INFLUENCE OF MACHIAVELLIANISM, TRANSPARENCY AND MORAL INTELLIGENCE ON INTEGRITY, LEADER EFFECTIVENESS AND ORGANISATIONAL CITIZENSHIP BEHAVIOUR

By

CANDICE SEALE

THESIS PRESENTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF COMMERCE (INDUSTRIAL PSYCHOLOGY) IN THE FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES AT STELLENBOSCH UNIVERSITY

SUPERVISOR: PROF A.S. ENGELBRECHT

December 2018

DECLARATION

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

December 2018

ABSTRACT

This study was rooted in the need for organisations to utilise methods and techniques which serve to better address unethical decision making and influences within the organisation when employees are employed. Critical analysis of existing bodies of research led to the identification of integrity-related behaviours, which presented such behaviours as a possible means by which to address the above-mentioned need. Integrity was therefore selected as the primary focus of this study. Further theorising led to Organisational Citizenship Behaviour (OCB) and leader effectiveness emerging as outcomes of integrity-related behaviours within an organisational context. The presence of OCB and leader effectiveness was therefore seen as validating the existence of integrity.

The process of theorising then focused on constructs that influence integrity-related behaviours in an organisation. Further research highlighted that the absence of Machiavellianism and the presence of transparency and moral intelligence may influence integrity-related behaviours comprehensively. Further theoretical relationships were found between transparency and leader effectiveness; moral intelligence and leader effectiveness; and moral intelligence and OCB. Additional literature was researched and the conceptualisation of each construct and the proposed relationships were examined. These relationships were constructed into a theoretical structural model.

The overarching research hypothesis was therefore to determine the validity of the influence of the selected integrity-related personality constructs (Moral Intelligence, Machiavellianism and Transparency) on the construct of integrity, with OCB and leader effectiveness as outcomes thereof. The theoretical structural model and overarching substantive research hypothesis were supplemented by eight substantive research hypotheses, which were used to validate and provide support for the proposed relationships. In order to do so, the quantitative approach that was followed was coupled with an explanatory research design and the use of Structural Equation Modelling (SEM) to conduct the statistical analysis.

The following psychometric tests were used to measure the variables in the structural model: Ethical Integrity Test (EIT), Leader Effectiveness Questionnaire (LEQ), Organisational Citizenship Behaviour Scale (OCBS), the Moral Competence

Inventory (MCI), the Transparency Scale, and the Organisational Machiavellianism Scale (OMS).

Respondents on these measures who were selected by means of convenience sampling completed the questionnaires via an email link as well as in paper-and-pen format. A total of 208 respondents were obtained. Once the data were analysed, significant relationships were found between Integrity and OCB; Integrity and leader effectiveness; moral intelligence and OCB; moral intelligence and leader effectiveness; moral intelligence and integrity; and transparency and leader effectiveness. Partial support was found for the postulated relationship between transparency and integrity (through Pearson correlation) whereas no support was obtained for the proposed relationship between Machiavellianism and integrity.

This study contributes to the understanding of the constructs conceptualised in the study, as well as the relationships that exist between them. This study also contributes to the understanding of the manner in which decision making can be improved to avoid unethical missteps in the organisation. The study furthermore provides recommendations regarding future research for further development of the understanding of the dynamics and relevance of the constructs used in this study.

OPSOMMING

Die studie is gegrond op die noodsaaklikheid vir organisasies om werknemers aan te stel wat etiese besluite kan neem en medewerkers ook sodanig kan beïnvloed. Na indiepte navorsing is integriteitsgedrag beklemtoon as ‘n moontlike benadering om onetiese gedrag en besluitneming te hanteer. Integriteit is dus die fokus van die studie. Verdere teoretisering het gelei tot die voorkoms van organisatoriese burgerskapgedrag (OBG) en leierdoeltreffendheid as positiewe gevolge van integriteit in ‘n bedryfskonteks. Die manifestasie van die twee uitkomste sal gevolglik die geldigheid van integriteit bekragtig.

Die navorsing het verder gelei tot moontlike determinante van integriteit wat die afwesigheid van Machaivellianisme, asook die voorkoms van deursigtigheid en morele intelligensie behels. Verdere teoretiese verwanskappe is gepostuleer, naamlik tussen: deursigtigheid en leierdoeltreffendheid, morele intelligensie en leierdoeltreffendheid asook tussen morele intelligensie en OBG. Die gepostuleerde verwantskappe is vervolgens in ‘n strukturele model voorgestel.

Die oorkoepelende navorsingshipotese was dus om die geldigheid van die invloed van die geselekteerde integriteitsverwante persoonlikheidseienskappe (morele intelligensie, Machaivellianisme en deursigtigheid) op die konstruk van integriteit asook die uitkomste van leierdoeltreffendheid en OBG te bepaal. Ag substantiewe navorsingshipoteses was toe ontwikkel om die gepostuleerde verwanskappe empiries te toets. Om hierdie hipoteses te toets, is ‘n kwantitatiewe benadering gevolg waarin ‘n verklarende navorsingsontwerp gebruik is. Dit was verder ondersteun deur die gebruik van strukturele vergelykingsmodellering (SEM) as 'n statistiese ontledingstegniek.

Om die veranderlikes in die strukturele model te meet, is die volgende psigometriese toetse gebruik: *Ethical Integrity Test (EIT)*, *Leader Effectiveness Questionnaire (LEQ)*, *Organisational Citizenship Behaviour Scale (OCBS)*, *Moral Competence Inventory (MCI)* , Transparency Scale en die *Organisational Machiavellianism Scale (OMS).*

Die vraelyste is aan ‘n gerieflikheidsteekproef gestuur en 208 voltooide vraelyste is terug ontvang. Daar is gebruik gemaak van ‘n elektroniese vraelys sowel as ‘n

hardekopie. Nadat die data ontleed is, is die volgende positiewe verwantskappe gevind: integriteit en OBG, integriteit en leierdoeltreffendheid, morele intelligensie en integriteit, morele intelligensie en OBG, deursigtigheid en leierdoeltreffendheid, morele intelligensie en leierdoeltreffendheid, asookdeursigtigheid en integriteit. Gedeeltelike ondersteuning is vir die gepostuleerde verwantskap tussen deursigtigheid en integriteit gevind (met behulp van Pearson korrelasies) maar geen ondersteuning is vir die gepostuleerde verwantskap tussen Machiavellianisme en integriteit gevind nie.

Die studie dra by tot ‘n beter begrip van die betekenis van die geselekteerde konstrukte asook die komplekse verwantskappe tussen die konstrukte. Die studie dra ook by tot ‘n beter begrip van die proses waardeur leiers se etiese besluitneming onetiese gedrag in organisasies kan bekamp. Die studie verskaf ten slotte nuttige aanbevelings vir toekomstige navorsing in die veld.

ACKNOWLEDGEMENTS

I would like to express my sincere appreciation and gratitude to the following people who have supported me through this journey. I would like to give praise to my Lord and saviour who has blessed me with opportunity, perseverance and the positivity required to conquer this challenge.

I would like to thank my family, Denise, Neels, Gary, Christine and Celia. Each one of you has played an instrumental role in my development up to this point and has provided undivided support and love when I felt defeated. I never felt alone or doubted my ability because of my incredible support system. I thank you and will forever be grateful.

I would like to thank everyone who took the time to respond to my questionnaire, I know it was long and required extra effort. Thank you for your assistance in obtaining the required sample in order to complete this study.

I would like to give thanks to the lecturers at the Department of Industrial Psychology. The inspiration I drew from each one is irreplaceable and appreciated.

I would also like to thank Hester Honey and Gretel Wüst for their invaluable input with regard to the language and grammar checking of the thesis.

I would like to express my gratitude to Prof Callie Theron, although not an official thesis supervisor, I could always knock on his door, no matter the question, especially when I struggled with the data analysis. A true example of a lifelong learner and a genuine willingness to impart knowledge on those around him.

I would *especially* like to also thank Prof Amos Engelbrecht for the expertise given the construction of this thesis and the time taken to complete this monumental task. Thank you that your door was always open, welcoming and the tea pot was never far away.

Lastly, I would like to thank the one person who was there since day one and never failed to pick me up when I stumbled upon one of the many hurdles encountered whilst writing this thesis – Ben Smit. You were my light in the dark and you were my spring in my step when I had lost mine. I cannot express in words how thankful I am for you. My only wish is to be the light you were for me.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1

INTRODUCTION, RESEARCH OBJECTIVES AND OVERVIEW OF THE STUDY

1.1. BACKGROUND TO THE STUDY

Financial news headlines have become a reliable source of frustration and disappointment in recent years. This is especially true considering the events that made South Africa susceptible to corruption and wasteful expenditure. Such events, to name a few, include Free State auditors sweeping R11 billion under the rug in order to undermine irregular and noncompliant supply chain practices for a golden handshake; the Passenger Rail Agency of South Africa (PRASA) securing R620 million worth of inoperative locomotives, which was sadly approved by the former public protector; and, finally, a staggering loss due to corruption of R700 million since the establishment of democracy (including the R246 million spent on Nkandla) (10 corruption scandals that rocked South Africa, 2015).

These headlines have become so commonplace in the news that viewers are becoming desensitised to the shocking nature of the content. The field of Industrial Psychology has vast academic resources and empirical findings, which support and provide guidance for organisations on methods and practices that can be utilised in order to avoid such costly missteps. This begs the question why organisations are not making better use of the resources available in order to grow organisations and to avoid such scandalous, crippling blunders. When this question is hypothetically asked one might be inclined to assign the onus to the decision makers who ultimately provide permission or encouragement to engage in unethical decisions.

Leadership, and the manner in which it manifests in the workplace, is not novel to the field of Industrial Psychology. In fact, researchers in the field of leadership are realising the monumental task that lies ahead for leadership theories and concepts to be categorised into a system that structures them in terms of their perspectives on how leadership is formed and manifested in the workplace (Hernandez, Eberly, Avolio & Johnson, 2011). Given the fact that South Africa abounds in corruption scandals, it appears fruitless to focus on one style of leadership to be adopted to address the manner by which to enhance ethical decision making in organisations. This is because it can be argued that the style of leadership, although pertinent when

taking into account the context in which the leader is functioning, may not be the most valuable aspect of leadership to focus on in terms of the most significant impact on subordinates.

Leadership theories throughout the conceptualisation of the topic differ in terms of how leaders motivate their subordinates; how they structure or delegate responsibilities for goals; what the competencies that constitute an effective leader are; and how the relationship between the leader and the subordinate manifests. From among the various differences identified in research, one concept has remained consistent; this concept entails the fact that leadership is concerned with how one person (the leader) is able to influence others (subordinates) to achieve a task or goals (Ciulla, 2011). Due to this consistency, it seems futile to address the discrepancies but advisable to rather discover what makes a leader effective in his/her role and gain a deeper and more comprehensive insight into leader effectiveness.

Furthermore, in terms of the social exchange theory, a well-established theory in terms of leadership studies, leaders and subordinates interact with one another and create a set of obligations with regard to one another that stems from such interactions. Should leaders engage in behaviours that allow the subordinate to engage in positive behaviours, it is likely that the subordinates will therefore also engage in positive behaviours. Positive behaviours include those that incorporate organisational citizenship behaviours (OCB) (Hinkin & Schriesheim, 2015).

OCBs have received increased attention in the field of Industrial Psychology, as the impact of OCBs in the workplace is considerable. OCB has resulted in numerous advantages in the workplace, such as increased positive affect; a positive outlook on progress in work goals; establishment of a greater social cohesiveness; a fulfilment of an employee's competence and need for relatedness as well as an increased overall sense of wellbeing (Conway et al.,; Weinsten & Ryan, Halbesleben & Wheeler, cited in Koopman, Lanaj & Scott, 2016). Therefore, due to the likelihood that a leader who is able to elicit OCBs in the workplace and thereby influence others to do so, it is apparent that it is more desirable to employ such a leader rather than a leader who does not engage in OCBs.

It is understood that leader effectiveness and OCB are constructs that are able to complement one another greatly in the workplace and are able to generate favourable outcomes. However, as the social exchange theory informs, interactions between leaders and subordinates are subject to obligations. If the leader does not engage in OCBs and requires obligations that mirror the sentiment of corruption, the subordinate is likely to feel obliged to commit to these expectations. Therefore, in order to prevent this from occurring, the integrity of the leader requires a primary focus in this study.

