, ranging between .398 and .652. None of the items would result in an increase in Cronbach's alpha if deleted, which suggests that all items contributed to the internal consistency of the measure. Therefore, none of the items were considered for deletion.

Table 4. 54

Item–total statistics for TMX Total

TMX-I Dimension (Cronbach's alpha = 0.838)		
Item	**Corrected Item–Total Correlation**	**Cronbach's Alpha if Item Deleted**
TMX1	0.652	0.809
TMX2	0.555	0.820
TMX3	0.398	0.836
TMX4	0.586	0.817
TMX6	0.546	0.822
TMX7	0.519	0.824
TMX8	0.602	0.817
TMX9	0.477	0.829
TMX10	0.612	0.814

The OCB-O scale consisted of seven items. The results of the item analysis are presented in Table 4.55. Cronbach's alpha for the OCB-O scale was 0.813, indicative of good reliability. Furthermore, all the item–total correlations were above .300, ranging from .424 to .684.

Table 4. 55

Item–total statistics for OCB-O

OCB-O Dimension (Cronbach's alpha = 0.813)		
Item	Corrected Item–Total Correlation	Cronbach's Alpha if Item Deleted
OCB4	0.552	0.789
OCB8	0.656	0.771
OCB9	0.684	0.766
OCB13	0.562	0.787
OCB15	0.497	0.798
OCB16	0.424	0.809
OCB19	0.509	0.798

The OCB-I – Task dimension consisted of seven items. The results of the item analysis are presented in Table 4.56. Cronbach's alpha for the OCB-I – Task dimension was 0.876, indicative of good reliability. Furthermore, all the item–total correlations were above .300, ranging between .567 and .721. Hence, no items were considered for deletion. No item deletion would increase the Cronbach's alpha value, which meant that all items contributed to the internal consistency of the measure.

Table 4. 56

Item–total statistics for OCB-I – Task

OCB-I – Task Dimension (Cronbach's alpha = 0.876)		
Item	**Corrected Item–Total Correlation**	**Cronbach's Alpha if Item Deleted**
OCB7	.567	.868
OCB10	.650	.859
OCB11	.626	.862
OCB12	.721	.853
OCB14	.573	.869
OCB17	.717	.852
OCB18	.605	.864
OCB20	.651	.859

The OCB-I – Social dimension consisted of five items. The results of the item analysis are presented in Table 4.57. Cronbach's alpha for the OCB-I – Social dimension was 0.815, indicative of good reliability. Furthermore, all the item–total correlations were above .300, ranging from .332 to .757. The results showed that deleting item OCB1 would increase the Cronbach's alpha value to 0.846. Given the marginal increase in

Cronbach's alpha if deleted, this problematic item was nonetheless retained in the dimension.

Table 4. 57

Item–total statistics for OCB-I – Social

OCB-I – Social Dimension (Cronbach's alpha = 0.815)		
Item	Corrected Item–Total Correlation	Cronbach's Alpha if Item Deleted
OCB1	0.332	0.846
OCB2	0.612	0.778
OCB3	0.641	0.768
OCB5	0.757	0.734
OCB6	0.696	0.750

Since a higher-order model of OCB was specified, the overall Cronbach's alpha values across the scales were also specified. The results of the item analysis are presented in Table 4.58. Cronbach's alpha for the total OCB-I scale was 0.903, indicating good reliability. Furthermore, all the item–total correlations were above .300, ranging between .382 and .735. Furthermore, the results showed that deleting item OCB1 would increase the Cronbach's alpha value slightly, to 0.904. Since the increase was marginal, it was decided not to delete the item from the scale and no other items were considered for deletion.
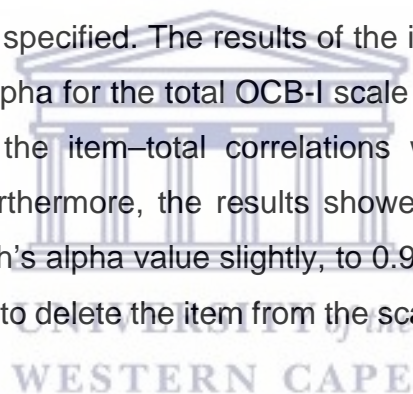
Table 4. 58

Item–total statistics for OCB-I – Total

OCB-I – Total Dimension (Cronbach's alpha = 0.903)		
Item	**Corrected Item–Total Correlation**	**Cronbach's Alpha if Item Deleted**
OCB1	0.382	0.904
OCB2	0.520	0.900
OCB3	0.626	0.895
OCB5	0.705	0.892
OCB6	0.682	0.893
OCB7	0.548	0.899
OCB10	0.629	0.895
OCB11	0.560	0.898
OCB12	0.690	0.893
OCB14	0.575	0.898
OCB17	0.735	0.890
OCB18	0.667	0.893
OCB20	0.647	0.894

The CWB-O dimension consisted of seven items. The results of the item analysis are presented in Table 4.59. The Cronbach's alpha for the CWB-O scale was 0.766, indicating good reliability. Furthermore, all the item–total correlations were above .300, ranging between .351 and .657. No item deletion would result in an increase in Cronbach's alpha, which implies that all the items contributed to the internal consistency of the measure.

Table 4. 59

Item–total statistics for CWB-O

CWB-O Dimension (Cronbach's alpha = 0.766)		
Item	**Corrected Item–Total Correlation**	**Cronbach's Alpha if Item Deleted**
CWB9	0.554	0.729
CWB11	0.657	0.696
CWB12	0.555	0.722
CWB14	0.413	0.752
CWB15	0.471	0.742
CWB16	0.351	0.763
CWB18	0.448	0.745

The revised CWB-I scale consisted of six items. The results of the item analysis are presented in Table 4.60. The Cronbach's alpha for the CWB-I scale was 0.584, which

indicated weak internal consistency. However, all the item–total correlations were above .300, with the exception of item CWB4. It was evident that the overall reliability of the scale was weak. Assessing a relationship between constructs which have low reliability scores is difficult. The 'attenuating effect of low reliability' refers to the notion that weak reliability reduces the strength of the correlations among constructs (Hess et al., 2014; Rogers et al., 2002). As a result, the direct relationships between any construct and the CWB-I scale should be interpreted with caution. Nonetheless, given the small number of items, the researcher decided to not to delete any additional items in an effort to improve the reliability.

Table 4. 60

Item–total statistics for CWB-I

CWB-I Dimension (Cronbach's alpha = 0.584)		
Item	Corrected Item–Total Correlation	Cronbach's Alpha if Item Deleted
CWB1	0.61	0.568
CWB2	0.487	0.476
CWB3	0.313	0.542
CWB4	0.245	0.567
CWB6	0.364	0.523
CWB7	0.330	0.556

Finally, it was decided to combine the CWB-O and CWB-I scales and to analyse the higher-order structure of CWB. The results of the item analysis are presented in Table 4.61.

Table 4. 61

Item–total statistics for CWB Total

CWB Total Scale (Cronbach's alpha = 0.762)		
Item	**Corrected Item–Total Correlation**	**Cronbach's Alpha if Item Deleted**
CWB1	0.350	0.756
CWB2	0.361	0.751
CWB3	0.240	0.760
CWB4	0.196	0.763
CWB6	0.367	0.750
CWB7	0.273	0.759
CWB9	0.521	0.733
CWB11	0.579	0.723
CWB12	0.523	0.731
CWB14	0.422	0.744
CWB15	0.425	0.744
CWB16	0.351	0.752
CWB18	0.445	0.741

Note: Items with correlation estimates below .300 are highlighted

The final CWB scale consisted of 13 items. Cronbach's alpha for the full scale was 0.762, which indicated good internal consistency. In addition, the item–total correlations were generally above .300, apart from items CWB3 (.240), CWB4 (.196) and CWB7 (.273). The deletion of item CWB4 would have increased the reliability of the scale by a mere 0.001. Therefore, no items were considered for deletion.

The ITQ scale consisted of six items. The results of the item analysis are presented in Table 4.62. Cronbach's alpha for the ITQ scale was 0.888, indicative of good reliability. Furthermore, all the item–total correlations were above .300, ranging between .590 and .812. In addition, none of the item deletions would have resulted in an increase in Cronbach's alpha, which means that all items contributed to the internal consistency of the measure. Therefore, none of the items were considered for deletion.

Table 4. 62

Item–total statistics for ITQ

ITQ Scale (Cronbach's alpha = 0.888)		
Item	Corrected Item–Total Correlation	Cronbach's Alpha if Item Deleted
ITQ1	0.812	0.851
ITQ2	0.590	0.885
ITQ3	0.653	0.876
ITQ4	0.805	0.851
ITQ5	0.721	0.866
ITQ6	0.649	0.877

The information presented in the foregoing section was aimed at establishing the measurement integrity of the chosen measures in terms of their dimensionality, construct validity and internal consistency. For the most part, the measures fitted the empirical data well, apart from the CWB-I scale.

The EFA, CFA and item analyses consistently flagged items that might have lacked sound measurement properties. The number of items deleted from each scale is shown in Table 4.49.

4.4 Structural equation modelling analysis

Figure 4.2 provides a graphic overview of the steps in the analyses. The steps are discussed in this section and subsequent ones.
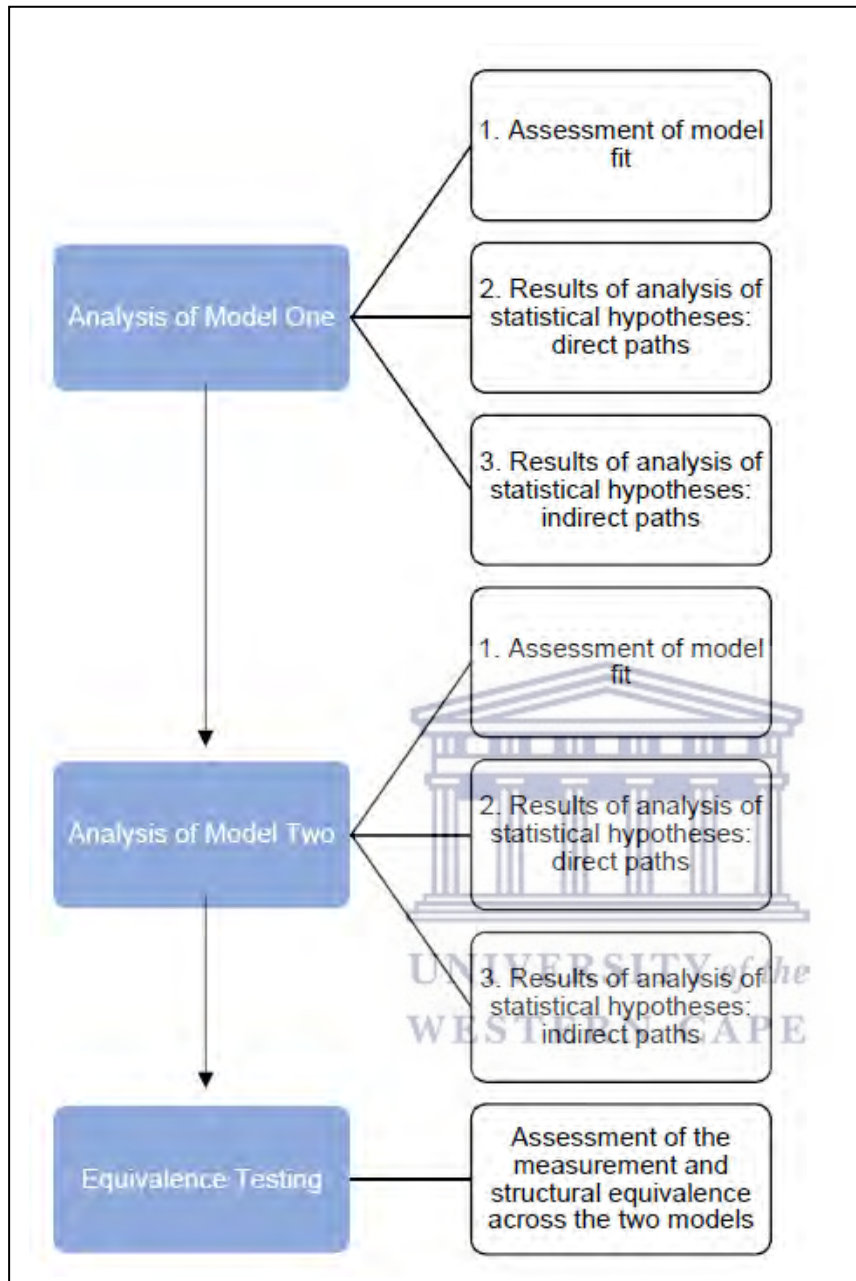
Figure 4. 2: Overview of SEM analysis

Following the EFA, CFA and item analysis, the revised scales were used to specify two structural models. Apart from the CWB-I scale, all the scales displayed sufficient internal consistency and validity. In this section, the two SEM models are investigated. Model 1 includes the hypothesised relationships between EM and OCB and the indirect effects of relationship quality (via LMX and TMX). Model 2 includes the hypothesised relationships between EM on the one hand, and, on the other, both CWB

and the ITQ. Model 2 similarly considers the indirect effects of relationship quality through LMX and TMX.

The section includes a discussion of the fit indices for each model and the results regarding the proposed relationships between the constructs in each model. Model fit was considered based on several fit indices from the statistical analysis. The relevant information included the values of the chi-square test of model fit, the RMSEA, the incremental indices (CFI and TLI) and the SRMR. An RMSEA or SRMR value between 0 and 0.05 indicates a good fit. Values between 0.05 and 0.08 indicate an adequate fit, and values above 0.08 indicate a poor fit. For CFI and TLI, values of 0.900 or higher indicate a good fit.

4.4.1 Results for model 1

The statistical results revealed a chi-square statistic of X^2 (1263, n = 516) = 2668.078, p <.05. Table 4.63 shows the results. The RMSEA value of 0.054 indicates an acceptable fit, so does the SRMR value of 0.068. Regarding the incremental fit indices, the CFI and TLI values both fell below the 0.90 cut-off.

Table 4. 63

Fit indices for Structural Model 1

	Indices		
	Absolute		**Incremental**
Chi-square	2668.078		
RMSEA			
Estimate (90% C.I.)	0.054	(0.051 0.056)	
Probability RMSEA ≤.05	0.039		
SRMR	0.068		
CFI			0.849
TLI			0.841

Although the SRMR value was slightly higher than the ideal normative values, the RMSEA value was in line with criteria for a good model fit. However, the CFI and TLI values indicated that there could be a degree of misfit between the empirical data and the proposed theoretical model. Considered collectively, Model 1 presented a reasonable account of the variances and covariances. Direct relationships are

replicated by the reproduced covariance matrix. The most important model parameters are illustrated in Figure 4.3 below.
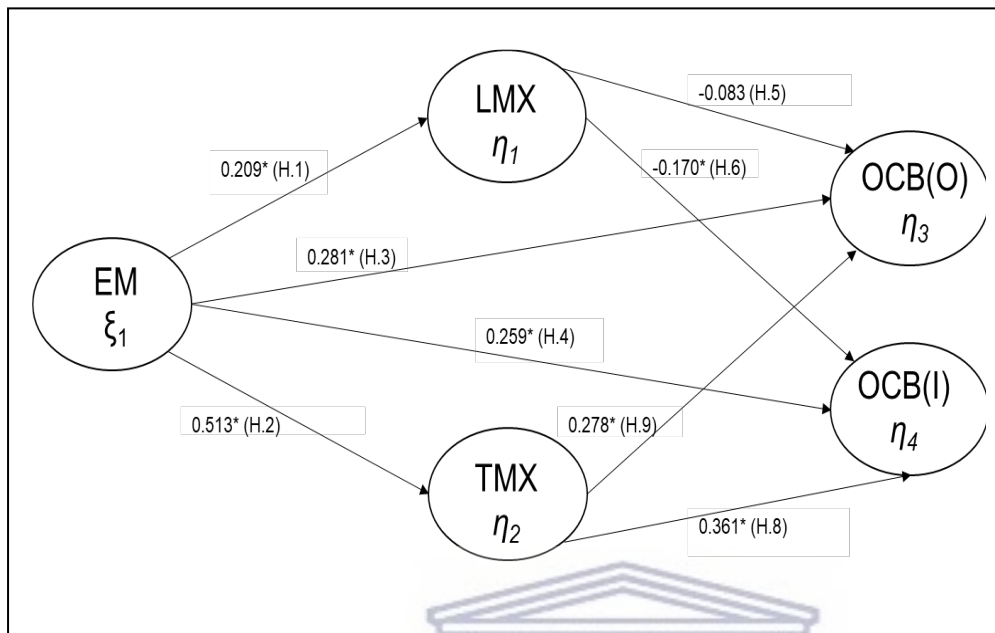
*Figure 4. 3: Path coefficients of SEM Model 1 (*p <.05)*

Note: EM: Emotional Management; LMX: Leader–Member Exchange; TMX: Team-Member Exchange; OCB-O: Organisational Citizenship Behaviour (Organisation); OCB-I: Organisational Citizenship Behaviour (Individual).

The results of the statistical analysis for Model 1 are now discussed according to the related hypotheses.

4.4.1.2 Results of statistical analysis

Hypothesis 1: EM positively influences LMX

A positive relationship was hypothesised between EM and LMX. A positive and statistically significant relationship (β = 0.209, p <.05) was found between EM and LMX, which means the empirical results supported the substantive hypothesis.

Hypothesis 2: EM positively influences TMX

A positive relationship was hypothesised between EM and TMX. A positive and statistically significant relationship (β = 0.513, p <.05) was found between EM and TMX. Hence, the empirical results provided support for the substantive hypothesis.

Hypothesis 3: EM positively influences OCB-O

A positive relationship was hypothesised between EM and OCB-O. A positive and statistically significant relationship ($\beta = 0.281$, $p <.05$) was found between EM and OCB-O. Thus, the results from the statistical analyses provided support for the substantive hypothesis.

Hypothesis 4: EM positively influences OCB-I

A positive relationship was hypothesised between EM and OCB-I. A positive and statistically significant relationship ($\beta = 0.259$, $p <.05$) was found between EM and OCB-I, meaning the results from the analyses supported the substantive hypothesis.

Hypothesis 5: LMX positively influences OCB-O

A positive relationship was hypothesised between LMX and OCB-O. No statistically significant association was found between LMX and OCB-O. Thus, the results from the statistical analyses did not provide support for the substantive hypothesis.

Hypothesis 6: LMX positively influences OCB-I

A positive relationship was hypothesised between LMX and OCB-I. A negative and statistically significant relationship ($\beta = -0.170$, $p <.05$) was found between LMX and OCB-I. Hence, the empirical results did not support the substantive hypothesis.

Hypothesis 7: TMX positively influences OCB-O

A positive relationship was hypothesised between TMX and OCB-O. A positive and statistically significant relationship ($\beta = 0.278$, $p <.05$) was found between LMX and OCB-O. These results provided support for the substantive hypothesis.

Hypothesis 8: TMX positively influences OCB-I

A positive relationship was hypothesised between TMX and OCB-I. A positive and statistically significant relationship ($\beta = 0.361$, $p <.05$) was found between TMX and OCB-I. Thus, the results from the statistical analyses provided support for the substantive hypothesis.

In addition to the main effects presented above, certain mediation effects were proposed. Specifically, it was hypothesised that the relationship between EM and OCB-O would be mediated by both LMX and TMX and that the relationship between EM and OCB-I would similarly be mediated by both LMX and TMX. Results of the mediation analyses are presented in the next few paragraphs.

Hypothesis 9: The relationship between EM and OCB-O is mediated by LMX

Hypothesis 10: The relationship between EM and OCB-O is mediated by TMX

The indirect effects were assessed with SEM. The standardised results indicated that LMX did not significantly mediate the relationship between EM and OCB-O. However, TMX was a significant mediator ($\gamma_{21}\beta_{32} = 0.143$, $p < .05$) of the relationship between EM and OCB-O. Thus support was found for Hypothesis 10 but not Hypothesis 9. The relationship between EM and OCB-O was therefore partially mediated, given that the indirect relationship between EM and OCB-O via TMX was statistically significant.

Hypothesis 11: The relationship between EM and OCB-I is mediated by LMX

Hypothesis 12: The relationship between EM and OCB-I is mediated by TMX

The indirect effects of LMX and TMX, respectively, on the relationship between EM and OCB-I were assessed during the SEM. The standardised results indicated that that LMX had a negative and statistically significant indirect effect ($\gamma_{11}\beta_{41} = -0.036$, $p < .05$) on the relationship between EM and OCB-I. By contrast, TMX had a positive and significant indirect effect on the relationship between EM and OCB-I ($\gamma_{21}\beta_{42} = 0.185$, $p < .05$). The results thus supported Hypothesis 11 and Hypothesis 12.

4.4.2 Results for model 2

Model 1 analysed the relationships between EM, LMX, TMX and positive outcome in the form of OCB. By contrast, Model 2 examined the relationships between EM, LMX, TMX and the two negative outcomes, namely CWB and ITQ.

The statistical results revealed a chi-square statistic of x^2 (1213, n = 516) = 1807.756, $p < .05$ (see Table 4.64). The RMSEA value of 0.039 indicates a good fit, and the SRMR value of 0.062 indicates an acceptable fit. Regarding the incremental fit indices, the CFI and TLI values were above the 0.900 cut-off.

Table 4. 64

Fit indices for Structural Model 2

	Indices		
	Absolute		**Incremental**
Chi-square	1807.756		
RMSEA			
Estimate (90% C.I.)	0.039	(0.036 0.041)	
Probability RMSEA ≤.05	1.000		
SRMR	0.062		
CFI			0.905
TLI			0.900

Although the SRMR value was slightly higher than the acceptable normative values, the RMSEA was in line with criteria for good model fit. In addition, the CFI and TLI values were above the cut-off. Collectively, the results indicate that Model 2 provided a reasonably accurate account of the variances, covariances and direct relationships (as shown in the covariance matrix).

The most important model parameters are illustrated in Figure 4.4. The model fit indices confirmed the internal validity of the proposed structural model. Hence, it was reasonable to include the model parameters and path coefficients that were related to the substantive hypotheses.
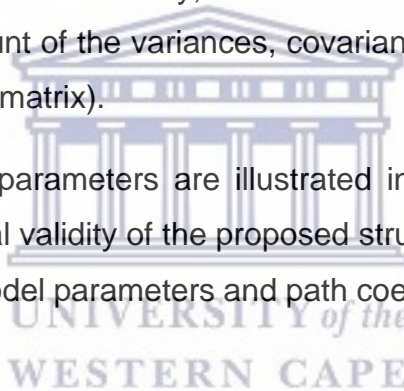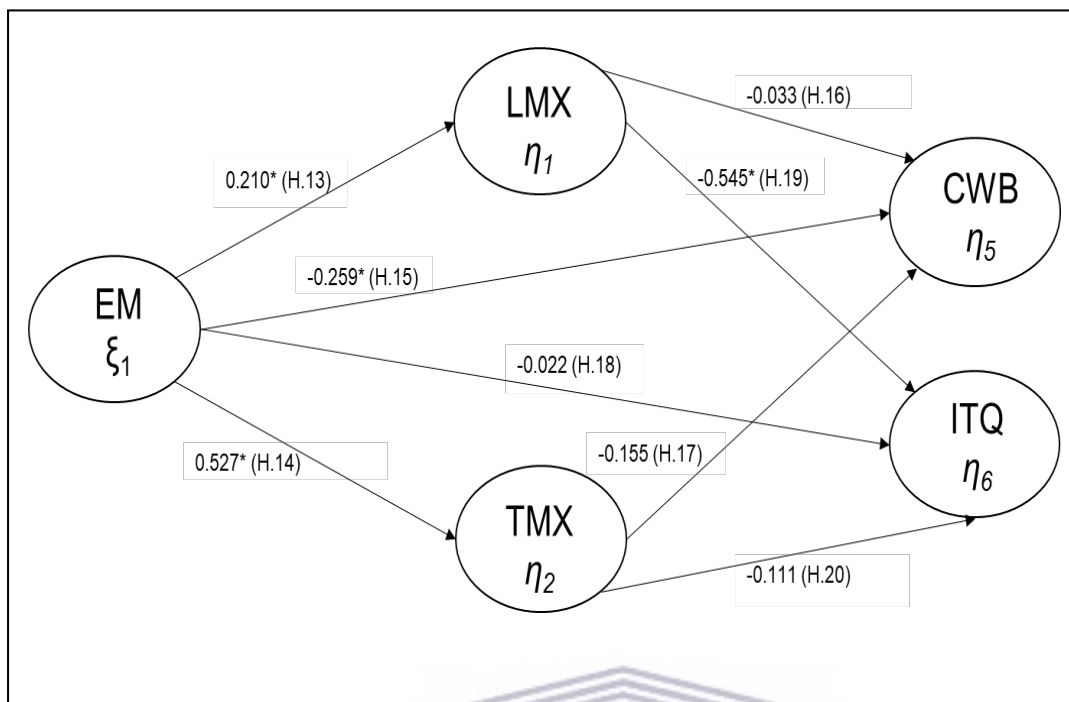
Figure 4. 4: Standardised path coefficients of SEM Model 2 (*p <.05)

Note: EM: Emotional Management; LMX: Leader–Member Exchange; TMX: Team-Member Exchange; CWB: Counterproductive Workplace Behaviour; ITQ: Intention to Quit.

4.5.2.1 Results of statistical analysis

Hypothesis 13: EM positively influences LMX

In the second structural model, a positive relationship was hypothesised between EM and LMX. A positive and statistically significant relationship (β = 0.210, *p* <.05) was found between EM and LMX. Hence, the results provided support for the substantive hypothesis.

Hypothesis 14: EM positively influences TMX

A positive relationship was hypothesised between EM and TMX. A positive and statistically significant relationship (β = 0.527, *p* <.05) was found between these two variables, thus providing support for the substantive hypothesis.

Hypothesis 15: EM negatively influences CWB

A negative relationship was hypothesised between EM and CWB. The results indicted a negative and statistically significant relationship (β = -0.259, p <.05) between EM and CWB. Thus, the results from the statistical analyses provided support for the substantive hypothesis.

Hypothesis 16: LMX negatively influences CWB

A negative relationship was hypothesised between LMX and CWB. No statistically significant association was found between these two variables, which means the results did not provide support for the substantive hypothesis.

Hypothesis 17: TMX negatively influences CWB

A negative relationship was hypothesised between TMX and CWB. No statistically significant association was found between these two variables. Thus, statistical results did not provide support for the substantive hypothesis.

Hypothesis 18: EM negatively influences ITQ

A negative relationship was hypothesised between EM and ITQ. No statistically significant association was found between EM and ITQ. Thus, the results from the statistical analyses did not provide support for the substantive hypothesis.

Hypothesis 19: LMX negatively influences ITQ

A negative relationship was hypothesised between LMX and ITQ. A negative and statistically significant relationship (β = -0.545, p <.05) was found between LMX and ITQ. This result provided support for the substantive hypothesis.

Hypothesis 20: TMX negatively influences ITQ

A negative relationship was hypothesised between TMX and ITQ. No statistically significant association was found between the two variables and the substantive hypothesis was thus not supported.

Hypothesis 21: The relationship between EM and CWB is mediated by LMX

Hypothesis 22: The relationship between EM and CWB is mediated by TMX

The indirect effects of both LMX and TMX, respectively, on the relationship between EM and CWB were assessed using SEM. The standardised results suggested that LMX did not have a statistically significant effect on the relationship between EM and CWB. Similarly, no significant indirect effect was evident for TMX. Hence, the empirical results did not support Hypothesis 21 and Hypothesis 22.

<u>Hypothesis 23:</u> The relationship between EM and ITQ is mediated by LMX

<u>Hypothesis 24:</u> The relationship between EM and ITQ is mediated by TMX

The indirect effects of LMX and TMX, respectively, on the correlation between EM and ITQ were assessed during the SEM. The standardised results suggested that that LMX had a negative and statistically significant indirect effect ($\gamma_{11}\beta_{61}$ = -0.115, p <.05) on the relationship of interest. By contrast, TMX did not. Hence, support was found for Hypothesis 23 but not for Hypothesis 24.

4.5 Comparison between academic and administrative staff

Given that the nature of the roles of academic and administrative employees differ, it was expected that certain hypothesised paths would differ between the two groups. With the aim of comparing the two groups, structural equivalence was assessed through the following steps:

3. Evaluating the configural invariance of the two structural models
4. Assessing the structural and measurement invariance of the models, in a single step.

The above approach is a bottom-up method to establish configural invariance. This approach is based on the assumption that it would not be possible to test the structural invariance unless measurement invariance is first established. Configural invariance indicates the tenability of the proposed structural model for the data. If the model fit regarding configural invariance is weak, the proposed theoretical model would be assumed not to fit the data for both groups. It is important to note that in the configural model, no parameters are constraint-equivalent for both the academic and administrative groups.

If configural invariance is tenable, the next step is to constrain the exogenous and endogenous measurement models. If no major deterioration in fit is evident, it would be possible to assume measurement invariance and the structural components could be constrained equally across the two groups. However, in the current study, the measurement and structural parameters were constrained in a single step. If a significant deterioration in fit was observed, relative to the configural model, the assumption of invariance in the structural models for the two groups would not be upheld.

The chi-square statistic is the index most commonly used to assess the goodness of fit in SEM (Cheung & Rensvold, 2002). However, because this statistic is sensitive to sample size, it should be considered together with other fit indices. To assess whether there was a deterioration in fit from one model to the next, the researcher considered the changes in the values of the following indices: chi-square, AIC, BIC, RMSEA, SRMR, CFI and TLI (Vanderberg & Lance, 2000). The following sections discuss the results pertaining to the invariance between the models and interpretation thereof.

4.5.1 Model 1

4.5.1.1 Model fit

The results of the equivalence analyses are presented in Table 4.65. In Step 1, the configural invariance of the model was tested by specifying the same structural model configuration across both groups (academics and administrative). The fit indices indicated that the configural model fitted the data rather well for both groups. Hence, the proposed structural model was assumed to be tenable for both groups. It is important to note that no constraints were imposed on the measurement or structural components of the model under this condition of configural invariance.

In Step 2, a more restricted model was specified. The measurement and structural components – that is, the factor loadings and path coefficients – were constrained to be equal for both groups. Cheung and Rensvold (2002) suggest that the difference in the TLI should 0.050 or smaller, whereas the difference in the CFI should be 0.010 or smaller. The results indicated that the constrained model for structural invariance still fitted the data relatively well. There were minor changes in the fit. In most cases, (ΔS-B x^2 = 41.333; ΔAIC = -48.425; ΔBIC = -260.731; ΔRMSEA = -0.001, ΔSRMR = 0.005;

ΔCFI = 0.002; ΔTLI = 0.006) the constrained model showed an improved model fit. The results are presented in Table 4.65. Overall, the constrained model appeared plausible for both of the employee groups. Furthermore, Model 2 was invariant – in terms of configuration and structure – across the two groups.

Table 4. 65

Comparison of fit indices for Model 1

	Configural Invariance			Metric and Structural Invariance			Change In Fit Indices
S-B chi-square (x^2)	4134.828			4167.294			41.333*
AIC	60121.375			60072.950			-48.425
BIC	61437.668			61176.937			-260.731
RMSEA							
Estimate (90% C.I.)	0.060	(0.057	0.063)	0.059	(0.056	0.062)	-0.001
Probability RMSEA ≤.05	0.000			0.000			
SRMR	0.077			0.082			0.005
CFI	0.822			0.824			0.002
TLI	0.812			0.818			0.006

*For the change in S-B x^2, the differences regarding the configural invariance and the metric/structural invariance values are not calculated. A scaling correction factor must be considered (Satorra & Bentler, 2001), and the S-B scaled value is reported. The value was not significant. The results suggest that the model was invariant across the two employee groups.

4.5.1.2 Hypothesised paths

Although Model 1 seemed to be invariant across the two groups, it was necessary to investigate the equivalence of specific path coefficients. Table 4.66 displays the standardised path coefficients for the academic and administrative groups in the configural model. The relationships that were statistically significant were the same for both groups.

Table 4. 66

Comparison of path coefficients: Model 1

		Standardised Path Coefficients	
Hypothesis No.	Research Hypothesis	Academic	Administrative
1	EM positively influences LMX	0.281*	0.148*
2	EM positively influences TMX	0.593*	0.414*
3	EM positively influences OCB-O	0.287*	0.249*
4	EM positively influences OCB-I	0.233*	0.252*
5	LMX positively influences OCB-O	-0.092	-0.086
6	LMX positively influences OCB-I	0.181*	-0.153*
7	TMX positively influences OCB-O	0.282*	0.265*
8	TMX positively influences OCB-I	0.378*	0.327*

*Note: *: $p <.05$*

The results in Table 4.65 indicate that the paths were similar in terms of direction and statistical significance. The similarity of results for both the academic and administrative samples suggests the validity of the proposed model for both groups.

4.5.1.3 Mediation effects

Because the path coefficients were constrained in the second model, the pattern of mediating results from the configural model were considered.

The relationship between EM and OCB-O as mediated by LMX (Hypothesis 9) was not significant in either group. However, the relationship between EM and OCB-O mediated by TMX (Hypothesis 10) is significant for both groups, which indicates that the relationship between EM and OCB-O is mediated by TMX. An interesting observation was that the strength of this relationship was stronger for academic employees than for administrative employees.

The relationship between EM and OCB-I as mediated by LMX (Hypothesis 11) was only significant for the academic group. By contrast, for the administrative group, this mediated relationship was not significant. The relationship is therefore not significant across the two groups.

The relationship between EM and OCB-I as mediated by TMX (Hypothesis 12) is significant for both groups. Once again, the magnitude of the correlation indicating this relationship was stronger for academic than administrative employees. Table 4.67 provides a comparison of the mediating effects for the two employee groups.

Table 4. 67

Comparison of path coefficients for mediation effects: Model 1

		Standardised Path Coefficients	
Hypothesis No.	Research Hypothesis	Academic	Administrative
9	The relationship between EM and OCB-O is mediated by LMX	-0.026	0.013
10	The relationship between EM and OCB-O is mediated by TMX	0.167*	0.109*
11	The relationship between EM and OCB-I is mediated by LMX	-0.051*	-0.023
12	The relationship between EM and OCB-I is mediated by TMX	0.224*	0.135*

Note: *: $p < .05$

Considering the details of the results, it can be concluded that this structural model was plausible for both of the employee groups. This finding implies that the structural relationships in the model were similar across both groups.

Furthermore, the pattern of mediation seemed generally the same for the administrative and academic staff. An exception was the relationship between EM and OCB-O as mediated by TMX. The mediation results are discussed in greater detail in Chapter 5.

4.5.2 Model 2

4.5.2.1 Model fit

The results of the equivalence analyses for Model 2 are presented in Table 4.68. As was the case for the first model, in the first step, the configural invariance of the model was tested. The same structural model configuration was specified for both groups (academics and administrative employees), namely: S-B x^2 = 3208.287; AIC = 78870.520; BIC = 80161.336; RMSEA = 0.047, SRMR = 0.073; CFI = 0.871; TLI =

0.864. The fit indices suggested that the configural model fitted the data reasonably well for both groups. Hence, it was assumed that the proposed structural model was tenable across both groups. No constraints were imposed on the measurement or structural components of the model under this condition of configural invariance.

In the second step, a more restricted model was specified, in which the measurement and structural components (factor loadings and path coefficients) were constrained to be equal for both groups. As mentioned in section 4.5.1.1., the change in the TLI should be 0.050 or less, and the change in the CFI should be 0.010 or less (Cheung & Rensvold, 2002). The results indicated that the constrained model (for structural invariance) still fitted the data rather well. There were minor changes in fit. As presented in Table 4.68, no significant deterioration was noted for the fit indices between the configural and constrained solutions (ΔS-B x^2 = 62.266; ΔAIC = -4.429; ΔBIC = -208.242; ΔRMSEA = 0, ΔSRMR = 0.006; ΔCFI = -0.001; ΔTLI = 0.002). The results imply that the model is plausible for both the academic and administrative groups. Furthermore, Model 2 is invariant, from a configural and structural perspective, across the two groups.
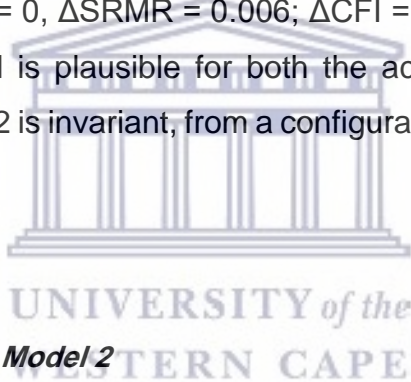
Table 4. 68

Comparison of fit indices for Model 2

	Configural Invariance			Metric and Structural Invariance			Change In Fit Indices
S-B chi-square (x^2)	3208.287			3265.680			62.266*
AIC	78870.520			78866.091			-4.429
BIC	80161.336			79953.094			-208.242
RMSEA							
Estimate (90% C.I.)	0.047	(0.044	0.050)	0.047	(0.043	0.050)	0
Probability RMSEA ≤.05	0.950			0.968			0.018
SRMR	0.073			0.079			0.006
CFI			0.871			0.870	-0.001
TLI			0.864			0.866	0.002

*For calculating the change in S-B x^2, the difference in the configural invariance and metric/structural invariance values is not calculated. A scaling correction factor must be considered (Satorra & Bentler, 2001), and the S-B scaled value is reported. The value was not significant. This result implies that the model is invariant across the two employee groups.