1.2 JUSTIFICATION FOR THE STUDY OF INTEGRITY

In an attempt to comprehend what is prioritised in decision making, the most commonly advocated company values held by Fortune 500 companies were identified to gain clarity on what organisations value. Surprisingly, integrity was the number one value that companies hold dearly. This was followed by respect, excellence and accountability (Ferguson, n.d.). This finding leads one to suspect that organisations either are transparent in what they claim to stand for but do not intend to live up to what is pasted on their walls and websites, or, one can be prompted to investigate exactly what is meant by these terms. The latter formed the focus of this study, as the researcher believed that clarity regarding these constructs is required so that they may be lived out by organisations.

As integrity was found to be the number one value to which organisations subscribe, it was valuable to use this as a starting point for this study. Integrity in the workplace affects various positive and negative facets relating to the employee relationship. Positive outcomes of integrity in the organisation have been identified as strong predictors of job performance, dependability and honesty (Ones & Viswesvaran, 2001; Vogelgesang, Leroy & Avolio, 2013). Integrity furthermore stands as a characteristic of effective leaders and it serves to have a positive correlation with trust in the organisation (Engelbrecht, Heine & Mahembe, 2017; Palanski & Yammarino, 2011).

The absence of integrity in the workplace may elicit counterproductive behaviours that are detrimental, not only to the productivity of the organisation, but also to the relationships established between employees (Fine, Goldberg & Noam, 2015). These counterproductive behaviours include unethical behaviours such as theft,

corruption and fraud, just to mention a few from an extensive list of such behaviours such as those associated with corruption scandals. In addition to these behaviours, integrity has an impact on the organisation's reputation, which will impact Human Resource Management in the sense that it will affect recruitment and selection. If an organisation has a questionable reputation in terms of integrity, the organisation will not succeed in attracting the best talent (Kayes, Stirling & Neilsen, 2007).

Therefore, due to the fact that integrity is a significant role player in many beneficial facets of the organisation, the conceptualisation of the construct of integrity needs to be determined in terms of antecedents and outcomes.

1.3 OVERVIEW OF PREVIOUS RESEARCH ON INTEGRITY

Stephen Carter, in Palanski and Yammarino (2007), describes integrity as follows: ''Integrity is a lot like the weather: everyone talks about it, but no one knows what to do about it.'' This is an apt description of the manner in which organisations are adopting the construct as part of their values but do not know how to promote or encourage it. An exploration of the construct of integrity reveals that the construct, as Carter describes it, is in fact like the weather, unpredictable and complex.

The journey into the literature began to reveal that the construct, although widely researched, is still somewhat ambiguous (Koehn, 2005). Several authors have motivated for different antecedents of the same construct (integrity) but do not reach consensus on the antecedents. This guided the researcher's thinking towards determining whether there could be underlying concepts within the antecedents, which may play a more significant role in determining integrity but are being overlooked.

Most preceding research efforts around integrity focused on the correct manner by which to measure it; whether the assessment tool should be overt or covert; and what the assessment would predict (Camara & Schneider, 1995). However, it became clear that it would be substantially more challenging to attempt to assess a construct on which there is information in literature but that does not provide a clear guideline in terms of how to go about measuring this construct.

Therefore, in order gain a clearer and perhaps more concrete understanding of the construct of integrity, the literature was examined and several correlates emerged. These are discussed below.

Personality traits

The Big Five personality traits comprising Openness, Conscientiousness, Extraversion, Agreeableness and Emotional Stability (Berry, Sackett & Wiemann, 2007) have commonly been utilised in integrity assessments, Conscientiousness has been found to correlate the most significantly with integrity, followed by agreeableness and emotional stability (Marcus, Lee & Ashton, 2007). Hunter (2014) also found a positive relationship between conscientiousness and integrity. He further found emotional stability to be negatively related to integrity.

Furthermore, the relationship between openness and extraversion on integrity has received little support, with only a modest correlation found by Wanek, Sackett and Ones (2003).

These findings initiated the direction of inquiry into investigating underlying personality factors that may play a significant role in determining integrity. This notion was adopted by several researchers who later found that the correlation between integrity, as measured by integrity tests, and the Big Five is markedly different (Costa & McCrae,; Hakstian, Farrell & Tweed,; Marcus, Höft & Riediger cited in Hunter, 2014). This was also found by Murphy and Lee (1994) who found minimal support for consciousness as a significant source of variance in integrity as a predictor of job performance.

Honesty

In laymen's terms and in research, honesty is often substituted for integrity and vice versa. However, Becker, in Barnard Barnard, Schurink and De Beer (2008), disentangled the construct and put forth strong arguments for the conceptual confusion between honesty and integrity and was able to motivate the individual attention both constructs deserved as early as 1998. Honesty has also featured in the positive psychology schools of thought and has been thought of as a significant role player (Barnard, et al., 2008).

Honesty is defined as “truthfulness with oneself and others about one’s intentions and capacity” (Barnard, et al., 2008). This definition was intended to include being truthful in one’s statements and becomes apparent to others when sharing information openly. However, the conceptual disparity becomes apparent when one considers that one is able to be honest whilst not behaving with integrity as one can be honest about one’s ill motives or unethical actions which would certainly not be aligned in an individual with true integrity. Openness with oneself and openness in communication is therefore not sufficient (Noelliste, 2013). In fact, a study directed towards separating the constructs in question found a significant negative correlation (Horn, Nelson & Brannick, 2004).

Interestingly, the Honesty-Humility factor of the HEXACO model, which has recently been considered in addition to the Big Five factors, produced a significant correlation with integrity (r = .60) (Berry et al., 2007), indicating a further personality trait that may be significant in determining integrity.

Authenticity

In efforts to organise schools of thought, integrity and authenticity has been categorised as positive organisational behaviours and have been closely associated with one another (Leroy, Palanski & Simons, 2012; Palanski, Kahai & Yammarino, 2011; Palanski & Yammarino, 2009). Authentic leadership has been attributed to successful leaders such as Warren Buffet and is said to contain four essential components: well-developed self-awareness; relational transparency; balanced processing; and an internalised moral perspective (Gardner, Fischer & Hunt, 2009). Palanski and Yammarino (2007) argue that authenticity is required to contribute to the moral correctness of integrity, which indicates it as a virtue of integrity contributing to a high correlation between the constructs. However, this has been contested in that it is speculated that authenticity is an introspective construct whereas integrity is more outwardly focused (Leroy, Palanski & Simons, 2012).

Organisational justice

Justice has commonly been associated with integrity-related literature and is derived from the word ‘just’ which means “the notion of having a basis in or confirm in fact or reason, reasonable, conferring to a standard of correctness, legally right, fair and

upright" (Morrow, 2012). Justice, given the brief overview of constructs discussed up to this point, is therefore in line with the general school of thought related to integrity. This is due to the fact that justice in itself involves the capacity to behave in a manner which is moral or correct, as the provided definition suggests (Palanski & Yammarino, 2009). It is also suggested that justice is a significant vehicle for influencing the behaviours and attitudes of others (Lin & Leung, 2014).

Van Den Bos stated that justice is one of the fundamental virtues of human life (Lin & Leung, 2014). Justice has been studied in the organisational space and has been further conceptualised in several forms of justice (e.g. procedural justice, distributive justice, interactional justice). Each of these forms addresses differing platforms for justice to take place. One such form is informational justice, which involves whether the leader or colleague is just in the manner in which decision making is explained. This form of justice was found to correlate significantly with integrity (Frazier, Johnson, Gavin, Gooty & Snow, 2010).

Compassion

In a study conducted across three culture clusters, the Anglo (West), Asian and German, compassion or respect for others was identified in as a virtue which leaders with integrity should possess in each culture (Martin, Keating, Resick, Szabo, Kwan, & Peng, 2013). Having compassion for one another is said to be more multifaceted than face value would suggest. It is said to not only externally act out the manner in which one shows compassion, but also encompasses a deep concern to think and/or act mindfully of others (Koehn, 2005). Compassion has further been explained as a virtue of integrity, which has a component of morality within it, but is not solely sufficient to explain integrity (Palanski & Yammarino, 2011).

Trust

The conceptualisation of trust has evolved throughout literature from the understanding of trust involving a dependency (Zand, cited in Dietz & Hartog, 2006) to trust involving vulnerability (Rousseau, Sitkin, Burt & Camerer cited in Dietz & Hartog, 2006). Trust has since been defined by Mayer, Davis and Schoorman, in Kannan-Narasimhan and Lawrence (2012), as ‘‘the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will

perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party''. As can be seen from the progression of the construct of trust and the definition provided, integrity has been theorised as a key determinant of trust between a leader and a subordinate, given the theoretical foundation of the social exchange theory (See Section 1.1)., It has furthermore been found that subordinates are more likely to trust a leader if a leader is perceived to possess integrity (Engelbrecht, Heine & Mahembe, 2017; Kannan-Narasimhan & Lawrence, 2012).

Counterproductive Work Behaviour (CWB)

Various studies have been conducted on the relationship between integrity and CWB (Hunter, 2014). Integrity-based assessments were traditionally used to predict CWB in potential employees by means of overt (self-report) and covert (personality-based) assessments (Fine, Horowitz, Weigler & Basis, 2010). Overt integrity assessments have been criticised for the occurrence of false positives, whereas covert integrity tests utilise conscientiousness as one of the main predictors of integrity and therefore of CWB. This bears witness to the fact that conscientiousness has been shown empirically to explain the most significant variance in CWB (Fine et al., 2010)., O'Neill and Hastings (2011) furthermore found that integrity accounted for most average variance in workplace deviance, followed by conscientiousness, this indicates the possibility of similar underlying factors that predict integrity being correlated (assumed negatively) with CWB. Hunter (2014) found a negative relationship between integrity and CWB.

Job performance

Integrity has received attention throughout the literature due to the fact that it seems to be essential to effective leadership. Effective leadership, in turn, is said to result in a higher level of job performance and/or the effective realisation of organisational goals (Moorman, Darnold & Priesemuth, 2013).

In addition to this, it has been proven through empirical studies that an employee who perceives his/her employer or supervisor to be an individual who possesses a high degree of integrity, is more likely to deliver higher levels of performance and experience enhanced engagement in his/her occupation (Engelbrecht et al., 2017;

Vogelgesang et al., 2013). Further support for this has been found where a positive significant influence of leader integrity on follower integrity resulted in significant job performance (Palanski & Yammarino, 2011).

1.4 MOTIVATION FOR THE STUDY

A broad overview of the antecedents and outcomes of integrity most commonly found in research highlighted not only what has been most prevalent but also provided insight regarding what has not been prevalent in research. Therefore, in order to successfully validate the construct of integrity, a narrower focus was required. As discussed above, the broad reliance on personality structures is not sufficient in determining which constructs influence integrity, however, it may be fruitful to not focus on constructs which have been developed which influence integrity only, but also focus on what drives integrity-related behaviours.

The manner in which individuals develop their understanding of the world and the manner in which a sense of right or wrong is developed need to be taken into account when determining the source for integrity behaviour. In terms of academic focus, moral intelligence has come to the fore relatively recently. Lennick and Kiel pioneered the study of this mental capacity and have provided the missing link between knowing what the right thing to do is and acting on this knowledge (Shirey, 2007)., The inclusion of moral intelligence in the determination of integrity, will therefore provide a new angle on what is known about how integrity is affected by an individual's personality and how the development of integrity is influenced.

The inclusion of moral intelligence can be deemed valuable but not sufficient to provide a comprehensive overview of the antecedents of integrity.

The ability to manipulate is central to studies surrounding Machiavellianism. Machiavelli, the author whose work first gave rise to the construct, describes the tendency to lie, not as a preferred way of life, but rather as a way to navigate through an imperfect world. Christie and Geis dominated research into the construct through developing the first scale to measure Machiavellianism (Geis & Moon, 1981). It can be seen that the existence of such a personality trait will provide a dual benefit to the conceptualisation of integrity. It can be assumed that, if an individual measures significantly on Machiavellianism, it is possible to postulate that efforts to manipulate others will be uncovered and certainty for a lack of integrity will be gained.