4.5.2.2 Hypothesised paths

Although the model appeared to be invariant across the two groups, it was necessary to investigate the equivalence of specific path coefficients for both groups. Table 4.69 displays the standardised path coefficients for the academic versus non-academic groups in the configural model. The relationships that were statistically significant were the same in both groups.

Table 4. 69

Comparison of path coefficients: Model 2

		Standardised path coefficients	
Hypothesis No.	Research Hypothesis	Academic	Administrative
13	EM positively influences LMX	0.283*	0.149*
14	EM positively influences TMX	0.613*	0.430*
15	EM negatively influences CWB	-0.215	-0.338
16	LMX negatively influences CWB	-0.106	0.014
17	TMX negatively influences CWB	-0.007	-0.281
18	EM negatively influences ITQ	0.032	-0.066
19	LMX negatively influences ITQ	-0.484*	-0.597*
20	TMX negatively influences ITQ	-0.193	-0.095

Note: *: $p < .05$

The results in Table 4.68 suggest that the paths were similar in terms of their direction and statistical significance. The similarity of results for both employee groups suggests that the model achieved configural invariance across the two groups.

4.5.2.3 Mediation effects

Because the path coefficients were constrained in the second model, the pattern of mediating results from the configural model was considered. The relationship between EM and CWB as mediated by LMX (Hypothesis 21) was not significant in either group. Similarly, the relationship between EM and CWB, as mediated by TMX (Hypothesis 22) was not significant in either group. The relationship between EM and CWB was therefore not mediated.

The relationship between EM and ITQ mediated by LMX (Hypothesis 23) is significant for both the academic and administrative employee groups. The relationship between EM and ITQ as mediated by TMX (Hypothesis 24) was not significant in either group. Hence, the relationship between EM and ITQ was not mediated by TMX. Table 4.70 provides a comparison of the mediating effects for the two groups. The relationships that were statistically significant were the same in both groups.

Table 4. 70

Comparison of path coefficients for mediation effects: Model 2

Hypothesis No.	Research Hypothesis	Factor Loading Academic	Administrative
21	The relationship between EM and CWB is mediated by LMX	-0.030	0.002
22	The relationship between EM and CWB is mediated by TMX	-0.004	-0.121
23	The relationship between EM and ITQ is mediated by LMX	-0.137*	-0.089*
24	The relationship between EM and ITQ is mediated by TMX	-0.255	-0.041

Note: *: $p < .05$
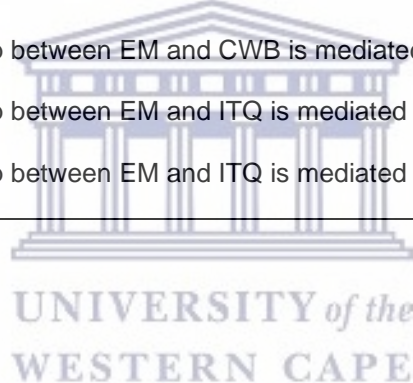
4.6 Summary

Table 4.71 provides a summary of the hypotheses tested in this study and the outcomes of the statistical analysis. For Model 1, support was found for most of the hypothesised paths. The paths or relationships that were not statistically significant were as follows: between LMX and OCB-O, between LMX and OCB-I and between EM and OCB-O as mediated by LMX.

The results from Model 2 provided statistical support for the proposed correlations between EM on the one hand and, on the other, LMX, TMX and CWB. No support was found for the proposed relationship between EM and ITQ. Two other hypothesised paths in Model 2 that were empirically supported were the relationships between LMX and ITQ and the relationship between EM and ITQ as mediated by LMX.

Table 4. 71

Summary of hypotheses and results

Hypothesis	Wording of hypothesis	Outcome
H1	EM positively influences LMX	Supported
H2	EM positively influences TMX	Supported
H3	EM positively influences OCB-O	Supported
H4	EM positively influences OCB-I	Supported
H5	LMX positively influences OCB-O	Not supported
H6	LMX positively influences OCB-I	Not supported
H7	TMX positively influences OCB-O	Supported
H8	TMX positively influences OCB-I	Supported
H9	The relationship between EM and OCB-O is mediated by LMX	Not supported
H10	The relationship between EM and OCB-O is mediated by TMX	Supported
H11	The relationship between EM and OCB-I is mediated by LMX	Supported
H12	The relationship between EM and OCB-I is mediated by TMX	Supported
H13	EM positively influences LMX	Supported
H14	EM positively influences TMX	Supported
H15	EM negatively influences CWB	Supported
H16	LMX negatively influences CWB	Not supported
H17	TMX negatively influences CWB	Not supported
H18	EM negatively influences ITQ	Not supported
H19	LMX negatively influences ITQ	Supported
H20	TMX negatively influences ITQ	Not supported
H21	The relationship between EM and CWB is mediated by LMX	Not supported
H22	The relationship between EM and CWB is mediated by TMX	Not supported
H23	The relationship between EM and ITQ is mediated by LMX	Supported
H24	The relationship between EM and ITQ is mediated by TMX	Not supported

This chapter has reported on the results from the data analyses and the results for the structural model, to test the proposed hypotheses. The validation of the measurement instruments was also discussed. Overall, the results provided support for the two proposed structural models. Furthermore, the equivalence analyses suggested that the psychological mechanisms underpinning the models were largely invariant for both academic and administrative employees at HEIs.

CHAPTER 5: DISCUSSION AND CONCLUSION

5.1 Introduction

The previous chapter discussed the results from the statistical analyses. In this chapter, the goal is to link the empirical findings to the research objectives. The step highlighted in green in Figure 5.1 portrays the aspects discussed in this chapter. Specifically, the results regarding the hypotheses testing for both Model 1 and Model 2 are interpreted. This part of the study relates to the research objectives of the present study. Furthermore, the results are discussed regarding the comparison of the two models for academic versus administrative staff. This part of the study relates to research objective 3. In addition, the limitations of the study are explained, and recommendations for practice and future research are identified.
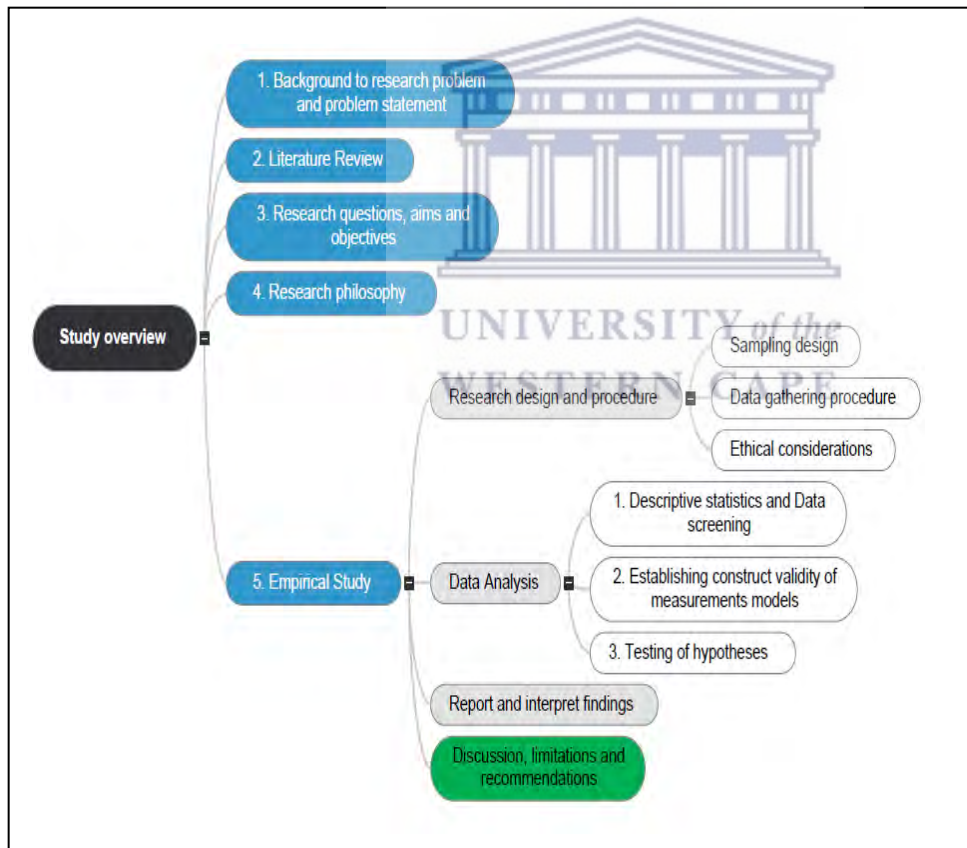
Figure 5. 1: Study overview: Focus areas for Chapter 5 are highlighted in green

5.2 Discussion of results

The following objectives were set out as the research objectives of this study:

1   To conceptualise a structural model that explains the relationship between Emotional Management (EM) and OCB, including the indirect effect of relationship quality (Model 1).

2   To conceptualise a structural model that explains the relationship between EM and negative organisational outcomes, namely CWB and the intention to quit. The model includes the indirect effect of relationship quality (Model 2).

3   To compare the results of both structural models for two groups, namely academic employees and administrative employees. The purpose is to establish whether the relationships among the variables are equivalent for both groups.

The first two objectives were addressed by two models. Model 1 covered the paths among EM, LMX, TMX and OCB. Model 2 covered the relationships between EM, LMX, TMX and both CWB and ITQ. Hence, Model 1 focused on the paths leading to positive outcomes (OCB), whereas Model 2 focused on paths leading to adverse behaviour (CWB and ITQ). Further analyses were conducted to address the final research objective; that is, to test whether the hypothesised paths were the same for both employee groups.

Before the hypothesised paths were analysed, the fit of each model was evaluated. As reported in Chapter 4, the indices considered when assessing the fit included the chi-square test of model fit, the root mean square error of approximation (RMSEA), incremental indices namely the comparative fit index (CFI) and Tucker-Lewis index (TLI), and the standardised root mean square residual (SRMR). Overall, both models appeared consistent with the data, which instilled the confidence to proceed with the analysis of each path.

Table 5.1 provides a summary of the hypotheses tested for Models 1 and 2 related to objectives 1 and 2. The table also shows the outcomes of the analyses in terms of their support or lack thereof for the hypotheses.

Table 5. 1

Summary of hypotheses and results

Number	Hypothesis	Supported	Statistical result
MODEL 1			
H1	EM positively influences LMX	Yes	$\beta = 0.209*$
H2	EM positively influences TMX	Yes	$\beta = 0.513*$
H3	EM positively influences OCB-O	Yes	$\beta = 0.281*$
H4	EM positively influences OCB-I	Yes	$\beta = 0.259*$
H5	LMX positively influences OCB-O	No	$\beta = -0.083$
H6	LMX positively influences OCB-I	Yes	$\beta = -0.170*$
H7	TMX positively influences OCB-O	Yes	$\beta = 0.278*$
H8	TMX positively influences OCB-I	Yes	$\beta = 0.361*$
H9	The relationship between EM and OCB-O is mediated by LMX	No	$\gamma_{11}\beta_{31}=-0.017$
H10	The relationship between EM and OCB-O is mediated by TMX	Yes	$\gamma_{21}\beta_{32}=.143*$
H11	The relationship between EM and OCB-I is mediated by LMX	Yes	$\gamma_{11}\beta_{41}=-.036*$
H12	The relationship between EM and OCB-I is mediated by TMX	Yes	$\gamma_{21}\beta_{42}=.185*$
MODEL 2			
H13	EM positively influences LMX	Yes	$\beta = 0.210*$
H14	EM positively influences TMX	Yes	$\beta = 0.527*$
H15	EM negatively influences CWB	Yes	$\beta = -0.259*$
H16	LMX negatively influences CWB	No	$\beta = -0.033$
H17	TMX negatively influences CWB	No	$\beta = -0.155$
H18	EM negatively influences ITQ	No	$\beta = -0.022$
H19	LMX negatively influences ITQ	Yes	$\beta = -0.545*$
H20	TMX negatively influences ITQ	No	$\beta = -0.111$
H21	The relationship between EM and CWB is mediated by LMX	No	$\gamma_{11}\beta_{51}=-.007$
H22	The relationship between EM and CWB is mediated by TMX	No	$\gamma_{21}\beta_{52}=-.082$
H23	The relationship between EM and ITQ is mediated by LMX	Yes	$\gamma_{11}\beta_{61}=-.115*$
H24	The relationship between EM and ITQ is mediated by TMX	No	$\gamma_{21}\beta_{62}=-.058$

Note: *: *p <.05*

The next section discusses the results for each model. Hypotheses were supported if statistical evidence was found for the proposed models and relationships (*p <.05*) and if the results were in line with the direction of the proposed relationship.

5.2.1 Results of model 1

<u>Hypothesis 1:</u> EM positively influences LMX

It was hypothesised that EM has a statistically significant influence on LMX. The results revealed support for a positive relationship between EM and LMX. This finding indicates that an individual's ability to manage emotions positively impacts the quality of their relationship with their manager. Specifically, the better an employee's EM skills, the better the perceived quality of the LMX.

To explain this result, in the present study EM is viewed as a crucial part of emotional intelligence; it includes the ability to manage one's own emotions as well as those of others. Being able to manage one's own emotions entails understanding why one is experiencing a particular emotion and knowing how to deal with it, so as to achieve a desirable outcome in any situation involving a social exchange or interaction (Petrovici & Dobrescu, 2014). In line with social exchange theory (SET), LMX is a social exchange relationship between an employee and a manager. According to the affect theory of social exchange (ATSE), a relationship of any nature gives rise to a range of emotions. How either party in the relationship acts on those emotions can affect the relationship and how it is perceived. These theories indicate a theoretical association between EM and LMX. Similarly, Zhao and Cai (2021) point out that emotional intelligence influences interpersonal interactions, and employees who can manage their emotions display positive personal behaviour. For example, when one feels disappointed by a personal or work-related event, one's emotional management skills can assist in preventing emotional outbursts or negative attitudes towards leaders or the work. This moderated behaviour has a positive effect on the quality of the person's relationship with managers (LMX).

The association between EM and LMX found in the current study corroborates a finding reported by Yang et al. (2019), namely, that an employee's positive affective displays can benefit the relationship between the employee and their leader. Positive affective displays are arguably an outcome of applied EM skills. In other words, such employees can handle situations in a positive manner despite feeling frustrated. The correlation between EM and LMX therefore reflects the notion that an employee's

abilities and motivations influence the establishment and maintenance of relationships in the workplace.

The other main aspect of EM is the ability to manage the emotions of other people (Drigas & Papoutsi, 2018). In the context of LMX, this entails the employee understanding the emotions experienced by their leader and dealing with those emotions favourably. This ability aids the relationship and therefore enhances the quality of LMX.

A further aspect of EM is maintaining a positive mindset when faced with a challenging task (Supramaniam & Singaravelloo, 2021). Employees with strong EM can overcome work and personal challenges and can thus produce consistent high-quality results in the workplace. Employees having this ability are likely to foster strong LMX relationships with their supervisors and to align their own outcomes with those of the leader.

The results of this study pertain specifically to HEIs. It could be argued that there is greater interdependency among administrative employees or departments than among academic employees. If so, EM skills could be more important for administrative staff. However, the findings showed that despite the different nature of academic versus administrative staff roles, the association between EM and LMX was positive and statistically significant in both groups. In addition, the strength of the relationship between EM and LMX was similar for both groups. This finding suggests that EM skills are valuable across job profiles as they are beneficial for the quality of the relationship with the leader. Thus, the link between the two variables seems to transcend job roles, at least in the higher education environment.

As mentioned in the literature review, the COVID-19 pandemic has resulted in many employees working from home. Research has shown that employees have felt frustrated by the lack of real connection with others as a result of having to meet online (Kershaw et al., 2021). This point highlights the need for – and the increasing importance of – EM, given the challenge of being relatively unable to gauge emotions in a virtual environment. Most of the data analysed in this study was collected during the pandemic; nonetheless, a statistically significant association between EM and LMX emerged. The researcher concluded that EM skills remain important even when work

and interactions occur online. Although it may be more difficult to gauge a situation or person's emotions while working virtually, EM skills can be exercised proactively and therefore still foster a high quality of LMX.

<u>Hypothesis 2:</u> EM positively influences TMX

A positive relationship was hypothesised between EM and TMX, and the statistical results provided support for this hypothesis. It appears that the stronger an employee's EM skills, the better the quality of their relationships with team members. This study therefore revealed that among employees in HEIs, EM skills had a positive effect on the quality of the exchange among team members.

Similar to LMX, TMX is a social exchange that – as in any other relationship – involves some degree of emotion. The ATSE posits that emotion is produced within individuals during social exchanges. If an employee can understand and manage their own emotions, as well as those of others, they can effectively manage any emotionally charged situations with team members. This skills has a positive impact on how the employee experiences the TMX.

In the higher education context, specifically among administrative departments, committees are prevalent (Farris, 2018). A committees is made up of a group of people and can therefore be considered a team. This concept highlights the abundance of teams in a higher education environment. Based on the findings of this study, EM is valuable in a team setting. In turn, the effective functioning of these teams is imperative for the smooth operation of the institution.

In line with the finding of the current study, the relationship between EM and TMX is also evident when reflecting on the study by Oh and Jang (2020) (See section 2.5.3). The authors highlight that the perceived quality of the TMX depended on how the reciprocity was assessed by parties in the relationship. Employees considered the extent to which team members wanted to help others in the team and to share their ideas, knowledge and information; they also considered the way in which recognition was given. The authors explain that TMX affects reciprocity among members not only in terms of work-related aspects but also with regard to socio-emotional aspects. Such socio-emotional aspects include gratitude and trust. Other researchers have studied gratitude and trust as emotions (e.g., McKechnie et al., 2018; Belli & Broncano, 2017).

Hence, the conceptual overlap of the emotional dynamic between EM and TMX is apparent. This theory explains the link between EM skills and TMX quality found in this study.

Shedding further light on the positive association found between EM and TMX, attention is drawn to one of the dimensions of TMX identified by Seers (1989), namely exchange. This dimension is characterised by members providing support, feedback, recognition and assistance to each other (Chen, 2018). An individual with EM skills is emotionally and mentally equipped to display these characteristics, effectively providing support, feedback, recognition and assistance to colleagues. They are in a position to gauge when colleague may need help.

In the present study, it has been emphasized that emotional intelligence involves being able to understand and identify the nuances that underlie other people's emotional behaviour (Prati et al., 2003). Such information then informs behaviour that can influence others and situations positively. Furthermore, another dimension of TMX identified by Seers (1989) was cohesiveness. Cohesiveness can be explained as working together as a whole. In a team, completing a task depends on the coordinated work of others, which renders cohesiveness essential (Quisenberry, 2018). These points together provide insight into the effect of EM on team interactions, further explaining an underlying process in the link between EM and TMX.

The prevalence and importance of teams in HEIs was discussed in Chapter 2 (see section 2.5.2). It could be reasoned that this hypothesised path might not be significant for academic employees, because their work is relatively independent compared to the roles of administrative employees. However, the results in this study showed that the correlation between EM and TMX was statistically significant for both employee groups. The roles of academic employees are interdependent when academics teach a module together or collaborate on a research project, or when supervisors and co-supervisors work together. Hence, the value of EM in high-quality collegial relations is applicable to all HEI employees, irrespective of the nature of the job.

The positive association between EM and TMX reported in this study corroborates the findings of Quisenberry (2018). Quisenberry (2018) explored the importance of emotional intelligence as it relates to the effectiveness of teams that work virtually. The

author's discussion is therefore relevant to the pandemic situation that affected the current study. Quisenberry's (2018) results supported previous research revealing that emotional intelligence – and therefore also EM skills – can be a determining factor for an individual's fit within a virtual team setting (Quisenberry, 2018). This discussion further explains the association found between EM and TMX.

Hypothesis 3: EM positively influences OCB-O

In this study, a positive relationship was hypothesised between EM and OCB-O. The statistical results provided support for the substantive hypothesis. OCB-O refers to an employee's voluntary positive behaviour at work that is directed at the organisation as a whole. The results indicate that the higher an employee's EM skills, the more likely they are to engage in such behaviour.

One facet of OCB-O is sportsmanship. Sportsmanship is evident when a person remains positive in an unfavourable situation, such as when an event is frustrating or does not go according to plan. This is related to the aspect of EM which involves an individual's tendency to adapt a positive mindset in difficult situations. Therefore, the link between EM and OCB-O is supported by the conceptual overlap between this characteristic of EM – remaining positive in adverse situations – and sportsmanship.

Another aspect of OCB-O is conscientiousness (Qawasmeh, 2018), which refers to behaviour that entails discipline and self-control beyond what is expected. This description ties in with the essence of EM or managing one's emotions to exhibit behaviour that is positive in a given situation. This point further clarifies the empirical association between OCB-O and EM.

As elaborated on in Chapter 2, EM overlaps conceptually with civic virtue, another aspect of OCB (see section 2.6.3). EM is central to emotional intelligence, and emotional intelligence is in turn linked to responsible behaviour (characteristic of civic virtue). Hence, the statistical correlation between EM and OCB is understandable.

This result in the current study is consistent with the findings of Hwa and Amin (2016), who report a positive relationship between emotional intelligence and OCB. The authors state that when employees experience positive emotions, they are likely to engage in OCB. EM, a key part of emotional intelligence, involves being able to

204

manage emotions, which in turn leads to positive behaviour. This, too, sheds further light on the link between the two constructs.

Farris (2018) explains that an aspect of OCB includes the promotion of a positive attitude. Based on the understanding of the essence of EM, which entails the controlling one's own emotions and influencing those of others, it is understandable that an employee with EM skills will contribute to the encouragement of a positive attitude in themselves as well as in others. This discussion may therefore provide some insight into the link found between EM and OCB-O.

Hypothesis 4: EM positively influences OCB-I

The results from the statistical analyses provided support for the hypothesised relationship between EM and OCB-I. The empirical result indicated that the stronger an employee's EM skills, the more likely the person was to engage in positive extra-role behaviour directed at individuals.

As explained previously, the OCB-I construct refers to an employee's voluntary positive behaviour directed at other individuals, which implies that OCB-I is an interpersonal construct. It was expected that EM and OCB-I would be associated. Aspects of OCB-I include defending a colleague, doing favours or lending a sympathetic ear. The interpersonal element is evident, and such actions and empathy are characteristic of EM skills that are needed when managing emotions.

Furthermore, a component of OCB-I is courtesy, which refers to considerate actions directed at other individuals. Such behaviour is associated with EM, as it involves the decision to be polite, thereby contributing to the quality of the social exchange. Consideration for others requires EM because one must appreciate what others need and feel in a given situation. This point clarifies the link between EM and OCB-I.

Similar to the process of OCB-O, the better an employee can manage their own emotions, the more civil their personal behaviour will be. For example, when experiencing a negative emotion as a result of a personal or work-related situation, an employees' EM skills would assist in not allowing the situation, and consequent negative feelings, to lead to a bad attitude towards the leader, colleagues or the work. This, in turn, could manifest in positive behaviours directed at the leader or other

individuals. This point provides insight into the positive correlation reported between EM and OCB-I.

The interpersonal nature of OCB-I means that such behaviour is likely to be similar across the higher education sector and other industries. In an HEI, both academic and administrative employees encounter roles that require collaboration with colleagues. Hence, OCB-I is relevant to both groups. Among administrative employees, OCB-I may include sharing knowledge about the job with a colleague or assisting a colleague who has a heavy workload. For academic employees, OCB-I could manifest through coaching or mentoring a junior academic.

The results showed that EM had a positive and statistically significant influence on OCB-I for both academic and administrative employees. This positive association corroborates the findings of Turnipseed (2018), who examined the relationship between dimensions of emotional intelligence and OCB-I and OCB-O. Turnipseed reports that the 'managing emotions' dimension had a positive effect on OCB-I, indicating that EM led employees to engage in productive activities and relationships (Turnipseed, 2018).

Hypothesis 5: LMX positively influences OCB-O

A relationship was hypothesised between LMX and OCB-O. However, the results of the statistical analyses showed no significant association between LMX and OCB-O; hence, the hypothesis was not supported. This finding is contrary to the assertion of Kim et al. (2009), who report that LMX positively influenced an individual's citizenship behaviour regarding the organisation. However, Kim and Park (2020) later pointed out that OCB cannot be generated by the actions of managers or the organisation; it manifests based entirely on the decisions and free will of the employee.

LMX refers to the perceived quality of the relationship between the employee and the leader. In this study, the focus was on the perception of the employee. By contrast, OCB-O refers to extra-role behaviour directed at the organisation. A possible explanation for the lack of association between the two variables could be that LMX is related to one-on-one exchanges between an employee and the leader, whereas OCB-O focuses on the organisation as whole. Therefore, high-quality relationships at

the individual level might not translate to extra-role behaviour at the organisational level.

Another explanation for the lack of empirical support for the hypothesised relationship could be the current pandemic and national lockdown. During the time the data was collected, most HEI employees were working virtually and were not based at the physical workplace. Some of the questionnaire items that assessed OCB-O were relevant to actions that do not apply when working from home. Examples include offering suggestions to improve the workplace and decorating the workspace. Other forms of OCB-O might also not relate to being at the workplace – such as providing suggestions for improving ways of working and helping new employees to become oriented. These points further emphasise that a quality relationship with the leader is not necessarily an antecedent of OCB-O for HEI employees. The findings appear to reflect that fact.

To further explain the lack of association between LMX and OCB-O in this study, the researcher refers to the work by Farris (2018). Farris (2018) highlights the strong presence of committees, and therefore teams, within the administrative context of HEIs. Personal interaction amongst the individual members is essential. Furthermore, for academic employees, there is a requirement for personal interaction to achieve effective research and teaching. It could be reasoned that HEI employees' LMX quality would influence their personal interactions rather than directly affecting their actions that might impact the entire organisation.

Finally, another reason for the lack of a statistically significant influence of LMX on OCB-O could be that certain mediating or moderating variables were not accounted for in this study. For example, Shareef and Atan (2019) found that intrinsic motivation was a mediating variable between a leader's behaviour and an employee's OCB. 'Intrinsic motivation' relates to inherent satisfactions of the task; by contrast, 'extrinsic motivation' pertains to factors such as recognition and rewards (Reiss, 2012). When intrinsically motivated, employees do something they want to do rather than because of a resulting reward. Given the voluntary nature of OCB, it could be that among HEI employees, intrinsic motivation is a psychological trait that could serve as a mediating variable between LMX and OCB-O.

The lack of empirical support for a link between LMX and OCB-O could mean that employees do not feel that organisational-level actions are required by their leaders. Employees could reason that extra-role role behaviour directed at the organisation has no direct benefit to the employee or to the leader (Han et al., 2018).

Hypothesis 6: LMX positively influences OCB-I

A positive relationship was hypothesised between LMX and OCB-I. However, the statistical analyses revealed a negative and statistically significant relationship between LMX and OCB-I. Thus, the results did not support the substantive hypothesis. In the current study, as LMX increased, OCB-I decreased. This means that the more positive an employee's perceptions were about the quality of their relationship with the leader, the less likely they were to engage in OCB directed at individuals in the workplace.

A possible explanation for the negative correlation is that LMX refers to the one-to-one, interpersonal relationship between an employee and the leader. When an employee focuses on the quality of this relationship, their focus on behaviour directed at other employees in the organisation might become less important to them. Because LMX involves fostering a personal relationship with a specific person, by focusing on that relationship, employees may be less likely to demonstrate either OCB-O or OCB-I, which are less specific. This point links in with and supports the discussion above regarding Hypothesis 5, which examined the lack of empirical association between LMX and OCB-O.

Another aspect that could play a role in the negative association found between LMX and OCB is organisational culture. One aspect of organisational culture is collectivism versus individualism. At one end of the spectrum, individualism means that people cater for and attend to their own needs and those of their families. Individuals do not consider themselves to be personally connected to non-family members (Nusari et al., 2018). A collectivist culture, by contrast, values creating and fostering interpersonal relationships within wider groups (Nusari et al., 2018). Previous research has shown that South Africa has a largely individualistic culture (Huppert et al., 2019), which could be evident at HEIs. Although the relationship with the leader may be perceived as being positive, the organisational culture might not encourage employee behaviour

that focuses on other people – that is, OCB. Employees might focus on their relationships with leaders if doing so is more personally valuable and beneficial than engaging in behaviour that is conducive to the rest of the team and other colleagues or the organisation as a whole.

Taking this argument further, Arumi et al. (2019) found that organisational commitment influenced the association between organisational culture and the manifestation of OCB. Organisational commitment could therefore be another variable at play among HEI employees. It might influence the employee's OCB in addition to – or despite – the quality of their relationships with leaders or team members.

Another issue that might have contributed to this finding is the circumstances that participants were living and working in at the time of the study. The pandemic meant that individuals were working from home and might be concerned about the security of their jobs. It could be that these changes and insecurity led HEI employees to particularly value their relationship with their leaders and to pay less attention to extra-role behaviour directed at colleagues. Such behaviour is also limited because of many employees not being at the office physically. Additionally, the findings could suggest that, for employees at HEIs, other factors might lead to the manifestation of OCB-I, such as personal traits that could create antecedents for OCB-I. This point might be unrelated to the quality of their relationships with leaders or team members.

Hypothesis 7: TMX positively influences OCB-O

A statistically significant relationship was hypothesised between TMX and OCB-O. Analysis of the data indicated a positive and statistically significant relationship between the two constructs. Thus, the results provided support for the substantive hypothesis. The finding implies that the more positive the employee's perception is of the quality of social exchanges with team members, the more likely they are to engage in extra-role behaviour directed at the whole organisation.

High-quality TMX is characterised by team members understanding and helping each other. Similarly, OCB-O entails positive behaviour that benefits the organisation. Examples of OCB that affects the whole organisation include assisting new employees to become oriented at work and publicly complimenting a colleague. The conceptual

overlap between the two constructs is thus apparent and could explain the positive association found in this study.

Furthermore, the reciprocal principle highlighted in the SET could underlie the link between TMX and OCB-O. The helpful behaviour displayed by one colleague towards another is reciprocated, which in turn fosters the manifestation of OCB-O.

In this study, relationship quality among employees in HEIs was assessed in terms of LMX and TMX. The findings showed no significant relationship between LMX and OCB-O but a positive association between TMX and OCB-O. Hence, in a model that includes both LMX and TMX, only TMX is a significant antecedent to employees manifesting OCB-O. The implication is that the quality of relationships with team members influences OCB-O but the quality of the relationship with the leader does not. This finding recalls the point highlighted by Farris (2018) that HEIs contain many committees and therefore teams. Because of their prevalence, teams – and their dynamics – are likely to affect employees' attitudes and behaviour. Although Farris (2018) highlighted that these committees are ubiquitous for administrative employees in HEIs, the current results pertain to TMX regarding both administrative and academic employees.

Another factor that could have contributed to this result is the working conditions during lockdown. As discussed in section 1.5, employees were thrown into a new working style (i.e. working from home), with no time to prepare mentally or in other ways. This change could have been more of a challenge for academic than administrative staff. At some universities, administrative duties could go on uninterrupted, with the most notable change being that meetings were now done virtually. Furthermore, administrative duties could continue smoothly in institutions where most processes were already digital. Other institutions faced the adjustment from paper-based administration to online processes. For academic employees, whose duties involve teaching, presenting classes online may have required more adjustment. Engaging with the students took on a different dynamic, which adds to the complexity of the adjustment. Hence, academic employees – who are usually adept at working independently – might have needed and appreciated more support, guidance and assistance to adjust to their new way of working. This would especially be true in bigger teams, where the leader may not have been able to support each employee

individually. The quality of TMX could therefore have become meaningful and could have contributed to positive attitudes and behaviour.

In addition, the 'civic virtue' dimension of OCB can be characterised by a sense of responsibility. It seems reasonable that when an employee feels that the TMX is of a good quality, and that trust, gratitude and support are shared among team members, they may also feel a sense of responsibility to reciprocate by engaging in extra-role behaviour. Such behaviour would contribute to the performance and productivity of the team and would thus benefit the organisation. This dynamic could further explain positive association between TMX and OCB-O. This underlying mechanism is supported by Dai et al. (2020). The authors explored TMX, social loafing, accountability and OCB. They report that accountability – which overlaps conceptually with the sense of responsibility and therefore also with civic virtue – mediated the relationship between TMX and OCB.

Finally, the link between TMX and OCB-O can be understood with reference to another aspect of OBC-O, sportsmanship. Sportsmanship includes employees taking over the duties or responsibilities of a colleague who is ill or away for a while. This portrays support, which is characteristic of TMX.

Hypothesis 8: TMX positively influences OCB-I

An association between TMX and OCB-I was hypothesised. The analysis indicated a positive and statistically significant relationship between TMX and OCB-I, which provides empirical support for the hypothesis. That is, the better employees perceive the quality of the TMX to be, the more likely they are to engage in extra-role behaviour that is directed at individuals in the workplace. Furthermore, the results revealed that the positive link between TMX and OCB-I held true for both academic and administrative employees.

TMX of a good quality is characterised by employees feeling understood and supported and being willing to help where the need arises – even if these actions are beyond the formal job requirements. This description has a conceptual overlap with the essence of OCB-I, which involves positive extra-role behaviour directed at other individuals. The positive and statistically significant association between TMX and OBC-I is therefore logical.

TMX includes socio-emotional qualities such as trust and gratitude. These characteristics are personal and uphold the idea of an interpersonal exchange. The link to OCB-I is apparent in that OCB-I has to do with positive, helpful actions which benefit other individuals. In addition, TMX as a social exchange is characterised by reciprocity. This feature, together with characteristics such as trust, gratitude and helping, mean that a continuous loop of reciprocated positive behaviour occurs. This concept overlaps theoretically with the core of OCB-I, which refers to positive actions directed at individuals. This point helps to explain the underlying process behind the positive and statistically significant correlation between TMX and OCB-I.

Farmer et al. (2015) shed light on another psychological mechanism that could be present and could lead to and support the positive association between TMX and OCB. The authors argue that an employee's sense of identification with team members serves as a mechanism underlying the link between TMX and OCB-I. Farmer et al. (2015) cited the framework of optimal distinctiveness theory. It is based on the premise that an individual's social identity reconciles their desire to feel included in a group and their desire to feel personally distinctive within the group. If, therefore, this need for a sense of identification is met within the team, an employee will be more likely to engage in OCB-I. This point further explains the association found between TMX and OCB-I.

Regarding the presence of committees and therefore teams in HEIs, a natural concern among employees would be the quality of their relationships with team members. A theoretical overlap with OCB-I is apparent here, considering that OCB-I pertains to behaviour directed at colleagues. During the pandemic, there may have been an increased need for employees to assist each other beyond their usual provision of support. Many people fell ill, had to isolate or had to care for infected family members. Team members had to step in and assist with their work responsibilities.

Hypothesis 9: The relationship between EM and OCB-O is mediated by LMX

Hypothesis 10: The relationship between EM and OCB-O is mediated by TMX

In this study, it was hypothesised that TMX and LMX both act as mediators in the relationship between EM and OCB-O. The results revealed that LMX did not have a statistically significant effect on the relationship of interest, whereas TMX did. (That is,

TMX had an indirect positive and significant effect on the relationship between EM and OCB-O.) Hypothesis 9 was therefore not supported by the results, but Hypothesis 10 was. Furthermore, the relationship between EM and OCB-O was only partially mediated, as the direct relationship between EM and OCB-O was itself significant. These results are not surprising, considering that no statistically significant relationship was found between LMX and OCB-O (Hypothesis 5).

As discussed previously, EM was found to correlate with both LMX and TMX (Hypotheses 1 and 2). EM also positively affects OCB-O (Hypothesis 3). In addition, a positive direct relationship was found between TMX and OCB-O (Hypothesis 7). Therefore, an employee with strong EM skills would be likely to experience a high quality of TMX. Given the reciprocity principle highlighted by the Social Exchange theory, they would engage in positive behaviour in return. Along with providing support and mutual trust among team members, quality TMX involves sharing expertise, resources and effort (Farmer, 2015). These characteristics have a conceptual overlap with OCB-O. Therefore, although employees may engage in behaviours directed toward team members as a result of their positive perception of the TMX quality, these behaviours benefit the organisation too.

In interpreting this in a context where there is a focus on teamwork and dependence on team members for completing tasks, the quality of TMX is expected to matter more than the quality of LMX regarding their effect on positive behaviour directed at the organisation (OCB-O). Similarly, employees could have found themselves even more dependent on their team members during the pandemic period, while working from home without adequate preparation.