Additionally, as discussed above, it can be postulated that the factors that are commonly used to define integrity are contingent on the transparent nature of the individual's words and subsequent behaviours. The power of the construct of integrity lies in the great potential influence it may have on others. Therefore, in terms of integrity related to leaders, the emphasis should be placed on how they are perceived by their subordinates and whether they are perceived as leaders with integrity (Moorman et al., 2013). Moorman et al. (2013) have lent further support to this statement through emphasising the importance of follower perceptions and the clarity that is required when perceiving leader behaviours as it aids the reduction in insecurity on the part of the followers.

The need for transparency on the part of the leader therefore becomes crucial. Christensen and Cheney (2015) posit that transparency provides a tool through which clarity is achieved. Furthermore, it can be speculated that, had the organisations involved in corruption scandals employed individuals who subscribe to transparent behaviour and communication, their integrity behaviour would have improved and adverse outcomes may have been prevented.

Once leaders with integrity are present in an organisation, it can be expected, given the reasoning and support provided above, to function as effective leaders. Support for the decision to include leader effectiveness as an outcome in this study was found through findings by Hinkin and Schriesheim (2015) discussed above. It has become clear that leaders who are shown to possess integrity are likely to be perceived as more effective than those who are not.

Furthermore, as discussed, leaders who have high standing with regard to integrity are likely to influence their subordinates to enact the same behaviours. Such related behaviours are postulated to encompass deeper, more meaningful behaviours, not merely the absence of counterproductive work behaviour as it was classically surmised. A more meaningful outcome is desired as a more meaningful conceptualisation of integrity is strived for. It therefore can be postulated that an individual who possesses true integrity will engage in positive organisational behaviours above that of formal job performance regardless of reward or recognition.

Therefore, in order to maintain the momentum of meaningful conceptualisations, it can be theorised that individuals of integrity are likely to engage in organisational

citizenship behaviours (OCB). Scholars who support this suggestion have contributed similar results of a positive relationship found between integrity and OCB (Simons, Leroy, Collewaert & Masschelein, 2015).

OCB is defined as “individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate promotes the efficient and effective functioning of the organization” (Organ, Podsakoff & MacKenzie, cited in Koopman et al., 2016). As the definition implies, this behaviour stems from within the individual, with a lack of expectations. This outcome mirrors the intent of this study to move beyond investigating factors leading to integrity but to define integrity and reveal its essence. It can be postulated that this essence embodies truly effective employees and leaders who genuinely engage in OCBs.

This study therefore comprised an investigation of three antecedents and two outcomes of integrity. The expectation was that finding support for the antecedents and outcomes of integrity would validate the construct of integrity.

It is important to state that the validation of the integrity test that was proposed is one that will be relevant in the South African business context and will be relevant for work environments specific to the diverse culture and background thereof. The level of counterproductive work behaviour in the South African workplace is at a level that reveals a greater need for developing a valid and reliable integrity test that can be used in the selection and development of employee integrity behaviour.

1.5 RESEARCH INITIATING QUESTION

Given the brief description of the importance of integrity and the constructs that formed part of the structural model, as well as the importance of this subject in the South African context, the following research-initiating question, which formed the overarching substantive research hypothesis, was identified:

What is the reliability and validity of a newly developed integrity test in the South African business context?

1.6 RESEARCH OBJECTIVES

The resulting research objectives were as follows:

- Identify three integrity-related personality constructs.

- Identify two integrity-related outcomes in an organisational context.
- Define the constructs proposed in the structural model.
- Propose a structural model on which a successful validation of an integrity test could be based.
- Determine the methodology that needed to be utilised when successfully validating an integrity test.
- Develop hypotheses for testing the validity of the measurement models.
- Develop hypotheses by which the postulated relationships between the constructs in the structural model could be tested.
- Provide expected results and the practical implications of the validation study.
- Obtain ethical clearance and conduct the study in an ethical manner.

1.7 OVERVIEW OF THE STUDY

This study consists of five chapters, each of which addresses a unique component of the study.

Chapter 1 provides an overview of and a brief background to the study. The aim of Chapter 1 is to discuss the logic behind the selection of the constructs researched in this study. This chapter also serves to explain the justification for the study.

Chapter 2 presents an in-depth look at each construct in terms of conceptual clarification of how the construct is interpreted in literature; possible discrepancies in comprehending the construct; the manner in which the construct was defined for the purposes in this study; as well as possible beneficial or non-beneficial outcomes of each construct. In addition, the chapter showcases the proposed relationship between certain constructs to provide a logical, theoretical understanding of the relationship. The manner in which the constructs exist in the nomological network is depicted with the use of a conceptual structural model presented in this chapter.

Chapter 3 provides a detailed description of the methodology that was utilised in order to gather data, which comprised the use of appropriate sampling, data collection and data analysis. This chapter also defines the hypotheses that were to be tested, as hypothesised in Chapter 2, as well as the process of statistical analysis used to test the hypotheses and the fit of the structural model to the data.

Chapter 4 provides the results from the statistical analysis that was conducted, as explained in Chapter 3. A brief overview of the results and the inferences drawn is also discussed.

Chapter 5 concludes this study in providing a thorough and detailed account for the theoretical and logical understanding of the results obtained from this study. Potential limitations and suggestions for future research towards possible improvement of this study are also presented.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Chapter one highlighted the importance of integrity in organisations and the reason that it is essential to have integrity testing in an organisation. Thus, it has clarified why it is essential to determine the convergent validity of the constructs which will be identified during the validation of an integrity test. This chapter will continue to examine these constructs by identifying a concise definition as well as a description of these constructs that are relevant to the purpose of this study. The need for a comprehensive definition of each construct is imperative, since insufficient comprehensibility and an ill-defined definition will result in mediocre measurement, poor construct validity and the inability to properly ascertain the relationships between constructs (Parris, Dapko, Arnold & Arnold, 2016).

Three of the six constructs of the structural model (See Figure 2.1) that will be described are integrity-related personality constructs. The rest of these constructs can be attributed to the outcomes of a high degree of integrity measured by an integrity test. This chapter will conclude by proposing a structural model which will comprise of the constructs that have been defined and discussed extensively. This structural model will present a diagrammatic description whereby the relationships concerning these constructs are evident.

It is important to identify the relationships expressed among these constructs since they contribute to the overall effectiveness of the organisation if they are accurately understood and interpreted. These consequences of organisational effectiveness will be elaborated on further when each relationship is discussed. The focus of this study is on the validation of an integrity test in an organisational context, directed specifically at non-managerial employees, and all constructs will be discussed and reviewed in an organisational context.

2.2 THE CONCEPTUALIZATION OF ORGANISATIONAL CITIZENSHIP BEHAVIOUR (OCB)

OCB is a construct which has increasingly received more attention in organisations as well as from researchers or experts in the field of Industrial Psychology (Bolino, Klotz, Turnley & Harvey, 2013; Mahembe & Engelbrecht, 2014). OCB has been

defined as discretionary behaviour that is not formally recognized by the reward system, and if it is carried out by a vast majority of employees, it will contribute to the effective functioning of the organisation (Bachrach, Bendoly & Podsakoff, 2001).

The definition provided, suggests several benefits of OCB for the organisation. Several studies have corroborated these benefits, which the organisation can gain from employees engaging in OCBs (Jena & Goswami, 2014). These benefits include, but are not limited to, an increased level of managerial and co-worker productivity, a more productive and cost-effective use of organisational resources, creating stability in the organisation's overall performance, as well as increasing the organisation's ability to adapt to environmental changes (Jena & Goswami, 2014).

Apart from the benefits described, the occurrence of OCBs has a fundamental impact on the outcome of organisations. A study conducted in the United States (US) found that only three out of ten employees are willing to exert extra-role effort in their current working roles. When the opportunity cost of extra-role behaviour was calculated, it was found that in the US economy alone, between $450 and $550 billion could be saved annually if employees were more willing to engage in OCBs (Gallup 2013 cited in Weikamp & Göritz, 2016).

Engaging in OCBs does not only contribute to the effectiveness of the whole organisation, but it also contributes to the well-being of the employee engaging in OCB. Despite the discretionary nature of OCB, practitioners of OCB have been recipients of preferential treatment, more positive performance appraisals, promotions, tokens, or symbols of appreciation, as well as a general 'good feeling', which has a positive affect overall (Koopman, et al., 2016; Mahembe; Engelbrecht, Chinyamurindi & Kandekande, 2015).

Furthermore, rewards such as positive performance appraisals and/or favourable treatment are known to foster organisational trust in employees who exhibit OCBs. This is because the employees who exhibit OCBs experience a feeling of being cherished when their extra-role behaviour is being rewarded. This leads to organisational trust that has revealed to be significantly related to the five dimensions of OCB, which will be discussed below (Singh & Srivastava, 2016). This produces a reciprocal relationship where the more OCBs that are engaged in, the

greater the sense of trust is experienced by the practitioner, which again elicits more OCBs.

OCB as a construct boasts many individual and organisational benefits as discussed above. Many of these benefits are context specific, which raises the debate of how one should define such a broad, contextual construct. Discrepancies in the definition need to be discussed and resolved for this study, as the construct needs to provide a clear theoretical purpose and direction for the conceptualisation of the construct, as well as how OCB converges with other constructs researched in this study.

The definition of OCB indicates that it carries no immediate, material incentive for the employee who exudes this kind of behaviour. This behaviour is, to a certain extent, driven by an employee's own personal motives (Mahembe & Engelbrecht, 2014). An employee who displays OCB, would encompass one of the several characteristics that an organisation would want their employees to possess. This is because such an employee is willing to work beyond the given job description without expecting any form of remuneration for the additional input, whilst contributing to the effectiveness of the organisation (Mahembe & Engelbrecht, 2014).

However, these behaviours are rewarded in certain instances. Behaviours associated with OCB include helping others, taking on additional responsibilities, and defending the organisation when necessary (Bolino, et al., 2013). Therefore, for example, if one employee is seen to be helping another, the repercussions thereof may not influence the overall effectiveness of the organisation; however, if majority of the employees are helping one another, it should theoretically contribute to a positive social and psychological climate (Bolino, Hsiung, Harvey & LePine, 2015). If this contribution is rewarded, theoretically it should, no longer be constituted as an OCB, according to the definition.

If OCB does result in the behaviour being rewarded, it would then no longer be constituted as OCB, but rather exceeding performance goals, stripping OCB of its intrinsic motive and essence (Podsakoff, Podsakoff, Mackenzie, Maynes & Spoelma, 2014). This points to the fact that if an employee is consistent in his/her OCBs, this would no longer be considered as OCB eventually, as it would become the norm. This would occur because then OCB would be expected of that specific employee to

a certain degree, or it would become part of the performance appraisal system. Therefore, this raises cause for concern when addressing the definition of OCB.

One way this discrepancy can be addressed, is to take into consideration the motivation underlying the chosen OCB. Understanding the underlying motives of OCB practitioners, gives insight into whether these acts are undertaken to gain reward or whether they are genuine OCBs. Motives for OCBs have been discussed among scholars, however, not many have been agreed upon. Altruism has been identified and proposed as an underlying motive for OCB, which can be described as voluntarily helping colleagues who are experiencing difficulties in their work (Özduran & Tanova, 2017).

It has been determined that altruism is a significant predictor of OCB, directed specifically at the organisation, to promote overall organisational effectiveness. OCBs that are directed more specifically toward the supervisor (OCBS), are motivated by conscientiousness. In this instance, conscientiousness is described as employees complying with rules and regulations when there is no surveillance (Özduran & Tanova, 2017). Understanding or identifying the motives that actors have when engaging in OCBs, particularly those such as altruism and consciousness, alleviate the discrepancies between whether the OCBs are engaged, to ascertain a reward or not. Should the motives be those which are true to OCB however, it does not guarantee that all OCB behaviours will be identified as such in all contexts.

Behaviours that are frequently described as OCB-related behaviours, have not been fully agreed upon by scholars of OCB, as these behaviours may take different forms in various organisational contexts (Mahembe & Engelbrecht, 2014). This supports the notion that one form of behaviour might be considered an OCB in one organisation, however, it may not be described as OCB in another organisation. This contributes to the challenge of identifying OCB in an organisation and to discern whether the behaviour displayed is expected behaviour as stipulated by a contractual agreement, or whether they are OCBs.

The definition supplied for OCB, describes it as discretionary; it provokes the question of what constitutes an act to be discretionary. It should be considered who defines an employee's behaviour as discretionary. This discrepancy requests the

need for an employee and supervisor to reach an agreement of what is expected of the employee, and of what is included in the job description. This will allow for behaviours that are not expected to be identified consistently, alleviating the discrepancy mentioned, simplifying the process of identifying OCBs.