Additionally, the nature of leadership in academic environments can mean that academic employees view their heads of department largely as team members. Academic staff usually fall under the leadership of a head of department (HOD). The HOD is typically a colleague – an academic employee who was appointed as head of the particular department for a certain period. Hence, academic employees might not view the HOD as their leader but rather as a colleague. When rating their TMX experiences, academic employees may have had their leaders in mind too. This perspective could have influenced their responses to the questionnaire and therefore the results of this study.

<u>Hypothesis 11</u>: The relationship between EM and OCB-I is mediated by LMX

<u>Hypothesis 12</u>: The relationship between EM and OCB-I is mediated by TMX

It was hypothesised that LMX and TMX both have an indirect effect on the relationship between EM and OCB-I. The results revealed that LMX had a negative and statistically significant effect on the relationship of interest, whereas TMX had a positive and significant effect on the same relationship. Therefore, support was found for both Hypothesis 11 and Hypothesis 12.

A good quality of TMX is characterised by mutual trust, respect and support. These aspects all have an interpersonal element, which is also typical of OCB-I. They require consideration of others' feelings and needs – which is in turn an aspect of EM. Hence, a common theme is noticeable across EM, TMX and OCB-I. This commonality could help to explain the mediated relationship.

Furthermore, attention can be brought to an element of OCB-I, namely altruism. Altruism refers to helping a colleague without expecting anything in return. This involves identifying the need someone has for help, which is a part of manifesting EM skills. In addition, supporting and assisting behaviour is characteristic of a high-quality TMX. Again, the commonality between EM, TMX and OCB-I is evident.

An interesting finding emerged though the comparison of results for these two hypotheses regarding the academic and administrative employee groups. With regard to Hypothesis 11 (LMX has an indirect effect on the correlation between EM and OCB-I), the results indicated a negative indirect effect for academic employees. However, for administrative employees, the indirect effect of LMX on this relationship was not significant. As highlighted in the preceding discussion, this discrepancy can be attributed the type of relationships that administrative and academic employees have, respectively, with their leaders. Academic employees tend to work quite independently, whereas administrative staff are strongly affected by teams and committees. Therefore, administrative employees may place more value on TMX than on LMX.

Pertaining to Hypothesis 12 (TMX indirectly affects the relationship between EM and OCB-I), there was evidence of a positive indirect effect for both employee groups.

5.2.2 Results of model 2

Hypothesis 13: EM positively influences LMX

In the second structural model, a statistically significant relationship was hypothesised between EM and LMX – similar to Hypothesis 1 under Model 1. In the analysis, a positive and statistically significant relationship was found between EM and LMX. The results therefore provided support for the substantive hypothesis. A discussion of this result was presented in the section on Hypothesis 1.

Hypothesis 14: EM positively influences TMX

As in Model 1, a statistically significant relationship was again hypothesised between EM and TMX in the second structural model. A positive and statistically significant relationship was found between EM and TMX. The results therefore supported the hypothesis, as discussed in the section on Hypothesis 2.

Hypothesis 15: EM negatively influences CWB

A relationship was hypothesised between EM and CWB. The analysis indicated a negative and statistically significant relationship between EM and CWB. The results therefore provided support for the substantive hypothesis.

The finding suggests that employees who are skilled at understanding and managing emotions are unlikely to engage in behaviours that would have a negative impact on the organisation or its employees. The mechanism for this association could lie in a strength of EM, whereby individuals are able decide how to act appropriately in an emotionally charged situation. Regardless of whether the emotions are positive or negative, employees with EM skills act in ways that do not negatively affect themselves or the organisation.

This result corroborates the findings of Dirican and Erdil (2020), who report a statistically significant negative correlation between emotional intelligence and CWB among university employees. In the current study, the focus was on EM specifically. Nonetheless, EM has a conceptual overlap with the dimension of regulation of emotion (ROE) that was used by Dirican and Erdil (2020). Dirican and Erdil (2020) report that ROE was a negative predictor of CWB. They highlight that individuals who manage

emotions poorly may experience problems in their relations with others and might be prone to inappropriate behaviour.

There is a negative relationship between EM and CWB. For instance, CWB includes treating other people rudely or mocking someone in front of others. Individuals who are skilled at EM are unlikely to show such hurtful behaviour as they can understand the effects of their actions and opt for positive actions that benefit themselves and others. Having EM skills may help in presenting oneself in a desirable way. Therefore, to avoid damaging one's reputation through CWB, one's EM skills assist in exercising restraint.

Furthermore, CWB has been related to negative experiences in the workplace, such as conflicts and injustice. These negative events may trigger negative emotions in employees, making them more likely to engage in CWB as a way to express the negative emotion and find retribution (Yang & Diefendorff, 2009). An employee with strong EM skills is better equipped to deal with negative situations at work constructively, reducing the likelihood of engaging in CWB.

It has been argued that emotional intelligence skills help to reduce CWB where emotional labour is present (Kim & Park, 2020). Given the nature of the roles in HEIs, HEI employees perform substantial emotional labour. Emotional labour has to do with suppressing one's true emotions or displaying one's emotions in a specified way (Springer & Oleksa, 2017) and behaving in a manner that is acceptable to the organisation. Considering this description, the value of EM skills is evident. For example, even when providing education through online platforms, HEI employees still experience emotional labour through stifling their true emotions while demonstrating concern, kindness and empathy; they must try to remain professional in their communications, whether written or oral (Nyanjom & Naylor, 2021). This point sheds further light on the underlying process of the association between EM and CWB amongst HEI employees.

Hypothesis 16: LMX negatively influences CWB

It was hypothesised that LMX has a negative influence on CWB. No statistically significant association was found between LMX and CWB. The results therefore did not provide support for the substantive hypothesis.

This result is contrary to the finding of Lebròn et al. (2018), who developed and tested a model of antecedents of CWB directed at the organisation. Examples of such behaviour noted by the authors include theft, tardiness, voluntary absenteeism and aggression; these actions are usually intentional. Lebròn et al. (2018) report a negative relationship between LMX and CWB directed at the organisation.

In the current study, the lack of a significant association could be attributed to the presence of other constructs that exert a direct effect on CWB. This would imply that LMX is not directly related to CWB but that there are mediating or moderating variables in the relationship. For example, Lebròn et al. (2018) report that an employee's level of work engagement had a mediating effect on the relationship between LMX and CWB. Another construct that has been shown to mediate the relationship between LMX and CWB is organisational identity (Götz et al, 2020).

Another factor that might have contributed to the lack of a relationship between LMX and CWB is the COVID-19 pandemic and lockdown. It seems possible that during this time of uncertainty, employees have worked hard and have been relatively unlikely to engage in deviant workplace behaviour. In addition, the questionnaire items which measured CWB were largely focused on deviant behaviour that manifests in person. Therefore, in a virtual workplace, it can be difficult to identify deviant behaviour.

Shkoler et al. (2019) report a negative correlation between LMX and CWB directed at the organisation. By contrast, they also report a positive correlation between LMX and CWB directed at individuals. In other words, a quality relationship with the leader was associated with a decreased chance of the employee exhibiting CWB directed at the organisation. However, a quality relationship with the leader was also associated with a higher possibility of engaging in CWB directed at individuals. Shkoler et al. reasoned that when an employee perceives LMX as being of a high quality, the likelihood of their engaging in CWB directed at the organisation is low, because the employee sees the leader as a representative of the organisation as a whole (Shkoler et al., 2019).

Shkoler's findings were based on an Israeli sample. By contrast, the same path was shown to be negative for an American sample. Hence, the association between LMX and CWB-I might be linked to cultural issues. For example, in some countries, joking about an employee's personal life is taken lightly and is common among friends. By

contrast, in Israeli culture, doing so is considered deviant behaviour (Shkoler et al., 2019). Depending on a study's sample, there may be cultural nuances or aspects related to a specific industry that could influence this relationship between LMX and CWB. Therefore, culture may merit further attention.

According to Hofstede's (1984) conceptualisation, culture comprises four dimensions, one of which is 'power distance'. The term refers to the extent to which an unequal distribution of power is accepted. Such inequality can relate to stature, power or wealth. According to Eringa et al. (2015) South Africa has a large power distance, which means that South African individuals tend to accept a hierarchical social structure, and subordinates tend to obey people in positions higher in the hierarchy. Power distance has been shown to be positively related to CWB directed at individuals (Robertson et al., 2016). This suggests that the more accepting individuals are of hierarchy and the unequal distribution of power, the more likely they are to engage in CWB. The cultural value of power distance could therefore be a key antecedent for the manifestation of CWB. Such factors were not considered in the current model. It seems possible that cultural values might play a crucial role in CWB, regardless of the quality of the LMX.

Finally, LMX has been shown to be negatively related to job insecurity (Wang et al., 2019). In other words, the better the quality of the relationship between employee and leader, the less the employee will experience job insecurity. The leader, being an authority, has a strong influence on how the employee views their job and its security. Job insecurity has been shown to have many negative outcomes (Ma et al., 2019). Job insecurity could therefore be a latent variable and a mediator or moderator in the path between LMX and CWB. It was not examined in this study.

Hypothesis 17: TMX negatively influences CWB

It was hypothesised that there is a relationship between TMX and CWB. However, no statistically significant association was found between TMX and CWB. Thus, the results did not support the hypothesis.

This finding corroborates that of Shkoler et al. (2019), who report that TMX had no statistically significant correlation with either CWB-I or CWB-O. As was the case for Hypothesis 16, the lack of correlation between TMX and CWB in the current study

might be attributable to the pandemic, which has influenced employees' work and attitudes. Although a negative association between TMX and CWB would be expected irrespective of the modality of work, the absence of a relationship between TMX and CWB could be attributed to the lockdown. More specifically, it could be that employees are careful not to engage in CWB as their jobs may be at risk as a result of the lockdown.

In addition, it can be inferred that TMX does not affect the manifestation of CWB among HEI employees. If CWB occurs, it could be attributed to other factors, such as conflict or unfair treatment. Such issues could affect CWB irrespective of the quality of the TMX.

Overall, regarding Hypotheses 16 and 17, the results revealed that the quality of social exchanges did not contribute to the manifestation of deviant behaviour among HEI employees. This result might mean that CWB in the academic sector manifests differently from the way it does in other industries. For example, CWB amongst academic employees may take the form of undermining a colleague's authority, showing disapproval of a colleague's professional achievement or hiding knowledge from colleagues (Akhlaghimofrad & Farmanesh, 2021). In this scenario, TMX could be negatively associated with CWB-I regarding in-group members; however, the relationship might differ regarding people outside the group. This difference may explain the lack of association between TMX and CWB in the results of this study.

Another reason for the lack of empirical support for the proposed relationships in Hypotheses 16 and 17 could be that among HEI employees, the quality of collegial relationships is not a statistically significant antecedent of deviant behaviour. Kundi and Badar (2021) report that interpersonal conflict was positively associated with CWB. Therefore, in the current study, there may be other constructs that are associated with the possibility of employees engaging in deviant behaviour. More specifically, the current findings could be attributed to constructs characterised by negative behaviour which have not been considered in the present study.

Finally, the lack of empirical evidence regarding a link between TMX and CWB could indicate the presence of mediating or moderating variables. Such variables might be necessary to make this path statistically significant for employees in HEIs. For

example, the theory relating to social identity suggests that a high quality of TMX would meet employees' need for a sense of belonging to a group. This feeling may in turn foster a sense of job security, which would decrease CWB (Qin et al., 2021). Mediating variables could therefore have been a missing link that led to the lack of support for Hypothesis 17.

<u>Hypothesis 18:</u> EM negatively influences ITQ

A significant relationship was hypothesised between EM and ITQ. However, no statistically significant association was found between EM and ITQ, and the results thus did not support the hypothesis.

Once again, it could be that there was a lack of support for this hypothesis because other factors might contribute to an employee's ITQ. For example, an employee may intend to leave the organisation to seek a greater challenge or to accept a role which provides a better salary and benefits package. Butt et al. (2020) explored the retention of employees in a higher education sector. They report that variables such as social values, diversity and economic values in the organisation were important for the retention of employees, as they can positively influence employee attitudes. These aspects could influence the employee's ITQ whether their EM skills are well developed or not. This point could explain the lack of empirical support for the hypothesised relationship between EM and ITQ.

Additionally, for employees in HEIs, EM might have an indirect rather than direct effect on ITQ. Akhlaghimofrad and Farmanesh (2021) studied turnover intentions among academic staff members and report that employees' emotional intelligence had a moderating effect on the relationship between interpersonal conflict and turnover intention. Similarly, Mérida-Lopez et al. (2020) report that EM had an indirect effect on the relationship between the antecedents of ITQ and actual ITQ, rather than EM having a direct effect on ITQ. The authors showed that employees' emotional intelligence had a moderating effect on the relationship between perceived support and ITQ. Therefore, it seems possible that the influence of EM on ITQ is indirect. The findings mentioned here provide a perspective that could explain the lack of empirical support for Hypothesis 18.

Furthermore, in the studies by Akhlaghimofrad and Farmanesh (2021) and Mérida-Lopez et al. (2020), the constructs that were examined in relation to ITQ, namely interpersonal conflict and social support, are interpersonal concepts. Hence, it seems possible that EM might indirectly affect ITQ only via aspects that have an interpersonal component.

<u>Hypothesis 19:</u> LMX negatively influences ITQ

A negative relationship was hypothesised between LMX and ITQ. The analysis indicated a negative and statistically significant relationship between LMX and ITQ. Thus, the results provided support for the substantive hypothesis. Moreover, this relationship was statistically significant for both administrative and academic employees.

When employees perceive their relationship with the leader (LMX) to be of a good quality, they are unlikely to intend leaving the organisation. The negative association between LMX and ITQ found in this study corroborates the recent findings of Chung and Jeon (2020), who similarly report that a high quality of LMX reduced the likelihood of employees' turnover intentions. In addition, Aman-Ullan et al. (2020) studied employee retention in the education sector. The authors point out that when employees feel supported (which is characteristic of a high-quality exchange), they experience psychological empowerment. This empowerment in turn strengthens the relationship between the employee and the leader or organisation, leading to a longer employment relationship (Aman-Ullan et al., 2020).

To aid the understanding of the negative correlation between LMX and ITQ, attention can be brought to a result reported by Kahumuza and Schlechter (2008). The authors explored indirect and direct effects on employees' ITQ. They found a strong negative correlation between perceived support and ITQ; hence, if an employee experiences good support in their work context, they are unlikely to quit. One of the characteristics quality LMX is that employees experience strong support from the leader. The relationship found between LMX and ITQ in this study is in line with the findings of Kahumuza and Schlechter (2008), and indicates an underlying mechanism of the association.

For further explanation of the relationship between LMX and ITQ, the concept of a psychological contract between an employee and an employer is useful. In this discussion, the employee's leader is regarded as representing the employer. The 'psychological contract' refers to the implicit understanding between the parties, in which there are unofficial or undocumented expectations that are barely even discussed. A psychological contract is characterised by a norm of reciprocity (Coyle-Shapiro & Kessler, 2002). Hence, it overlaps conceptually with a social exchange – which is also characterised by reciprocity. If an employee perceives the LMX to be of a good quality, they are likely to be experiencing positive gestures from the leader, such as support. In turn, the employee may feel obliged to remain loyal to the leader and therefore also the organisation. Loyalty is a key aspect in LMX (Liden & Maslyn, 1998). This discussion illustrates another probable link between LMX and ITQ.

In HEIs, especially during the pandemic, leaders could exhibit support in many ways, and in so doing would add to the perceived quality of the LMX. For example, if academic staff were struggling to adapt to online teaching and modes of assessment, their leaders could make provision for relevant training. Another example, which applies to both academic and administrative employees, involves the leader providing support through encouraging conversations with employees to make them feel supported, secure and comfortable in reaching out to the leader.

Hypothesis 20: TMX negatively influences ITQ

A statistically significant relationship was hypothesised between TMX and ITQ. Following the analysis, however, no statistically significant association was found between TMX and ITQ. The results therefore did not provide support for the substantive hypothesis.

This finding indicates that among the HEI sample in this study, an employee could intend to quit regardless of the perceived quality of their relationship with team members. Hence, other factors are evidently considered by employees that affect ITQ. The result corroborates findings by other researchers (e.g., Chung & Jeon, 2020; Kim & Yi, 2019) who report that TMX did not have a statistically significant effect on turnover intention. In the current study, this finding was unexpected, given the strong presence of teams in the HEI workplace.

Because a significant relationship emerged between LMX and ITQ, it is plausible that for HEI employees, the quality of the relationship with one's leader is more important – at least regarding ITQ – than are relationships with team members. Moreover, the leader has the authority to make decisions and effect change in times of unhappiness. In a situation where an employee requires intervention or change, speaking to the leader may lead to an improvement of the situation. By contrast, a team member would only be able to lend a sympathetic ear.

The result highlights that whether the employee's relationship quality with team members is high or not, it has no statistically significant impact on ITQ. Where there is an ITQ, other factors are more important. For example, among employees in HEIs, promotion opportunities and salaries are key factors in retaining employees (Aman-Ullah et al., 2020; Gandy et al., 2018). Furthermore, TMX might affect ITQ via other variables. For example, Mérida-Lopez et al. (2020) reveal that employees' level of work engagement influenced the path between social support and ITQ. Social support is a key characteristic of TMX. Therefore, the empirical findings of the current study might have been influenced by other variables not included in the analysis.

In the discussion on Hypothesis 16, reference was made to the four dimensions of culture. The third dimension is individualism versus collectivism, which relates to a person's sense of identity regarding themself and others. Because ITQ is a personal decision and relates to one's career goals, it might be affected by individualist values. Hence, individualism as a construct might be an antecedent of ITQ. This could be a missing mechanism that may underlie the lack of statistical support for the proposed association between TMX and ITQ.

Organisational culture has been shown to influence employee retention (Shumba et al., 2017). In O'Reilly's (1991) conceptualisation, organisational culture is characterised by (i) innovation and risk taking, (ii) attention to detail, (iii) outcome orientation, (iv) competitiveness, (v) supportiveness, (vi) growth and reward, (vii) teamwork, and (viii) decisiveness. Considering the HE context, it could be argued that aspects such as innovation and outcome orientation are particularly important for HEI employees given that HEIs are under pressure to increase research output. Hence, cultural aspects in general might be a missing mechanism in the link between TMX

and ITQ. That is, HEI employees' ITQ might be strongly influenced by cultural factors regardless of the quality of TMX.

Hypothesis 21: The relationship between EM and CWB is mediated by LMX

Hypothesis 22: The relationship between EM and CWB is mediated by TMX

The indirect effects of LMX and TMX, respectively, on the relationship between EM and CWB were assessed during the SEM for Model 2. The analysis revealed that LMX did not have a statistically significant indirect effect on the relationship between EM and CWB. Similarly, no significant indirect effect of TMX on the relationship between EM and CWB was found. The results thus did not support Hypothesis 21 or Hypothesis 22.

The hypothesised relationships between LMX and CWB (Hypothesis 16) and between TMX and CWB (Hypothesis 17) were also not statistically significant in this study (as discussed earlier). Given this lack of direct effect by LMX or TMX, it was not surprising that there were no indirect effects either. The results indicate that the quality of LMX and TMX were not important transmission mechanisms between EM and CWB. However, it could be that TMX and LMX were moderators rather than mediators.

EM involves being sensitive to others' emotions and being able to control emotions in oneself and in others. Furthermore, EM contributes to the perceived quality of LMX and TMX (as reported under Hypotheses 1 and 2). Therefore, it was initially expected that social exchange (LMX and TMX) could mediate the negative association between EM and CWB (Hypothesis 15). Quality social exchanges are typified by mutual respect, support, trust and sharing expertise. It seemed plausible that individuals having EM and perceiving high-quality LMX and TMX might display such characteristics in their relationships. However, given that neither LMX nor TMX showed a significant relationship with CWB, it seemed less plausible that an indirect effect would be found.

In addition, other factors might mediate or moderate the effect of EM on CWB. For example, Loi et al. (2021) analysed the role of affect on the relationship between emotional intelligence and uncivil workplace behaviour. They report that poor

emotional intelligence was associated with negative affect, which in turn was associated with high levels of uncivil behaviour. Therefore, affect could be another missing mechanism in this study, which could further explain the lack of statistical support for the proposed mediated relationship between EM and CWB.

<u>Hypothesis 23:</u> The relationship between EM and ITQ is mediated by LMX

<u>Hypothesis 24:</u> The relationship between EM and ITQ is mediated by TMX

The potential indirect effects of LMX and TMX on the relationship between EM and ITQ were analysed. The results revealed that TMX had no statistically significant indirect effect on the relationship of interest (Hypothesis 24). This was not surprising given that no statistical support was found for the hypothesised association between EM and ITQ (Hypothesis 18) or for an association between TMX and ITQ (Hypothesis 20). These results were discussed earlier.

The lack of empirical support for a relationship between EM and ITQ, or for a mediating role of TMX on that relationship, can be examined with reference to interactional psychology. O'Reilly et al. (1991) state that an employee's response to a situation is influenced by a combination of their individual characteristics and aspects of the situation. This person–situation fit implies that an individual's values and perspectives interact with aspects of the situation, such as rules and rewards. This interaction itself influences the behaviour and attitudes of the employee. Person–situation fit may therefore be a construct that should be considered when assessing the link between EM and ITQ as well as the role of TMX in this association.

By contrast, the results showed that LMX had a statistically significant negative and indirect effect on the relationship between EM and ITQ (Hypothesis 23). This finding was not unexpected, since the association between LMX and ITQ (Hypothesis 19) was also negative and statistically significant. The statistical support for Hypothesis 23 indicates that for HEI employees, although EM did not directly affect ITQ, there was a significant indirect effect through LMX. Therefore, in the HEI setting, the value of fostering EM is realised through its direct influence on OCB and CWB (Hypotheses 3, 4 and 5). In addition, the value of EM is also shown in its indirect effect on ITQ through LMX.

The preceding discussions have demonstrated that empirical support was found for most of the direct hypothesised paths of Model 1. The only path not supported was that between LMX and OCB-O. Regarding Model 2, four of the direct hypothesised paths were not empirically supported. Therefore, other mechanisms that might be operating among the constructs should be further investigated.

5.2.3 Comparison of results for employee groups

To address research objective 5, the researcher compared the results of Model 1 and Model 2 for the two groups of employees (academic versus administrative staff). First, the structural equivalence was assessed by evaluating the configural invariance of the two structural models. Then, the structural invariance of the models was assessed. The model fit did not deteriorate in this process, indicating that the measurement models were equivalent for the two employee groups – at least regarding the factor loadings. Overall, structural equivalence was found between the two models. This finding indicated that the strength and direction of the relationships in each model were more or less equivalent for the two employee groups. The supported hypothesised paths generally held true for both groups, and there were no considerable differences in the models regarding their performance for the academic and administrative employees.

The only differing result that emerged between the two employee groups was for the path between EM and OCB-I with an indirect effect by LMX (Model 1: Hypothesis 11). For the academic group, the path was statistically significant, whereas for the administrative group, no statistical support was found for this path. All the other direct paths hypothesised in the models showed the same pattern of results for both employee groups. A reason for this specific path not being equivalent could be that administrative employees often work in teams and are more interdependent than academic employees. Therefore, when administrative employees engage in OCB-I, they may focus on fellow team members rather than leaders. This point might explain why LMX had no significant effect on the link between EM and OCB-I for administrative employees.

It has already been explained that the leaders of academic employees are typically also colleagues. Academic employees may thus perceive an interaction with their

leader as being the same as an interaction with a colleague. When they engage in behaviours that are beneficial to others, their relationships with leaders would also benefit. This point could explain why Hypothesis 11 was supported for the academic group but not the administrative group.

The finding that the models were equivalent across the two employee groups is crucial. Much emphasis tends to be placed on a distinction between the two groups in HEIs, especially regarding their different roles and levels of interdependency. Administrative personnel are often perceived as performing a secondary function in an HEI (Ryttberg & Geschwind, 2017); for example, they might be referred to as 'non-academics', which is an exclusionary term. Such perceptions, along with the different operations performed and the different dynamics which occur among colleagues, made it reasonable to expect differences in the hypothesised paths.

However, despite the varying roles of the employee groups, the results showed that EM and the quality of relationships were associated with crucial organisational outcomes. Investing in the development and flourishing of these qualities would be valuable to all employees and the organisation as a whole. An implication of the finding of model equivalence is that studies on HEI employees might not need to differentiate between academic and administrative employees. Similarly, workshops aimed at the development of employees would benefit academic and administrative employees alike. The underlying mechanisms and the value of EM and high-quality relationships among employees are the same for both employee groups.

5.3 Conclusions regarding the models

Based on the findings of the study, the following sections discuss the overall conclusions of this work.

5.3.1 Model 1

Louw (2019) states that research on emotional aspects in HEIs has mainly focused on students. The present study adds to the literature by emphasising the social interactions among employees in HEIs. The outcome of the study emphasises the centrality of emotional intelligence, and EM skills specifically, in establishing and fostering collegial relationships.

The findings are in line with ATSE, which posits that emotions arise during interactions with others and in turn affect those relationships. The importance of collegial relationships was explored through LMX and TMX in this study. Both of these relationships or exchanges can affect individual and organisational outcomes.

With regard to social exchanges at work and their effect on OCB, the findings highlight a concept that managers can explore. By understanding the effects and factors affecting a good quality of social exchange, leaders can identify gaps and work toward increasing the quality of social exchanges in the workplace. This can yield advantageous outcomes in the form of OCB.

Additionally, this study highlights the importance of employees in the leadership process. In leadership constructs such as LMX, the focus tends to be on the role and responsibility of the leader. However, the results of this study indicate employees and subordinates also influence the quality of the relationship with their leader. This was shown by the statistically significant relationship between EM and LMX. This point is in line with SET, which proposes that such exchanges are characterised by reciprocated actions between the parties. Therefore, the quality of the LMX relationship depends not only on the leader. Behaviour by both parties impact the quality of the relationship. This knowledge is valuable because employees can understand how to influence their relationship with the leader by exercising EM skills.

5.3.2 Model 2

A further **conclusion** of this study is the notion that LMX affects employees' ITQ. Specifically, the results showed that the better the perceived quality of the LMX, the less the employee is to intend leaving the organisation. Considering the competitive nature of the world of work, understanding which factors affect an employee's desire to quit is valuable. This knowledge would assist managers to retain good employees.

The study also addresses the research gap on the association between LMX and CWB. The dearth of literature on this topic was highlighted by Shkoler et al. (2019). Although no statistically significant association was found between LMX and CWB, this finding is valuable because it pertains to HEI employees specifically. It could mean that for employees in this industry, LMX is not an antecedent to CWB. However, the result should be interpreted with reference to the context in which the data was

collected. The study period included sudden workplace adjustments and job insecurity, which may have impacted the results. The association between LMX and CWB may have been altered by remote working; most of the data was collected when most employees in higher education were working remotely.

In addition, there could be other more pertinent antecedents to CWB. For example, perhaps CWB is influenced by personal traits. O'Brien et al. (2021) showed that personality traits were indeed related to CWB. In addition, the study revealed that job stressors affected the relationship between personality and CWB. There might be additional variables that relate to CWB.

The hypotheses that were not supported in the current study can serve as a departure point for future research regarding the HEI sector. More specifically, research can explore other constructs which do have a statistically significant impact on the dependent variables analysed in this study. Côté (2014) recommended that research should involve the development of theory regarding instances in which high emotional intelligence leads to adverse outcomes. The adverse organisational outcomes explored in the current study were CWB and ITQ. The findings indicated that EM and TMX were not statistically associated with either CWB or ITQ; however, there was a negative correlation between LMX and ITQ. Despite the general lack of empirical relationships, these findings add to the body of knowledge and can inform further research.

The lack of support found for the paths from TMX to CWB and ITQ as well as between LMX and CWB suggests that other mediating factors might be at play for HEI employees. For example, Yoon and Lee (2020) showed that job stress, job satisfaction and organisational commitment served as mediators between LMX and turnover intention. Therefore, adding possible mediating variables to the model may provide additional insight into the mechanism underlying the link between TMX and ITQ. On a practical level, the implication is that to hamper CWB and ITQ, managers at HEIs might need to do more than simply encouraging high-quality collegial relationships.

5.3.3 Equivalence

This study also contributes to the literature on organisational psychology in HEIs specifically. Literature in this area tends to focus on the experiences of students and

academic employees. Going beyond previous findings, this study also focuses on the various roles that incumbents fulfil in HEIs. Specifically, this research included both academic and administrative employees. Of particular interest is the finding that, despite their different work roles, the relationships among the variables of interest held true for both groups. This finding could mean that the two employee groups might not need to be studied separately.

5.4 Conclusions regarding social exchange and organisational outcomes

In general, this study adds to the body of knowledge on emotional intelligence, social exchange and organisational outcomes in the higher education sector. The results provide insight into certain mechanisms regarding the correlation between EM and workplace outcomes – whether positive or negative. More specifically, this study adds to the literature on the relationship between emotional intelligence and TMX, as well as TMX in higher education, which have not been extensively studied to date. In addition, Lai et al. (2019) highlight that little research has examined the relationship between TMX and ITQ. This study contributes to the knowledge about that relationship.

The variables EM, LMX and TMX included in this study have a personal or interpersonal quality. Hence, the results indicate that besides variations in job content, the quality of social exchanges in the workplace is critical and can significantly impact employee attitudes and behaviour. This point highlights that the mechanisms explained by the SET and ATSE are likely to occur in any context where there are interactions or social exchanges. The principles of these theories therefore serve as appropriate foundations for exploring organisational behaviours and constructs.

A further conclusion made in this study relates to the comparison of individual-level social interactions and group-level interactions. The results showed that for positive outcomes in the workplace, namely OCB-O and OCB-I, the quality of the group social interaction (assessed through TMX) was important. By contrast, social interaction at the individual level (assessed through LMX) did not influence the manifestation of OCB-O. To understand this outcome, reference can be made to Han et al. (2018), who explored the relationship between LMX and OCB. They found no significant relationship between LMX and change-oriented OCB. 'Change-oriented OCB' refers

to proactive behaviour that focuses on organisational changes, a description that overlaps conceptually with OCB-O.

Regarding negative outcomes in the workplace (CWB and ITQ), this study has shown that for HEI employees, TMX was not an influential factor, whereas LMX did influence the employees' ITQ. This point suggests that employees do not feel that their leaving the organisation is influenced by the group; hence no correlation was found between TMX and ITQ. However, their leaving may be directly impacted by the leader, with whom the employee has a more direct interpersonal relationship. This finding is contrary to previous research where a negative association was reported between TMX and turnover intention. Hence, for HEI employees, there may be important mediating factors that would make the association between TMX and ITQ significant. This summary contributes to literature on employees in HEI. It highlights the detailed importance of the types of social exchange relationships (LMX and TMX) in the HEI workplace.

This study also addresses a research opportunity highlighted by Shkoler and Tziner (2017). They found that emotional intelligence can have a positive or negative impact on misbehaviour in the workplace. They recommended that the influence of emotional intelligence should be further researched at various levels and in different contexts (Shkoler & Tziner, 2017). The present study is partly a response to this call. The current researcher explored the influence of a specific dimension of emotional intelligence, EM, within a focused context, namely employees in HEIs.

While not measured specifically, the pandemic and resulting lockdown may have resulted in an adjusted workplace – which might not be temporary. Given the strategic goals of internationalisation and the growing prevalence of virtual workplaces, working from home could become more common than before. HEIs had been working this way for more than a year at the time of writing this thesis. The institutions are arguably now better equipped, more comfortable with working virtually and aware of methods of addressing limitations in this mode of work. Therefore, certain models for the constructs explored in this study may need to be reconceptualised. For example, questionnaire items that measure OCB and CWB refer to activities or actions in a physical workplace. If institutions work virtually, the assessment of these constructs needs to be revised for relevance. In a similar vein, it may be necessary to revise how

the constructs are manifested, as well as their relationship with other constructs. Exercising EM skills may be easy when one has personal or physical contact with a colleague; it might not be as easy to read someone's emotional state and requirements during an online meeting. Therefore, the manifestation of EM skills might require a more proactive approach when working virtually. The next section further discusses the limitations identified in the study.

5.5 Limitations of the study

The rationale behind the choice of methodology in this study was discussed in chapters 3 and 4. Certain limitations should be acknowledged. The researcher strove to obtain data of high quality to answer the research questions. However, there are limitations associated with the research design and research instruments. First, a convenience sampling procedure was used. Although it is a commonly used method, this sampling method prevents measuring or controlling any bias. Furthermore, the results cannot be generalised beyond the target population (Acharya et al., 2013). In addition, a limitation related to the cross-sectional design used in this study is that without longitudinal data, it is difficult to accurately establish a causal relationship between variables.

Another weakness regarding the methodology is that questionnaires which employ Likert-type response scales are prone to central tendency bias (Douven, 2018). The Likert scale response ranges for the various validated instruments are not identical, which might potentially have confused the respondents. To reduce any potential misunderstanding, the researchers arranged the survey so that each instrument appeared on an individual electronic page. The aim was to make the reader aware of each new set of instructions. This approach was intended to reduce response-style bias.

The questionnaire consisted of self-rated assessments. Therefore, the leaders' perceptions of the quality of LMX were not assessed. However, the focus of the models was on employee characteristics, perceptions and behaviour. Self-rated assessments may lead to mono-method bias (Olino & Klein, 2015). The risk of using only self-reported data is that responses may be biased and subjective. Multiple methods of

data collection should be considered where possible (e.g., diary studies, observations or peer reports).

A further limitation acknowledged is that participants were not asked to indicate which employee category (i.e. academic or administrative) their leader falls in. It is possible that an academic employee reports to an administrative employee, and that an administrative employee reports to an academic. The type of interaction in such instances may be different compared to the interaction between a leader and employee who fall within the same employee category.

Another limitation could be the sample size. Although the sample size (n=523) was sufficient for the analyses, a larger sample might have strengthened the statistical power of the results.

A further limitation could relate to CWB being assessed as a higher-order construct. It is possible that analysing CWB according to its two dimensions, namely CWB-I and CWB-O, may have yielded more insight regarding the roles of EM, LMX and TMX. Another related limitation concerns the nature of the questionnaire items which assessed CWB. Responding to the items honestly could mean that some employees would need to admit to deviant behaviour in the workplace. Examples in the questionnaire were falsifying a receipt, disclosing confidential information and speaking or behaving rudely toward a colleague. Although the questionnaires were completed anonymously, there is a possibility that participants might not have responded truthfully to such items. This would have affected the outcomes.

The items that assessed EM may also have presented limitations. Exercising EM skills can be easier in proximity to others than online. Participants may thus not have been able to accurately respond to the questionnaire items on EM as many of them were working online during the study period. A few months into the data collection process, the COVID-19 pandemic unfolded, impacting HEI employees. Some of the data was collected during the pandemic and some was collected earlier. This scenario may have influenced how employees responded to the questionnaire items. The extraneous variable of the pandemic was not assessed in this study.

5.6 Recommendations

This section makes recommendations based on the results of the study. Recommendations are made for practice – and for HEIs specifically. This discussion is followed by further recommendations for future research.

5.6.1 Recommendations for personnel practitioners in HEIs

5.6.1.1 The value of EM training

The study has shown that EM skills are valuable for the quality of collegial relations and the manifestation of OCB. They can also inhibit CWB. Hence, it may prove valuable for people involved in recruitment processes to include emotional intelligence assessments in the selection criteria. Similarly, it would be beneficial for managers to make training courses in emotional intelligence available and encourage employees to enrol.

Another benefit of increased EM skills relates to the indirect effect these skills have on ITQ, via LMX. Enhancing EM skills means that LMX can be improved, which in turn decreases the likelihood of employees wanting to leave the organisation. Enhancing EM skills can therefore function as a retention technique.

The challenge of emotional suppression, highlighted by Trougakos et al. (2020), has been of concern during the COVID-19 pandemic and has been faced by employees in all industries. During a time of threat, employees are likely to reduce their emotional expression (Trougakos et al., 2020), which can increase their distress and decrease their physical and psychological wellbeing. This point underlines the importance of EM skills. With EM, employees are aware of emotions and know how to manage and express them effectively. Developing emotional intelligence skills is therefore valuable for individuals in their personal capacity but also at work, especially considering the possible changes which may be implemented following the pandemic.

The principle of reciprocity in social exchanges, as set out in the SET, highlights that both the employee and the leader have roles to play in determining the quality of the LMX. Enhancing the EM skills of both employees and leaders, through making relevant workshops available, can increase the quality of LMX. A high quality of LMX, in turn, leads to other positive outcomes – as shown in this study and previous

research. Similarly, enhancing employees' EM skills is valuable regarding the quality of TMX. This, too, leads to positive outcomes, as presented in this study.

5.6.1.2 Team and leadership dynamics

The findings of this study can help managers in HEIs to identify aspects that may affect the attitudes, motivation and behaviour of employees. Management would then be in a more favourable position to put measures in place not only to foster a positive environment and experience for employees but also to prevent the manifestation of negative behaviours.

The study has shown the value of high-quality collegial relationships in the form of both LMX and TMX. Providing employees with opportunities to strengthen their collegial relationships would thus be valuable. An example would be having regular social time together or engaging in team-building exercises. Formal workshops on topics such as building effective relationships and conflict management would also improve collegial interactions.

5.6.1.3 Management practices

The results regarding Hypothesis 3 and Hypothesis 4 provide insight for managers at HEIs. Managers can foster employee OCB-O and OCB-I by developing EM skills among employees who display poor emotional intelligence.

The value of EM skills and healthy collegial relationships is clear. However, EM skills might be seen as non-essential as they are not embedded in employees' key performance indicators. If management were to consider including these areas under the key performance indicators, employees might also see the practical value of investing in these skills. This would encourage them to engage in the relevant training.

These recommendations may seem more attractive for managers than other employees. It is therefore recommended that managers educate employees, for example through workshops, about the benefits of EM regarding collegial relationships and other organisational outcomes. Employees should be encouraged to commit to such interventions, and they should be educated about the personal benefits of EM. For example, research has shown that EM skills benefit not only the organisation and

collegial relationships but also other interpersonal relationships. The same skills are useful for managing stress and difficult situations in general.

5.6.2 Recommendations for future research

5.6.2.1 Research design and methodology

The first recommendation relates to sample size. In this study, a sample of 523 employees was used. It is recommended that a similar study be done with a larger sample, with the aim of increasing the generalisability of the results in the higher education context.

One of the limitations of this study was that participants were not asked to indicate which employee category (i.e. academic or administrative) their leader falls in. There are situations in which an academic employee reports to an administrative employee, and where an administrative employee has an academic as a leader. It is therefore recommended that, should a similar study be conducted, participants be asked to not only indicate their own employee category, but that of their leader, too. Considering this may provide a deeper understanding of the effect of collegial relationships on organisational outcomes.

The aim of the study was to focus only on the EM dimension of emotional intelligence. Hence, the questionnaire focused only on relevant aspects. It might be of value to examine other dimensions as well, so as to compare the role of EM versus other dimensions and their relationships with the outcome variables.

The results indicated that neither LMX nor TMX were significant mediating mechanisms between EM and CWB. However, it is possible that LMX and TMX may function as moderators. This possibility could be explored in future research. In addition, it may be valuable to conduct a study using a multilevel approach to investigate LMX and TMX. Such an approach may provide important information regarding the social interactions and might reveal differences between individual- and group-level results.

Finally, it may be required not only to revise the assessment of certain constructs, but also how they are manifested and their relationships with other constructs. This is needed in the light of the pandemic and its short, but also long-term impact on the

nature of work. For example, exercising one's EM skills may be easier when in personal or physical contact with a colleague. However, it may not be as easy to read someone's emotional state and requirements during an online meeting. The manifestation of EM skills then, would have to be more proactive when working virtually.

5.6.2.2 Contextual Issues

It would be valuable to conduct a similar study once the effects of the pandemic and resulting lockdown have abated. A comparison with the results of this study could provide insight into what influence the pandemic might have had on the outcomes of this study. For example, post-COVID, researchers might find a statistically significant association between LMX and OCB-O, between LMX and CWB, between TMX and CWB and between TMX and ITQ. These hypothesised relationships were not empirically supported in this study. The discussion section explained how lockdown could arguably have decreased the manifestation of extra-role behaviour as well as CWB. For example, working from home could make it difficult to engage in behaviour beyond one's core duties. Additionally, fewer people might have entertained thoughts about leaving their employer because of the uncertain times.

5.6.2.3 Other mediating variables

The results did not provide statistical support for an effect of LMX on either OCB-O or CWB. As noted in the discussion section, there might have been mediating variables that were not examined. Therefore, it would be valuable, as recommended by Götz et al. (2020), to explore what mechanisms are at play in the association between LMX and both OCB and CWB. This study focused on the effect of social exchanges, in the form of individual or interpersonal variables, on the dependent variables. It would be worthwhile to examine the influence of organisational or environmental factors on the dependent variables within the HEI context.

Raver (2013) suggests that future research should include the assessment of conflict when exploring CWB. The current researcher endorses that recommendation. Conflict, and other constructs such as job insecurity, are perceived as stressors. These constructs could be missing elements in the model regarding the manifestation of CWB. This point may shed light

on the lack of support found for some of the direct hypothesised pathways for CWB (Hypotheses 16 and 17).

5.6.3 Practical value

To make the outcomes of this study and its recommendations attractive to executive managers, it would be a good exercise for HR practitioners and managers to consider ways of quantifying the results. If management understands the tangible value of investing in employees' EM skills – such as the monetary value of quality collegial relationships as well as increased OCB and decreased CWB – they may more readily apply the necessary interventions. For example, a study could examine two highly performing teams that have shown similar high levels of productivity consistently over a certain period. One group could be given EM training, whereas the other group would not. At the end of the performance cycle, the teams' performance could be measured again to compare their respective financial impacts. Monetizing the value of interventions may prove useful for practitioners and could make such interventions attractive.

5.7 Conclusion

The main research question in this study was:

What roles do EM, LMX and TMX play in determining the key organisational outcomes within HEIs?

The question was furthermore broken down into the following sub-questions, all related to the HEI setting:

6. What effect does EM have on LMX and TMX?
7. What effect does EM have on employees' ITQ?
8. How do EM and the perceived quality of relationships, in the form of LMX and TMX, affect the manifestation of CWB among employees?
9. What roles do EM and relationship quality (LMX and TMX) play in determining the extent to which employees engage in OCB at work?
10. Are the two proposed models equivalent for both academic and administrative employees?

The results revealed that EM positively influenced the quality of all social exchanges and both forms of OCB. However, EM negatively influenced CWB. No statistical support was found for a direct relationship between EM and ITQ.

LMX positively influenced OCB-I but not OCB-O. No support was found for the relationship between EM and OCB-O with LMX as a mediator. However, LMX did mediate the relationship between EM and OCB-I and the relationship between EM and ITQ. A negative relationship between LMX and ITQ was found.

TMX had a direct positive influence on both OCB-I and OCB-O. In addition, TMX mediated the relationship between EM and both forms of OCB. No statistical support was found for a direct relationship between TMX and ITQ.

Neither LMX nor TMX had a statistically significant influence on CWB. Furthermore, neither LMX nor TMX played a mediating role in the relationship between EM and CWB.

Finally, the equivalence testing showed that the results for the hypothesised models held true for both academic and administrative employees in HEIs. There were a few differences in a couple of specific paths, which were pointed out and discussed.

This chapter has discussed the results for each hypothesised path. The limitations of the study have been considered, and recommendations for future research have been made. Recommendations for HEI managers have also been presented. Based on the preceding discussions, the following points summarise the main findings of this study:

1. EM lies at the heart of creating and maintaining good collegial relationships.

2. Quality collegial relationships also results in a high quality of LMX and TMX.

3. LMX and TMX are mediators of pro-social behaviour in the workplace, including OCB-O and OCB-I.

4. LMX and TMX do not mediate the relationship between EM and deviant behaviour in the workplace.

5. The models explored in this study were fairly robust across both academic and administrative employee groups.

REFERENCES

Acharya, A., S. Prakash, A., Saxena, P., & Nigam, A. (2013). Sampling: Why and how of it? *Indian Journal of Medical Specialities,4*(2), 330–333. https://doi.org/10.7713/ijms.2013.0032

Agbo, A. A. (2010). Cronbach's Alpha: Review of limitations and associated recommendations. *Journal of Psychology in Africa*, *20*(2), 233–239. https://doi.org/10.1080/14330237.2010.10820371

Akareem, H. S., & Hossain, S. S. (2016). Determinants of education quality: What makes students' perception different? *Open Review of Educational Research*, *3*(1), 52–67. https://doi.org/10.1080/23265507.2016.1155167

Akhlaghimofrad, A., & Farmanesh, P. (2021). The association between interpersonal conflict, turnover intention and knowledge hiding: The mediating role of employee cynicism and moderating role of emotional intelligence. *Management Science Letters*, *11*(7), 2081–2090. https://doi.org/10.5267/j.msl.2021.3.001

Akyel, Y. (2018). Analysis of relationships between coaches' organizational justice and leader-member exchange by structural equation modeling. *International Journal of Higher Education*, *7*(3), 197–208. https://doi.org/10.5430/ijhe.v7n3p197

Alfonso, L., Zenasni, F., Hodzic, S., & Ripoll, P. (2016). Understanding the mediating role of quality of work life on the relationship between emotional intelligence and organizational citizenship behaviors. *Psychological Reports*, *118*(1), 107–127. https://doi.org/10.1177/0033294115625262

Alhawsawi, S., & Jawhar, S. S. (2021). Negotiating pedagogical positions in higher education during COVID-19 pandemic: Teacher's narratives. *Heliyon*, *7*(6), e07158. https://doi.org/10.1016/j.heliyon.2021.e07158

Aljawarneh, N. M. S., & Atan, T. (2018). Linking tolerance to workplace incivility, service innovative, knowledge hiding, and job search behavior: The mediating role of employee cynicism. *Negotiation and Conflict Management Research*, *11*(4), 298–320. https://doi.org/10.1111/ncmr.12136

Allen, M. (2017). *The SAGE Encyclopedia of communication research methods*. SAGE Publications, Inc. https://doi.org/10.4135/9781483381411

Allen, M. P. (Ed.). (1997). The problem of multicollinearity. In *Understanding Regression Analysis* (pp. 176–180). Springer US. https://doi.org/10.1007/978-0-585-25657-3_37

AlMazrouei, S.A.S., Dahalan, N., & Faiz, M. H. (2015). The impact of emotional intelligence dimensions of employee engagement. *International Journal of Management and Commerce Innovations, 3*(1), 376–387.

Aman-Ullah, A., Aziz, A., & Ibrahim, H. (2020). A systematic review of employee retention: What's next in Pakistan? *Journal of Contemporary Issues and Thought*, *10*, 36–45. https://doi.org/10.37134/jcit.vol10.sp.4.2020

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*, 411– 423. http://dx.doi.org.ez.sun.ac.za/10.1037/0033-2909.103.3.411

Anggraeni, A. I., Dwiatmadja, C., & Yuniawan, A. (2017). The role of psychological contract on employee commitment and organisational citizenship behaviour: A study of Indonesian young entrepreneurs in management action. *SA Journal of Industrial Psychology*, *43*(0), 9. https://doi.org/10.4102/sajip.v43i0.1409

Anglim, J., Morse, G., Dunlop, P. D., Minbashian, A., & Marty, A. (2020). Predicting trait emotional intelligence from HEXACO personality: Domains, facets, and the general factor of personality. *Journal of Personality*, *88*(2), 324–338. https://doi.org/10.1111/jopy.12493

Aoyagi, M. W., Cox, R. H., & McGuire, R. T. (2008). Organizational citizenship behavior in sport: relationships with leadership, team cohesion, and athlete satisfaction. *Journal of Applied Sport Psychology*, *20*(1), 25–41. https://doi.org/10.1080/10413200701784858

Arel-Bundock, V., & Pelc, K. J. (2018). When can multiple imputation improve regression estimates? *Political Analysis*, *26*(2), 240–245. https://doi.org/10.1017/pan.2017.43

Aristovnik, A., Keržič, D., Ravšelj, D., Tomaževič, N., & Umek, L. (2020). Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability*, *12*(20), 8438. https://doi.org/10.3390/su12208438

Arumi, M. S., Aldrin, N., & Murti, T. R. (2019). Effect of organizational culture on organizational citizenship behavior with organizational commitment as a mediator. *International Journal of Research in Business and Social Science*, *8*(4), 124–132. http://dx.doi.org/10.20525/ijrbs.v8i4.274

Ashkanasy, N. M., & Humphrey, R. H. (2011). Current emotion research in organizational behavior. *Emotion Review*, *3*(2), 214–224. https://doi.org/10.1177/1754073910391684

Aw, V. K. J., & Ayoko, O. B. (2017). The impact of followers' conflict behaviors on teams' transformational leadership, team member exchange and engagement. *International Journal of Conflict Management*, *28*(4), 509–532. https://doi.org/10.1108/IJCMA-04-2016-0020

Baba, M. M. (2020). Navigating COVID-19 with emotional intelligence. *International Journal of Social Psychiatry*, *66*(8), 810–820. https://doi.org/10.1177/0020764020934519

Baltaru, R.-D. (2018). Do non-academic professionals enhance universities' performance? Reputation vs. organisation. *Studies in Higher Education. 44*(7). http://www.tandfonline.com/doi/abs/10.1080/03075079.2017.1421156

Baltaru, R.-D., & Soysal, Y. N. (2018). Administrators in higher education: Organizational expansion in a transforming institution. *Higher Education*, *76*(2), 213–229. https://doi.org/10.1007/s10734-017-0204-3

Bandalos, D. L. (2014). Relative performance of categorical diagonally weighted least squares and robust maximum likelihood estimation. *Structural Equation Modeling: A Multidisciplinary Journal*, *21*(1), 102–116. https://doi.org/10.1080/10705511.2014.859510

Barnes, N., du Plessis, M., & Frantz, J. (2021). Perceived career management challenges of academics at a South African university. *SA Journal of Human Resource Management*, *19*(a1515). https://doi.org/10.4102/sajhrm.v19i0.1515

Bar-On, R. (1997). *Emotional quotient inventory: Technical manual*. Toronto: Multi-Health Systems.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173

Bar-On, R., Maree, K., & Elias, M. (2007). *Educating people to be emotionally intelligent*. Heinemann Publishers (Pty) Ltd.

Barrett, P. (2007). Structural equation modelling: Adjudging model fit. *Personality and Individual Differences*, *42*(5), 815–824. https://doi.org/10.1016/j.paid.2006.09.018

Bebbington, W. (2021). Leadership strategies for a higher education sector in flux. *Studies in Higher Education*, *46*(1), 158–165. https://doi.org/10.1080/03075079.2020.1859686

Belikov, O., VanLeeuwen, C. A., Veletsianos, G., Johnson, N., & Prusko, P. T. (2021). Professional and personal impacts experienced by faculty stemming from the intersection of the Covid-19 pandemic and racial tensions. *Journal of Interactive Media in Education*, *2021*(1), 8. https://doi.org/10.5334/jime.647

Belli, S., & Broncano, F. (2017). Trust as a meta-emotion. *Metaphilosophy*, *48*(4), 430–448. https://doi.org/10.1111/meta.12255

Benjamin, A. (2012). Human resource development climate as a predictor of citizenship behaviour and voluntary turnover intentions in the banking sector. *International Business Research*, *5*(1), 110–119. http://dx.doi.org/10.5539/ibr.v5n1p110

Bennett, R. J., & Robinson, S. L. (2000). Development of a measure of workplace deviance. *Journal of Applied Psychology*, *85*(3), 349–360. https://doi.org/10.1037/0021-9010.85.3.349

Bentler, P. M. (2006). *EQS 6 Structural equations program manual*. Multivariate Software, Inc

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, *107*(2), 238–246. https://doi.org/10.1037/0033-2909.107.2.238

Bhagat, S., & Kim, D. J. (2020). Higher education amidst COVID-19: Challenges and silver lining. *Information Systems Management, 37*(4), 366-371. 10.1080/10580530.2020.1824040

Bhtanagar, D. (2013). Exploratory study on relationship between emotional competency and intention to quit among the faculty members. *EXCEL International Journal of Multidisciplinary Management Studies*, *3*(3), 15-24. Available at: http://www.zenithresearch.org.in/images/stories/pdf/2013/MARCH/EIJMMS/2_EIJMMS_VOL3_ISSUE3_MARCH2013.pdf

Blanca, M. J., Arnau, J., López-Montiel, D., Bono, R., & Bendayan, R. (2013). Skewness and kurtosis in real data samples. *Methodology: European Journal of Research Methods for the Behavioral and Social Sciences, 9*(2), 78–84. https://doi.org/10.1027/1614-2241/a000057

Blau, P. M. (1964). *Exchange and power in social life*. Wiley.

Bollen, K. A., & Long, J. S. (1993). *Testing Structural Equation Models*. SAGE.

Bothma, C.F.C., & Roodt, G. (2013). The validation of the turnover intention scale. *SA Journal of Human Resource Management, 11*(1), 1–12. https://doi.org/10.4102/sajhrm.v11i1.507

Bowen, H. P., & Wiersema, M. F. (1999). Matching method to paradigm in strategy research: Limitations of cross-sectional analysis and some methodological alternatives. *Strategic Management Journal*, *20*(7), 625. https://doi.org/10.1002/(SICI)1097-0266(199907)20:7%3C625::AID-SMJ45%3E3.0.CO;2-V

Bowen, P., Rose, R., & Pilkington, A. (2017). Mixed methods-theory and practice. Sequential, explanatory approach. *International Journal of Quantitative and Qualitative Research Methods*, *5*(2), 10–27. https://www.eajournals.org/journals/international-journal-of-quantitative-and-

qualitative-research-methods-ijqqrm/vol-5-issue-2-may-2017/mixed-methods-theory-practice-sequential-explanatory-approach/

Boyatzis, R. E. (2009). Competencies as a behavioral approach to emotional intelligence. *Journal of Management Development*, *28*(9), 749–770. https://doi.org/10.1108/02621710910987647

Boyatzis, R. E., & Goleman, D. (2007). *Emotional competency inventory (now the emotional and social competency inventory)*. Hay Group.

Brackett, M. A., Rivers, S. E., & Salovey, P. (2011). Emotional intelligence: Implications for personal, social, academic, and workplace success. *Social and Personality Psychology Compass*, *5*(1), 88–103. https://doi.org/10.1111/j.1751-9004.2010.00334.x

Brackett, M., Rivers, S., Shiffman, S., Lerner, N., & Salovey, P. (2006). Relating emotional abilities to social functioning: A comparison of self-report and performance measures of emotional Intelligence. *Journal of Personality and Social Psychology*, *91*, 780–795. https://doi.org/10.1037/0022-3514.91.4.780

Bray, N. J., & Williams, L. (2017). A quantitative study on organisational commitment and communication satisfaction of professional staff at a master's institution in the United States. *Journal of Higher Education Policy and Management*, *39*(5), 487–502. https://doi.org/10.1080/1360080X.2017.1354757

Breen, J. M. (2019). Thriving in higher education: Creating the new normal through resilience. In A. Visvizi, M. D. Lytras, & A. Sarirete (Eds.), *Management and administration of higher education institutions at times of change* (pp. 85–98). Emerald Publishing Limited. https://doi.org/10.1108/978-1-78973-627-420191013

Brink, E. R. (2014). *The relationships between the HEXACO personality dimensions and organisational citizenship behaviours within the civil engineering sector* [Thesis, Stellenbosch: Stellenbosch University]. https://scholar.sun.ac.za:443/handle/10019.1/96098

Brosseau-Liard, P., Savalei, V., & Li, L. (2012). An investigation of the sample performance of two nonnormality corrections for RMSEA. *Multivariate Behavioral Research*, *47*, 904–930. https://doi.org/10.1080/00273171.2012.715252

Brown, T. A. (2006). *Confirmatory factor analysis for applied research.* The Guilford Press.

Brown, T. A. (2015). *Confirmatory factor analysis for applied research (2 nd ed)*. Guilford Publications.

Buijnath, N., Christiansen, I. M., & Ogude, N. (2007). Institutional self-representation at South African higher education institutions. *South African Journal of Higher Education, 21*(3), 400–411. https://journals.co.za/doi/pdf/10.10520/EJC37344

Buruck, G., Dörfel, D., Kugler, J., & Brom, S. S. (2016). Enhancing well-being at work: The role of emotion regulation skills as personal resources. *Journal of Occupational Health Psychology*, *21*(4), 480–493. https://doi.org/10.1037/ocp0000023

Butt, A., Lodhi, R. N., & Shahzad, M. K. (2020). Staff retention: A factor of sustainable competitive advantage in the higher education sector of Pakistan. *Studies in Higher Education*, *45*(8), 1584–1604. https://doi.org/10.1080/03075079.2019.1711038

Byrne, B. M. (2004). Testing for multigroup invariance using AMOS graphics: A road less traveled. *Structural Equation Modeling: A Multidisciplinary Journal*, *11*(2), 272–300. https://doi.org/10.1207/s15328007sem1102_8

Byrne, B. M. (2006). *Structural equation modeling with EQS: Basic concepts, applications, and programming* (2nd ed.). Lawrence Erlbaum.

Camilleri, M. A. (2021). Evaluating service quality and performance of higher education institutions: A systematic review and a post-COVID-19 outlook. *International Journal of Quality and Service Sciences*, *13*(2), 268–281. https://doi.org/10.1108/IJQSS-03-2020-0034

Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). *The Michigan organizational assessment questionnaire* [Unpublished manuscript, University of Michigan, Ann Arbor, 71-138].

Carmeli, A. (2003). The relationship between emotional intelligence and work attitudes, behavior and outcomes: An examination among senior managers. *Journal of Managerial Psychology*, *18*(8), 788–813. https://doi.org/10.1108/02683940310511881

Carmeli, A., & Josman, Z. E. (2006). The relationship among emotional intelligence, task performance, and organizational citizenship behaviors. *Human Performance*, *19*(4), 403–419. https://doi.org/10.1207/s15327043hup1904_5

Carnevale, J. B., Huang, L., Uhl-Bien, M., & Harris, S. (2020). Feeling obligated yet hesitant to speak up: Investigating the curvilinear relationship between LMX and employee promotive voice. *Journal of Occupational and Organizational Psychology*, *93*(3), 505–529. https://doi.org/10.1111/joop.12302

Casciaro, T., & Lobo, M. S. (2008). When competence is irrelevant: The role of interpersonal affect in task-related ties. *Administrative Science Quarterly*, *53*(4), 655–684. https://doi.org/10.2189/asqu.53.4.655

Charoensukmongkol, P., & Phungsoonthorn, T. (2020). The effectiveness of supervisor support in lessening perceived uncertainties and emotional exhaustion of university employees during the COVID-19 crisis: The constraining role of organizational intransigence. *The Journal of General Psychology*, *148*(4), 431–450. https://doi.org/10.1080/00221309.2020.1795613

Chehrazi, S., Hoseini Shakib, M., & Askari Azad, M. H. (2014). A study on the relationship between emotional intelligence, organizational commitment and organizational citizenship behavior. *Management Science Letters*, *4*(6), 1103–1106. https://doi.org/10.5267/j.msl.2014.5.022

Chen, Z. (2018). A literature review of team-member exchange and prospects. *Journal of Service Science and Management*, *11*(4), 433. https://doi.org/10.4236/jssm.2018.114030

Chen, M., & Land, K. C. (1990). Socioeconomic status (SES) and the health belief model: LISREL analysis of unidimensionality versus multidimensional formulations. *Journal of Social Behavior and Personality, 5*(5), 263–248.

Cheng, T., Huang, G., Lee, C., & Ren, X. (2012). Longitudinal effects of job insecurity on employee outcomes: The moderating role of emotional intelligence and the leader-member exchange. *Asia Pacific Journal of Management*, *29*(3), 709–728. https://doi.org/10.1007/s10490-010-9227-3

Chernyak-Hai, L., & Tziner, A. (2014). Relationships between counterproductive work behavior, perceived justice and climate, occupational status, and leader-member exchange. *Revista de Psicología Del Trabajo y de Las Organizaciones*, *30*(1), 1–12. https://doi.org/10.5093/tr2014a1

Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural equation modeling*, *9*(2), 233-255. https://psycnet.apa.org/doi/10.1207/S15328007SEM0902_5

Chew, B. H., Zain, A. M., & Hassan, F. (2013). Emotional intelligence and academic performance in first and final year medical students: A cross-sectional study. *BMC Medical Education*, *13*(1), 44. https://doi.org/10.1186/1472-6920-13-44

Chib, S. (2016). Study on organizational commitment and workplace empowerment as predictors of organization citizenship behaviour. *Scholedge International Journal of Management Studies, 3*(3), 63 – 73. http://dx.doi.org/10.19085%2fjournal.sijmd030301

Child, D. (2006). *The essentials of factor analysis.* A&C Black.

Chin, W. W. (1998). The partial least squares approach to structural equation modelling. In G. A. Marcoulides (Ed.), *Modern methods of business research* (pp. 295–358). Lawrence Erlbaum Associates.

Chung, M., & Jeon, A. (2020). Social exchange approach, job satisfaction, and turnover intention in the airline industry. *Service Business*, *14*(2), 241–261. https://doi.org/10.1007/s11628-020-00416-7

Clarke, N. (2010). Emotional intelligence and its relationship to transformational leadership and key project manager competences. *Project Management Journal, 41*(2), 5–20. https://doi.org/10.1002/pmj.20162

Clarke, N., & Mahadi, N. (2017). Differences between follower and dyadic measures of LMX as mediators of emotional intelligence and employee performance, well-being, and turnover intention. *European Journal of Work and Organizational Psychology*, *26*(3), 373–384. https://doi.org/10.1080/1359432X.2016.1263185

Cletus, H. E., Mahmood, N. A., Umar, A., & Ibrahim, A. D. (2018). Prospects and challenges of workplace diversity in modern day organizations: A critical review. *HOLISTICA–Journal of Business and Public Administration*, *9*(2), 35-52. https://doi.org/10.2478/hjbpa-2018-0011

Cohen, J. (1988). Set correlation and contingency tables. *Applied Psychological Measurement*, *12*(4),425-434. https://psycnet.apa.org/doi/10.1177/014662168801200410

Comrey, L.A. & Lee, H.B. (1992). *A first course in factor analysis* (2nd ed.). Lawrence Erlbaum Associates.

Cooper, R. K. (1997). Applying emotional intelligence in the workplace. *Training & Development*, *51*(12), 31–39. https://link.gale.com/apps/doc/A20251750/AONE?u=anon~d54c0a3&sid=googleScholar&xid=418eb09b

Cortina, J. M. (1993). What is coefficient alpha?: An examination of theory and applications. *Journal of Applied Psychology*, *78*(1), 98–104. https://doi.org/10.1037/0021-9010.78.1.98

Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation*, *10*(7), 1–9. https://doi.org/10.7275/jyj1-4868

Côté, S. (2014). Emotional intelligence in organizations. *Annual Review of Organizational Psychology and Organizational Behavior, 1*, 459 – 488. http://dx.doi.org/10.1146/annurev-orgpsych-031413-091233

Côté, S., DeCelles, K. A., McCarthy, J. M., Van Kleef, G. A., & Hideg, I. (2011). The jekyll and hyde of emotional intelligence: Emotion-regulation knowledge facilitates both

prosocial and interpersonally deviant behavior. *Psychological Science*, *22*(8), 1073–1080. https://doi.org/10.1177/0956797611416251

Côté, S., & Miners, C. T. H. (2006). Emotional Intelligence, Cognitive Intelligence, and Job Performance. *Administrative Science Quarterly*, *51*(1), 1–28. https://doi.org/10.2189/asqu.51.1.1

Council of Higher Education [CHE]. (2016). South African higher education review: Two decades of democracy. Council of Higher Education (CHE).

Coyle-Shapiro, J. A.-M., & Kessler, I. (2002). Exploring reciprocity through the lens of the psychological contract: Employee and employer perspectives. *European Journal of Work and Organizational Psychology*, *11*(1), 69–86. https://doi.org/10.1080/13594320143000852

Cropanzano, R., Anthony, E. L., Daniels, S. R., & Hall, A. V. (2017). Social exchange theory: A critical review with theoretical remedies. *Academy of Management Annals*, *11*(1), 479–516. https://doi.org/10.5465/annals.2015.0099

Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, *31*(6), 874–900. https://doi.org/10.1177/0149206305279602

Dai, Y.-D., Hou, Y.-H., Wang, C.-H., Zhuang, W.-L., & Liu, Y.-C. (2020). TMX, social loafing, perceived accountability and OCB. *The Service Industries Journal*, *40*(5–6), 394–414. https://doi.org/10.1080/02642069.2018.1500554

Daipuria, P. (2016). Emotional intelligence as a predictor of personal effectiveness: a study of health-care professionals in New Delhi. *FIIB Business Review*, *5*(1), 58–67. https://doi.org/10.1177/2455265820160108

Dasgupta, P. (2020). Effect of organizational support, leader-member exchange, team-member exchange and the effect of mediation by affective and team commitments on the organizational citizenship behavior of nurses. *IUP Journal of Organizational Behavior*, *19*(2), 27–54. https://repository.stcloudstate.edu/psyc_etds/8?utm_source=repository.stcloudstate.edu%2Fpsyc_etds%2F8&utm_medium=PDF&utm_campaign=PDFCoverPages

DeAngelo, L., Mason, J., & Winters, D. (2016). Faculty engagement in mentoring undergraduate students: How institutional environments regulate and promote extra-role behavior. *innovative higher education. 41*(4), 317–332. https://doi.org/10.1007/s10755-015-9350-7

Delanty, G., & Strydom, P. (2003). *Philosophies of social science: The classic and contemporary readings*. Open University Press.

Department of Higher Education and Training [DHET]. (2019.). *Directorate: Higher education management information systems*. Retrieved May 26, 2021, from https://www.dhet.gov.za/SitePages/Higher-Education-Management-Information-System.aspx?RootFolder=%2FHEMIS%2FStaff%2F2019%20Staff%20Tables%20for%20all%20institutions&FolderCTID=0x0120001A2C7183BA3E3B44BFA35ECDA2510D0B&View=%7BD5EDEB6C%2D4BFC%2D4717%2D8C3A%2D86010348ADEA%7D

DeShong, H. L., Helle, A. C., Lengel, G. J., Meyer, N., & Mullins-Sweatt, S. N. (2017). Facets of the dark triad: Utilizing the five-factor model to describe Machiavellianism. *Personality and Individual Differences, 105*, 218–223. https://doi.org/10.1016/j.paid.2016.09.053

De Souza, A. C., Alexandre, N. M. C., & Guirardello, E. de B. (2017). Psychometric properties in instruments evaluation of reliability and validity. *Epidemiologia e Serviços de Saúde, 26*, 649–659. https://doi.org/10.5123/s1679-49742017000300022

De Vito, L., Brown, A., Bannister, B., Cianci, M., & Mujtaba, B. G. (2016). Employee motivation based on the hierarchy of needs, expectancy and the two-factor theories applied with higher education employees. *IJAMEE, 3*(1). http://www.ijamee.info/index.php/IJAMEE/article/view/37

Diamantopoulos, A., & Siguaw, J. A. (2000). *Introducing LISREL*. Sage Publications.

Dirican, A. H., & Erdil, O. (2020). The influence of ability-based emotional intelligence on discretionary workplace behaviors. *Journal of Human Behavior in the Social Environment, 30*(3), 369–382. https://doi.org/10.1080/10911359.2019.1687388

Dohoo, I. R., Ducrot, C., Fourichon, C., Donald, A., & Hurnik, D. (1997). An overview of techniques for dealing with large numbers of independent variables in epidemiologic studies. *Preventive Veterinary Medicine*, *29*(3), 221–239. https://doi.org/10.1016/S0167-5877(96)01074-4

Donthu, N., & Gustafsson, A. (2020). Effects of COVID-19 on business and research. *Journal of Business Research*, *117*, 284–289. https://doi.org/10.1016/j.jbusres.2020.06.008

Douven, I. (2018). A Bayesian perspective on Likert scales and central tendency. *Psychonomic Bulletin & Review*, *25*(3), 1203–1211. https://doi.org/10.3758/s13423-017-1344-2

Drašler, V., Bertoncelj, J., Korošec, M., Pajk Žontar, T., Poklar Ulrih, N., & Cigić, B. (2021). Difference in the attitude of students and employees of the University of Ljubljana towards work from home and online education: lessons from COVID-19 pandemic. *Sustainability*, *13*(9), 5118. https://doi.org/10.3390/su13095118

Dredge, D., Airey, D., & Gross, M. J. (2014). *The Routledge handbook of tourism and hospitality education*. Routledge.

Drigas, A. S., & Papoutsi, C. (2018). A new layered model on emotional intelligence. *Behavioral Sciences*, *8*(5), 45. https://doi.org/10.3390/bs8050045

Drigas, A., & Papoutsi, C. (2019). Emotional Intelligence as an important asset for HR in Organizations: Leaders and employees. *International Journal of Advanced Corporate Learning (IJAC)*, *12*, 58–66. https://doi.org/10.3991/ijac.v12i1.9637

Dulebohn, J. H., Bommer, W. H., Liden, R. C., Brouer, R. L., & Ferris, G. R. (2012). A meta-analysis of antecedents and consequences of leader-member exchange: Integrating the past with an eye toward the future. *Journal of Management*, *38*(6), 1715–1759. https://doi.org/10.1177/0149206311415280

Dulewicz, V., & Higgs, M. (2004). Can emotional intelligence be developed? *The International Journal of Human Resource Management*, *15*(1), 95–111. https://doi.org/10.1080/0958519032000157366

Dulewicz, V., & Higgs, M. (2005). Assessing leadership styles and organisational context. *Journal of Managerial Psychology*, *20*(2), 105–123. https://doi.org/10.1108/02683940510579759

Duyan, M., & Yıldız, S. M. (2018). The effect of leader-member exchange on job performance of academic staff: An empirical evidence from higher education institutions. *Journal of Human Sciences*, *15*(2), 1129–1136. Retrieved from https://www.j-humansciences.com/ojs/index.php/IJHS/article/view/5162

Eaton, P., Frank, B., Johnson, K., & Willoughby, S. (2019). Comparing exploratory factor models of the brief electricity and magnetism assessment and the conceptual survey of electricity and magnetism. *Physical Review. Physics Education Research*, *15*(2), 020133. https://doi.org/10.1103/PhysRevPhysEducRes.15.020133

Elche, D., Ruiz-Palomino, P., & Linuesa-Langreo, J. (2020). Servant leadership and organizational citizenship behavior: The mediating effect of empathy and service climate. *International Journal of Contemporary Hospitality Management*, *32*(6), 2035–2053. http://dx.doi.org/10.1108/IJCHM-05-2019-0501

Els, C., Viljoen, J., de Beer, L., & Brand-Labuschagne, L. (2016). The mediating effect of leader-member exchange between strengths use and work engagement. *Journal of Psychology in Africa*, *26*(1), 22–28. https://doi.org/10.1080/14330237.2016.1149278

Emami, S. M. (2014). The effects of emotional intelligence on counterproductive work behaviors. *Management Science Letters, 4*, 1797–1800. http://www.growingscience.com/msl/Vol4/msl_2014_208.pdf

Emmerling, R. J., Shanwal, V. K., & Mandal, M. K. (2008). *Emotional Intelligence: Theoretical and Cultural Perspectives*. Nova Publishers.

Engelbrecht, A., & Samuel, O. M. (2019). The effect of transformational leadership on intention to quit through perceived organisational support, organisational justice and trust. *South African Journal of Economic and Management Sciences*, *22*(1), 1–8. https://doi.org/10.4102/sajems.v22i1.2338

Erasmus, B. J., Grobler, A., & van Niekerk, N. M. (2015). Employee retention in a higher education institution: An organisational development perspective. *Progressio*, *37*(2), 33–63. http://hdl.handle.net/10500/20975

Eringa, K., Caudron, L. N., Rieck, K., Xie, F., & Gerhardt, T. (2015). How relevant are Hofstede's dimensions for inter-cultural studies? A replication of Hofstede's research among current international business students. *Research in Hospitality Management*, *5*(2), 187–198. https://doi.org/10.1080/22243534.2015.11828344

Esop, M., & Timms, C. (2019). Relevance of organisational support on academics' affective commitment and turnover intentions. *Journal of Applied Research in Higher Education*, *11*(1), 118–128. https://doi.org/10.1108/JARHE-07-2018-0126

Estel, V., Schulte, E.-M., Spurk, D., & Kauffeld, S. (2019). LMX differentiation is good for some and bad for others: A multilevel analysis of effects of LMX differentiation in innovation teams. *Cogent Psychology*, *6*(1), 1614306. https://doi.org/10.1080/23311908.2019.1614306

Evans, L., Homer, M., & Rayner, S. (2013). Professors as academic leaders: The perspectives of 'the led.' *Educational Management Administration & Leadership*, *41*(5), 674–689. https://doi.org/10.1177/1741143213488589

Extremera, N., Mérida-López, S., Quintana-Orts, C., & Rey, L. (2020). On the association between job dissatisfaction and employee's mental health problems: Does emotional regulation ability buffer the link? *Personality and Individual Differences*, *155*, 109710. https://doi.org/10.1016/j.paid.2019.109710

Fabrigar, L. R., Wegner, D. T., MacCullum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, *4*, 272–299. doi:10.1037/1082-989X.4.3.272

Farmer, S. M., Van Dyne, L., & Kamdar, D. (2015). The contextualized self: How team–member exchange leads to coworker identification and helping OCB. *Journal of Applied Psychology*, *100*(2), 583–595. https://doi.org/10.1037/a0037660

Farris, D. (2018). Organisational citizenship behaviour in university administrative committees. *Journal of Higher Education Policy and Management*, *40*(3), 224–238. https://doi.org/10.1080/1360080X.2018.1462438

Fasan, M., Soerger Zaro, E., Soerger Zaro, C., Porco, B., & Tiscini, R. (2021). An empirical analysis: Did green supply chain management alleviate the effects of COVID-19? *Business Strategy and the Environment*, *30*(5), 2702–2712. https://doi.org/10.1002/bse.2772

Fernandez, S. (2021). Effective teaching, characteristics of emotional intelligence and multicultural education. *Academy of Educational Leadership Journal*, *25*(5), 1–2. https://www.proquest.com/docview/2540836949/abstract/9FEFA497F8CB4577PQ/1

Ferrando, P. J., & Lorenzo-Seva, U. (2000). Unrestricted versus restricted factor analysis of multidimensional test items: Some aspects of the problem and some suggestions. *Psicologica, 21*, 301 – 323. http://www.redalyc.org/articulo.oa?id=16921206

Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage.