The final component of the definition that induces debate is the final construct of effective functioning (Organ, 1997). The concept of effective functioning lies in the perception of whom, or which criteria, determine whether the organisation is functioning effectively. This is critical as one of the preconditions of OCB is to contribute to the effective functioning of the organisation and if this is not clearly specified, the employee may unintentionally overlook this specification of OCB.

Therefore, the combination of these elements of OCB that have been described, would be effective if applied consistently. In addition to this, these elements would be most effective if they were organisation-specific, since the elements would be defined to be situation- and environment-specific. This should be referred to when determining whether there are individuals who display behaviours that can be attributed as OCBs. The positive outcomes of OCB that can be identified as effective functioning, include an increased sense of group cohesion, task performance, as well as the act of encouraging other employees to behave beyond what is expected of them (Mahembe & Engelbrecht, 2014).

Additionally, researchers in the field favour the idea of dividing OCB construct into two dimensions, namely OCB toward the individual (OCB-I), similar to OCBS described above, and OCB toward the organisation (OCB-O). Both dimensions of OCB will elicit different types of OCB-related behaviours (Debusscher, Hofmans & De Fruyt, 2016). A focus on the two dimensions of OCB may aid the element of different behaviours as seen as OCBs in a particular organisation, but not in another, as it may be easier to generalise. However, for this study, OCB will be focused on in its entirety as it is valuable to determine the result of OCB-related behaviours on colleagues and the organisation as a whole. Future research relating to these purposes may find it valuable to separate OCB into these two dimensions.

Research on the construct of OCB has recognised these elements of the definition that have been supplied by Organ (1997) and has revised this definition in an attempt to settle the conceptual debate that may result from it. This revised definition

reads that OCB supports the social and psychological environment in which task performance takes place (Podsakoff, et al., 2014). This definition provides substance for contextual differences in employees' behaviour relative to their organisations. In comparison with the previous definition, this definition does not imply that OCB needs to be a behaviour that is considered extra-role, nor does it explicitly state that the behaviour needs to be void of remuneration (Podsakoff, et al., 2014).

Task performance that is referred to in this definition is considered as the activities in the organisation that are often stipulated by a formal job description (Podsakoff, et al., 2014). This raises the concern for whether OCB would be confused with an employee dutifully fulfilling his/her duties or acting out OCBs. To counteract this misconception, five dimensions of OCB have been identified that are a unique combination related to OCBs.

The five dimensions represent behaviours such as actively participating in organisational affairs, helping co-workers and abiding by company rules (Tambe & Shanker, 2014). Altruism, as discussed above as a motivator of OCB, has been identified as the first of the five dimensions that OCB is comprised of, which implies that an altruistic individual is one that is helpful toward others (Tambe & Shanker, 2014). More specifically, altruism is defined as voluntary behaviours where an employee helps an individual with a particular problem in order to complete his/her task under unusual circumstances (Tambe & Shanker, 2014). If an employee displays behaviour that is synonymous with altruistic behaviours, it can be identified as a part of OCB, as this is not formally required of an employee. Thereby, in accordance with the revised definition, the employee demonstrates support for task performance.

The second dimension is conscientiousness – also described above as a motivator of OCB – which can be attributed to individuals who are dedicated to their job by working long hours or volunteering for responsibilities outside their scope of work (Tambe & Shanker, 2014). Conscientiousness is seen as a key dimension of OCB, as it shows that these employees, who are willing to be conscientious, are willing to contribute themselves to their work. This is true to the nature of an individual who exhibits OCBs (Tambe & Shanker, 2014).

The willingness to tolerate inevitable inconveniences and impositions without complaining, is seen as sportsmanship, the third dimension of OCB (Tambe & Shanker, 2014). Sportsmanship provides a deeper insight into an individual who displays OCB. It shows that this kind of employee is not only kind and good-natured as seen from the previous dimensions, but that this individual is tough and is able to persevere when faced with extremities that limit optimum performance. The employee who embodies sportsmanship, is also likely to be a key role player in promoting teamwork as well as morale, among work units.

Upon further insight into an individual who displays OCB, courtesy has been identified as the fourth dimension of OCB. A courteous person will do what is in his/her power to help individuals prevent their interpersonal problems from occurring (Tambe & Shanker, 2014). Courtesy indicates that an employee will take measures to ensure that other employees do not need to work harder than what is required of them, and that prior notice will be given to employees when their workload will be increased (Tambe & Shanker, 2014).

The final dimension of OCB refers to civic virtue, which indicates that an employee with civic virtue will constructively participate in the political processes of the organisation, and will freely give input or opinions regarding these processes (Tambe & Shanker, 2014). Civic virtue shows that the employee shares a passion for the organisation and wants to be a part of the processes that the organisation could benefit from.

The dimensions of OCB that have been described, exhibit an overall depiction of how an individual with OCB would be identified in an organisation. These dimensions serve to aid supervisors, or the organisation, to identify OCBs regarding an employee's job description. Similar research has produced a further definition of OCB, which defines OCB as flexible individual behaviour that is not formally recognized by the reward system, and it combines the efficient and effective functioning of the organisation (Arasli & Baradarani, 2014).

This definition adds further depth to the construct of OCB as it adds a new element to the description of OCB. This definition encompasses the description of behaviour as flexible individual behaviour. This shows that this kind of behaviour is not constant, but it is rather elicited when the employee perceives it as necessary,

constituting it as flexible. This adds the element of the employee's own personal discretion, which has not been highlighted by the other definitions that have been described. Flexible employee behaviour suggests that the motives of the employee play a more important role than previously given credit for. Should an employee feel motivated to engage in OCBs, then it is more likely that he/she will. This places emphasis on the more important essence of OCB which lies in the actor self, not in whether the behaviour can be identified.

Thus, for this study, a definition needs to be selected which would be applied to the construct of OCB throughout this study. Therefore, for this study OCB will be defined as discretionary and flexible individual behaviour that is not formally recognized by the reward system and combines the efficient and effective functioning of the organisation (Arasli & Baradarani, 2014).

2.3 CONCEPTUALISATION OF LEADER EFFECTIVENESS

Leader effectiveness is not a term that is novel or unique to academia. In fact, the first relevant conceptualisation of effective leaders dates back to the 1920s. The definition of an effective leader as conceptualised then, is vastly different from what it is conceptualised today. It was considered that a leader is effective if he/she was able to enforce their will on their followers in order to induce obedience, loyalty, respect and cooperation (Ciulla, 2004). The organisational climates and what was understood about business and employee relations then, differ vastly from what is understood and practised today.

The shift from imposing the leader's view onto their followers, has been gradual and now almost a century later it mirrors a near opposite school of thought. Although the mind shift has taken place, it does not suggest that there is consensus about what constitutes an effective leader. Furthermore, this warrants the question of whether when consensus is obtained, it would then imply understanding the very nature and essence of effective leadership.

Throughout the efforts of various authors to conceptualise leader effectiveness, several theories of leadership effectiveness have emerged in an attempt to aid scholars to gain understanding of the concept, as well as a way in which to classify it. These theories include those such as the contingency theory, situational

leadership theory, and the social identification theory. These theories have all provided valuable insights into the differing dimensions of leadership and leader effectiveness, however, no consensus has been achieved. It can be postulated that a common thread has emerged throughout the decades of research and theory building. A sentiment which echoes the Attribution theory, is that a leader's behaviours are attributed to effectiveness, if such behaviours associated with leader effectiveness is observed (Lakshman & Estay, 2016).

The suggestion that the follower needs to deem the leader as effective may be implicit and simple when unpacking leader effectiveness, however, this notion is multifaceted. For the follower to deem the leader as effective, the macro environment in which this interaction takes place, needs to be taken into consideration. The follower may not consciously or actively take the state of the macro environment into consideration when evaluating the effectiveness of the leader, however, it will play a significant role in determining whether the behaviour or style adopted by the leader is appropriate for the circumstance.

In economic markets that place an organisation in a position of monopoly, it creates the opportunity for a lack of cooperation and freeriding in teams. In such instances, teams may suffer a lack of motivation, coordination and collective efficacy (Sudha, Shahnawaz & Farhat, 2016; Zehnder, Herz & Bonardi, 2017). In the absence of a suitable leadership style by the appropriate leader to motivate employees, given the organisational and economic climate, the leader risks being perceived as ineffective. This highlights the fact that effectiveness is not solely contingent on the behaviour of the leader, but the environment in which the leader functions, plays an important role.

Furthermore, should the economic climate foster strong competition, incentives set forth by the leader may be uncoordinated and create the temptation for counterproductive work behaviour such as dishonesty or cheating (Zehnder, et al., 2017). Should a leader's followers partake in unethical behaviour, the leader will consequently not be perceived as effective as the leader who had inadvertently encouraged such behaviour with misaligned incentives. This suggests that the leader needs to be able to adapt his/her style of leadership given the macro environment in which his/her organisation operates. This is required to ensure that the nature of

incentives or style of motivation is one that is aligned to the current climate, as well as the organisation's position within the market, in order to allow him(her)self the opportunity to be deemed as effective.

Once the macro environment has been taken into consideration, one can focus on the relationship between the leader and follower, given the environment as constant. Establishing the extent to which a leader is effective by the subordinate, depends on certain established criteria by which the leader should be assessed. Of these criteria, factors such as organisational and/or employee performance and subordinate satisfaction, may feature (Yukl, Gordon & Taber, 2002). For a leader to be deemed effective, he/she needs to display exceptional leadership skills in accordance with other traits, to satisfy these criteria.

Sadeghi and Pihie (2012) define leadership as the ability to inspire confidence and support among the people who must achieve organisational goals. This emphasises the shift in the leadership paradigm from a coercive nature of leadership in the 1920s to a more influencing nature of leadership today. In achieving these organisational goals, organisational effectiveness is maintained, reinforcing the importance of ensuring leader effectiveness in an organisation.

The way in which these goals are achieved, relies generally on the approach the leader takes regarding the leadership style he/she opts for. Transformational, transactional and laissez-faire leadership styles have been researched in terms of how they influence leader effectiveness. A study of leader effectiveness was defined using Cooper and Nirenberg's (2004) definition, where leader effectiveness is defined as coping with changing demands so as to establish successful relationships at the level of customer, employee and organisational purpose, and building strong positive relationships (Sudha, et al., 2016).

An additional study supported these findings where the study made used Multifactor Leadership Questionnaire (MLQ), which measures leadership styles in conjunction with leader effectiveness. The MLQ defines an effective leader as a leader who (1) is able to motivate followers toward exerting extra effort, increasing followers' job satisfaction; (2) improves followers' performance beyond expectation; (3) increases followers' perceived leader effectiveness; and (4) cultivates creativity and innovation in organisations (Bass & Avolio cited in Wolmarans, 2014). This study found that

transformational leadership and transactional leadership correlate strongly with leader effectiveness, 0.82 and 0.64 respectively (Sudha, et al., 2016).

In a similar study conducted by Sadeghi and Pihie (2012) using the MLQ, the *inspirational motivation* component (the extent to which a leader describes a vision which is attractive and encouraging to the subordinates) of transformational leadership related most significantly with leader effectiveness (β = 0.237). Sadeghi and Pihie's (2012) definition of leader effectiveness which highlights the need for the leader to be able to inspire followers and empower them, in order to achieve organisational goals and be deemed as effective, was therefore supported. This is further supported by the finding of Sudha et al. (2016) that subordinates seek and value the role that effective leaders are able to play in inspiring and evoking self-efficacy in employees in order to obtain organisational goals. These findings provide support for the shift in leadership paradigm towards employee empowerment.

This stance is further supported by the finding that when leaders elicit task-related behaviours such as organising work roles and communicating standards and procedures, subordinates do not perceive this to be an effective leader (Martin, Côté & Woodruff, 2016). Therefore, it is understood that leader effectiveness has evolved from being assessed solely by the achievement of organisational goals through any means necessary, to the accomplishment of organisational goals by empowering employees through motivation and cooperation.

This shift in how leader effectiveness is determined, highlights the importance of the nature of the relationship between the leader and the subordinate. The relationship between the leader and the subordinate can be considered as the basis upon which the effectiveness of the leadership style adopted will function, given the organisational and economic climate.