Florenthal, B., Tostikov-Mast, Y., & Yilmazsoy, N.B. (2009). Understanding organisational culture from multiple perspectives: Faculty-staff relations analysis. Journal of Academic Administration in Higher Education, 5(1), 31–43.

Fox, S., & Spector, P. E. (2009). Organizational citizenship behavior checklist (OCB-C). Retrieved from https://paulspector.com/assessments/pauls-no-cost-assessments/organizational-citizenship-behavior-checklist-ocb-c/

Fox, S., Spector, P. E., Goh, A., Bruursema, K., & Kessler, S. R. (2009). *The deviant citizen: Clarifying the measurement of organizational citizenship behavior and its relation to counterproductive work behavior*. Loyola University Chicago.

Fox, S., Spector, P. E., & Miles, D. (2001). Counterproductive Work Behavior (CWB) in response to job stressors and organizational justice: Some mediator and moderator tests for autonomy and emotions. *Journal of Vocational Behavior*, *59*(3), 291–309. https://doi.org/10.1006/jvbe.2001.1803

Furr, R. M., & Bacharach, V. R. (2008). *Psychometrics: An introduction*. Sage.

Furunes, T., Mykletun, R. J., Einarsen, S., & Glasø, L. (2015). Do low-quality leader-member relationships matter for subordinates? Evidence from three samples on the validity of the Norwegian LMX Scale. *Nordic Journal of Working Life Studies*, *5*(2), 71. https://doi.org/10.19154/njwls.v5i2.4794

Gandy, R., Harrison, P., & Gold, J. (2018). Talent management in higher education: Is turnover relevant? *European Journal of Training and Development*, *42*(9), 597–610. https://doi.org/10.1108/EJTD-11-2017-0099

Garg, S., & Dhar, R. (2017). Employee service innovative behavior: The roles of leader-member exchange (LMX), work engagement, and job autonomy. *International Journal of Manpower*, *38*(2), 242–258. https://doi.org/10.1108/IJM-04-2015-0060

Gedro, J., Allain, N. M., De-Souza, D., Dodson, L., & Mawn, M. V. (2020). Flattening the learning curve of leadership development: Reflections of five women higher education leaders during the Coronavirus pandemic of 2020. *Human Resource Development International*, *23*(4), 395–405. https://doi.org/10.1080/13678868.2020.1779911

Gerstner, C. R., & Day, D. V. (1997). Meta-analytic review of leader–member exchange theory: Correlates and construct issues. *Journal of Applied Psychology*, *82*(6), 827–844. https://doi.org/10.1037/0021-9010.82.6.827

Glen, C. (2006). Key skills retention and motivation: The war for talent still rages and retention is the high ground. *Industrial and Commercial Training*, *38*(1), 37–45. http://dx.doi.org.ez.sun.ac.za/10.1108/00197850610646034

Gliem, J. A., & Gliem, R. R. (2003). *Calculating, Interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales* [Conference Paper]. Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education, Columbus. https://scholarworks.iupui.edu/handle/1805/344

Goleman, D. (1998). *Working with emotional intelligence*. Bantam.

Gorard, S. (2003). *Quantitative methods in social science*. Continuum.

Görgens-Ekermans, G., & Brand, T. (2012). Emotional intelligence as a moderator in the stress–burnout relationship: A questionnaire study on nurses. *Journal of Clinical Nursing*, *21*(15–16), 2275–2285. https://doi.org/10.1111/j.1365-2702.2012.04171.x

Görgens-Ekermans, G., & Roux, C. (2021). Revisiting the emotional intelligence and transformational leadership debate: (how) does emotional intelligence matter to effective leadership? *SA Journal of Human Resource Management, 19*(2), 1–13. https://doi.org/10.4102/sajhrm.v19i0.1279

Gottfredson, R. K., & Aguinis, H. (2017). Leadership behaviors and follower performance: Deductive and inductive examination of theoretical rationales and underlying mechanisms. *Journal of Organizational Behavior*, *38*(4), 558–591. https://doi.org/10.1002/job.2152

Götz, M., Donzallaz, M., & Jonas, K. (2020). Leader–member exchange fosters beneficial and prevents detrimental workplace behavior: Organizational identification as the linking pin. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.01788

Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly*, *6*(2), 219–247. https://doi.org/10.1016/1048-9843(95)90036-5

Grant, A. M. (2013). Rocking the boat but keeping it steady: The role of emotion regulation in employee voice. *Academy of Management Journal*, *56*(6), 1703–1723. https://doi.org/10.5465/amj.2011.0035

Green, J. P., Tonidandel, S., & Cortina, J. M. (2016). Getting through the gate: Statistical and methodological issues raised in the reviewing process. *Organizational Research Methods*, *19*(3), 402–432. https://doi.org/10.1177/1094428116631417

Groves, K. S., Pat McEnrue, M., & Shen, W. (2008). Developing and measuring the emotional intelligence of leaders. *Journal of Management Development*, *27*(2), 225–250. https://doi.org/10.1108/02621710810849353

Gunzler, D., Chen, T., Wu, P., & Zhang, H. (2013). Introduction to mediation analysis with structural equation modeling. *Shanghai Archives of Psychiatry*, *25*(6), 390–394. https://doi.org/10.3969/j.issn.1002-0829.2013.06.009

Gupta, V., Agarwal, U. A., & Khatri, N. (2016). The relationships between perceived organizational support, affective commitment, psychological contract breach, organizational citizenship behaviour and work engagement. *Journal of Advanced Nursing*, *72*(11), 2806–2817. https://doi.org/10.1111/jan.13043

Guthrie, J., Parker, L. D., Dumay, J., & Milne, M. J. (2019). What counts for quality in interdisciplinary accounting research in the next decade: A critical review and reflection. *Accounting, Auditing & Accountability Journal*, *32*(1), 2–25. https://doi.org/10.1108/AAAJ-01-2019-036

Haberman, S. J. (1973). The analysis of residuals in cross-classified tables. *Biometrics*, *29*(1), 205–220. https://doi.org/10.2307/2529686

Hair, J. J. F. (2020). Next-generation prediction metrics for composite-based PLS-SEM. *Industrial Management & Data Systems*, *121*(1), 5–11. https://doi.org/10.1108/IMDS-08-2020-0505

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Prentice-Hall.

Hair, J. F., Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2013). *Multivariate data analysis: Pearson new international edition*. Pearson Education, Limited. http://ebookcentral.proquest.com/lib/sun/detail.action?docID=5174093

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis.* (7th ed.). Pearson Education.

Hair, J. F., Celsi, M., Money, A., Samouel, P., & Page, M. (2016). *Essentials of business research methods* (3rd ed.). Routledge.

Han, Y., Sears, G., & Zhang, H. (2018). Revisiting the "give and take" in LMX: Exploring equity sensitivity as a moderator of the influence of LMX on affiliative and change-oriented OCB. *Personnel Review*, *47*(2), 555–571. https://doi.org/10.1108/PR-05-2017-0152

Hayes, T., Usami, S., Jacobucci, R., & McArdle, J. J. (2015). Using Classification and Regression Trees (CART) and random forests to analyze attrition: Results from two simulations. *Psychology and Aging*, *30*(4), 911. https://doi.org/10.1037/pag0000046

Hayton, J. C., Allen, D. G., & Scarpello, V. (2004). Factor retention decisions in exploratory factor analysis: A tutorial on parallel analysis. *Organizational Research Methods*, *7*(2), 191–205. https://doi.org/10.1177/1094428104263675

He, J., Morrison, A. M., & Zhang, H. (2021). How high-performance HR practices and LMX affect employee engagement and creativity in hospitality. *Journal of Hospitality & Tourism Research*, *45*(8), 1360–1382. https://doi.org/10.1177/1096348021996800

Hedding, D. W., Greve, M., Breetzke, G. D., Nel, W., & van Vuuren, B. J. (2020). COVID-19 and the academe in South Africa: Not business as usual. *South African Journal of Science*, *116*(7–8), 1–3. https://doi.org/10.17159/sajs.2020/8298

Henard, D. H. (1998). Suppressor variable effects: Toward understanding an elusive data dynamic [Paper presented at the annual meeting of the Southwest Educational Research Association, Houston, TX]. ERIC Number: ED416215.

Henson, R. K., & Roberts, J. K. (2006). Use of exploratory factor analysis in published research: common errors and some comment on improved practice. *Educational and Psychological Measurement*, *66*(3), 393–416. https://doi.org/10.1177/0013164405282485

Hess, T. J., McNab, A. L., & Basoglu, K. A. (2014). Reliability generalization of perceived ease of use, perceived usefulness, and behavioral intentions. *MIS Quarterly*, *38*(1), 1–28. https://www.jstor.org/stable/26554866

Hidayah, S., & Harnoto, H. (2018). Role of Organizational Citizenship Behavior (OCB), Perception of Justice and Job Satisfaction on Employee Performance. *JDM (Jurnal Dinamika Manajemen)*, *9*(2), 170–178. https://doi.org/10.15294/jdm.v9i2.14191

Higher Education South Africa [HESA]. (2009, October). Making a difference: Universities contribution to the anti-poverty strategy. *Insight*, 1. Available at http://www.usaf.ac.za/wp-content/uploads/2016/09/HESA-Insight-No-1_October-20091.pdf

Hildreth, L. (2013). *Residual analysis for structural equation modeling. Graduate theses and dissertations.* [PhD, Iowa State University]. https://doi.org/10.31274/etd-180810-3494

Hofstede, G. (1984). Cultural dimensions in management and planning. *Asia Pacific Journal of Management*, *1*(2), 81–99. https://doi.org/10.1007/BF01733682

Horne, A. L. (2017). Offering prescriptions of leader–member exchanges towards developing academic talent in higher education. *Africa Education Review*, *14*(3–4), 175–195. https://doi.org/10.1080/18146627.2017.1279015

Hosain, M. S. (2018). Impact of emotional intelligence on turnover intentions of front-line bank employees of Bangladesh: The role of leadership. *International Journal of Business Insights and Transformation*, *12*(1), 6–16. https://ssrn.com/abstract=3415074

Hossen, M. M., Chan, T. J., & Hasan, N. A. M. (2020). Mediating Role of Job Satisfaction on Internal Corporate Social Responsibility Practices and Employee Engagement in Higher Education Sector. *Contemporary Management Research*, *16*(3), 207–227. https://doi.org/10.7903/cmr.20334

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55. https://doi.org/10.1080/10705519909540118

Hui-Hua, Z., & Schutte, N. S. (2015). Personality, emotional intelligence and other-rated task performance. *Personality and Individual Differences*, *87*, 298–301. https://doi.org/10.1016/j.paid.2015.08.013

Huppert, E., Cowell, J. M., Cheng, Y., Contreras-Ibáñez, C., Gomez-Sicard, N., Gonzalez-Gadea, M. L., Huepe, D., Ibanez, A., Lee, K., Mahasneh, R., Malcolm-Smith, S., Salas, N., Selcuk, B., Tungodden, B., Wong, A., Zhou, X., & Decety, J. (2019). The development of children's preferences for equality and equity across 13 individualistic and collectivist cultures. *Developmental Science*, *22*(2), e12729. https://doi.org/10.1111/desc.12729

Hwa, M. A. C., & Amin, H. (2016). Why emotion at work matters: Examining the influence of emotional labour and emotional intelligence on workplace behaviours among service workers in east Malaysia. *Kajian Malaysia : Journal of Malaysian Studies*, *34*(1), 79–105.

Iglesias-Pradas, S., Hernández-García, Á., Chaparro-Peláez, J., & Prieto, J. L. (2021). Emergency remote teaching and students' academic performance in higher education during the COVID-19 pandemic: A case study. *Computers in Human Behavior*, *119*, 106713. https://doi.org/10.1016/j.chb.2021.106713

Inceoglu, I., Thomas, G., Chu, C., Plans, D., & Gerbasi, A. (2018). Leadership behavior and employee well-being: An integrated review and a future research agenda. *The Leadership Quarterly*, *29*(1), 179–202. https://doi.org/10.1016/j.leaqua.2017.12.006

Jackson, D. L. (2003). Revisiting sample size and number of parameter estimates: Some support for the N:q hypothesis. *Structural Equation Modeling: A Multidisciplinary Journal*, *10*(1), 128–141. https://doi.org/10.1207/S15328007SEM1001_6

Jain, A. K. (2012). Moderating effect of impression management on the relationship of emotional intelligence and organizational citizenship behavior. *Journal of Behavioral and Applied Management*, *13*(2), 86–107. https://doi.org/10.21818/001c.1788

Jena, P. K. (2020). Impact of COVID-19 on higher education in India. *International Journal of Advanced Education and Research, 5*(3), 5-3-27. https://papers.ssrn.com/abstract=3691541

Jian, L., & Ting, W. (2014). On the effect of leader-member exchange (LMX) in workplace on the staffs' counter-productive work behavior (CWB). *Finance & Economics*, *3*(8). http://en.cnki.com.cn/Article_en/CJFDTOTAL-CJKX201403008.htm

Joe, S.-W., Hung, W.-T., Chiu, C.-K., Lin, C.-P., & Hsu, Y.-C. (2018). To quit or not to quit: Understanding turnover intention from the perspective of ethical climate. *Personnel Review*, *47*(5), 1062–1076. https://doi.org/10.1108/PR-04-2017-0124

Jonker, C. S., & Vosloo, C. (2008). The psychometric properties of the Schutte Emotional Intelligence Scale. *SA Journal of Industrial Psychology*, *34*(2), 21–30. https://doi.org/10.4102/sajip.v34i2.689

Jordan, P. J., & Troth, A. C. (2004). Managing emotions during team problem solving: emotional intelligence and conflict resolution. *Human Performance*, *17*(2), 195–218. https://doi.org/10.1207/s15327043hup1702_4

Jordan, P. J., & Troth, A. (2011). Emotional intelligence and leader member exchange: The relationship with employee turnover intentions and job satisfaction. *Leadership & Organization Development Journal*, *32*(3), 260–280. https://doi.org/10.1108/01437731111123915

Jöreskog, K. G. & Sörbom, D. (1996). *LISREL 8: User's reference guide.* Mooresville: Scientific Software.

Juengst, S. B., Myrga, J. M., Fann, J. R., & Wagner, A. K. (2017). Cross-lagged panel analysis of depression and behavioral dysfunction in the first year after moderate-to-severe traumatic brain injury. *The Journal of Neuropsychiatry and Clinical Neurosciences*, *29*(3), 260–266. https://doi.org/10.1176/appi.neuropsych.16100217

Jung, H. S., & Yoon, H. H. (2012). The effects of emotional intelligence on counterproductive work behaviors and organizational citizen behaviors among food and beverage employees in a deluxe hotel. *International Journal of Hospitality Management*, *31*(2), 369–378. https://doi.org/10.1016/j.ijhm.2011.06.008

Kahumuza, J., & Schlechter, A. F. (2008). Examining the direct and some mediated relationships between perceived support and intention to quit. *Management Dynamics*, *17*(3), 2–19. https://hdl.handle.net/10520/EJC69740

Kallenberg, T. (2020). Differences in influence: Different types of university employees compared. *Tertiary Education and Management*, *26*(4), 363–380. https://doi.org/10.1007/s11233-020-09058-w

Kanesan, P., & Fauzan, N. (2019). Models of emotional intelligence: A review. *E-Bangi*, *16*(7). https://ejournal.ukm.my/ebangi/article/view/34511

Kara, A. (2021). COVID-19 pandemic and possible trends into the future of higher education: A review. *Journal of Education and Educational Development*, *8*(1). https://doi.org/10.22555/joeed.v8i1.183

Karatepe, O. M., & Ngeche, R. N. (2012). Does job embeddedness mediate the effect of work engagement on job outcomes? A study of hotel employees in Cameroon. *Journal of Hospitality Marketing & Management*, *21*(4), 440–461. https://doi.org/10.1080/19368623.2012.626730

Karodia, A. M., Shaikh, A., & Soni, D. (2015). The South African Universities Post – Merger Mess: Problems and Challenges of Transformation. *Mediterranean Journal of Social Sciences*, *6*(3 S1), 326. Doi:10.5901/mjss.2015.v6n3s1p326

Katz, D. (1964). The motivational basis of organizational behavior. *Behavioral Science*, *9*(2), 131–146. https://doi.org/10.1002/bs.3830090206

Kerlinger, F. N. (1986). *Foundations of behavioral research* (3rd ed.). Holt, Rinehart and Winston.

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

Kershaw, M. E., Lupien, S. P., & Scheid, J. L. (2021). Impact of web-based meeting platform usage on overall well-being among higher education employees. *European Journal of Investigation in Health, Psychology and Education*, *11*(2), 372–381. https://doi.org/10.3390/ejihpe11020028

Kessi, S., & Boonzaier, F. (2018). Centre/ing decolonial feminist psychology in Africa. *South African Journal of Psychology*, *48*(3), 299–309. https://doi.org/10.1177/0081246318784507

Khalid, S. A., & Ali, H. (2005). Self and superior ratings of organizational citizenship behavior: Are there differences in the source of ratings? *Problems and Perspectives in Management*, (4), 147–153.

Khalid, S., Muqadas, F., Yasir, Farooqi, Y., & Nazish, A. (2014). Impact of LMX on organizational justice and organizational justice on organizational citizenship behavior. *International Journal of Business and Management Invention, 3*(10), 21–29

Khodabakhsh, M. R., & Besharat, M. A. (2011). Mediation effect of narcissism on the relationship between emotional intelligence and the quality of interpersonal

relationships. *Procedia - Social and Behavioral Sciences*, *30*, 907–911. https://doi.org/10.1016/j.sbspro.2011.10.176

Kim, W., Ok, C., & Lee, M. J. (2009). Antecedents of service employees' organizational citizenship behaviors in full-service restaurants in Korea. *Cornell Hospitality Quarterly*, *50*(2), 180–197. https://doi.org/10.1177/1938965509331922

Kim, D., & Park, J. (2020). The way to improve organizational citizenship behavior for the employees who lack emotional intelligence. *Current Psychology*. https://doi.org/10.1007/s12144-020-01104-5

Kim, M-H., & Yi, Y-J. (2019). Impact of leader-member-exchange and team-member-exchange on nurses' job satisfaction and turnover intention. *International Nursing Review*, *66*(2), 242–249. https://doi.org/10.1111/inr.12491

Kline, R. B. (2005). *Principles and practice of structural equation modelling* (2nd ed.). The Guilford Press.

Kline, R. B. (2015). *Principles and Practice of Structural Equation Modeling* (4th ed.). Guilford Publications. http://ebookcentral.proquest.com/lib/cam/detail.action?docID=4000663

Koman, L. & Wolff, S. (2008). Emotional intelligence competencies in the team and team leader. *Journal of Management Development, 27*(1), 55–75. https://doi.org/10.1108/02621710810840767

Kotze, S. L. (2008). *Exploring the prediction of team climate by means of emotional intelligence, team-member exchange and team-member goal orientation* [Thesis, University of Pretoria]. https://repository.up.ac.za/handle/2263/29405

Kyriazos, T. A. (2018). Applied psychometrics: Sample size and sample power considerations in factor analysis (EFA, CFA) and SEM in general. *Psychology, 9*(8), 2207. https://doi.org/10.4236/psych.2018.98126

Kundi, Y. M., & Badar, K. (2021). Interpersonal conflict and counterproductive work behavior: The moderating roles of emotional intelligence and gender. *International Journal of Conflict Management*, *32*(3), 514–534. https://doi.org/10.1108/IJCMA-10-2020-0179

Lai, F-Y., Lu, S-C., Lin, C-C., & Lee, Y-C. (2019). The doctrine of the mean: Workplace *relationships and turnover intention. Canadian Journal of Administrative Sciences / Revue Canadienne Des Sciences de l'Administration*, *36*(1), 84–96. https://doi.org/10.1002/cjas.1481

Lam, L. T., & Kirby, S. L. (2002). Is emotional intelligence an advantage? An exploration of the impact of emotional and general intelligence on individual performance. *The Journal of Social Psychology*, *142*(1), 133–143. https://doi.org/10.1080/00224540209603891

Lašáková, A., Bajzíková, Ľ., & Dedze, I. (2017). Barriers and drivers of innovation in higher education: Case study-based evidence across ten European universities. *International Journal of Educational Development*, *55*, 69–79. https://doi.org/10.1016/j.ijedudev.2017.06.002

Lawler, E. J. (2001). An affect theory of social exchange. *American Journal of Sociology*, *107*(2), 321–352. https://doi.org/10.1086/324071

Lawton-Misra, N., & Pretorius, T. (2021). Leading with heart: Academic leadership during the COVID-19 crisis. *South African Journal of Psychology*, *51*(2), 205–214. https://doi.org/10.1177/0081246321992979

Lazarus, R., & Folkman, S. 1984. *Stress, appraisal and coping.* Springer.

Lebrón, M., Tabak, F., Shkoler, O., & Rabenu, E. (2018). Counterproductive work behaviors toward organization and leader-member exchange: The mediating roles of emotional exhaustion and work engagement. *Organization Management Journal*, *15*(4), 159–173. https://doi.org/10.1080/15416518.2018.1528857

Lechuga, V. M. (2012). Emotional management and motivation: A case study of underrepresented faculty. *New Directions for Institutional Research*. https://doi.org/10.1002/ir.20023

Lee, K. (2020). The joint effects of leader–member exchange and team-member exchange in predicting job crafting. *Sustainability*, *12*(8), 3283. https://doi.org/10.3390/su12083283

Lee, M., Mayfield, C. O., Hinojosa, A. S., & Im, Y. (2018). A dyadic approach to examining the emotional intelligence–work outcome relationship: The mediating role of LMX. *Organization Management Journal*, *15*(1), 1–16. https://doi.org/10.1080/15416518.2018.1427539

Lei, M., & Lomax, R. G. (2005). The effect of varying degrees of nonnormality in structural equation modeling. *Structural Equation Modeling: A Multidisciplinary Journal*, *12*(1), 1–27. https://doi.org/10.1207/s15328007sem1201_1

Lesenyeho, D. L., Barkhuizen, N. E., & Schutte, N. E. (2018). Exploring the causal relationship between the antecedents and consequences of talent management for early career academics in South African higher education institutions. *SA Journal of Human Resource Management*, *16*(0), 10. https://doi.org/10.4102/sajhrm.v16i0.912

Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-Based Dentistry*, *7*(1), 24–25. https://doi.org/10.1038/sj.ebd.6400375

Liaquat, M.& Mehmood, K.K., (2017).Organization citizenship behavior: Notion of social exchange theory. *Journal of Business and Social Review in Emerging Economies, 3*(2) 209–216. https://doi.org/10.26710/jbsee.v3i2.137

Liden, R. C., & Maslyn, J. M. (1998). Multidimensionality of leader-member exchange: An empirical assessment through scale development. *Journal of Management, 24, 4*3–72. DOI: 10.1177/014920639802400105

Liden, R. C., Sparrowe, R. T., & Wayne, S. J. (1997). Leader-member exchange theory: The past and potential for the future. In *Research in Personnel And Human Resources Management, 15,* 47–119). Elsevier Science/JAI Press.

Lim, C-L., Teh, C-J., & Benjamin, C-Y-F. (2016). A preliminary study of the effects of personality traits on workplace deviance in the voluntary sector. *International Review of Management and Marketing*, *6*(S7), 6–10. Available at: https://econjournals.com/index.php

Lin, C.-H. A. (2007). Education expansion, educational Inequality, and income inequality: evidence from Taiwan, 1976–2003. *Social Indicators Research*, *80*(3), 601–615. https://doi.org/10.1007/s11205-006-0009-8

Liu, Y., Keller, R. T., & Shih, H.-A. (2011). The impact of team-member exchange, differentiation, team commitment, and knowledge sharing on R&D project team performance. *R&D Management*, *41*(3), 274–287. https://doi.org/10.1111/j.1467-9310.2011.00636.x

Liu, L., Li, C., & Zhu, D. (2012). A new approach to testing nomological validity and its application to a second-order measurement model of trust. *Journal of the Association for Information Systems*, *13*(12), 4. https://doi.org/10.17705/1jais.00320

Loi, N., Golledge, C., & Schutte, N. (2021). Negative affect as a mediator of the relationship between emotional intelligence and uncivil workplace behaviour among managers. *Journal of Management Development*, *40*(1), 94–103. https://doi.org/10.1108/JMD-12-2018-0370

Lok, S. Y. P., Ling, Y. H., Ponnampalam, P. K., & Chen, Y. S. (2019). Predictors of intention to quit among academic employees in the higher education institutions. *Global Business and Management Research*, *11*(2), 276–281.

Lomax, R. G., & Hahs-Vaughn, D. L. (2012). *Statistical concepts: A second course* (4th ed.). Routledge/Taylor & Francis Group.

Lopes, P. N., Salovey, P., & Straus, R. (2003). Emotional intelligence, personality, and the perceived quality of social relationships. *Personality and Individual Differences*, *35*(3), 641–658. https://doi.org/10.1016/S0191-8869(02)00242-8

López-Domínguez, M., Enache, M., Sallan, J. M., & Simo, P. (2013). Transformational leadership as an antecedent of change-oriented organizational citizenship behavior. *Journal of Business Research*, *66*(10), 2147–2152. https://doi.org/10.1016/j.jbusres.2013.02.041

Louw, J. (2019). Going against the grain: Emotional labour in the face of established business school institutional logics. *Studies in Higher Education*, *44*(6), 946–959. https://doi.org/10.1080/03075079.2017.1405251

Ma, B., Liu, S., Lassleben, H., & Ma, G. (2019). The relationships between job insecurity, psychological contract breach and counterproductive workplace behavior: Does

employment status matter? *Personnel Review*, *48*(2), 595–610. https://doi.org/10.1108/PR-04-2018-0138

Mabaso, C. M., & Dlamini, B. I. (2018). Total rewards and its effects on organisational commitment in higher education institutions. *South African Journal of Human Resource Management*, *16*(2). https://doi.org/10.4102/sajhrm.v16i0.913

MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods*, *1*(2), 130. https://doi.org/10.1037/1082-989X.1.2.130

MacKinnon, D. (2008). *Introduction to statistical mediation analysis*. Erlbaum.

MacLeod, W. B., Lara, V. V., & Zehnder, C. (2020). *Worker empowerment and subjective evaluation: on building an effective conflict culture* (No. w27857). National Bureau of Economic Research. https://doi.org/10.3386/w27857

Mafini, C. (2015). Investigating antecedent factors to job performance: Contemporary evidence from government supply management professionals. *Acta Commercii*, *15*(1), 1–11. https://doi.org/10.4102/AC.v15i1.287

Mahdiuon, R., Ghahramani, M., & Sharif, A. R. (2010). Explanation of organizational citizenship behavior with personality. *Procedia - Social and Behavioral Sciences*, *5*, 178–184. https://doi.org/10.1016/j.sbspro.2010.07.069

Makhdoom, I. F., Atta, M., & Malik, N. I. (2019). Counterproductive work behaviors as an outcome of job burnout among high school teachers. *Bulletin of Education and Research*, *41*(2), 79–92.

Malingumu, W., Stouten, J., Euwema, M., & Babyegeya, E. (2016). Servant leadership, organisational citizenship behavior and creativity: The mediating role of team-member exchange. *Psychologica Belgica*, *56*(4), 342–356. https://doi.org/10.5334/pb.326

Maree, K., & Creswell, J. W. (2016). *First steps in research* (2nd ed.). Van Schaik Publishers.

Marsh, H. W., & Hau, K. (1999). Confirmatory factor analysis: Strategies for small sample sizes. In R .H. Hoyle (Ed.), *Statistical strategies for small sample research* (pp. 251-285). Thousand Oaks, CA: Sage Publications.

Martin, R., Guillaume, Y., Thomas, G., Lee, A., & Epitropaki, O. (2016). Leader-member exchange (LMX) and performance: A meta-analytic review. *Personnel Psychology*, *69*(1), 67–121. https://doi.org/10.1111/peps.12100

Maslyn, J. M., & Uhl-Bien, M. (2001). Leader–member exchange and its dimensions: Effects of self-effort and other's effort on relationship quality. *Journal of Applied Psychology*, *86*(4), 697–708. https://doi.org/10.1037/0021-9010.86.4.697

Mathieu, J. E., & Taylor, S. R. (2006). Clarifying conditions and decision points for mediational type inferences in Organizational Behavior. *Journal of Organizational Behavior*, *27*(8), 1031–1056. https://doi.org/10.1002/job.406

Matsunaga, M. (2010). How to factor-analyze your data right: Do's, don'ts, and how-to's. *International Journal of Psychological Research*, *3*(1), 97–110. https://doi.org/10.21500/20112084.854

Mayer, J. D., Caruso, D. R., Panter, A. T., & Salovey, P. (2012). The growing significance of hot intelligences. *American Psychologist, 67*(6), 502–503. https://doi.org/10.1037/a0029456

Mayer, J.D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Implications for educators* (pp. 3–31) New York: Basic Books.

Mayer, J. D., Salovey, P., & Caruso, D. R. (2004). Emotional intelligence: theory, findings, and implications. *Psychological Inquiry*, *15*(3), 197–215. https://doi.org/10.1207/s15327965pli1503_02

Mayer, J. D., Salovey, P., & Caruso, D. R. (2008). Emotional intelligence: New ability or eclectic traits? *American Psychologist*, *63*(6), 503–517. https://doi.org/10.1037/0003-066X.63.6.503

Maxel, O. J. M. (2013). Strategic organization for competitiveness in East African universities. *European Journal of Business and Management*, *5*(20), 151–160. https://www.iiste.org/Journals/index.php/EJBM/article/view/7309

McDonald, R. P. (2005). Semiconfirmatory factor analysis: The example of anxiety and depression. *Structural Equation Modeling*, *12*(1), 163–172. https://doi.org/10.1207/s15328007sem1201_9

McEnrue, M.P., Groves, K.S., & Shen, W. (2009). Emotional intelligence development: leveraging individual characteristics. *Journal of Management Development, 28*(2), 150–174. https://doi.org/10.1108/02621710910932106

McKechnie, S., Nath, P., & Xun, J. (2018). New insights into emotion valence and loyalty intentions in relational exchanges. *Psychology & Marketing*, *35*(2), 160–169. https://doi.org/10.1002/mar.21077

Mensele, C., & Coetzee, M. (2014). Job embeddedness, organisational commitment and voluntary turnover of academic staff at a higher education institution in South Africa. *South African Journal of Labour Relations, 38*(1), 9–30. https://doi.org/10.10520/EJC152811

Mérida-López, S., Sánchez-Gómez, M., & Extremera, N. (2020). Leaving the teaching profession: Examining the role of social support, engagement and emotional intelligence in teachers' intentions to quit. *Intervención Psicosocial*, *29*(3), 141–151. https://psycnet.apa.org/doi/10.5093/pi2020a10

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, *1*(1), 61–89. https://doi.org/10.1016/1053-4822(91)90011-Z

Meyers, L. S., Gamst, G., & Guarino, A. J. (2017). *Applied multivariate research: Design and interpretation* (3rd ed.). Sage.

Mgutshini, T., Oparinde, K., & Govender, V. (2021). *Covid-19: Interdisciplinary explorations of impacts on higher education*. African Sun Media.

Miao, C., Humphrey, R. H., & Qian, S. (2017). A meta-analysis of emotional intelligence and work attitudes. *Journal of Occupational and Organizational Psychology*, *90*(2), 177–202. https://doi.org/10.1111/joop.12167

Michinov, E., & Michinov, N. (2020). When emotional intelligence predicts team performance: Further validation of the short version of the Workgroup Emotional Intelligence Profile. *Current Psychology*. https://doi.org/10.1007/s12144-020-00659-7

Mlambo, V. H., & Adetiba, T. C. (2019). Brain drain and South Africa's socioeconomic development: The waves and its effects. *Journal of Public Affairs*, *19*(4), e1942. https://doi.org/10.1002/pa.1942

Morrell, K. M., Loan-Clarke, J., & Wilkinson, A. J. (2004). Organisational change and employee turnover. *Personnel Review*, *33*(2), 161–173. https://doi.org/10.1108/00483480410518022

Muazzam, A., Anjum, A., & Visvizi, A. (2020). Problem-focused coping strategies, workplace bullying, and sustainability of HEIs. *Sustainability*, *12*(24), 10565. https://doi.org/10.3390/su122410565

Mueller, B. H., & Lee, J. (2002). Leader-member exchange and organizational communication satisfaction in multiple contexts. *The Journal of Business Communication (1973)*, *39*(2), 220–244. https://doi.org/10.1177/002194360203900204

Mueller, R. O., & Hancock, G. R. (2010). Structural equation modeling. In G. R. Hancock, & R. O. Mueller (Eds.), *The reviewer's guide to quantitative methods in the social sciences* (pp. 371–384). Routledge.

Mutekwe, E. (2017). Unmasking the ramifications of the fees-must-fall-conundrum in higher education institutions in South Africa: A critical perspective. *Perspectives in Education*, *35*(2), 142–154. https://doi.org/10.18820/2519593X/pie.v35i2.11

Nadim, M., Hassan, M.M., Abbas, S., & Naveed, A. (2016). The role of organizational commitment and perceived organizational support in promoting organizational citizenship behavior. *PEOPLE: International Journal of Social Sciences*, *2*(3), 54–67. https://doi.org/10.20319/pijss.2016.23.5467

Nadiri, H., & Tanova, C. (2010). An investigation of the role of justice in turnover intentions, job satisfaction, and organizational citizenship behavior in hospitality industry. *International Journal of Hospitality Management*, *29*(1), 33–41. https://doi.org/10.1016/j.ijhm.2009.05.001

Naidoo-Chetty, M., & du Plessis, M. (2021). Job demands and job resources of academics in higher education. *Frontiers in Psychology*, *12*, 2336. https://doi.org/10.3389/fpsyg.2021.631171

National Development Plan 2030. (2012). *our future – make it work*. pretoria: national planning commission. Available at: https://www.gov.za/sites/default/files/gcis_document/201409/ndp-2030-our-future-make-it-workr.pdf (accessed October 16, 2021).

Naylor, D., & Nyanjom, J. (2021). Educators' emotions involved in the transition to online teaching in higher education. *Higher Education Research & Development*, *40*(6), 1236–1250. https://doi.org/10.1080/07294360.2020.1811645

Nel, P., Du Plessis, M., & Bosman, L. (2015). Comparing different versions of the Rahim Ei questionnaire in a South African context: A confirmatory factor analysis approach. *SA Journal of Industrial Psychology*, *41*(1), 1–9. https://doi.org/10.4102/sajip.v41i1.1220

Ng'ethe, J. M., Namusonge, G. S., & Iravo, M. (2012). Influence of leadership style on academic staff retention in public universities in Kenya. *International Journal of Business & Social Science, 3*(21), 297. http://www.ijbssnet.com/journals/Vol_3_No_21_November_2012/31.pdf

Nielsen, K., Nielsen, M. B., Ogbonnaya, C., Känsälä, M., Saari, E., & Isaksson, K. (2017). Workplace resources to improve both employee well-being and performance: A systematic review and meta-analysis. *Work & Stress*, *31*(2), 101–120. https://doi.org/10.1080/02678373.2017.1304463

Norris, M., & Lecavalier, L. (2010). Evaluating the use of exploratory factor analysis in developmental disability psychological research. *Journal of Autism and Developmental Disorders*, *40*(1), 8–20. https://doi.org/10.1007/s10803-009-0816-2

Northouse, P. G. (2004). *Leadership theory and practice* (3rd ed). SAGE.

Nougarou, J. C. (2017). *The effect of workplace friendship, team-member exchange and leader-member exchange on organizational citizenship behavior. Culminating Projects in Psychology, 62.*
https://repository.stcloudstate.edu/psyc_etds/8?utm_source=repository.stcloudstate.edu%2Fpsyc_etds%2F8&utm_medium=PDF&utm_campaign=PDFCoverPages

Nunnally, J. C. (1967). *Psychometric theory.* McGraw-Hill.

Nunnally, J. C. (1978). *Psychometric theory.* McGraw Hill.

Nunnally, J. C., Bernstein, I. R. (1994) *Psychometric theory* (3rd edOxford University. Press.

Nusari, M., Falasi, M. A., Alrajawy, I., Khalifa, G. S., & Isaac, O. (2018). The impact of project management assets and organizational culture on employee performance. *International Journal of Management and Human Science (IJMHS)*, *2*(3), 15–26.

Nyanjom, J., & Naylor, D. (2021). Performing emotional labour while teaching online. *Educational Research*, *63*(2), 147–163.
https://doi.org/10.1080/00131881.2020.1836989

Obendhain, A. M., & Johnson, W. C. (2004). Product and process innovation in service organizations: The influence of organizational culture in higher education institutions. *Journal of Applied Management and Entrepreneurship, 9*(3), 91-113. Retrieved from http://ez.sun.ac.za/login?url=https://www.proquest.com/scholarly-journals/product-process-innovation-service-organizations/docview/203879964/se-2?accountid=14049

O'Brien, K. E., Henson, J. A., & Voss, B. E. (2021). A trait-interactionist approach to understanding the role of stressors in the personality-CWB relationship. *Journal of Occupational Health Psychology, 26*(4), 350–360.
https://doi.org/10.1037/ocp0000274

O'Connor, P. J., Hill, A., Kaya, M., & Martin, B. (2019). The measurement of emotional intelligence: A critical review of the literature and recommendations for researchers

and practitioners. *Frontiers in Psychology*, *10*, 1116.
https://doi.org/10.3389/fpsyg.2019.01116

O'Donnell, M., Yukl, G., & Taber, T. (2012). Leader behavior and LMX: A constructive replication. *Journal of Managerial Psychology*, *27*(2), 143–154.
https://doi.org/10.1108/02683941211199545

Ogińska-Bulik, N. (2005). Emotional intelligence in the workplace: Exploring its effects on occupational stress and health outcomes in human service workers. *International Journal of Occupational Medicine & Environmental Health*, *18*(2), 167–175.
https://web-a-ebscohost-com.ez.sun.ac.za/ehost/detail/detail?vid=0&sid=ca51836f-b297-4aa3-9753-e15cbf17974a%40sessionmgr4006&bdata=JnNpdGU9ZWhvc3QtbGl2ZSZzY29wZT1zaXRl#db=aph&AN=17563065

Oh, H., & Jang, J. (2020). The role of team-member exchange: Restaurant servers' emotional intelligence, job performance, and tip size. *Journal of Human Resources in Hospitality & Tourism*, *19*(1), 43–61. https://doi.org/10.1080/15332845.2020.1672248

O'Leary, Z. (2014). *The essential guide to doing your research project* (2nd ed..). SAGE.

O'Leary, Z. (2017). *The essential guide to doing your research project* (3rd ed.). SAGE Publications Ltd.

Olino, T. M., & Klein, D. N. (2015). Psychometric comparison of self- and informant-reports of personality. *Assessment*, *22*(6), 655–664.
https://doi.org/10.1177/1073191114567942

Omodan, B. (2019). Democratic Pedagogy in South Africa: A rethinking viewpoint for knowledge construction. *Journal of Social Studies Education Research*, *10*(2), 188–203. https://jsser.org/index.php/jsser/article/view/650

Omilion-Hodges, L. M., & Baker, C. R. (2017). Communicating leader-member relationship quality: the development of leader communication exchange scales to measure relationship building and maintenance through the exchange of communication-based goods. *International Journal of Business Communication*, *54*(2), 115–145.
https://doi.org/10.1177/2329488416687052

Ordun, G., & Beyhan Acar, A. (2014). Impact of emotional intelligence on the establishment and development of high quality leader member exchange (LMX). *SSRN Electronic Journal.* https://doi.org/10.2139/ssrn.2568198

O'Reilly, C. A., Chatman, J., & Caldwell, D. F. (1991). People and organizational culture: A profile comparison approach to assessing person-organization fit. *Academy of Management Journal*, *34*(3), 487–516. https://doi.org/10.2307/256404

Organ, D.W. (1988). *Organizational citizenship behavior: The good soldier syndrome.* Lexington Books.

Organ, D. W., Podsakoff, P. M., & MacKenzie, S. B. (2006). *Organizational Citizenship Behavior: Its Nature, Antecedents, and Consequences.* Sage.

Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, *48*(4), 775– 802. https://doi.org/10.1111/j.1744-6570.1995.tb01781.x

O'Rourke, N., Psych, R., & Hatcher, L. (2013). *A step-by-step approach to using SAS for factor analysis and structural equation modeling.* SAS Institute.

Osborne, J. W., & Waters, E. (2002). *Multiple regression assumptions.* ED470205. *ERIC Digest:.* ERIC Clearinghouse on Assessment and Evaluation. https://eric.ed.gov/?id=ED470205

Pallant, J. (2011). *Survival manual. A step by step guide to data analysis using SPSS*, *4.*

Pallant, J. (2016). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (6th ed.). Open University Press, McGraw-Hill Education.

Pallant, J. (2020). *SPSS survival manual: A step-by-step guide to data analysis using IBM SPSS.* Routledge.

Pearson, C. M., Andersson, L. M., & Porath, C. L. 2005. Workplace incivility. In S. Fox & P. E. Spector (Eds.), *Counterproductive work behavior: Investigations of actors and targets*: 177-200. American Psychological Association.

Perri 6, P., & Bellamy, C. (2012). *Principles of methodology: Research design in social science*. SAGE Publications Ltd. https://doi.org/10.4135/9781446288047

Petrides, K. V. (2010). Trait emotional intelligence theory. *Industrial and Organizational Psychology*, *3*(2), 136–139. https://doi.org/10.1111/j.1754-9434.2010.01213.x

Petrides, K. V., & Mavroveli, S. (2018). Theory and applications of trait emotional intelligence. *Psychology: The Journal of the Hellenic Psychological Society*, *23*(1), 24–36. https://doi.org/10.12681/psy_hps.23016

Petrovici, A., & Dobrescu, T. (2014). The role of emotional intelligence in building interpersonal communication skills. *Procedia - Social and Behavioral Sciences*, *116*, 1405–1410. https://doi.org/10.1016/j.sbspro.2014.01.406

Podsakoff, P. M., & MacKenzie, S. B. 1994. Organizational citizenship behaviors and sales unit effectiveness. *Journal of Marketing Research, 3*(1): 351–363. https://doi-org.ez.sun.ac.za/10.1177%2F002224379403100303

Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, *26*(3), 513–563. https://doi.org/10.1016/S0149-2063(00)00047-7

Podsakoff, N., Podsakoff, P., MacKenzie, S., Maynes, T., & Spoelma, T. (2014). Consequences of unit-level organizational citizenship behaviors: A review and recommendations for future research. *Journal of Organizational Behavior*, *35*. https://doi.org/10.1002/job.1911

Pool, S., & Pool, B. (2007). A management development model: Measuring organizational commitment and its impact on job satisfaction among executives in a learning organization. *Journal of Management Development*, *26*(4), 353–369. https://doi.org/10.1108/02621710710740101

Power, R. L. (2013). Leader-member exchange theory in higher and distance education. *International Review of Research in Open and Distance Learning*, *14*(4). http://search.proquest.com/docview/1634343370/abstract/9A9B6550346D4343PQ/1

Prati, L. M., Douglas, C., Ferris, G., Ammeter, A., & Buckley, M. (2003). Emotional intelligence, leadership effectiveness, and team outcomes. *International Journal of Organizational Analysis*, *11*, 21–40. https://doi.org/10.1108/eb028961

Preacher, K. J., & MacCallum, R. C. (2002). Exploratory factor analysis in behavior genetics research: Factor recovery with small sample sizes. *Behavior Genetics*, *32*(2), 153–161. https://doi.org/10.1023/A:1015210025234

Purcell, W. M., & Lumbreras, J. (2021). Higher education and the COVID-19 pandemic: Navigating disruption using the sustainable development goals. *Discover Sustainability*, *2*(1), 6. https://doi.org/10.1007/s43621-021-00013-2

Purwanto, A., Purba, J. T., Bernarto, I., & Sijabat, R. (2021). Effect of transformational leadership, job satisfaction, and organizational commitments on organizational citizenship behavior. *Inovbiz: Jurnal Inovasi Bisnis*, *9*(1), 61–69. https://doi.org/10.35314/inovbiz.v9i1.1801

Qawasmeh, F. (2018). Assessment of organizational citizenship behavior (OCB) in Jordanian universities. *International Journal of Academic Research in Business and Social Sciences*, *8*. https://doi.org/10.6007/IJARBSS/v8-i12/4991

Qin, C., Wu, K., Liu, X., Liu, S., & Lu, W. (2021). The effect of job security on deviant behaviors in diverse employment workplaces: From the social identity perspective. *International Journal of Environmental Research and Public Health*, *18*(14), 7374. https://doi.org/10.3390/ijerph18147374

Quisenberry, W. L. (2018). Exploring how emotional intelligence contributes to virtual teams: Interpretive analysis of a phenomenological study. *European Scientific Journal, ESJ*, *14*(5), 19. https://doi.org/10.19044/esj.2018.v14n5p19

Raman, P., Sambasivan, M., & Kumar, N. (2016). Counterproductive work behavior among frontline government employees: Role of personality, emotional intelligence, affectivity, emotional labor, and emotional exhaustion. *Revista de Psicología Del Trabajo y de Las Organizaciones*, *32*(1), 25–37. https://doi.org/10.1016/j.rpto.2015.11.002

Raykov, T. (1997). Scale reliability, Cronbach's coefficient alpha, and violations of essential Tau-equivalence with fixed congeneric components. *Multivariate Behavioral Research*, *32*(4), 329–353. https://doi.org/10.1207/s15327906mbr3204_2

Raykov, T. (2008). Alpha if item deleted: A note on loss of criterion validity in scale development if maximizing coefficient alpha. *British Journal of Mathematical & Statistical Psychology*, *61*(2), 275–285. https://doi.org/10.1348/000711007X188520

Raver, J. L. (2013). Counterproductive work behavior and conflict: merging complementary domains. *Negotiation and Conflict Management Research*, *6*(3), 151–159. https://doi.org/10.1111/ncmr.12013

Reisel, W. D., Probst, T. M., Swee-Lim Chia, Maloles, C. M., & König, C. J. (2010). The effects of job insecurity on job satisfaction, organizational citizenship behavior, deviant behavior, and negative emotions of employees. *International Studies of Management & Organization*, *40*(1), 74–91. https://doi.org/10.2753/IMO0020-8825400105

Reiss, S. (2012). Intrinsic and extrinsic motivation. *Teaching of Psychology*, *39*(2), 152–156. https://doi.org/10.1177/0098628312437704

Rhudy, J. L., Arnau, R. C., Huber, F. A., Lannon, E. W., Kuhn, B. L., Palit, S., Payne, M. F., Sturycz, C. A., Hellman, N., Guereca, Y. M., Toledo, T. A., & Shadlow, J. O. (2020). examining configural, metric, and scalar invariance of the pain catastrophizing scale in Native American and Non-Hispanic white adults in the Oklahoma Study of Native American pain risk (OK-SNAP). *Journal of Pain Research*, *13*, 961–969. https://doi.org/10.2147/JPR.S242126

Riaz, H., Akhtar, N., Moazzam, A., Luqman, R., Naz, H., & Tufail, H. S. (2017). Leadership effectiveness, turnover intention and the mediating role of employee commitment: A Case of academic institutions of Pakistan. *European Online Journal of Natural and Social Sciences*, *6*(4), 526–534.

Robertson, S. A., Datu, J. A. D., Brawley, A. M., Pury, C. L. S., & Mateo, N. J. (2016). The dark triad and social behavior: The influence of self-construal and power distance. *Personality and Individual Differences*, *98*, 69–74. https://doi.org/10.1016/j.paid.2016.03.090

Robinson, S. L., & Bennett, R. J. (1995). A typology of deviant workplace behaviors: A multidimensional scaling study. *Academy of Management Journal*, *38*(2), 555–572. https://doi.org/10.5465/256693

Rode, J. C., Mooney, C. H., Arthaud-Day, M. L., Near, J. P., Baldwin, T. T., Rubin, R. S., & Bommer, W. H. (2007). Emotional intelligence and individual performance: Evidence of direct and moderated effects. *Journal of Organizational Behavior*, *28*(4), 399–421. https://doi.org/10.1002/job.429

Rogers, W. M., Schmitt, N., & Mullins, M. E. (2002). Correction for unreliability of multifactor measures: comparison of alpha and parallel forms approaches. *Organizational Research Methods*, *5*(2), 184–199. https://doi.org/10.1177/1094428102005002004

Rönkkö, M., & Cho, E. (2020). An updated guideline for assessing discriminant validity. *Organizational Research Methods*, 1094428120968614. https://doi.org/10.1177/1094428120968614

Roodt, G. (2004). *Turnover intentions* [Unpublished document, University of Johannesburg].

Rutishauser, L., & Sender, A. (2019). Effect of team-member exchange on turnover intention: A cross-cultural perspective on a selected aspect of employee engagement. *International Studies of Management & Organization*, *49*(1), 43–62. https://doi.org/10.1080/00208825.2019.1565093

Ryback, D. (1997). *Putting emotional intelligence to work: Successful leadership is more than IQ*. Taylor & Francis Group. http://ebookcentral.proquest.com/lib/sun/detail.action?docID=1024589

Ryttberg, M., & Geschwind, L. (2017). Professional support staff at higher education institutions in Sweden: Roles and success factors for the job. *Tertiary Education and Management*, *23*(4), 334–346. https://doi.org/10.1080/13583883.2017.1322631

Ryttberg, M., & Geschwind, L. (2021). Organising professional support staff at higher education institutions: A multidimensional, continuous balancing act. *Tertiary Education and Management*, *27*(1), 47–58. https://doi.org/10.1007/s11233-020-09064-y

Saeed, I., Waseem, M., Sikander, S., & Rizwan, M. (2014). The relationship of turnover intention with job satisfaction, job performance, Leader member exchange, Emotional intelligence and organizational commitment. *International Journal of Learning and Development*, *4*(2), 242–256. https://doi.org/10.5296/ijld.v4i2.6100

Salkind, N. (2012*). Exploring Research (*8th ed.). Pearson Education Limited.

Salovey, P., & Grewal, D. (2005). The science of emotional intelligence. *Current Directions in Psychological Science*, *14*(6), 281–285. https://doi.org/10.1111/j.0963-7214.2005.00381.x

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, cognition and personality*, *9*(3), 185–211. https://doi.org/10.2190/DUGG-P24E-52WK-6CDG

Satorra, A., & Bentler, P. M. (2001). A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika, 66*(4), 507–514. https://doi.org/10.1007/BF02296192

Saunders, M., Lewis, P., & Thornhill, A. (2012). Research methods for business students. Pearson Educated Limited.

Saunders, M. N. K., Lewis, P., & Thornhill, A. (2015). *Research methods for business students* (7th ed.). Pearson Education, Limited.

Saunders, M., Lewis, P., Thornhill, A., & Bristow, A. (2019). Research methods for business students: Understanding research philosophy and approaches to theory development. In: *Research methods for business students* (8th ed.). (pp.128-171). Pearson Education.

Scandura, T. A., & Graen, G. B. (1984). Moderating effects of initial leader–member exchange status on the effects of a leadership intervention. *Journal of Applied Psychology*, *69*(3), 428–436. https://doi-org.ez.sun.ac.za/10.1037/0021-9010.69.3.428

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, *25*(3), 293–315. https://doi.org/10.1002/job.248

Scherer, R., Howard, S. K., Tondeur, J., & Siddiq, F. (2021). Profiling teachers' readiness for online teaching and learning in higher education: Who's ready? *Computers in Human Behavior*, *118*, 106675. https://doi.org/10.1016/j.chb.2020.106675

Schutte, N. S., Malouff, J. M., Bhullar, N. (2009) The assessing emotions scale. In: Parker J., Saklofske D., Stough C. (Eds.), *Assessing emotional intelligence*. The Springer Series on Human Exceptionality. Springer. https://doi.org/10.1007/978-0-387-88370-0_7

Schutte, N. S., Malouff, J. M., Bobik, C., Coston, T. D., Greeson, C., Jedlicka, C., Rhodes, E., & Wendorf, G. (2001). Emotional Intelligence and Interpersonal Relations. *The Journal of Social Psychology*, *141*(4), 523–536. https://doi.org/10.1080/00224540109600569

Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, *25*(2), 167–177. https://doi.org/10.1016/S0191-8869(98)00001-4

Seers, A. (1989). Team-member exchange quality: A new construct for role-making research. *Organizational Behavior and Human Decision Processes, 43*(1), 118–135. https://doi.org/10.1016/0749-5978(89)90060-5

Seers, A., Petty, M. M., & Cashman, J. F. (1995). Team-member exchange under team and traditional management: A naturally occurring quasi-experiment. *Group & Organization Management*, *20*(1), 18–38. https://doi.org/10.1177/1059601195201003

Selesho, J. M., & Naile, I. (2014). Academic staff retention as a human resource factor: university perspective. *International Business & Economics Research Journal (IBER)*, *13*(2), 295–304. https://doi.org/10.19030/iber.v13i2.8444

Setia, M. S. (2016). Methodology series module 3: Cross-sectional studies. *Indian Journal of Dermatology*, *61*(3), 261–264. https://doi.org/10.4103/0019-5154.182410

Shareef, R.A., & Atan, T. (2019). The influence of ethical leadership on academic employees' organizational citizenship behavior and turnover intention: Mediating role

of intrinsic motivation. *Management Decision*, *57*(3), 583–605. DOI:10.1108/MD-08-2017-0721

Sharma, G. (2017). Pros and cons of different sampling techniques. *International journal of Applied Research*, *3*(7), 749-752. https://www.semanticscholar.org/paper/Pros-and-cons-of-different-sampling-techniques-Sharma/04315c3a2d12638d47623cbcf2eac77705ef3eee

Shi, D., Lee, T., & Maydeu-Olivares, A. (2019). Understanding the model size effect on SEM fit indices. *Educational and Psychological Measurement*, *79*(2), 310–334. https://doi.org/10.1177/0013164418783530

Shkoler, O., Rabenu, E., Tabak, F., & Lebron, M. J. (2019). Leader- and team-member exchanges and their relationships with organizational and interpersonal counterproductive work behaviors: Moderation by envy and group size in Israel and USA. *Journal of Work and Organizational Psychology*, *35*(3), 145–156. https://doi.org/10.5093/jwop2019a19

Shkoler, O., & Tziner, A. (2017). The mediating and moderating role of burnout and emotional intelligence in the relationship between organizational justice and work misbehavior. *Journal of Work and Organizational Psychology*, *33*(2), 157–164. https://doi.org/10.1016/j.rpto.2017.05.002

Shumba, C. S., Kielmann, K., & Witter, S. (2017). Health workers' perceptions of private-not-for-profit health facilities' organizational culture and its influence on retention in Uganda. *BMC Health Services Research*, *17*. http://dx.doi.org/10.1186/s12913-017-2763-5

Singh, V. B., Sharma, M., & Pham, H. (2017). Entropy based software reliability analysis of multi-version open source software. *IEEE Transactions on Software Engineering*, *44*(12), 1207-1223. https://doi-org.ez.sun.ac.za/10.1109/TSE.2017.2766070

Sinha, V. (2018). Role of Emotional intelligence in managing interpersonal relations at workplace in the IT Sector: *International Journal of Human Capital and Information Technology Professionals*, *9*(4), 72–87. https://doi.org/10.4018/IJHCITP.2018100105

Slaski, M., & Cartwright, S. (2002). Health, performance and emotional intelligence: An exploratory study of retail managers. *Stress and Health*, *18*(2), 63–68. https://doi.org/10.1002/smi.926

Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology*, *68*(4), 653. https://doi.org/10.1037/0021-9010.68.4.653

Smith, C., & Ulus, E. (2020). Who cares for academics? We need to talk about emotional well-being including what we avoid and intellectualise through macro-discourses. *Organization*, *27*(6), 840–857. https://doi.org/10.1177/1350508419867201

Son, J-Y. (2020). Effect of elderly physical instructor's emotional intelligence on leader-member interchange relation (LMX) and organizational citizenship behavior. *The Journal of the Korea Contents Association*, *20*(2), 337–351. https://doi.org/10.5392/JKCA.2020.20.02.337

Sousa-Poza, A., & Henneberger, F. (2004). Analyzing job mobility with job turnover intentions: An international comparative study. *Journal of Economic Issues*, *38*(1), 113–137. https://doi.org/10.1080/00213624.2004.11506667

Sparrowe, R. T. (2020). LMX and welfare trade-off ratios: An evolutionary perspective on leader-member relations. *The Leadership Quarterly*, *31*(2), 101271. https://doi.org/10.1016/j.leaqua.2018.11.001

Spector, P. E., Dwyer, D. J., & Jex, S. M. (1988). Relation of job stressors to affective, health, and performance outcomes: a comparison of multiple data sources. *Journal of Applied Psychology*, *73*(1), 11-19. http://dx.doi.org/10.1037/0021-9010.73.1.11

Spector, P. E., & Fox, S. 2005. The stressor-emotion model of counterproductive work behavior. In S. Fox & P. E. Spector (Eds.), *Counterproductive work behavior: Investigations of actors and targets,* 151–174. American Psychological Association.

Spector, P. E., & Fox, S. (2010). Counterproductive work behavior and organisational citizenship behavior: are they opposite forms of active behavior? *Applied Psychology: An International Review*, *59*(1), 21–39. https://doi.org/10.1111/j.1464-0597.2009.00414.x

Spector, P. E., Fox, S., Penney, L. M., Bruursema, K., Goh, A., & Kessler, S. (2006). The dimensionality of counterproductivity: Are all counterproductive behaviors created equal? *Journal of Vocational Behavior, 68,* 446-460. https://doi-org.ez.sun.ac.za/10.1016/j.jvb.2005.10.005

Springer, A., & Oleksa, K. (2017). The relationship between employees' competences and the consequences and manner of exercising emotional labour (EL). *Contemporary Economics*, *11*(1), 17–29. https://doi.org/10.5709/ce.1897-9254.226

Stats SA (2020). *How unequal is South Africa*. Available at: http://www.statssa.gov.za/?p=12930

Stevens, J. (2015). *The relative importance of happiness, job satisfaction and affective commitment in predicting intention to quit among South Africa* employees [Masters Thesis, UCT]. https://open.uct.ac.za/handle/11427/13748

Stewart, S. M., Bing, M. N., Davison, H. K., Woehr, D. J., & McIntyre, M. D. (2009). In the eyes of the beholder: A non-self-report measure of workplace deviance. *Journal of Applied Psychology*, *94*(1), 207–215. https://doi.org/10.1037/a0012605

Suhr, D. (2006). *The basics of structural equation modeling* [Paper presentation]: Irvine, CA, SAS User Group of the Western Region of the United States (WUSS).

Supramaniam, S., & Singaravelloo, K. (2021). Impact of emotional intelligence on organisational performance: An analysis in the Malaysian public administration. *Administrative Sciences*, *11*(3), 76. https://doi.org/10.3390/admsci11030076

Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, *7*(3), 242–264. https://doi.org/10.1037/1076-8998.7.3.242

Swanepoel, R. (2012). *Self-control and integrity as antecedents of deviant workplace-behaviour* [Doctoral dissertation, University of Johannesburg]. https://ujcontent.uj.ac.za/vital/%20access/manager/Repository?view=list&f0=sm_identifier%3A%22http%3A%2F%2Fhdl.handle.net%2F10210%2F7947%22&sort=sort_ss_title+asc

Tabachnick, B. G., & Fidell, L. S. (Eds.). (2001). *Using Multivariate Statistics* (4th ed.). Harper Collins Publishers.

Tabachnick, B. G., & Fidell, L. S. (Eds.). (2014). *Using multivariate statistics* (6th ed.). Pearson Education.

Tabachnick, B. G., & Fidell, L. S. (Eds). (2007). *Using Multivariate Statistics* (5th ed.). Pearson International Edition.

Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson Education.

Takawira, N., Coetzee, M., & Schreuder, D. (2014). Job embeddedness, work engagement and turnover intention of staff in a higher education institution: An exploratory study. *SA Journal of Human Resource Management*, *12*(1), 10. https://doi.org/10.4102/sajhrm.v12i1.524

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, *2*, 53–55. https://doi.org/10.5116/ijme.4dfb.8dfd

Teng, C-C., Lu, A. C. C., Huang, Z-Y., & Fang, C-H. (2019). Ethical work climate, organizational identification, leader-member-exchange (LMX) and organizational citizenship behavior (OCB): A study of three star hotels in Taiwan. *International Journal of Contemporary Hospitality Management*, *32*(1), 212–229. https://doi.org/10.1108/IJCHM-07-2018-0563

Theron, C. C. (2007). *Item analysis, exploratory factor analysis, confirmatory factor analysis and structural equation modelling* [Unpublished class notes, Industrial Psychology Masters Course work, University of Stellenbosch, South Africa].

Theron, M., Barkhuizen, N., & Du Plessis, Y. (2014). Managing the academic talent void: Investigating factors in academic turnover and retention in South Africa. *SA Journal of Industrial Psychology*, *40*(1), 1–e14. https://doi.org/10.4102/sajip.v40i1.1117

Thorndike, E. L. (1920). Intelligence and its uses. *Harper's Magazine, 140*, 227–235.

Trougakos, J., Chawla, N., & Mccarthy, J. (2020). Working in a pandemic: Exploring the impact of COVID-19 health anxiety on work, family, and health outcomes. *The Journal of Applied Psychology*, *105*. https://doi.org/10.1037/apl0000739

Turnipseed, D. L. (2018). Emotional intelligence and OCB: The moderating role of work locus of control. *The Journal of Social Psychology*, *158*(3), 322–336. https://doi.org/10.1080/00224545.2017.1346582

Turnipseed, D. L., & Rassuli, A. (2005). *Performance perceptions of organizational citizenship behaviours at work: a bi-level study among managers and employees*. *British Journal of Management, 16*(3), 231–244. https://doi.org/10.1111/J.1467-8551.2005.00456.X

Tziner, A., Fein, E. C., Kim, S.-K., Vasiliu, C., & Shkoler, O. (2020). Combining associations between emotional intelligence, work motivation, and organizational justice with counterproductive work behavior: A Profile Analysis via Multidimensional Scaling (PAMS) Approach. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.00851

Tziner, A., Shkoler, O., & Fein, E. C. (2020). Examining the effects of cultural value orientations, emotional intelligence, and motivational orientations: How do LMX mediation and gender-based moderation make a difference? *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.502903

Van Buuren, S. (2012). *Flexible imputation of missing data*. CRC Press.

Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: suggestions, practices, and recommendations for organizational research. *Organizational Research Methods*, *3*(1), 4–70. https://doi.org/10.1177/109442810031002

Vashisht, R., Singh, K., & Sharma, S. (2018). Emotional intelligence and its relationship with conflict management and occupational stress: A meta-analysis. *Pacific Business Review International*, *11*(4), 30–38. http://www.pbr.co.in/2018/2018_month/Oct/3.pdf

Vermooten, N., Boonzaier, B., & Kidd, M. (2019). Job crafting, proactive personality and meaningful work: Implications for employee engagement and turnover intention. *SA

Journal of Industrial Psychology, *45*(2), e1–e13.
https://doi.org/10.4102/sajip.v45i0.1567

Vogt, W. P. (1999). *Dictionary of statistics & methodology: A nontechnical guide for the social sciences* (2nd ed.). Sage.

Vogt, W. P., & Johnson, R. B. (2016). *The Sage dictionary of statistics & methodology: A nontechnical guide for the social sciences* (5th ed.). Sage.

Waglay, M., Becker, J. R., & Plessis, M. du. (2020). The role of emotional intelligence and autonomy in transformational leadership: A leader member exchange perspective. *South African Journal of Industrial Psychology*, *46*(1), NA-NA. https://doi.org/10.4102/sajip.v46i0.1762

Walden, J. A., & Kingsley Westerman, C. Y. (2018). Strengthening the tie: Creating exchange relationships that encourage employee advocacy as an organizational citizenship behavior. *Management Communication Quarterly*, *32*(4), 593–611. https://doi.org/10.1177/0893318918783612

Walters, C., Ronnie, L., Jansen, J., & Kriger, S. (2021). "Academic guilt": The impact of the pandemic-enforced lockdown on women's academic work. *Women's Studies International Forum*, *88*, 102522. https://doi.org/10.1016/j.wsif.2021.102522

Walumbwa, F., Christensen, A., Perrmann-Graham, J., & Kasimu, P. (2020). An identification based framework examining how and when salient social exchange resources facilitate and shape thriving at work. *Human Resource Development Review*, *19*, 153448432094620. https://doi.org/10.1177/1534484320946208

Wang, J.S. (2004). A study on the relationship among relationship quality, organisational promises, and willingness to share knowledge [Dissertation, Taiwan: I-Shou University].

Wang, H., Law, K. S., Hackett, R. D., Wang, D., & Chen, Z. X. (2005). Leader-member exchange as a mediator of the relationship between transformational leadership and followers' performance and organizational citizenship behavior. *Academy of Management Journal*, *48*(3), 420–432. https://doi.org/10.5465/amj.2005.17407908

Wang, H.-J., Le Blanc, P., Demerouti, E., Lu, C.-Q., & Jiang, L. (2019). A social identity perspective on the association between leader-member exchange and job insecurity. *European Journal of Work and Organizational Psychology*, *28*(6), 800–809. https://doi.org/10.1080/1359432X.2019.1653853

Wang, L., Chu, X., & Ni, N. (2010). Leader-member exchange and organizational citizenship behavior: a new perspective from perceived insider status and Chinese traditionality. *Frontiers of Literary Studies in China*, *4*(1), 148–169. https://doi.org/10.1007/s11782-010-0007-1

Wang, P.Q., Kim, P.B., & Milne, S. (2017). Leader-member exchange (LMX) and its work outcomes: The moderating role of gender. *Journal of Hospitality Marketing & Management*, 26(2), 125–143. https://doi.org/10.1080/19368623.2016.1185989

Wang, M., & Pan, Q. (2018). *Review of team member exchange and its impact mechanism.* [Proceedings Of The 2nd International Conference on Economics and Management, Education, Humanities And Social Sciences] (EMEHSS 2018). https://doi.org/10.2991/emehss-18.2018.127

Wang, S.-P., Chen, M.-S., & Li, M.-J. (2018). Key factors affecting deviant workplace behavior. *African Journal of Business Management*, *12*(10), 258–266. https://doi.org/10.5897/AJBM2018.8491

Wang, Y., & Wong, C.K. (2011). Understanding organizational citizenship behaviour from a cultural perspective: An empirical study within the context of hotels in Mainland China. *International Journal of Hospitality Management, 30*(4), 845 –854. https://doi-org.ez.sun.ac.za/10.1016/j.ijhm.2011.01.005

Wexley, K.N., & Yukl, G.A. (1984). *Organizational behavior and personnel psychology.* Richard D.Irwin, Inc.

Wijaya, N. H. S. (2020). *The effect of team social exchange perspective on employee job satisfaction* [Proceedings of the 8th International Conference on Entrepreneurship and Business Management UNTAR. pp 368–372] (ICEBM 2019).. https://doi.org/10.2991/aebmr.k.200626.063

Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, *17*(3), 601. https://psycnet.apa.org/doi/10.1177/014920639101700305

Wolf, E. J., Harrington, K. M., Clark, S. L., & Miller, M. W. (2013). Sample size requirements for structural equation models: An evaluation of power, bias, and solution propriety. *Educational and Psychological Measurement*, *76*(6), 913–934. https://doi.org/10.1177/0013164413495237

Woods, C. (2012). Exploring emotion in the higher education workplace: Capturing contrasting perspectives using Q methodology. *Higher Education*, *64*(6), 891–909. https://doi.org/10.1007/s10734-012-9535-2

Wu, W., Liu, Y., Kim, Y., & Gao, P. (2018). How does emotional conflict affect innovation behavior?: The moderating roles of leader-member exchange and team-member exchange. *International Journal of Conflict Management*, *29*(3), 327–346. https://doi.org/10.1108/IJCMA-09-2017-0094

Wulani, F., & Lindawati, T. (2018). The coworker's impression management, LMX and interpersonal deviance: The moderating effect of a fellow employee's LMX. *Journal of Organizational Culture, Communications and Conflict, 22*(1), 1–14.

Xiang, H., Chen, Y., & Zhao, F. (2017). Inclusive leadership, psychological capital, and employee innovation performance: The moderating role of leader-member exchange. *DEStech Transactions on Social Science, Education and Human Science*, *0*(hsmet), Article hsmet. https://doi.org/10.12783/dtssehs/hsmet2017/16465

Yang, J., & Diefendorff, J. M. (2009). The relations of daily counterproductive workplace behavior with emotions, situational antecedents, and personality moderators: a diary study in Hong Kong. *Personnel Psychology*, *62*(2), 259–295. https://doi.org/10.1111/j.1744-6570.2009.01138.x

Yang, J., Huang, Y., & Zhou, S. (2019). Emotional labor directed at leaders: The differential effects of surface and deep acting on LMX. *The International Journal of Human Resource Management*, *0*(0), 1–20. https://doi.org/10.1080/09585192.2019.1579253

Yaseen, A-D. O. (2020). The influence of emotional intelligence and organizational politics on employee turnover and performance. *Frontiers in Management and Business*, *1*(2), 51–62. https://doi.org/10.25082/FMB.2020.02.003

Yoon, N.-N., & Lee, J-H. (2020). Model analysis among variables related to turnover intention of dental hygienists working in dental clinics. *Journal of Korean society of Dental Hygiene*, *20*(6), 925–936. https://doi.org/10.13065/jksdh.20200085

Youngs, H. (2017). A critical exploration of collaborative and distributed leadership in higher education: Developing an alternative ontology through leadership-as-practice. *Journal of Higher Education Policy and Management*, *39*(2), 140–154. https://doi.org/10.1080/1360080X.2017.1276662

Yu, H., & Takahashi, Y. (2020). Emotional intelligence and extra-role behavior of knowledge employees: mediating and moderating effects. *Organizations and Markets in Emerging Economies*, *11*, 388–406. https://doi.org/10.15388/omee.2020.11.39

Yu, Q., Yen, D. A., Barnes, B. R., & Huang, Y-A. (2019). Enhancing firm performance through internal market orientation and employee organizational commitment. *The International Journal of Human Resource Management*, *30*(6), 964–987. https://doi.org/10.1080/09585192.2017.1380059

Zainal, N., Zawawi, D., Aziz, Y. A., & Ali, M. H. (2017). Relationship between emotional intelligence and job performance among employees in Malaysia service sector. *International Journal of Academic Research in Business and Social Sciences, 7(*12), 304-315. http://dx.doi.org/10.6007/IJARBSS/v7-i12/3613

Zeidner, M., Matthews, G., & Roberts, R. D. (2004). Emotional Intelligence in the Workplace: A Critical Review. *Applied Psychology*, *53*(3), 371–399. https://doi.org/10.1111/j.1464-0597.2004.00176.x

Zhao, D., & Cai, W. (2021). When does emotional intelligence (EI) benefit team-member exchange? The cross-level moderating role of EI-based leader-member exchange differentiation. *Career Development International*, *26*(3), 391–414. https://doi.org/10.1108/CDI-10-2020-0285

Zhao, J. L., Li, X. H., & Shields, J. (2019). Managing job burnout: The effects of emotion-regulation ability, emotional labor, and positive and negative affect at work. *International Journal of Stress Management, 26*(3), 315-320. https://psycnet.apa.org/doi/10.1037/str0000101

Zikmund, W. G. (2000). *Business research methods.* (6th ed.). The Dryden Press.

Zikmund, W. G., Babin, B.J., Carr, J.C, & Griffin, M. (2010). *Business research methods* (8th ed.). South-Western.

Zou, W.-C., Tian, Q., & Liu, J. (2015). Servant leadership, social exchange relationships, and follower's helping behavior: Positive reciprocity belief matters. *International Journal of Hospitality Management*, *51*, 147–156. https://doi.org/10.1016/j.ijhm.2015.08.012

Žukauskas, P., Vveinhardt, J., & Andriukaitienė, R. (2018). Philosophy and paradigm of scientific research. *Management Culture and Corporate Social Responsibility*. https://doi.org/10.5772/intechopen.70628
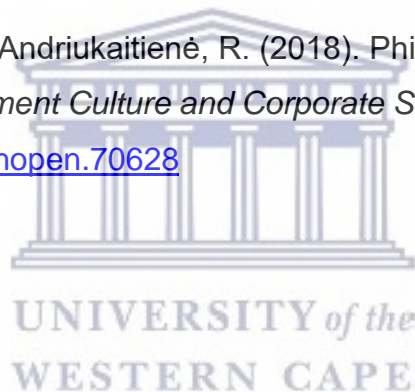
APPENDICES

Appendix A: Ethical clearance certificates

UNIVERSITY *of the* **WESTERN CAPE**

60 YEARS *of hope, action & knowledge*

23 October 2020

Ms CM Roux
Industrial Psychology
Faculty of Economic and Management Sciences

Ethics Reference Number: HS19/5/10

Project Title: Intention to quit, organizational citizenship and counterproductive workplace behaviour in higher education: The role of emotional intelligence and relationship quality.

Approval Period: 30 September 2020 – 30 September 2023

I hereby certify that the Humanities and Social Science Research Ethics Committee of the University of the Western Cape approved the methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

Please remember to submit a progress report by 30 November each year for the duration of the project.