An effective leader therefore, influences his/her subordinates in a way which is motivational and functional, in that it empowers his/her followers to achieve the goals on their own terms, whilst doing so in a way which is in the best interest of the organisation. Furthermore, for a leader to be able to empower subordinates to do so, the leader needs to be attuned to the goals of the organisation, as well as to the strategies and the procedures advocated by the organisation. If the leader does not guide his/her followers in line with the mutual objectives of the organisation, the

subordinates will complete tasks which are inefficient and that do not benefit the aims of the organisation. This will in turn deem the leader as ineffective.

Therefore, for this study, a definition will be selected which fully encapsulates the essence of leader effectiveness and the way in which leader effectiveness has evolved. It highlights that leader effectiveness is no longer solely measured through the accomplishment of organisational goals, but rather in conjunction with the way these goals are achieved and appreciates the complexity of the construct itself. An effective leader is responsible to create and develop an environment in which followers can excel (Engelbrecht, Wolmarans, & Mahembe, 2017). The definition provided by Cooper & Nirenberg (2012) that defines leader effectiveness as the successful exercise of personal influence by one or more people that results in accomplishing shared objectives in a way that is personally satisfying to those involved, will be used for the purposes of this study.

2.4. THE CONCEPTUALISATION OF INTEGRITY

Chapter 1 has briefly described integrity and the importance thereof. Therefore, it is imperative that this construct should be investigated further in order to conceptually appreciate the meaning of integrity.

Research on the construct of integrity has failed to produce a consistent explanation of the construct and therefore, various views of integrity need to be explored to obtain a sufficient understanding and definition for the purposes of this study. To commence the understanding of the construct of integrity, it is important to understand the characteristics that are considered to constitute integrity: honesty, fairness, and respect for others, awareness of personal values, belief systems, needs and avoidance of potential conflicting relationships (Noelliste, 2013). These characteristics can be attributed to an individual who is perceived to possess a high level of integrity. They are presented in various definitions featuring research regarding integrity, which will be further elaborated on in this chapter. Due to the lack of adequate definitions of integrity, three primary challenges regarding integrity research have been acknowledged.

The first challenge refers to the lack of an accepted definition of integrity as mentioned above (Palanski & Yammarino, 2007). Various researchers of this construct have defined it in various ways, however, there is a disagreement

regarding the final definition, as researchers disagree on which characteristics to include in the definition. The second challenge is that there are few existing theories of integrity regarding the context of management literature. The lack of theories contributes to the lack of understanding of the concept, which relates to the problem that there is little consistency in a concrete definition. The final challenge is a consequence of the second challenge – there are few empirical studies completed on integrity (Palanski & Yammarino, 2007). This is especially true for integrity-related studies conducted in South Africa (Barnard, et al., 2008).

The existing studies of integrity have a narrow focus and scope, which often emphasizes an isolated aspect of integrity, such as individual integrity, rather than integrity on a holistic, integrative level, which relates to the three challenges regarding research in this field. Since many non-managerial employees are expected to lead in many situations in the organisation, and who may progress further to a managerial level, it is important to understand what components leader integrity consists of.

The challenge of conceptualising integrity and ascertaining leader behaviours which represent leader integrity, is a challenge which is worth undertaking. The absence of leaders with integrity has staggering effects on the economy, the organisational well-being and the well-being of its employees. In the Global Economy Crime survey conducted in 2016, 69% of South Africans reported that they had experienced economic crime with asset misappropriation being the highest at 68%. Other forms of economic crime include acts such as cybercrime, bribery, or money laundering. This statistic evokes further distress when it is considered that the majority of the respondents in this survey were from top management level and that the global average is only at 36% (Global Economic Crime Survey, 2016).

The economic crime statistics are cause for alarm and therefore support the study of the construct of integrity. Upon further investigation into the essence of integrity, it can be postulated that should leaders possess a high degree of integrity, such crimes should theoretically not take place. Bauman (2013) appreciated the importance of leaders in organisations having an appropriate level of integrity and proposed that there are three forms of leadership integrity. Substantive leadership integrity is the form of integrity that is ideal for a manager and it implies that leaders

are not only committed to their values, but that they are also trustworthy (Bauman, 2013). This type of leader will not reconsider his/her values when under pressure, even when the incentive for doing so is substantial (Bauman, 2013).

The second form of leadership integrity is formal leadership integrity. An individual who possesses formal leadership integrity has a commitment to their words and their actions. This will be kept constant if the action is one that may seem unethical. These leaders will hold fast to their values regardless of how unethical they may perceive to be (Bauman, 2013). This form of integrity highlights the problematic aspect of integrity, which scholars have pointed out in defining integrity. If a leader possesses formal leadership integrity and his/her words are attributed to unethical actions, and if the leader is consistent in their words and actions, then this leader is perceived to possess formal leadership integrity, regardless of the nature of the act.

Personal leadership integrity is the third form of leadership integrity. This form of leadership integrity is based on the leader's commitment to personal values. These personal values may take on various forms, such as values and commitment to life or to others, or to religious principles (Bauman, 2013).

Taking cognisance of the fact that there is more than one form of integrity, allows for the fact that a leader can be perceived to possess integrity that comes from different perspectives and from various situations. This also raises the concern that if subordinates view their leader as an individual who possesses a high degree of integrity, which form of integrity will then take precedence. Furthermore, if an employee has had prior negative experiences with a supervisor, there exists the possibility that the subordinate may employ confirmation bias when evaluating his/her leader regarding the degree of integrity.

It can further be explored that subordinate behaviour does not take place in isolation. The Social Learning Theory, first published in literature by Bandura and now known as the Social Cognitive Theory, was one of the first to research this phenomenon. The Social Cognitive Theory postulates that human behaviour is a product of personal, environmental and behavioural influences. Additionally, this theory also considers that behaviour is not an objective, one-dimensional decision, but involves perceptions of external stimuli. This theory has widely been utilised in management literature, since it appreciates the social interaction that takes place in the

organisational context, and how this context will affect the behaviour elicited by an individual in the workplace (McAlister, Perry & Parcel, 2008).

The Social Cognitive Theory allows for the connection between the leader and the subordinate to be prominent in the behaviour and decisions taken by the subordinate. Due to the role that the leader plays in the subordinate's career path, such as the ability to provide opportunities such as promotions or bonuses, the subordinate is psychologically more aware when interacting with the leader. This allows the subordinate to be more cognitively present when interacting with his/her leader. Therefore, the likelihood that the subordinate may observe a congruence, or an incongruence, in the leader's words and actions is heightened. This is because subordinates are more likely to observe the behaviour of leaders in order to deem which behaviours are socially acceptable behaviours in the workplace. This practice is common where employees feel the need to fit in (Greenbaum, Mawritz & Piccolo, 2015).

The risk is when subordinates perceive their leaders to display an incongruence between the values they claim to subscribe to and expect their subordinates to enact, and their actual perceived behaviour. Subordinates are then likely to perceive their leaders to possess low integrity. This has been empirically linked to a higher turnover intention and heightened emotional labour in subordinates, because they perceive behaviours which are not characteristic of their own, but they feel the need to conform to be part of the team (Hewlin, Dumas & Burnett, 2017). This is not only detrimental to the relationship between the leader and the subordinate, but it is also likely to have a severe impact on the subordinate's emotional well-being and job satisfaction.

Moral disengagement is a term provided by the Social Cognitive Theory, which provides for a more distressing consequence when an incongruence in the leader's values and behaviour is observed. Moral disengagement occurs where moral standards developed throughout one's life are sullied when an immoral act is committed. More specifically, a mechanism of moral engagement, which is more likely to take place in the organisational setting, is that of diffusing responsibility. This occurs where the perceiver of the behaviour will attribute the decision to act wrongfully to that of authority figures. An additional possible mechanism is that of

perceived moral justification where the subordinate may justify his/her moral disengagement by attributing it as necessary for the greater good (McAlister, et al., 2008).

The latter mechanism of moral disengagement is of particular concern as it is in line with the current understanding of integrity. The occurrence where a subordinate holds the well-being of others as a personal value is expected as this is taught in most cultures from a young age. Actions which may conflict with other personal or ethical values may be outweighed with the justification of the value pertaining to the well-being of others. Should a leader behave in a way which is incongruent with values and actions, the subordinates may learn this behaviour as socially acceptable, due to the heightened psychological awareness when interacting with their leader. The risk of perceived moral justification is greater since the subordinates may justify their actions in a way that will allow for them to believe that they are behaving with integrity, because they may believe they are still behaving with integrity since they are advocates for the well-being of others.

The risk of perceived moral justification may have unfavourable research implications. This is because subordinates may believe they are behaving with integrity and may be justifying their actions as such, however, this echoes the problem with formal leadership integrity as described above. This will provide a skewed representation of the true integrity of the subordinate. Therefore, it is imperative that the integrity definition selected for the purposes of this study encapsulates the importance of the crux of integrity, in order to curb the possibility of such instances of moral disengagement or moral justification. This will be demonstrated as not constituting the essence of integrity. Therefore, a more focussed and specific way of defining or identifying integrity is required in order to accurately capture the essence of integrity.

To select a definition that is comprehensive and appropriate for this study, the conceptualisation of the construct is required. Despite the incoherence of literature on integrity to date, five dimensions of integrity are consistent throughout. The first one refers to the concept of wholeness (Hunter, 2014; Palanski & Yammarino, 2007). This is widely found in the literature regarding integrity and takes a more philosophical stance. Koehn (2005) analysed the importance of integrity in the

business context, maintaining the wholeness aspect as central to his understanding of integrity, and he thus defined integrity as compassionate and receptive work of making the self whole and enduringly happy through critically and attentively separating who we are truly, from the false ego. This definition elicits integrity as a precondition for being human and it describes it as a valuable intrinsic asset (Koehn, 2005). This definition highlights the importance of integrity for an individual's intrinsic value of him(her)self.

The second dimension which is found in literature, refers to consistency of words and actions (Hunter, 2014). This is determined as the extent to which an individual's behaviour is in accordance with his/her espoused values (Simons, Friedman, Liu, & Parks, 2007). This conceptualisation of integrity can be considered as more observable than the previous description of what integrity is defined as. This is perceived by the consistency of what an individual says he/she will do as opposed to what he/she actually does. A conceptual hurdle can be acknowledged with regard to this dimension, in the fact that if an individual is consistent in his/her words and actions with regard to unethical behaviours according to this dimension, this individual will be perceived to possess integrity. Therefore, this dimension should more specifically be aimed at the context in which these words and actions are represented.

The third dimension of the integrity definitions refer to the extent to which an individual is able to remain consistent in adverse conditions or resist temptation whilst remaining true to him(her)self (Hunter, 2014). This relates to the behaviour that an individual exhibits when faced with situations where the values of the particular individual are contradicted. The extent to which the individual is able to resist the pressure of counteracting his values, exhibits to some extent the level of integrity which the individual possesses. This dimension continues to elaborate on the fact that for an individual to possess integrity, an individual should possess courage, self-control and justice, among other traits (Duska, 2005). This is congruent with the fact that an individual, who possesses integrity, will use these additional traits to be able to adequately hold fast to his/her espoused values in the face of adversity, and will not likely engage in moral disengagement or justification. This exhibits the characteristics of integrity from a different perspective. This perspective

shows that an individual with integrity is steadfast in his/her values and is uncompromising in his/her actions with regard to their values.

Ethical behaviour is the fourth dimension of integrity that is explained by definitions found in literature (Hunter, 2014). The perception of ethical behaviour is not so much the determining factor of this dimension as is the absence of unethical behaviour. This is evident by supervisors' or co-workers' behaviour that is perceived to be untrustworthy or dishonest (Craig & Gustafson, 1998). A conceptual roadblock to the development of the perception of integrity occurs, when this perception is established. There is no specific time limit attached to this perception, nor is there a guideline. Therefore, when unethical behaviour is perceived, it is quicker to characterize a co-worker or supervisor to be devoid of integrity, because unethical behaviour will interfere with the positive perception of integrity that is in the process of being established (Craig & Gustafson, 1998). Therefore, this dimension looks at integrity from a different perspective, since it does not describe what constitutes integrity in an individual, but rather what does not.

The final dimension of integrity that is described by definitions encountered, is a general sense of morality or ethics (Hunter, 2014). This involves the sense of a moral compass that individuals abide by. A sense of ethics allows individuals to avoid unethical decisions (Quick & Goolsby, 2013). This is coupled with the third dimension, which has been described as the aversion of temptation. Therefore, this dimension can be explained as the inner driving force of what drives and guides integrity behaviour and decisions, which guide this kind of behaviour (Quick & Goolsby, 2013).