The permission to conduct the study must be submitted to HSSREC for record keeping purposes.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

Director: Research Development
University of the Western Cape
Private Bag X 17
Bellville 7535
Republic of South Africa
Tel: +27 21 959 4111
Email: research-ethics@uwc.ac.za

NHREC Registration Number: HSSREC-130416-049

FROM HOPE TO ACTION THROUGH KNOWLEDGE.

13-Jul-2020

Dear Ms Chene Madeline Roux

UFS AUTHORITIES APPROVAL

Research Project Title:

Intention to quit, organizational citizenship and counterproductive workplace behaviour in selected Higher Education institutions: The role of emotional intelligence and relationship quality

This letter serves as confirmation that you have received reciprocal ethical approval, with the reference number UFS-HSD2020/0534/1007 from the University of the Free State (UFS). It also confirms approval to collect data from the UFS students and/or staff members.

Kind Regards

PROF RC WITTHUHN
VICE-RECTOR: RESEARCH & INTERNATIONALISATION
CHAIR: SENATE RESEARCH ETHICS COMMITTEE

UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA

UFS
UV

GENERAL/HUMAN RESEARCH ETHICS COMMITTEE (GHREC)

10-Jul-2020

Dear Applicant External

Application Approved

Research Project Title:

Intention to quit, organizational citizenship and counterproductive workplace behaviour in selected Higher Education institutions: The role of emotional intelligence and relationship quality

Ethical Clearance number:
UFS-HSD2020/0534/1007

We are pleased to inform you that your application for ethical clearance has been approved. Your ethical clearance is valid for twelve (12) months from the date of issue. We request that any changes that may take place during the course of your study/research project be submitted to the ethics office to ensure ethical transparency. furthermore, you are requested to submit the final report of your study/research project to the ethics office. Should you require more time to complete this research, please apply for an extension. Thank you for submitting your proposal for ethical clearance; we wish you the best of luck and success with your research.

Yours sincerely

Dr Adri Du Plessis
Chairperson: General/Human Research Ethics Committee

Adri du Plessis
2020.07.10
16:28:42
+02'00'

205 Nelson Mandela
Drive
Park West
Bloemfontein 9301
South Africa

P.O. Box 339
Bloemfontein 9300
Tel: +27 (0)51 401
9337
duplessisA@ufs.ac.za
www.ufs.ac.za

NELSON MANDELA

UNIVERSITY

PO Box 77000, Nelson Mandela University, Port Elizabeth, 6031, South Africa mandela.ac.za

Chairperson: Research Ethics Committee (Human)
Tel: +27 (0)41 504 2235
Charmain.Cilliers@mandela.ac.za

NHREC registration nr: REC-042508-025

Ref: [H19-BES-IOP-EAP-001]

7 October 2019

Dear Dr Du Plessis

TITLE: Intention to quit, organisational citizenship and counterproductive workplace behaviour in selected Higher Education Institutions: The role of emotional intelligence and relationship quality

REF NR: HS19/5/10
PRP: Dr M du Plessis
PI: Ms C Roux

Your application for ethics approval to conduct research at Nelson Mandela University has been considered by the REC-H on the basis that the study has been duly vetted and approved by the University of the Western Cape Ethics Committee.

Kindly use the following ethics reference number **H19-BES-IOP-EAP-001** together with your University's ethics clearance number in any correspondence with gatekeepers and participants at the University. Ethics clearance is valid for one year.

Please inform the REC-H, of any changes that may arise during the execution of the study, particularly to the methodology.

It must be noted that the Nelson Mandela University assumes that the Research Ethics Committee responsible for providing the original ethics approval/clearance has undertaken both ethics and scientific review of the protocol according to the National Health Research Ethics Committee (2015) Guidelines, and assumes primary responsibility for oversight with regard to any ethical issues that may arise in the course of the study. The Nelson Mandela University would also wish to be provided with an executive summary of the findings from the research.

We wish you well with the project.

Yours sincerely

[signature]

Prof C Cilliers
Chairperson: Research Ethics Committee (Human)

cc: Department of Research Capacity Development

NELSON MANDELA

UNIVERSITY

PO Box 77000, Nelson Mandela University, Port Elizabeth, 6031, South Africa mandela.ac.za

Chairperson: Research Ethics Committee (Human)
Tel: +27 (0)41 504 2235
Charmain.Cilliers@mandela.ac.za

NHREC registration nr: REC-042508-025

Ref: [H19-BES-IOP-EAP-001]

7 October 2019

Dear Dr Du Plessis

TITLE: Intention to quit, organisational citizenship and counterproductive workplace behaviour in selected Higher Education Institutions: The role of emotional intelligence and relationship quality

REF NR: HS19/5/10
PRP: Dr M du Plessis
PI: Ms C Roux

Your application for ethics approval to conduct research at Nelson Mandela University has been considered by the REC-H on the basis that the study has been duly vetted and approved by the University of the Western Cape Ethics Committee.

Kindly use the following ethics reference number **H19-BES-IOP-EAP-001** together with your University's ethics clearance number in any correspondence with gatekeepers and participants at the University. Ethics clearance is valid for one year.

Please inform the REC-H, of any changes that may arise during the execution of the study, particularly to the methodology.

It must be noted that the Nelson Mandela University assumes that the Research Ethics Committee responsible for providing the original ethics approval/clearance has undertaken both ethics and scientific review of the protocol according to the National Health Research Ethics Committee (2015) Guidelines, and assumes primary responsibility for oversight with regard to any ethical issues that may arise in the course of the study. The Nelson Mandela University would also wish to be provided with an executive summary of the findings from the research.

We wish you well with the project.

Yours sincerely

CBCilliers

Prof C Cilliers
Chairperson: Research Ethics Committee (Human)

cc: Department of Research Capacity Development

HR194	**ACCESS TO UCT STAFF FOR RESEARCH PURPOSES**		**UNIVERSITY OF CAPE TOWN** *(YUNIVESITHI YASE...)* **RECEIVED** 0 8 OCT 2019 ED: HR OFFICE

NOTES

- Forms must be downloaded from the UCT website: http://forms.uct.ac.za/forms.htm
- This form must be completed by applicants who are requesting to access UCT staff for the purpose of research.
- A copy of the research proposal as well as the Ethics Committee approval must be attached.
- It is the **responsibility of the researcher/s to apply for ethical clearance** from the relevant Faculty's Research in Ethics Committee (RiEC).
- If you are requesting staff information, you are required to complete the HR Information Request Form (HR190) and submit it together with all the required documentation.
- The turnaround time for a reply is **approximately 10 working days unless specified as urgent.**
- Return the completed application form and all the above documentation to Joy Henry via email: joy.henry@uct.ac.za; or deliver to: For the Attention: Executive Director, Human Resources Department, Bremner Building, Room 214, Lower Campus, UCT.

SECTION A: APPLICANT DETAILS

Title	Ms	Name	Chene Roux
Telephone number	+82 10 4097 0850	Email address	cmroux7@gmail.com
Student number	3876199 (UWC)	Staff number	NA
Visiting researcher ID / passport number	8610010168084		
Faculty Officer contact details	NA		
University or institution at which employed or a registered student	University of the Western Cape		
Faculty or department in which you are registered or work	Industrial Pschology, Economic & Management Sciences		
Address (if not UCT)	10 Silo Street, Ravensmead, 7493 Cape Town		

SECTION B: SUPERVISOR DETAILS

	Title and name	Telephone number	Email address
Supervisor	Dr Marieta du Plessis	0219593175	mduplessis@uwc.ac.za
Co-Supervisor	Dr Jurgen Becker	0219593175	jbecker@uwc.ac.za

SECTION C: APPLICANT'S FIELD OF STUDY (if applicable) / TITLE OF RESEARCH PROJECT / STUDY

Degree	PhD Industrial Psychology		
Research project or title	Intention to quit, organizational citizenship and counterproductive workplace behavior in selected Higher Education institutions: The role of emotional intelligence and relationship quality		
Research proposal attached	☒ Yes	☐ No	
Target population (number of UCT staff)	Approximately 300 UCT staff (or as many as possible)		
Amount of time required for an interview and/or questionnaire	10 - 15 minutes for an online questionnaire		
Lead Researcher details	Chene Roux, cmroux7@gmail.com		
Proof of ethical clearance status attached	☒ Yes	☐ No	

SECTION D: FOR OFFICE USE (Approval status to be completed by the Executive Director, Human Resources or Nominee)

Support or approval			Role	Signature	Date
Supported?	☒ Yes	☐ No	Joy Henry (Office Co-Ordinator)	*(signature)*	8\10\2019
Approved?	☒ Yes	☐ No	Miriam Hoosain (Executive Director: HR)	*(signature)*	8/10/19

UNIVERSITEIT • STELLENBOSCH • UNIVERSITY

jou kennisvennoot • your knowledge partner

INSTITUTIONAL PERMISSION:

AGREEMENT ON USE OF PERSONAL INFORMATION IN RESEARCH

Name of Researcher:	Chene Roux
Name of Research Project:	Intention to quit, organizational citizenship and counterproductive workplace behaviour in Higher Education: The role of emotional intelligence and relationship quality.
Service Desk ID:	IRPSD-1476
Date of Issue:	23 September 2019

The researcher has received institutional permission to proceed with this project as stipulated in the institutional permission application and within the conditions set out in this agreement.

1	WHAT THIS AGREEMENT IS ABOUT	
What is POPI?	1.1	POPI is the Protection of Personal Information Act 4 of 2013.
	1.2	POPI regulates the entire information life cycle from collection, through use and storage and even the destruction of personal information.
Why is this important to us?	1.3	Even though POPI is important, it is not the primary motivation for this agreement. The privacy of our students and employees are important to us. We want to ensure that no research project poses any risks to their privacy.
	1.4	However, you are required to familiarise yourself with, and comply with POPI in its entirety.
What is considered to be personal information?	1.5	'Personal Information' means information relating to an identifiable, living, individual or company, including, but not limited to:
	1.5.1	information relating to the race, gender, sex, pregnancy, marital status, national, ethnic or social origin, colour, sexual orientation, age, physical or mental health, well-being, disability, religion, conscience, belief, culture, language and birth of the person;
	1.5.2	information relating to the education or the medical, financial, criminal or

1

Institutional Permission Standard Agreement: 13 March 2017 V1

		employment history of the person;
	1.5.3	any identifying number, symbol, e-mail address, physical address, telephone number, location information, online identifier or other particular assignment to the person;
	1.5.4	the biometric information of the person;
	1.5.5	the personal opinions, views or preferences of the person;
	1.5.6	correspondence sent by the person that is implicitly or explicitly of a private or confidential nature or further correspondence that would reveal the contents of the original correspondence;
	1.5.7	the views or opinions of another individual about the person; and
	1.5.8	the name of the person if it appears with other personal information relating to the person or if the disclosure of the name itself would reveal information about the person.
Some personal information is more sensitive.	1.6	Some personal information is considered to be sensitive either because:
	1.6.1	POPI has classified it as sensitive;
	1.6.2	if the information is disclosed it can be used to defraud someone; or
	1.6.3	the disclosure of the information will be embarrassing for the research subject.
	1.7	The following personal information is considered particularly sensitive:
	1.7.1	Religious or philosophical beliefs;
	1.7.2	race or ethnic origin;
	1.7.3	trade union membership;
	1.7.4	political persuasion;
	1.7.5	health and health related documentation such as medical scheme documentation;
	1.7.6	sex life;
	1.7.7	biometric information;
	1.7.8	criminal behaviour;
	1.7.9	personal information of children under the age of 18;
	1.7.10	financial information such as banking details, details relating to financial

		products such as insurance, pension funds or other investments.
	1.8	You may make use of this type of information, but must take extra care to ensure that you comply with the rest of the rules in this document.

2 COMMITMENT TO ETHICAL AND LEGAL RESEARCH PRACTICES

You must commit to the use of ethical and legal research practices.	2.1	You must obtain ethical clearance before commencing with this study.
	2.2	You commit to only employing ethical and legal research practices.
You must protect the privacy of your research subjects.	2.3	You undertake to protect the privacy of the research subjects throughout the project.

3 RESEARCH SUBJECT PARTICIPATION

Personal information of identifiable research subjects must not be used without their consent.	3.1	Unless you have obtained a specific exemption for your research project, consent must be obtained in writing from the research subject, before their personal information is gathered.
Research subjects must be able to withdraw from the research project.	3.2	Research subjects must always be able to withdraw from the research project (without any negative consequences) and to insist that you destroy their personal information.
Consent must be specific and informed.	3.3	Unless you have obtained a specific exemption for your research project, the consent must be specific and informed. Before giving consent, the research subject must be informed in writing of:
	3.3.1	The purpose of the research,
	3.3.2	what personal information about them will be collected (particularly sensitive personal information),
	3.3.3	how the personal information will be collected (if not directly from them),
	3.3.4	the specific purposes for which the personal information will be used,
	3.3.5	what participation will entail (i.e. what the research subject will have to do),
	3.3.6	whether the supply of the personal information is voluntary or mandatory for purposes of the research project,

	3.3.7	who the personal information will be shared with,
	3.3.8	how the personal information will be published,
	3.3.9	the risks to participation (if any),
	3.3.10	their rights to access, correct or object to the use of their personal information,
	3.3.11	their right to withdraw from the research project, and
	3.3.12	how these rights can be exercised.
Consent must be voluntary.	3.4	Participation in the research project must always be voluntary. You must never pressure or coerce research subjects into participating and persons who choose not to participate must not be penalised.
Using the personal information of children?	3.5	A child is anybody under the age of 18.
	3.6	Unless you have obtained a specific exemption in writing for your research project, you must obtain
	3.6.1	the consent of the child's parent or guardian, and
	3.6.2	if the child is over the age of 7, the assent of the child,
		before collecting the child's information.
Research subjects have a right to access.	3.7	Research subjects have the right to access their personal information, obtain confirmation of what information is in your possession and who had access to the information. It is strongly recommended that you keep detailed records of access to the information.
Research subjects have a right to object.	3.8	Research subjects have the right to object to the use of their personal information.
	3.9	Once they have objected, you are not permitted to use the personal information until the dispute has been resolved.

4 COLLECTING PERSONAL INFORMATION

Only collect what is necessary.	4.1	You must not collect unnecessary or irrelevant personal information from research subjects.
Only collect accurate personal information.	4.2	You have an obligation to ensure that the personal information you collect is accurate. Particularly when you are collecting it from a source other than the

		research subject.
	4.3	If you have any reason to doubt the quality of the personal information you must verify or validate the personal information before you use it.

5 USING PERSONAL INFORMATION

Only use the personal information for the purpose for which you collected it.	5.1	Only use the personal information for the purpose for which you collected it.
	5.2	If your research project requires you to use the personal information for a materially different purpose than the one communicated to the research subject, you must inform the research subjects and Stellenbosch University of this and give participants the option to withdraw from the research project.
Be careful when you share personal information.	5.3	Never share personal information with third parties without making sure that they will also follow these rules.
	5.4	Always conclude a non-disclosure agreement with the third parties.
	5.5	Ensure that you transfer the personal information securely.
Personal information must be anonymous whenever possible.	5.6	If the research subject's identity is not relevant for the aims of the research project, the personal information must not be identifiable. In other words, the personal information must be anonymous (de-identified).
Pseudonyms must be used whenever possible.	5.7	If the research subject's identity is relevant for the aims of the research project or is required to co-ordinate, for example, interviews, names and other identifiers such as ID or student numbers must be collected and stored separately from the rest of the research data and research publications. In other words, only you must be able to identify the research subject.
Publication of research	5.8	The identity of your research subjects should not be revealed in any publication.
	5.9	In the event that your research project requires that the identity of your research subjects must be revealed, you must apply for an exemption from this rule.

6 SECURING PERSONAL INFORMATION

You are responsible for the confidentiality and security of the personal information	6.1	Information must always be handled in the strictest confidence.
	6.2	You must ensure the integrity and security of the information in your possession or under your control by taking appropriate and reasonable technical and organisational measures to prevent:

5

Institutional Permission Standard Agreement: 13 March 2017 V1

	6.2.1	Loss of, damage to or unauthorised destruction of information; and
	6.2.2	unlawful access to or processing of information.
	6.3	This means that you must take reasonable measures to:
	6.3.1	Identify all reasonably foreseeable internal and external risks to personal information in your possession or under your control;
	6.3.2	establish and maintain appropriate safeguards against the risks identified;
	6.3.3	regularly verify that the safeguards are effectively implemented; and
	6.3.4	ensure that the safeguards are continually updated in response to new risks or deficiencies in previously implemented safeguards.
Sensitive personal information requires extra care.	6.4	You will be expected to implement additional controls in order to secure sensitive personal information.
Are you sending any personal information overseas?	6.5	If you are sending personal information overseas, you have to make sure that:
	6.5.1	The information will be protected by the laws of that country;
	6.5.2	the company or institution to who you are sending have agreed to keep the information confidential, secure and to not use it for any other purpose; or
	6.5.3	get the specific and informed consent of the research subject to send the information to a country which does not have data protection laws.
Be careful when you use cloud storage.	6.6	Be careful when storing personal information in a cloud. Many clouds are hosted on servers outside of South Africa in countries that do not protect personal information to the same extent as South Africa. The primary example of this is the United States.
	6.7	It is strongly recommended that you use hosting companies who house their servers in South Africa.
	6.8	If this is not possible, you must ensure that the hosting company agrees to protect the personal information to the same extent as South Africa.
7		**RETENTION AND DESTRUCTION OF PERSONAL INFORMATION**
You are not entitled to retain personal information when you no longer need it for the purposes	7.1	Personal information must not be retained beyond the purpose of the research project, unless you have a legal or other justification for retaining the information.

of the research project.		
If personal information is retained, you must make sure it remains confidential.	7.2	If you do need to retain the personal information, you must assess whether:
	7.2.1	The records can be de-identified; and/or whether
	7.2.2	you have to keep all the personal information.
	7.3	You must ensure that the personal information which you retain remains confidential, secure and is only used for the purposes for which it was collected.

8   INFORMATION BREACH PROCEDURE

In the event of an information breach you must notify us immediately.	8.1	If there are reasonable grounds to believe that the personal information in your possession or under your control has been accessed by any unauthorised person or has been disclosed, you must notify us immediately.
	8.2	We will notify the research subjects in order to enable them to take measures to contain the impact of the breach.
This is the procedure you must follow.	8.3	You must follow the following procedure:
	8.3.1	Contact the Division for Institutional Research and Planning at 021 808 9385 and permission@sun.ac.za;
	8.3.2	you will then be required to complete the information breach report form which is attached as Annexure A.
	8.4	You are required to inform us of a information breach within 24 hours. Ensure that you have access to the required information.

9   MONITORING

You may be audited.	9.1	We reserve the right to audit your research practices to assess whether you are complying with this agreement.
	9.2	You are required to give your full co-operation during the auditing process.
	9.3	We may also request to review:
	9.3.1	Forms (or other information gathering methods) and notifications to research subjects, as referred to in clause 3;
	9.3.2	non-disclosure agreements with third parties with whom the personal information is being shared, as referred to in clause 5.4;

7

Institutional Permission Standard Agreement: 13 March 2017 V1

	9.3.3	agreements with foreign companies or institutes with whom the personal information is being shared, as referred to in clause 6.5.

10 CHANGES TO RESEARCH

You need to notify us if any aspect of your collection or use of personal information changes.	10.1	You must notify us in writing if any aspect of your collection or use of personal information changes (e.g. such as your research methodology, recruitment strategy or the purpose for which you use the research).
	10.2	We may review and require amendments to the proposed changes to ensure compliance with this agreement.
	10.3	The notification must be sent to permission@sun.ac.za.

11 CONSEQUENCES OF BREACH

What are the consequences of breaching this agreement?	11.1	If you do not comply with this agreement, we may take disciplinary action or report such a breach to your home institute.
	11.2	You may be found guilty of research misconduct and may be censured in accordance with Stellenbosch University or your home institute's disciplinary code.
You may have to compensate us in the event of any legal action.	11.3	Non-compliance with this agreement could also lead to claims against Stellenbosch University in terms of POPI and/or other laws.
	11.4	Unless you are employed by or studying at Stellenbosch University, you indemnify Stellenbosch University against any claims (including all legal fees) from research subjects or any regulatory authority which are the result of your research project. You may also be held liable for the harm to our reputation should there be an information breach as a result of your non-compliance with this agreement.

12 CONTACT US

Please contact us if you have any questions.	Should you have any questions relating to this agreement you should contact permission@sun.ac.za.

Annexure 'A'

Instruction:

Please send this Notice to permission@sun.ac.za. If you have any difficulty completing the Notice, please contact the Division for Institutional Research and Planning at 021 808 9385. You must confirm that the Notice was received.

NOTIFICATION OF INFORMATION BREACH

Name of Researcher: _____

Name of Research Project: _____

Service Desk ID: _____

A security breach happens when you know (or you **reasonably believe**) that there has been:

    (a) loss of Personal Information ("PI")
    (b) damage to PI
    (c) unauthorised destruction of PI
    (d) unauthorised access to PI
    (e) unauthorised processing of PI

Date and time of security breach:	
Brief description of the security breach (what was lost and how). Please identify the equipment, software and/or physical premises and whether it is by hacking, lost device, public disclosure (email), theft or other means:	
Name of the person/s responsible for the security breach (if known):	
Is the security breach ongoing?	
Describe the steps taken to contain the security breach:	
What steps are being taken to investigate the cause of breach?	

9

Institutional Permission Standard Agreement: 13 March 2017 V1

Appendix B: Questionnaire

CONSENT FORM

Title: Intention to quit, organizational citizenship and counterproductive workplace behaviour in selected Higher Education institutions: The role of emotional regulation and relationship quality

Researcher: Chene Roux (3876199)

* 1. Please respond to the following statements

	Yes	No
I confirm that I have read and understand the information sheet explaining the above research project and I have had the opportunity to ask questions about the project.		
I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline. (If I wish to withdraw I may contact the lead researcher at any time)		
I understand my responses and personal data will be kept strictly confidential. I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the publications that result for the research.		
I agree for the data collected from me to be used in future research.		
I agree to take part in the above research project.		

UNIVERSITY *of the*
WESTERN CAPE

SECTION A – BIOGRAPHICAL INFORMATION

Please provide the following information about yourself. Fill in the necessary information or select the appropriate option.

* 2. Position in institution (Academic or Support Staff):

Academic staff	Support (administrative) staff

* 3. Length of service with the person you currently report to:

Less than 1 year	1 - 2 years	3 - 5 years	6 – 8 years	9 - 10 years	More than 10 years

* 4. Gender:

Male

Female

Prefer not to answer

* 5. First language / mother tongue

Afrikaans	South Sotho
English	North Sotho
Xhosa	Tsonga
Venda	Tswana
Zulu	Swazi
Ndebele	Other

SECTION B

* 6. Each of the following items asks you about your emotions or reactions associated with emotions. After deciding whether a statement is generally true for you, use the 5-point scale to respond to the statement. **Please select "1" if you strongly disagree that this is like you, the "2" if you somewhat disagree that this is like you, "3" if you neither agree nor disagree that this is like you, the "4" if you somewhat agree that this is like you, and "5" if you strongly agree that this is like you.**

	1. Strongly disagree	2. Somewhat disagree	3. Neither agree or disagree	4. Somewhat agree	5. Strongly agree
I know when to speak about my personal problems to others.					
When I am faced with obstacles, I remember times I faced similar obstacles and overcame them.					
I expect that I will do well on most things I try.					
Other people find it easy to confide in me.					
I expect good things to happen.					
I like to share my emotions with others.					
When I experience a positive emotion, I know how to make it last.					
I arrange events others enjoy.					
I seek out activities that make me happy.					
I present myself in a way that makes a good impression on others.					
I have control over my emotions.					
I motivate myself by imagining a good outcome to tasks I take on.					
I compliment others when they have done something well.					
When another person tells me about an important event in his or her life, I almost feel as though I experienced this event myself.					
When I am faced with a challenge, I give up because I believe I will fail.					
I help other people feel better when they are down.					
I use good moods to help myself keep trying in the face of obstacles.					

SECTION C

* 7. Thinking about your immediate superior (to whom you report), please honestly answer the following items. Please select the appropriate response:

	1. Strongly disagree	2. Disagree	3. Neither	4. Agree	5. Strongly agree
I usually know where I stand with the person I report to.					
The person I report to understands my job problems and needs.					
The person I report to recognizes my potential.					
Regardless of how much formal authority the person I report to has built into his/her position, he/she would be personally inclined to use his/her power to help me solve problems in my work.					
I can count on the person I report to to "bail me out" at his/her expense, when I really need it.					
I have enough confidence in the person I report to that I would defend and justify her/his decision if she/he were not present to do so.					

* 8. How would you characterize your working relationship with the person you report to?

1. Extremely ineffective   2. Worse than average   3. Average   4. Better than average   5. Extremely effective

SECTION D

* 9. The following statements describe how you feel about different aspects of your job. **Read each statement carefully and indicate the extent to which you are satisfied with each aspect of your job.** There are no right or wrong answers, therefore please try and respond to ALL statements as honestly as possible. Please select the appropriate response:

	1. Strongly Disagree	2. Disagree	3. Neither	4. Agree	5. Strongly agree
Other colleagues of my team understand my problems and needs.					
Other colleagues of my team usually let me know when I do something that makes their jobs easier (or harder).					
I usually let other colleagues of my team know when they have done something that makes my job easier (or harder).					
Other colleagues of my team recognize my potential.					
Other colleagues of my team understand my problems and needs.					
I am flexible about switching job responsibilities to make things easier for other colleagues.					
In busy situations, other colleagues often ask me to help out.					
In busy situations, I often volunteer my efforts to help my colleagues.					
I am willing to help finish work that had been assigned to other colleagues.					
The other colleagues of my team are willing to help me finish work that was assigned to me.					

SECTION E

* 10. The following statements are related to Organizational Citizenship Behavior. There are no right or wrong answers, therefore please try and respond to ALL statements as honestly as possible.

How often have you done each of the following things on your present job?Please select the most accurate response:

	1. Never	2. Once or twice	3. Once or twice per month	4. Twice per week	5. Everyday
Picked up meal for others at work.					
Took time to advise, coach, or mentor a co-worker.					
Helped co-worker learn new skills or shared job knowledge.					
Helped new employees get oriented to the job.					
Lent a compassionate ear when someone had a work problem.					
Lent a compassionate ear when someone had a personal problem.					
Changed vacation schedule, work days, or shifts to accommodate co-worker's needs.					
Offered suggestions to improve how work is done.					
Offered suggestions for improving the work environment.					
Finished something for co-worker who had to leave early.					
Helped a less capable co-worker lift a heavy box or other object.					
Helped a co-worker who had too much to do.					
Volunteered for extra work assignments.					
Took phone messages for absent or busy co-worker.					
Said good things about your employer in front of others.					
Gave up meal and other breaks to complete work.					
Volunteered to help a co-worker deal with a difficult customer, vendor, or coworker.					
Went out of the way to give co-worker encouragement or express appreciation.					
Decorated, straightened up, or otherwise beautified common work space.					
Defended a co-worker who was being "put-down" or spoken ill of by other coworkers or supervisor.					

312
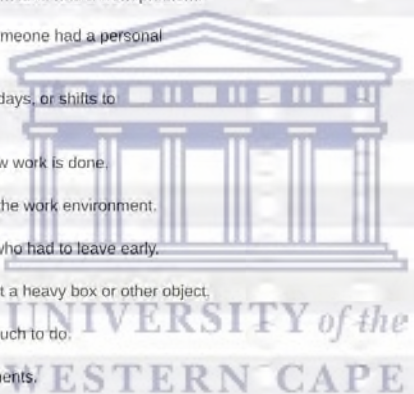
SECTION F

* 11. Thinking about your own behaviour, **please indicate the extent to which you have engaged in each of the following behaviours**. Please select the most accurate response:

	1. Never	2. Once a year	3. Twice a year	4. Several times a year	5. Monthly	6. Weekly	7. Daily
Made fun of someone at work.							
Said something hurtful to someone at work.							
Made an ethnic, religious, or racial remark at work.							
Cursed at someone at work.							
Played a mean prank on someone at work.							
Acted rudely toward someone at work.							
Publicly embarrassed someone at work.							
Taken property from work without permission.							
Spent too much time fantasizing or daydreaming instead of working.							
Falsified a receipt to get reimbursed for more money than you spent on business expenses.							
Taken an additional or longer break than is acceptable at your workplace.							
Come in late to work without permission.							
Littered your work environment.							
Neglected to follow your boss's instructions.							
Intentionally worked slower than you could have worked.							
Discussed confidential company information with an unauthorized person.							
Used an illegal drug or consumed alcohol on the job.							
Put little effort into your work.							
Dragged out work in order to get overtime.							
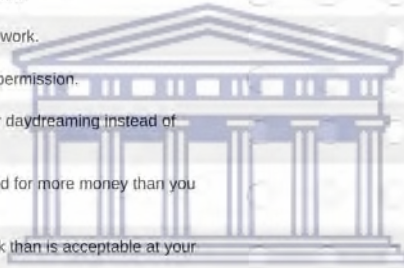
SECTION G

Please honestly answer the following questions by selecting a position along the scale.
During the past nine months:

* 12. How often have you considered leaving your job?

Never   Always

* 13. How satisfying is your job in fulfilling your personal needs?

Very satisfying   Totally dissatisfying

* 14. How often are you frustrated when not given the opportunity at work to achieve your personal work-related goals?

Never   Always

* 15. How often do you dream about getting another job that will better suit your personal needs?

Never   Always

* 16. How likely are you to accept another job at the same compensation level should it be offered to you?

Highly unlikely   Highly likely

* 17. How often do you look forward to another day at work?

1. Always   5. Never

Appendix C: Histograms and Q-Q plots

Normal Q-Q Plot of CWB

Detrended Normal Q-Q Plot of CWB

Normal Q-Q Plot of CWB

Detrended Normal Q-Q Plot of CWB
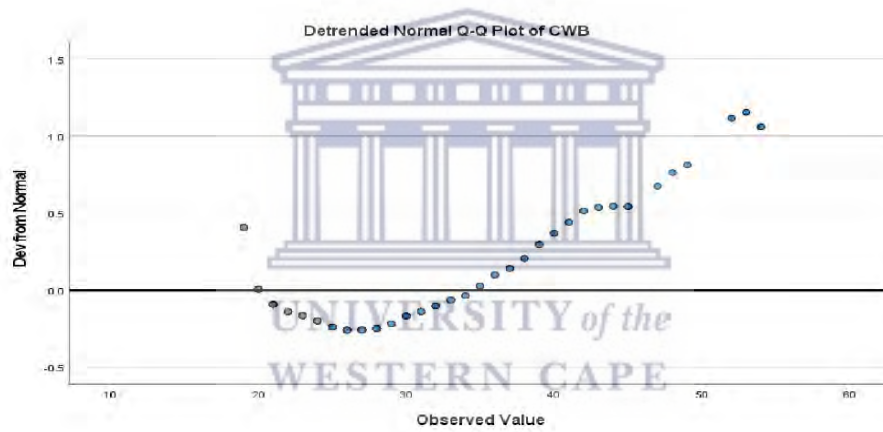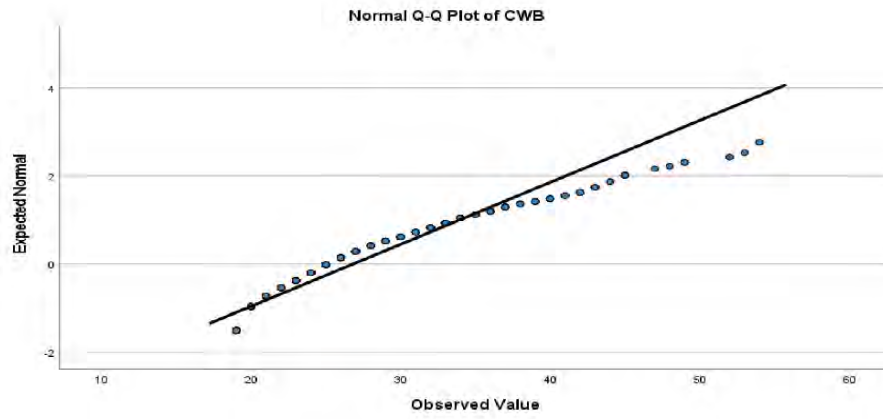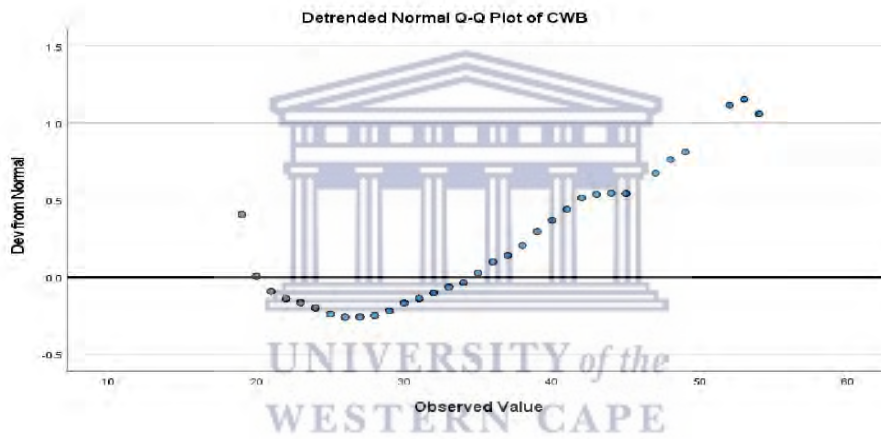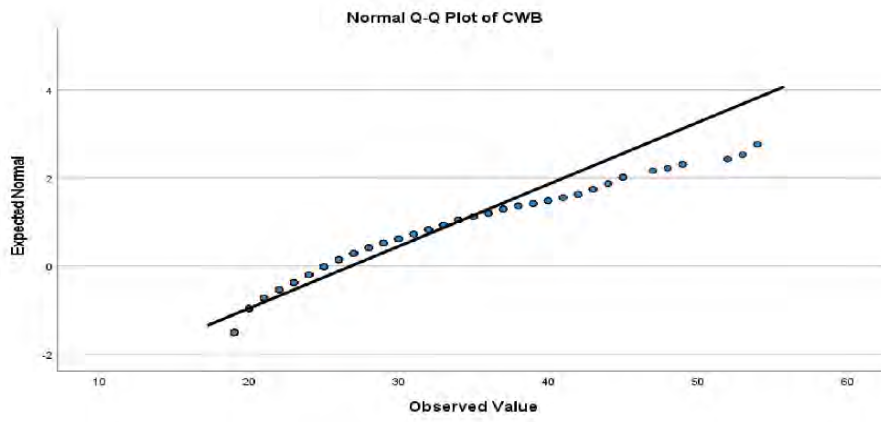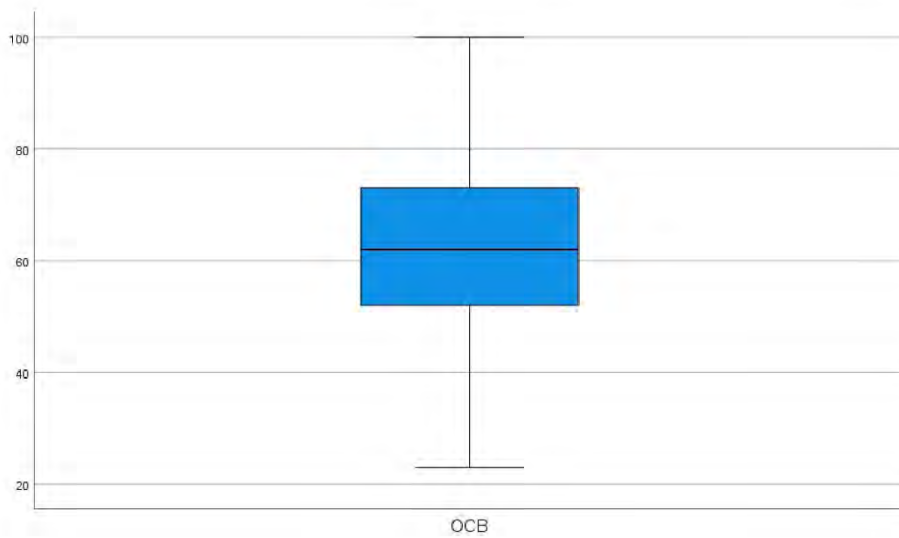
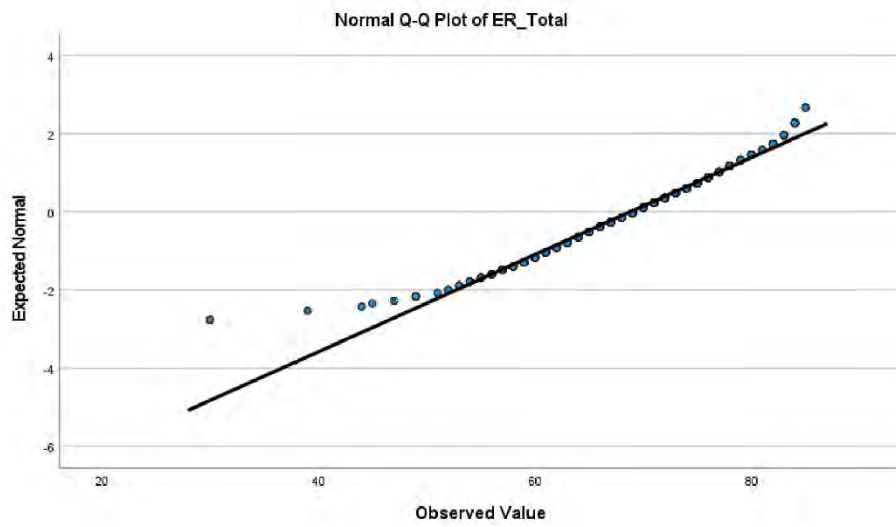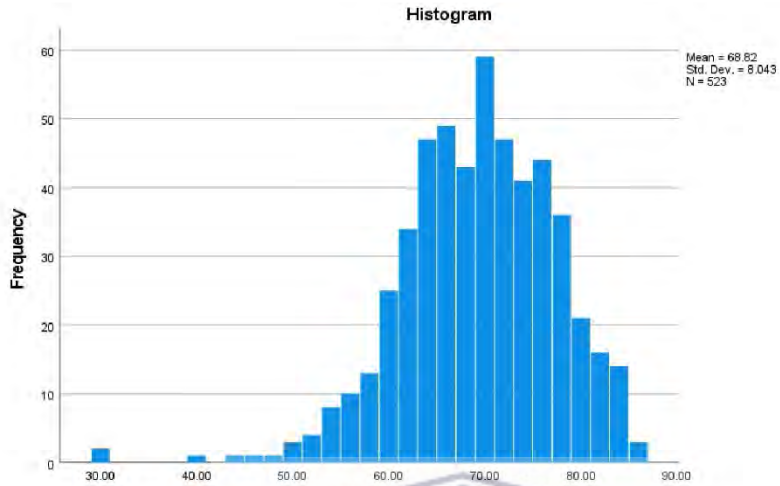**Histogram and Q-Q Plots of CWB**

Histogram

Mean = 26.82
Std. Dev. = 7.109
N = 523

Normal Q-Q Plot of OCB

Detrended Normal Q-Q Plot of OCB
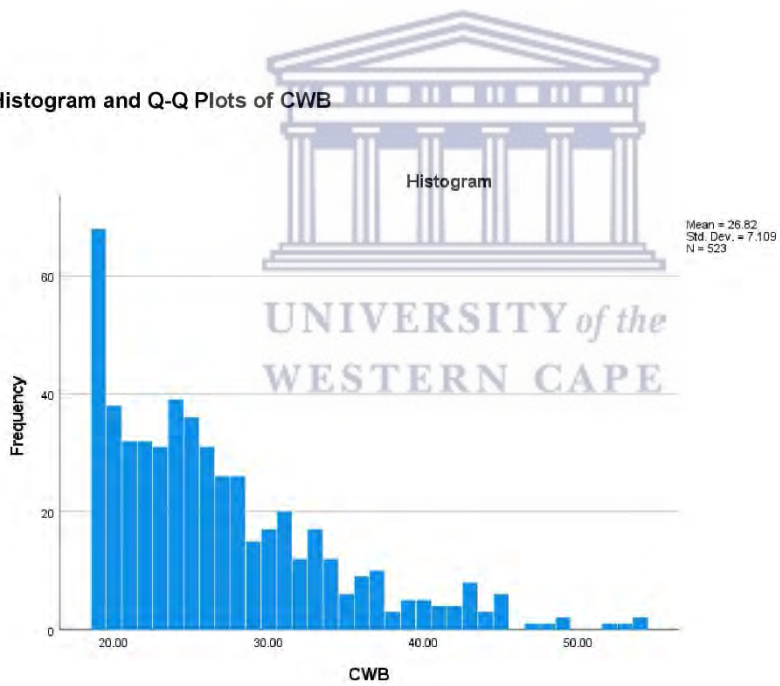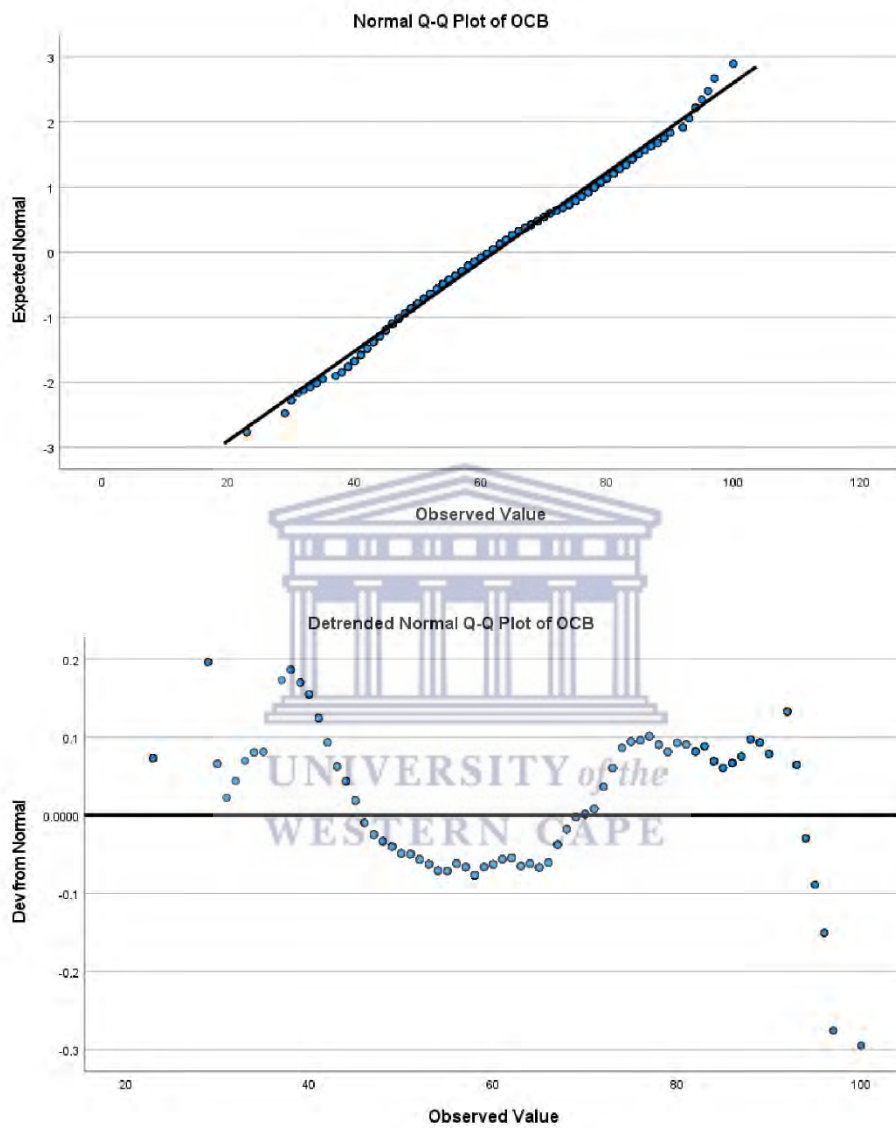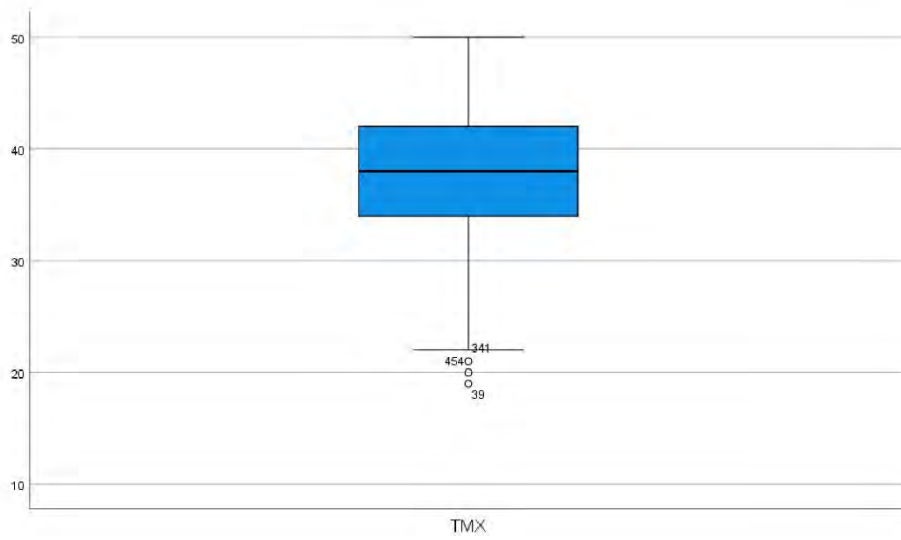
Histogram and Q-Q Plots of OCB

Histogram

Mean = 62.17
Std. Dev. = 14.56
N = 523

Normal Q-Q Plot of TMX

Detrended Normal Q-Q Plot of TMX

LMX
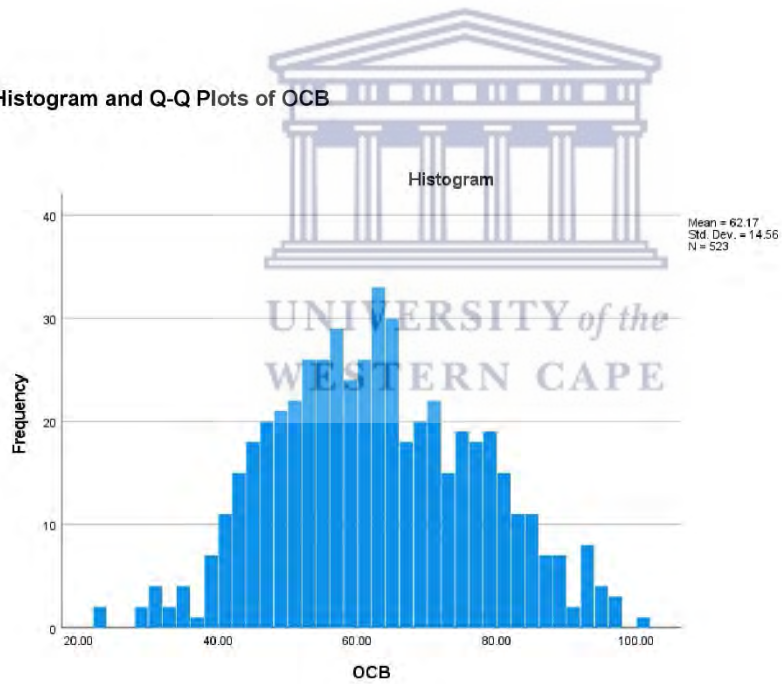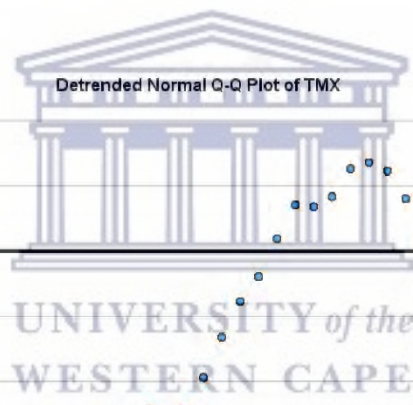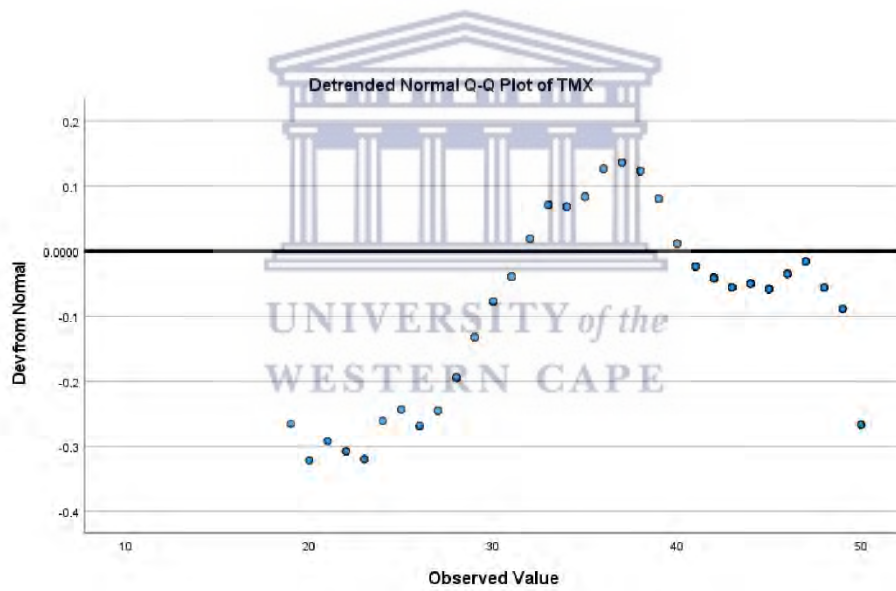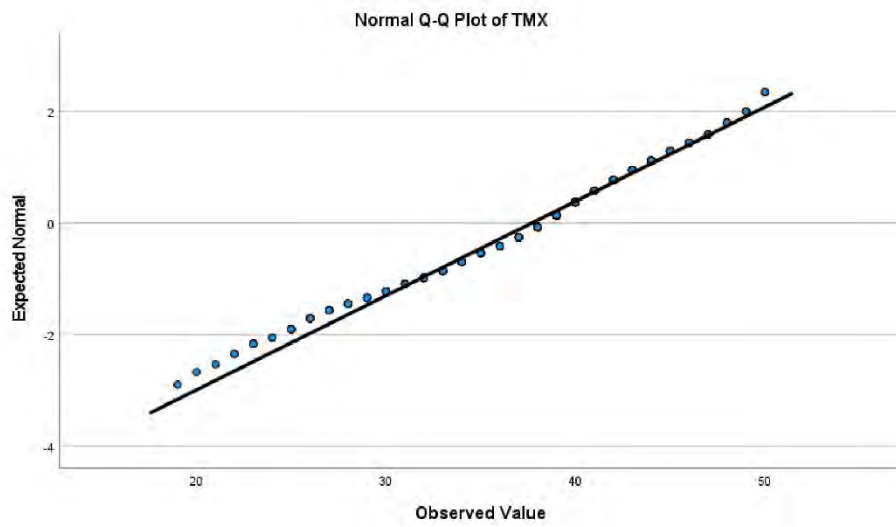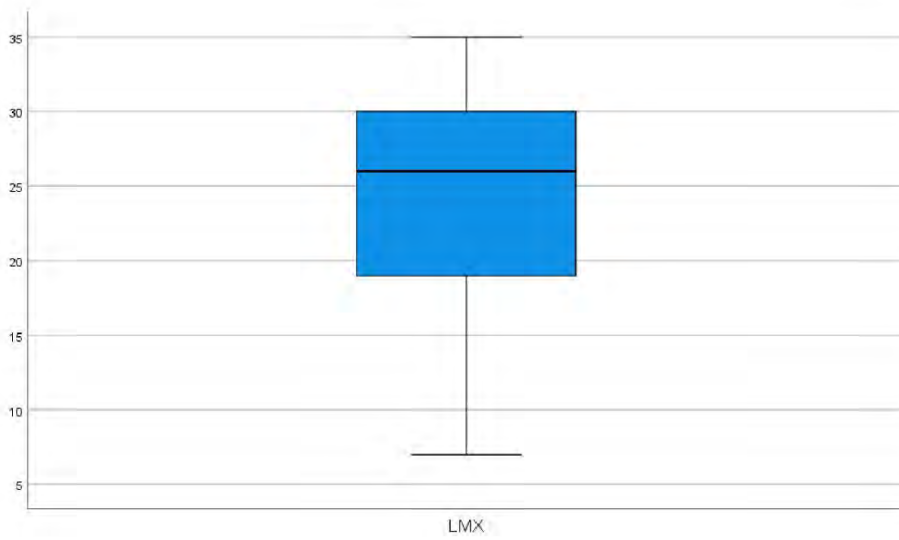
Histogram and Q-Q Plots of TMX

Histogram

Mean = 37.70
Std. Dev. = 5.921
N = 523

TMX

Normal Q-Q Plot of LMX

Detrended Normal Q-Q Plot of LMX

ER_Total
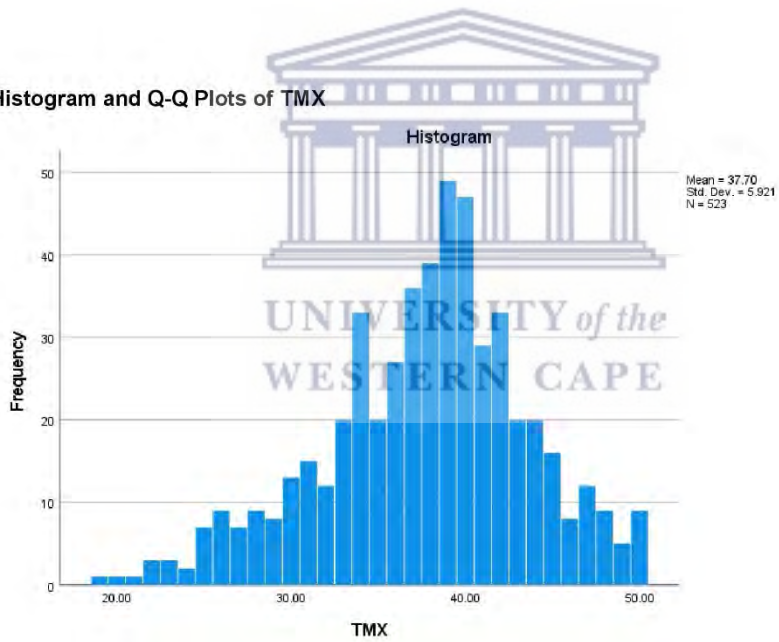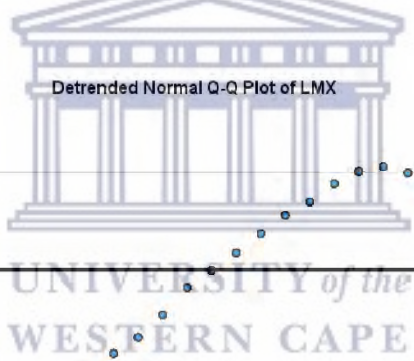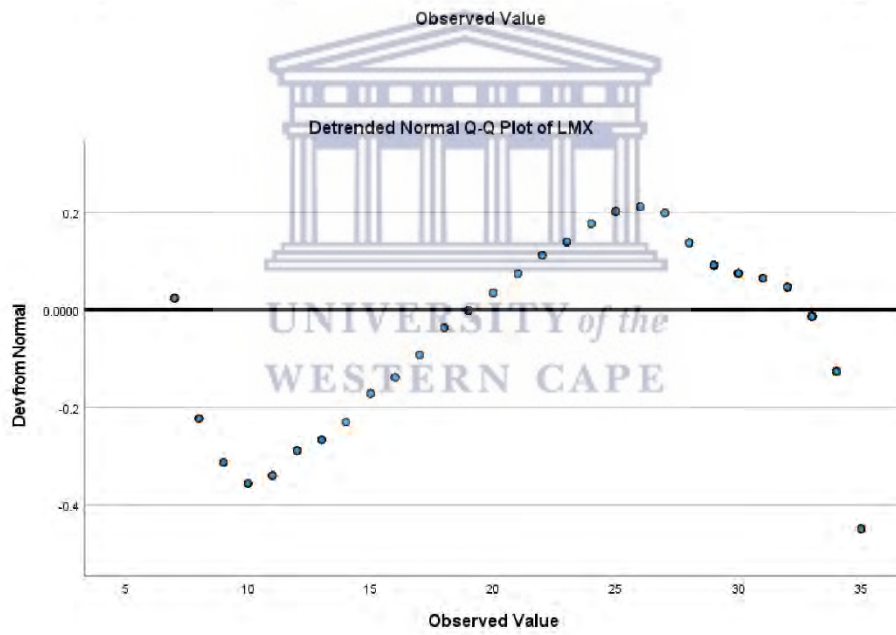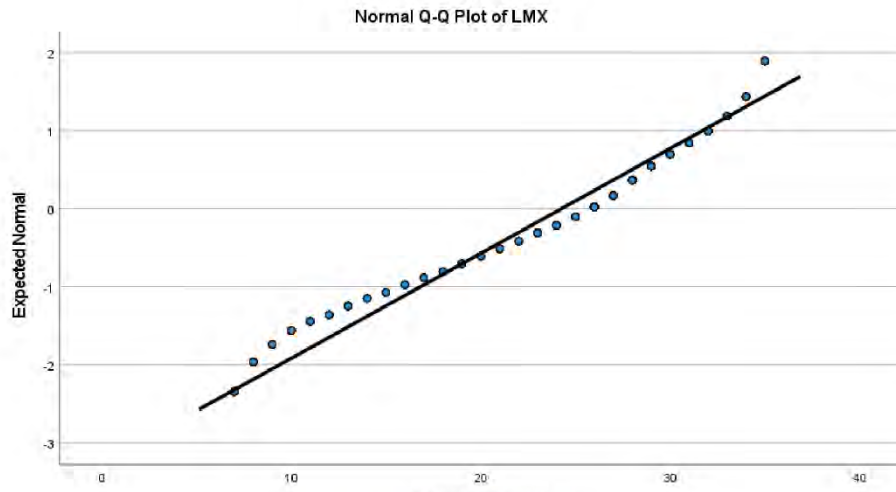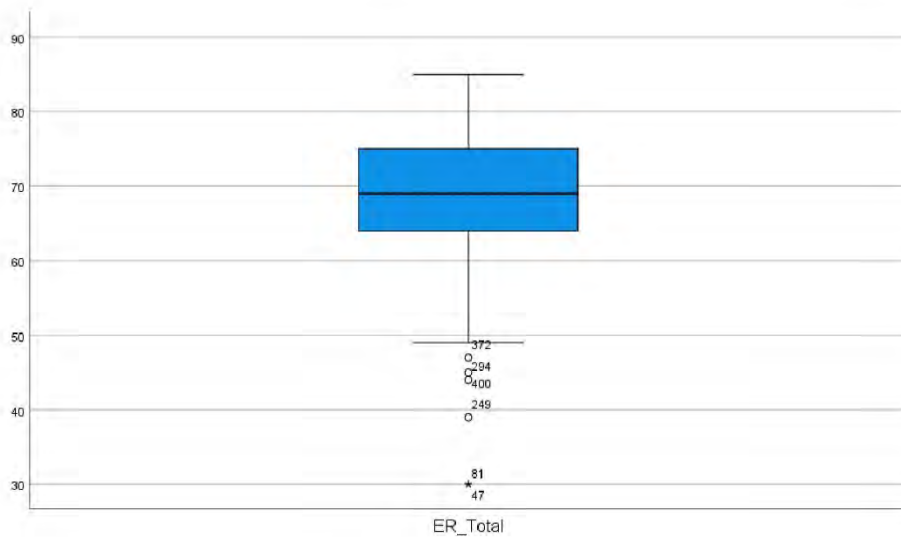
Histogram and Q-Q Plots of LMX

Histogram

Mean = 24.28
Std. Dev. = 7.45
N = 523

LMX

Normal Q-Q Plot of ER_Total

Detrended Normal Q-Q Plot of ER_Total
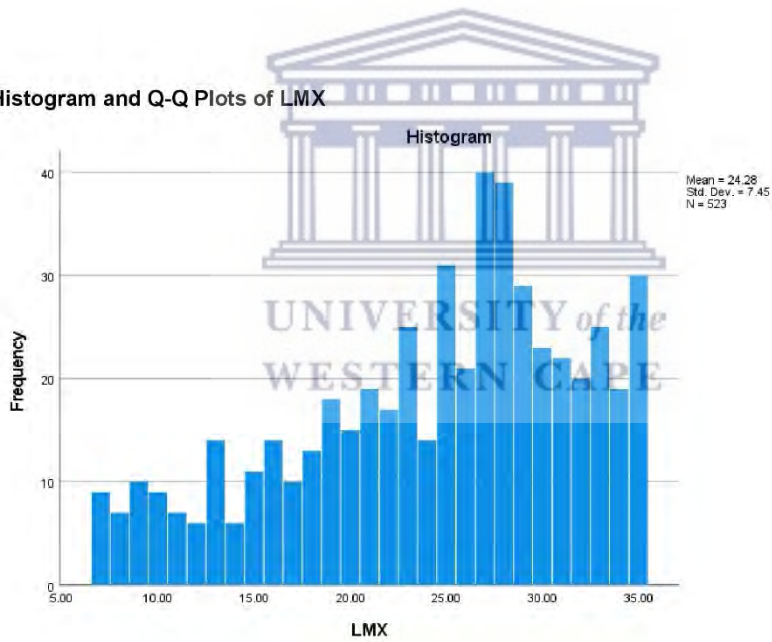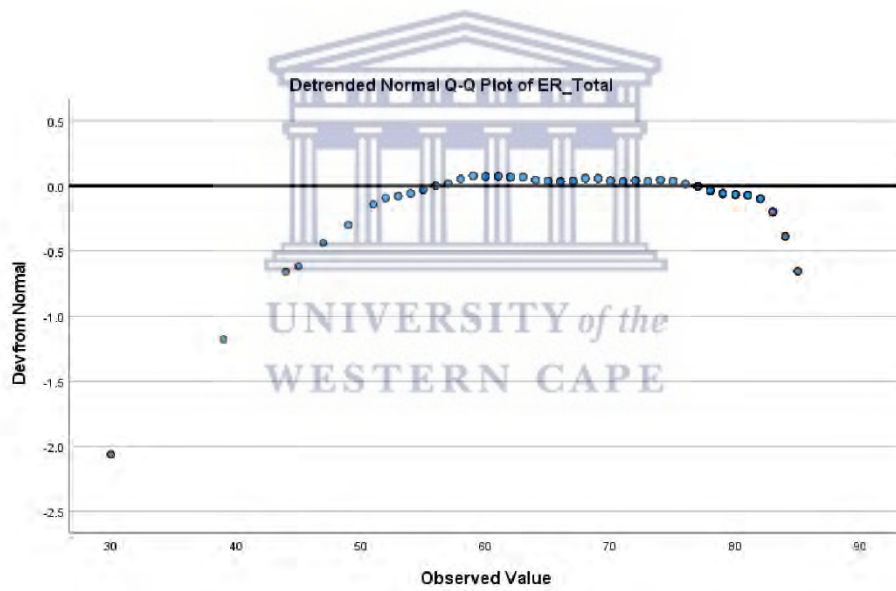
Histogram and Q-Q Plots of EM Total

Detrended Normal Q-Q Plot of ERO

ERO
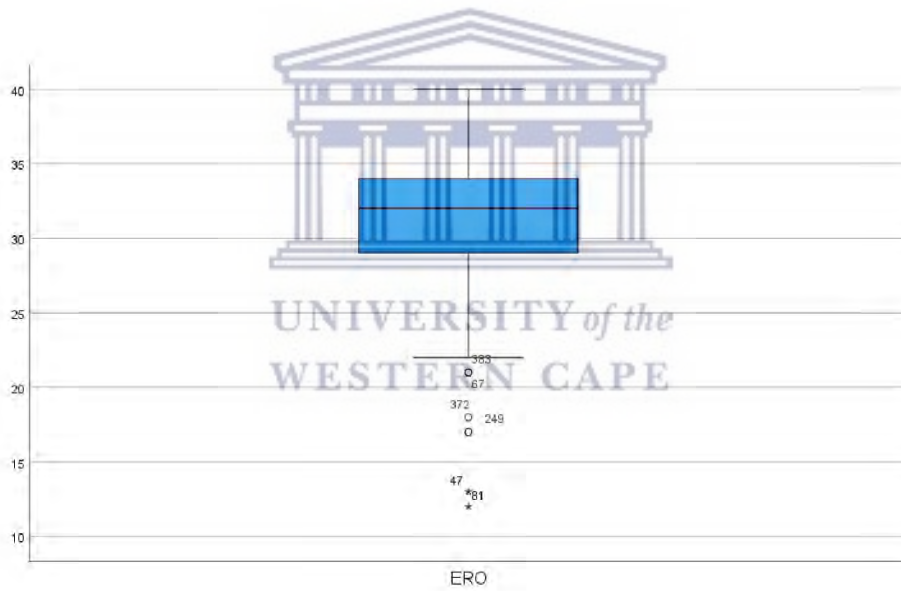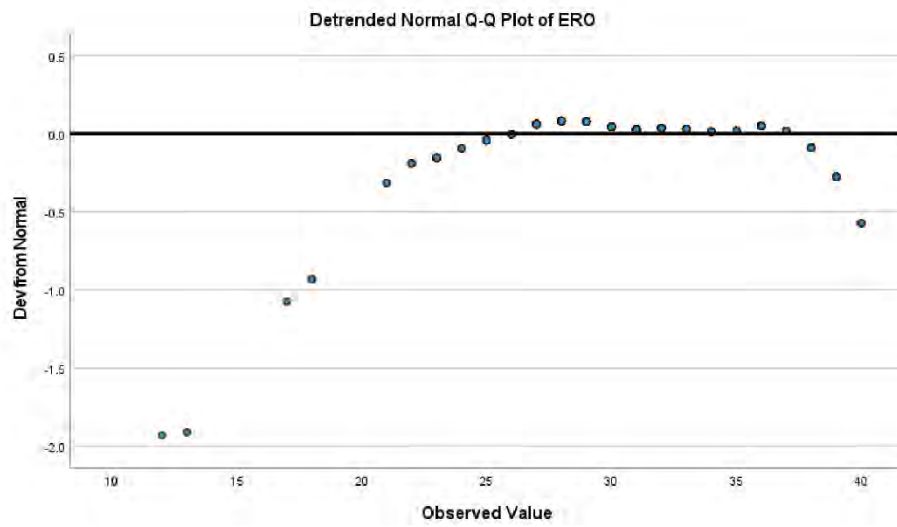
Histogram and Q-Q Plots of EMO

Histogram

Mean = 31.73
Std. Dev. = 4.092
N = 523

ERO

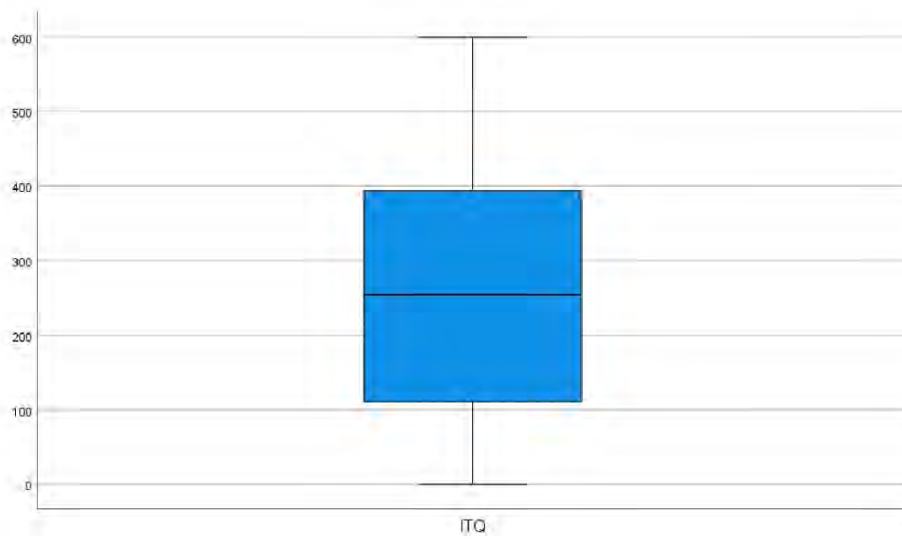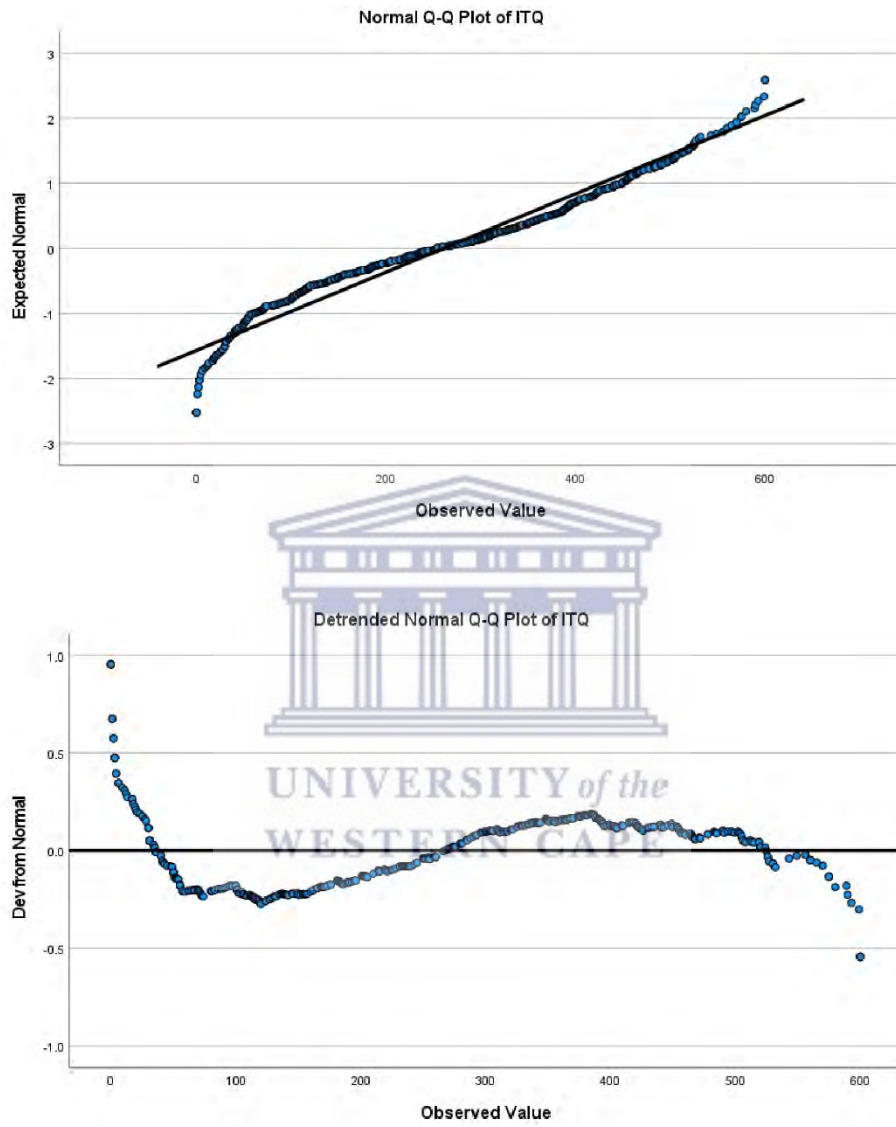Normal Q-Q Plot of ERO
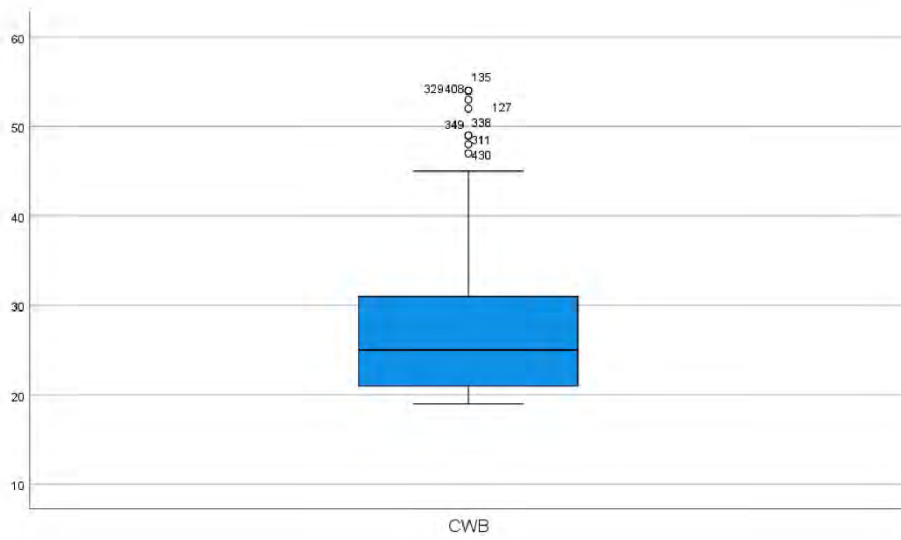
Detrended Normal Q-Q Plot of ERS

Histogram and Q-Q Plots of EMS

Histogram

Normal Q-Q Plot of ERS

ITQ

Normal Q-Q Plot of ITQ

Detrended Normal Q-Q Plot of ITQ

Histogram and Q-Q Plots of ITQ

Histogram

Mean = 260.61
Std. Dev. = 166.394
N = 510