A description of these dimensions gives a holistic view of integrity. However, a definition needs to be ascertained for this study. Therefore, these dimensions need to be studied to determine which are consistent with the needs of this study.

As mentioned above, the fact that consistency is used as a clause between actions and values, can be interpreted as being consistent in situations which are conducive to a negative outcome – not one which would be expected as a result of integrity-related behaviours. Therefore, the four remaining dimensions should be included as qualifiers to ensure that the actions which are being held consistent, are those behaviours which are synonymous with an individual who possesses integrity.

Therefore, a complete definition of integrity should be a definition that sufficiently encompasses these dimensions.

For this study, the construct of integrity will be defined as the consistency of personal beliefs and ethical values. It is the extent to which an individual's behaviour is in accordance with his/her espoused values; the extent to which an individual is able to remain consistent in adverse conditions or resist temptation whilst remaining true to him(her)self; and a sense of morality that allows for individuals to avoid unethical decisions.

2.5 THE CONCEPTUALISATION OF MORAL INTELLIGENCE

Moral intelligence is a form of intelligence, which has received less research focus than the commonly studied forms of intelligence, such as emotional, cognitive or social intelligence (Beheshtifar, Esmael, & Moghadam, 2011). Moral intelligence has been defined as the ability to distinguish right from wrong, based on universal principles garnered by experiences generated through life (Beheshtifar et al*.,* 2011). This suggests that the development of moral intelligence progresses as an individual matures – as life experiences are continuously gained. Recent development of this construct promises the potential to improve the understanding of how individuals learn and behave in modern society, coupled with a further explanation that it is instrumental to the success of an organisation (Beheshtifar et al*,* 2011; Hazizadeh & Ebrahimpour, 2015).

Traditional views of intelligence have favoured the notion that intelligence is the ability to learn, use judgement, create and practice what is learnt (Nobahar & Nobahar, 2013). This perspective has been supported in recent research since brain plasticity has come to the fore. This describes the mind to have the capability to continuously learn and grow, which is applicable to intelligence. More specifically, the brain is able to acquire new capacities for moral functioning (Guiab, Sario & Reyes, 2015; Narvaez, 2010). Furthermore, moral intelligence has been shown to improve with age and experience. The establishment of the universal principles, which guides moral intelligence, have demonstrated that it is influenced from such an early age as infancy (Nobahar & Nobahar, 2013).

Prominent scholars of moral intelligence Lennick and Kiel (2011), define it as an individual's mental capacity to determine how universal principles should be applied to our personal values, goals and actions. This highlights the purely cognitive process of moral intelligence. Furthermore, as with most constructs in the field of Industrial Psychology, there are varying definitions for the construct of moral intelligence, with little agreement regarding a unified definition. However, the constant underlying factors of moral intelligence describing the definitions as rooted in the beliefs and values, are used as principles to govern the decisions and actions individuals take under various circumstances (Lennick & Kiel, 2011).

Lennick and Kiel described four cognitive capabilities which they proposed to constitute moral intelligence, namely responsibility, integrity, caring and forgiveness (Nobahar & Nobahar, 2013). The use of the term 'capabilities' further indicates that moral intelligence is a construct which is not fixed but malleable. These four capabilities provide a universal standard by which moral intelligence can be gauged. This is of value, as the moral principles which are learnt from an early age, may not be the same across different cultures. This creates an opportunity for the misperception as to whether an individual is of a high moral intelligence. This is especially pertinent to take note of, as South Africa is known as the rainbow nation, due to the vast array of different cultures that are present in one country.

The different cultural upbringings will result in individuals possessing different moral principles which are used to guide decision-making. Moral reasoning is the function which is relied on when decisions are made about whether an action or event is right or wrong, based on the moral principles (Guiab, et al., 2015). Different cultural backgrounds will employ different moral reasoning techniques, therefore, creating opportunities that lack understanding as to why different moral decisions are taken. Therefore, the establishment of the four universal capabilities guides a fair evaluation of moral intelligence.

Furthermore, Lennick and Kiel (2006) supplement the emergence of moral intelligence by acknowledging that as individuals, we are born with the innate need to be moral, behave with compassion and be responsible (Pahlavania & Azizmalayeri, 2016). They compare the ability to be moral to the ability to learn a language that is stimulated in early developmental years and throughout life.

Therefore, moral intelligence is nurtured in the same way (Lennick & Kiel, 2006). This moral development is enhanced through the experience of moral dilemmas where individuals are obligated to rely on their moral reasoning and moral principles. In the case of new moral dilemmas, an individual has the capacity to develop new viewpoints on moral values (Guiab, et al., 2015).

These newly formulated viewpoints combine to develop what is known as a moral conscience. The moral conscience is a manifestation of moral intelligence and is the frontrunner in the mental debate between right and wrong when faced with a moral challenge. These are both interdependent and dependent on experiences of the individual to develop and function effectively (Pana, 2006).

Thus, it has been described that moral intelligence is a complex manifestation of experiences, which are synthesised into a belief system which is ingrained in individuals. However, some individuals choose to exercise their moral intelligence more excessively than other individuals (Pana, 2006). This raises the concern of whether an individual who makes the cognitive decision to behave in a way that is morally correct and in line with moral principles, will in fact act on that decision. Leaders who have shown to possess a high degree of moral intelligence have shown to be consistent in their moral decision-making, even when making moral decisions came at a personal cost (Nixon, 2014). This highlights the fact that moral intelligence is multifaceted in that it is driven by cognitive thought processes, but the decision to act is often heavily influenced by emotion and social influence (Narvaez, 2010). This creates the need for a consistent application of moral values and capabilities.

In terms of the Social Cognitive Theory described in Section 2.4, subordinates will be cognitively more aware of their leader's decisions and actions and they will learn from them what is socially acceptable or what social norms exist in the vocational context (Greenbaum, et al., 2015). Should leaders possess a high moral intelligence and consistently rely on their moral intelligence in decision-making, it can be postulated that their subordinates will learn from them and create moral principles. This is because moral intelligence has been described above as the cognitive capacity to learn moral capabilities.

However, should leaders not possess and exercise their moral intelligence, subordinates run the risk of acquiring skewed moral values. Alternatively, if the

subordinates should possess and exercise a high moral intelligence, then the subordinates may further reinforce their sense of what is right and wrong, by experiencing the wrong way to make decisions. This may further enhance the individual's capability to make sound moral judgements.

The moral principles and capabilities which are developed throughout an individual's lifetime, are exercised in organisations when employees are presented with ethical dilemmas on a daily basis. The effective exercise of moral reasoning has shown to have significant influences on organisations and teams. A moral intelligence study conducted on staff in a library, showed a higher job satisfaction as well as a higher number of library users where the level of moral intelligence was higher. This study also concluded that a higher moral intelligence established a more motivated staff, who worked in a more productive and positive working environment (Nobahar & Nobahar, 2013).

Additionally, employees who perceive their leaders to rely on moral principles and values in decision-making, tend to trust and be more committed to their leaders (Ghayumi & Imani, 2015). When employees view their leaders as having a high moral intelligence, employees may perceive their leaders as relying on moral principles which employees have not experienced. This will provide employees with the opportunities to grow their personal moral principles on which they can rely, should they be faced with similar decision-making requirements in their own lives. This has proved to grow and enhance the spirit and performance of work teams and overall organisational health (Ghayumi & Imani, 2015).

Organisational health can be measured in terms of factors such as support of resources, spirit, director's influence, or institutional unity, which can be incorporated to determine the organisation's overall ability to continuously attune in its environment in order to sustain itself (Ghayumi & Imani, 2015). The correlation between a high moral intelligence and organisational health was empirically shown with a correlation of 0.884 and a standardized Beta coefficient of 0.884 (Ghayumi & Imani, 2015). This shows that there is a need for organisations to place emphasis on assessing and growing moral intelligence, to create organisations that will not only persist and be incumbent but will have more satisfied employees who will be more productive.

Furthermore, research has shown that the aim of moral intelligence is to make the interaction between the environment and the individual functional (Faramarzi, Jahanian, Zarbakhsh, Salehi, & Pasha, 2014). This is achieved through using the moral principles established throughout life, which forms the basis of moral intelligence. It was proven that the greater the amount of experience of relying on moral values in decision-making, the more automatic the moral decision-making process becomes (Narvaez, 2010). Therefore, the more an individual exercises his/her moral intelligence, the more emphasis is placed on it in decision-making, creating a greater moral functionality in the individual's interactions with the environment.

As described above, an individual with a high moral intelligence is able to make decisions based on moral principles in an organisational context, although these decisions may be detrimental to him/her. This echoes a further definition of moral intelligence which is defined as the willingness and ability to direct one's focus on other factors than one's self and the efficiency of the organisation, which applies when the concept of moral intelligence is examined in an organisational context (Beheshtifar et al., 2011).

This is especially essential considering the fact that an organisational setting is one that is characterised as dynamic in nature. It is therefore apparent that a lack of moral intelligence in decision makers and subordinates in an organisation, may have detrimental effects on the organisation's productivity and overall success (Ghayumi & Imani, 2015). In order to accurately measure the level of moral intelligence, a definition should be selected for this study, which emphasises the universality of the moral values to compensate for possible cultural differences, as well as a definition which describes the capability of an individual to promote productivity through making consistent, sound moral decisions.

Therefore, for this study, moral intelligence is defined as an individual's mental capacity to determine how universal principles should be applied to his/her personal values, goals and actions (Lennick & Kiel, 2011).

2.6 THE CONCEPTUALISATION OF MACHIAVELLIANISM

The construct of Machiavellianism, one trait found in the Dark Triad of personality traits, is a traditional personality construct which has received an increasing amount of research in the organisational context over the past decade, along with other personality dysfunctions such as narcissism (Kowalski, Vernona & Schermer, 2017; Pilch & Turska, 2015). An individual possessing a Machiavellistic personality type is characterised by amoral behaviour, which includes questionable transactions and unethical decision-making in organisations (Kisch-Geppard, Harrison & Trevino, 2010). This type of personality has also been studied extensively in conjunction with contexts such as persuasion, leadership and ethical behaviours (Lee & Ashton, 2005).

Machiavellians have been shown to possess a high propensity to manipulate others to achieve a means to an end (McHoskey, 1995). This indicates that Machiavellians are accustomed to manipulating interpersonal relationships in an opportunistic way where they could persuade and deceive others for obtaining their own personal goals (Kisch-Geppard, et al., 2010). Thus, a definition of Machiavellianism which is widely referred to, describes Machiavellianism as individual differences in manipulativeness, insincerity and callousness (Lee & Ashton, 2005).

Machiavellianism has been described as resulting in disadvantageous outcomes for an organisation such as taking revenge on others or lying to colleagues (O'Boyle, Forsyth, Banks & McDaniel, 2012). Employees possessing this personality trait have the tendency to behave in a way that is callous, selfish, as well as malevolent. As part of this, Machiavellians are more likely to partake in counter-productive work behaviour such as theft, sabotage and abuse (O'Boyle, et al., 2012).

Furthermore, it has been empirically found that if individuals with a Machiavellian personality type are concerned with maintaining their power status in the organisation, they are more likely to behave conscientiously (O'Boyle, et al., 2012). This appears conceptually contradictory regarding what has been described in terms of a Machiavellistic personality type, however, it is in fact consistent. A Machiavellian will manipulate others for their own personal gain and therefore, behaving conscientiously toward other employees, shows that they are able to completely and dynamically deceive others to maintain their power position, giving peers the impression that they are exhibiting conscientious behaviours. This shows that it may

be difficult to identify an individual with a Machiavellian personality type, as they are able to deceive others as described here.

In conjunction with their deceptively conscientious nature in organisations, it was proven that individuals who possess high scores on the Machiavellian scale, are more likely to acquire positive performance appraisals, maintain positions that have a higher authority, as well as be more satisfied with their jobs. This is because in a competitive organisation, Machiavellians feel compelled to set themselves apart from their peers in order to further their careers. In addition to this, high Machiavellians are driven by power, money and competition (Pilch & Turska, 2015).

This indicates that if high Machiavellians are given the opportunity to use their skills of manipulation to gain any of these three drivers, they will be able to adapt their behaviour dynamically, as mentioned above, to attain what they desire. They may employ manipulative strategies to obtain resources required for their tasks. Manipulation therefore, is enacted as a matter of opportunity and convenience (Kessler, Bandelli, Spector, Borman, Nelson & Penny, 2010). This is often done to the extent where little resources remain for others. This ensures that their performance will surpass that of others (Castille, Kuyumcu & Bennett, 2017). This reinforces the fact that Machiavellians will manipulate and be perceived to behave in a conscientious way when there is a self-serving motive.

Machiavellians have been described as maintaining the perspective that it is better to be feared than to be loved, in addition to what is described by McHoskey above (Quick & Nelson, 2011). They are also known to be prone to deceit in interpersonal relationships, in conjunction with maintaining a cynical view of human nature, where it is characteristic of high Machiavellians to have little concern for conventional views of right and wrong (Quick & Nelson, 2011). Thus, the act of behaving in a conscientious manner is one that comes naturally, as a Machiavellian will easily deceive others, since this is not an act that strikes them as extraordinary.

Due to the manipulative nature of a Machiavellian, a Machiavellian is difficult to identify. Therefore, three principles of Machiavellianism have been identified to assist in defining and identifying Machiavellian behaviour. An asserted belief in the effectiveness of manipulative tactics when dealing with other people, constitutes the first principle of Machiavellianism. This includes the fact that an individual with a high

Machiavellian score will not divulge information regarding the purpose of the manipulative behaviour, unless he/she is able to do so for his/her personal benefit (O'Boyle, et al., 2012). To their mind, this is not conducive to effective manipulation because if their motives are revealed, it will deter their strategic advantage.

Manipulativeness is the recurring dimension of Machiavellianism which is apparent in literature on this topic, and it is the principle that is most commonly associated with Machiavellianism. Christie and Geis are the authors of the earliest prominent research regarding Machiavellianism, and in addition to the definition that has been supplied by these researchers provided above, are four components of effective manipulation of others regarding high Machiavellians. The first component that has been identified is that high Machiavellians have little effect in interpersonal relationships, indicating that these individuals view others as tools to complete a task or objects to be utilised as a means to an end (Kessler et al., 2010).

The second component of effective manipulation is a lack of concern for conventional morality (Kessler et al., 2010). High Machiavellians are devoid of a moral view in terms of their interactions with others and tend to hold the view, which is synonymous with that of a utilitarian view of the interpersonal relationships that they engage in. A utilitarian view of interactions maintains the perspective that, decisions are based on the greatest good for the greatest number of individuals and not what is morally the correct decision (Grobler, Bothma, Brewster, Carey, Holland & Warnich, 2011).

The third component refers to the fact that high Machiavellians maintain a rational view of others, which they do not allow to be distorted by reality or emotions (Kessler et al., 2010). This describes the act of effectively manipulating others, whilst not allowing one to become sufficiently distracted by aspects of reality, which hampers the manipulative task at hand.

The final component of the four components described by Christie and Geis refers to the fact that high Machiavellians have a low ideological commitment, which indicates that they tend to have a short-term orientation to decision-making and behaviours, whilst they are not concerned about the long-term ramifications of their decisions or behaviours (Kessler et al., 2010). Understanding these four components which characterise effective manipulativeness, will enable an individual to determine

whether or not an individual is a high Machiavellian, depending on whether he/she is capable of effectively manipulating others.

These four elements of manipulation proposed by Christie and Geis encapsulates the essence of the behaviour of an individual with a Machiavellian personality type. This was demonstrated by a qualitative study of ninety-eight students where several experiments were conducted. The outcome of these experiments shows that students are 2.7 times more likely to misrepresent themselves and manipulate others into believing they are performing better than they really are, when they were made to believe tangible incentives were attainable. This indicates how Machiavellian tendencies are stronger in individuals when competition is introduced (Kilduff & Galinsky, 2016). This reiterates the four elements of manipulation, since an opportunistic rational view of others is maintained when circumstances or incentives support the disregard for morality.

The second principle of Machiavellianism states that a Machiavellian will maintain a cynical view of human nature (O'Boyle, et al., 2012). This assumes that all individuals have a vicious tendency which they will utilise when given the opportunity. It indicates that individuals with a high Machiavellian score may use this second principle as a justification for their manipulative behaviour. This echoes the Social Cognitive Theory in terms of a moral disengagement, however, with a Machiavellian personality type this moral disengagement is far more acute. In addition to this, maintaining a negative view of co-workers, supplements the unethical decision-making as it is assumed that others will also make unethical decisions, due to this espoused vicious tendency (O'Boyle, et al., 2012).

The final principle refers to a moral outlook that high Machiavellians possess which places expediency above principle in all situations (O'Boyle, et al., 2012). This explains that they deny the fact that they are able to advance in their careers and in life without taking shortcuts. This is synonymous with the fact that Machiavellians will effectively manipulate others in order to ensure career advancement. This is also a significant reiteration of the fourth component of manipulation, where Machiavellians will not consider the repercussions of their behaviour and adopt a more short-term orientation to decision-making.

These principles described by O'Boyle et al., (2012) serve the purpose of identifying an individual with a high Machiavellian score in any situation and will aid peers to be aware of their tendencies. This is essential, as high Machiavellians' colleagues will need to adapt to a heightened awareness when interacting with the individual, due to their manipulative nature, coupled with an ease of justification for their actions.

In addition to the principles that have been described, a further characteristic of Machiavellianism has been identified an individual who is described as a high Machiavellian will only engage in manipulative behaviours when necessary (Kessler, et al., 2010). This indicates that Machiavellianism is multidimensional, including various facets of manipulative behaviour, as they will be executed specifically for the need of the Machiavellian in a specific context. This concludes that these individuals are dynamic in nature, as they are able to adapt their behaviour accordingly to each given situation in which they find themselves. Therefore, a further definition of Machiavellianism is described by manipulative interpersonal strategies and a sceptical view of others (Veselka, Schermer & Vernon, 2011).

Researchers have supplemented this information with the element that individuals, who are Machiavellian, base their behaviours and manipulations on expediency and are devoid of traditional virtues of trust, honour and decency (Kessler et al., 2010). This confirms that individuals with a Machiavellian personality type will merely manipulate others when it is beneficial for them, and they will not do so for another reason, whilst showing no remorse or regret for their actions. This supports the fact that Machiavellians are dynamic in nature.

A definition of Machiavellianism, which has frequently been used to describe Machiavellians in an organisational context, is the belief in the use of manipulation when necessary, to achieve one's desired ends in the context of a work environment (Kessler et al., 2010). This detracts from the original definition of Machiavellianism being a personality type in the form of a belief. This indicates that this belief may be interchangeable which is consistent with the fact that Machiavellianism is driven by expediency, which is a fundamental component of organisational Machiavellianism (Kessler et al., 2010).

The ability to successfully manipulate others should not prove to be the only defining characteristic when attempting to identify Machiavellians in an organisation. It is one

of the main indicators, however not the sole indicator. As it has been described above, Machiavellians are multifaceted and have a range of dimensions which characterises their behaviour. Therefore, a definition needs to be selected from the three definitions which have been provided above which will be used for this study. For the purpose of this study, Machiavellianism is defined as a belief to manipulate when necessary, to achieve one's desired ends in the context of a work environment (Kessler et al., 2010).

2.7 THE CONCEPTUALISATION OF TRANSPARENCY

Transparency is a construct, which has increased in popularity over the preceding decades, due to its growing importance and relevance in the modern organisational environment. This is due to the increase in technology where transparency of organisations is achieved more effortlessly, as well as the ethical missteps taken by corporate giants such as Enron (Bennis, Goleman & O'Toole, 2010; Berkelaar, 2014). The increase in technology and demand for consistent and trustworthy information from organisations adds to the pressure for organisations to become more transparent, as it is becoming increasingly challenging for organisations to conceal private information from stakeholders and the public (Bennis et al., 2010).

The emergent significance for organisations to maintain their transparency transpires to its employees, rendering it of a high importance that organisations should employ employees that maintain a similar transparent predisposition. In doing so, it would aid organisations to practise transparent business operations as their employees value the same quality. An effectively transparent organisation does not disclose all of its business secrets, but it does not exclude its stakeholders from key information (Murphy, Laczniak & Wood, 2007).

To allow transparency to function effectively in organisations, the organisations' employees need to encompass the construct of transparency. The concept of transparency has certainly gained popularity. This is seen by less than fifty articles exploring the construct in the early nineties, to over three hundred to do so between 2006 and 2009 (Schnackenberg & Tomlinson, 2016). Despite this increase in scholarly attention, the concept of transparency is somewhat multifaceted and may appear to be misunderstood in some cases.

The definition provided by Murphy, Laczniak and Wood (2007) describing a transparent organisation as one which divulges key information to their stakeholders, potentially leaves a considerable grey area. Transparent organisations have been criticised in terms of openly adopting transparency as a cultural value, however, not personally adopting the value in their daily interactions. These organisations have further been criticised as only adopting the value of transparency for the sake of pleasing outside parties in terms of their public image (Christensen & Cheney, 2015).

This criticism has merit since organisations who state their values and do not act on them, are not likely to be transparent in their business operations. This assumption can be supported with an example from the case where the Eastern Cape Provincial Government was held accountable for their underspending and neglect regarding school infrastructures. South African expenditure is made public and accessible for all, a value of the governing body, which on face value appears to be transparent and honest (About the Eastern Cape Department of Education, 2017). However, the way in which it is made available, questions the nature of the transparency.

The information provided by the Eastern Cape Government is not consolidated in a coherent manner, nor is it stored in a format or location that is user-friendly (Van Zyl, 2014). This highlights the way in which institutions are able to state values, which are subscribed to, yet ambiguities are found in order to provide information in a way which is not completely transparent. This case provides insight into the importance of transparency not only specifying the nature of information shared, but also the way in which it is shared to ensure the recipient is receiving information that is of value and is useful.

A shift from organisational transparency to individual transparency creates further opportunity for a misalignment between what information sharing can be constituted as transparency, or simply as information disclosure. The difference between transparency and information disclosure lies in the intention that transparency should create a meaningful understanding of the content of the information, as well as a platform for further substantial and relevant communication between parties after the information has been shared (Albu & Wehmeier, 2014).

This supports the bridge from pure information sharing to a more meaningful exchange of information. The achievement of meaningful transparent communication

will be contingent on the transparent behaviour of employees. Heald cited in Albu and Wehmeier (2014) states that openness, often used as a synonym for transparency, will only transform into transparency when the recipients of the information from the organisation, understand the message that is provided.

To achieve meaningful transparent behaviour three important elements to be transparent are engaged in by individuals (Rawlins, 2009). The first element includes being transparent with regard to the information that is disclosed. The information needs to be truthful, substantial and useful (Rawlins, 2009). The information that is disclosed to other parties needs to be of use to the party that the information is being disclosed to, otherwise the disclosure will not be constituted as being effectively transparent, as the party receiving the information does not gain from the information.

The second element of transparent behaviour includes the participation of stakeholders to identify the information that is needed by the party receiving the information (Rawlins, 2009). Stakeholders need to participate in identifying this information, as this shows that there is a genuine interest in assisting the party receiving the information. If this does not occur, it may render suspicion in the party divulging the information, as it may appear that the stakeholder does not want to participate, since there is information that he/she is attempting to conceal (Rawlins, 2009).

It is important to take note of the second point of transparent behaviour as in this instance, transparency has a potential dark side. The analogy of a bird flying toward a window is used to describe this concept. As a bird flies toward a window the window is transparent, and the bird is able to see through the window. However, the bird does not take the glass into account and risks its safety by flying into the glass (Christensen & Cheney, 2015).

This analogy can be applied when expecting organisations to employ transparency in their actions. Organisations may be transparent in their actions, however, stakeholders may miss vital information which is not necessarily disclosed, but is right in front of them. Therefore, since the second element states that the stakeholders should identity the information to be disclosed, it should rather be requested that nothing is hidden (Christensen & Cheney, 2015). Thereby it prevents

stakeholders to omit any valuable information and it forces organisations to disclose all information.

The third element requires an individual to engage in objective, balanced reporting of an organisation's policies and activities that holds the organisation accountable (Rawlins, 2009). It is acceptable to identify an individual as transparent if the individual or organisation that is attempting to establish a transparent reputation can be held accountable for the information that is being disclosed (Rawlins, 2009). This shows that the organisation or individual is confident that the information is truthful and useful – consistent with the first element that was described above.

Therefore, taking into consideration the three elements of transparent behaviour, transparency can be defined as being more visible (Rawlins, 2009). It can also be defined more specifically as being characterised by the visibility of accessibility of information, especially concerning business practices (Rawlins, 2009). Transparency has also further been defined as timely and reliable economic, social and political information that is accessible to all relevant stakeholders (Kolstad & Wiig, 2009).

In addition to the definitions and descriptions of transparency that has been conceptualised, three efforts or acts have been identified which can enhance the transparent standing of an individual (Rawlins, 2009): participation, substantial information and accountability (Rawlins, 2009).

Participation relates to the second element that has been described previously, where the individual who is providing the information should participate in identifying the relevant information. Substantial information relates to the first element that was described, where the information needs to be truthful and useful (Rawlins, 2009). Accountability of the information can be related to the third element where the party that is providing the information has to be held accountable for the information being disclosed (Rawlins, 2009).

In addition to this, transparency has been described as the construct that describes whether information is made known to all relevant parties (Norman, Avolio & Luthans, 2010). In this study these relevant parties refer to supervisors and subordinates. Furthermore, the three abovementioned elements, coupled with the relevant parties receiving the information, would not fully reflect transparent

behaviour if the information was not delivered in a timely manner. If the information was not delivered when the recipient could use it, it would not be transparent (Schnackenberg & Tomlinson, 2016).

Thus, a definition of transparency that applies in this context, refers to transparency as the interactions which are characterised by the sharing of relevant information, by being open to giving and receiving feedback, by being forthcoming regarding motives and reasoning behind decisions, and by displaying alignment between words and actions (Norman, et al., 2010). In addition, transparency is described above as one which emphasises consistency overall. This is because employees will perceive their supervisors as being transparent if they are consistent in all of the elements mentioned above.

Individual interpersonal relationships between employees would encompass the same characteristics of this definition that were provided. They would need to share relevant information with one another to enable them to perceive one another as transparent, in conjunction with giving and receiving feedback. If employees are comfortable with this element, they are able to identify their peers as transparent. If they are willing and able to provide reasoning for their actions and they are able to deliver according to their word, they will more easily be perceived as being transparent, in accordance with the definition provided.

Thus, the definition provided above is an expanded explanation of the three efforts of transparency identified by Rawlins (2009). In addition to the elements of transparency that were explained above, a clear and comprehensive overview has been given of the construct of transparency. Thus, for the purpose of this study, transparency is defined as the interactions between leaders and followers, which are characterised consistently by the sharing of relevant information, being open to give and receive feedback, being forthcoming regarding motives and reasoning behind decisions, and displaying alignment between words and actions (Norman, et al., 2010).

2.8 THE RELATIONSHIP BETWEEN INTEGRITY AND OCB

Research of the relationship between integrity and OCB has produced inconsistent results, many pertaining to the incongruence of definitions of both constructs

(Tomlinson, Lewicki, & Ash, 2014). The relationship between integrity and OCB is significant for a number of reasons – two of which will be emphasised. Firstly, the fact that those employees who possess a high degree of integrity are more likely to engage in OCBs than employees that do not possess a high level of integrity (Zhang, et al., 2013).

This was proven through a study that was conducted where employees trust in the integrity of their supervisors; they are more likely to exhibit OCBs. If employees perceive integrity, they will feel more comfortable to openly contribute through OCBs, as they are trusting their co-workers (Zhang, et al., 2013). This will prove to be advantageous for an organisation, as it contributes to the overall effectiveness of the organisation if a number of employees engage in OCBs as shown in Section 2.2 above.

Furthermore, the definition provided of integrity illustrates that an individual with a high degree of integrity will resist temptation in adverse conditions and will remain consistent with personal values. This consistency in values is a defining component of integrity, however, it also reflects conscientiousness, an important element of OCB. Conscientiousness, as described in Section 2.2, is the individual's ability to remain consistent with his/her personal values when there is no one to perceive their consistency (Özduran & Tanova, 2017).

The concern however, is similar to that of traditional definitions of integrity, where an individual who is consistent with his/her values, may be consistent with immoral values. However, the definition of integrity pre-empts this concern in that it states that an individual will be perceived as having integrity if they behave consistently with moral values only. Therefore, if the individual displays moral conscientiousness, it is likely that the individual will have a high degree of integrity, as the defining characteristics of both constructs are similar.

Tomlinson et al., (2014) found a significant relationship between integrity and value congruence. This further shows that should an individual possess integrity and his/her values are in congruence with the actions and the values of their colleagues, they are more likely to engage in OCBs.

Additionally, an indirect relationship has been identified where employees who perceive their supervisors to possess a high level of integrity, will be more inclined to engage in OCBs, which will also prove to be advantageous for an organisation (Zhang, et al., 2013). This is because these employees feel that by engaging in OCBs they are able to show their gratitude to their supervisors (Zhang et al., 2013).

Additionally a direct correlation between the construct of integrity and OCB has been supported by empirical research claiming that building organisational climates that promote individual and organisational functioning, will foster the engagement of employee OCBs, which is elicited by the perceived integrity in managers or supervisors (Rego, Ribeiro & Cunha, 2010). Further research has also shown that if there is a sufficient lack of perceived integrity in a supervisor, whilst the supervisor is attempting to provide guidance to employees, the opposite effect may occur, where employees engage in deviant behaviour or where other detrimental outcomes may be the result (Dineen, Lewicki & Tomlinson, 2006).

It is therefore clear that, if an employee is perceived to possess sufficient levels of integrity, the employee will engage in OCB, thereby validating integrity. Thus, it is postulated that integrity has a positive influence on OCB.

2.9 THE RELATIONSHIP BETWEEN INTEGRITY AND LEADER EFFECTIVENESS

The relationship between integrity and leader effectiveness is one that has not received much attention in past literature. The focus of this relationship has been aimed at an organisational performance level (Vogelgesang, et al., 2013). It has been empirically proven that the presence of integrity in an organisation has a positive and direct correlation with organisational effectiveness. This supports the need for an inspection of the relationship between integrity and leader effectiveness (Hooijberg, Lane & Diversé, 2010). In addition to this, it has been empirically proven that there exists a positive correlation between perceived leader integrity and overall leader effectiveness (Hooijberg, et al., 2010).

Additional empirical studies have engaged in a different approach to the relationship that exists between integrity and leader effectiveness, where it was postulated that integrity is a component of leader effectiveness. This states that for a leader to exhibit optimum leader effectiveness, he/she needs to be perceived as an individual

who has a high level of integrity (Grover & Moorman, 2007). Because if an individual is consistent in his/her words and actions, following an established set of values as shown by the definition of integrity, he/she will be able to achieve organisational outcomes by using different evaluation targets according to the definition of leader effectiveness provided above. If leaders are able to commit to the organisational aims in a way that is consistent with their values, their peers will be able to perceive those employees as effective leaders.

A further empirical study investigated the importance of ethical decision-making according to the perception that subordinates have of their supervisors' integrity and leader effectiveness (Storr, 2004). This study proved that subordinates use their leaders' character and behaviour to infer judgements of their leader effectiveness as well as their integrity. This study produced results that indicated that subordinates base their judgements of leader effectiveness not on the ethical decisions, but rather on the extent to which they lead with integrity, coupled with their hierarchical status (Storr, 2004).

A varying view of this relationship has been established through the work of Palanski and Yammarino (2011). Their research has supported the fact that a leader with a high integrity, will encourage their subordinates to behave with integrity. Thus, if their leader is effective in doing so, the organisation will be encouraged to behave with a greater sense of integrity. Therefore, if a leader's subordinates behave with integrity, it can serve as an indication that their leader is an individual with high integrity, and therefore he is an effective leader.

Taking the views of this relationship into account, it elaborates on the fact that if leader effectiveness is elicited through integrity-related behaviours, integrity is validated. This shows that if the validation of integrity is corroborated, leader effectiveness is expected as an outcome. Thus, it is postulated that integrity has a positive influence on leader effectiveness.

2.10 THE RELATIONSHIP BETWEEN MORAL INTELLIGENCE AND INTEGRITY

The conceptualisation of integrity briefly described the factor moral drive that is rooted in integrity and that was elaborated on by Barnard et al. (2008). This drive is described as a compass for an individual's integrity-related behaviours. A deeper

inspection of this relationship will confirm the postulation of this relationship and thus, the inclusion of moral intelligence in the proposed structural model.

The definition of moral intelligence that was selected for this study, refers to the establishment of universal principles that are applied to an individual's personal values and goals, and is related to the definition of integrity that has been selected. They are related because the definition of integrity describes that the basis for decision-making is on consistency of personal beliefs and values. This link between the definitions that have been selected, suggest that integrity-related behaviours are based on the values that are governed by the universal principles applied by an individual's moral intelligence.

This association between moral decision-making capability provided by moral intelligence and the moral or integrity-related behaviours, as a result, simulate a simple connection. This is not often so. The complexity between decision making and action was first appreciated by one of the forefathers of psychology, Jean Piaget, where he stated "But relation between thought and action are very far from being simple as previously supposed" (Piaget cited in Teper, Tullett, Page-Gould & Inzlicht, 2015). This raises the concern for whether moral intelligence will consistently lead to integrity related behaviours (Connelly, Lilienfeld, & Schmeelk, 2006; Teper et al., 2015).

This concern can be countered through re-establishing that moral intelligence is an ever-growing capability based on moral principles, which are created through the experience of moral challenges. Consequently, the definition of integrity states that integrity is the consistency of personal beliefs and values, which aid the individual to avoid unethical or immoral decisions. When these two definitions against one another, it becomes apparent that integrity does not only depend on moral intelligence for universal principles but it shows how these two constructs are complimentary and are dependent on one another.

Integrity and moral intelligence can be described as complimentary as integrity as a personality construct allows an individual to consistently apply moral principles in decision-making. As described in 2.5., individuals with a high moral intelligence are on occasion tempted to make decisions, which are not in line with their moral values, due to social pressures or emotions. This concern of moral intelligence lacks

consistently-applied moral decision-making. The fundamental element of integrity is consistency between personal values and behaviours.

Therefore, should an individual exercise consistent integrity-related behaviours, which stem from moral decision-making, an individual's moral principles and capabilities are likely to strengthen. Therefore, moral intelligence can be seen as the foundation for moral decision-making which leads to integrity-related behaviour, however, the consistency provided by integrity is required in order to maintain or grow moral intelligence.

Furthermore, this elaborates on both the conceptualisation of moral intelligence and of integrity, by demonstrating how moral intelligence is the cognitive capability which drives the consistency between values and actions and ultimately the perceived integrity-related behaviours. This also provides support for the inclusion of integrity as one of the four capabilities which constitutes a high moral intelligence.

Thus, the relationship between the cognitive underpinnings of moral intelligence and integrity is clear, however, it has been found that senior leaders prefer to avoid the topic of integrity and moral dilemmas, as it has the potential to create an ethical debate which is not always easily resolved in the workplace. In order to create comfort in confronting uncomfortable topics in teams, organisations have employed integrity-related strategies to address moral challenges, which have proven to be successful (Verhezen, 2007). This provides further support for the fact that should integrity-related behaviours be consistent, it should further enhance an individual's moral intelligence.

Therefore, if an individual's integrity-related behaviours are consistently based on universal values encompassed in one's moral intelligence, as well as in one's personal values, it is postulated that moral intelligence has a positive effect on integrity.

2.11 THE RELATIONSHIP BETWEEN MACHIAVELLIANISM AND INTEGRITY

The definition of Machiavellianism here above, highlights the characteristics which are contradictory to those that characterise an individual with integrity. The definition and essence of Machiavellianism emphasises manipulation as a means to achieve desired outcomes, whereas the definition that has been chosen to describe the

construct of integrity, characterises the basis of action regarding values and the consistency thereof. Therefore, because these are contradictory, it is expected that Machiavellianism and integrity correlate negatively.

Additionally, integrity has been described as a personality construct that is characterised by an individual who is committed to morality and engaging in behaviour and decision-making practices which are in congruence with moral values. The description provided for Machiavellianism provides a contradictory view, since it describes an individual who is not concerned with conventional morality. This describes the second component of manipulation as described in Section 2.6 (Kessler, et al., 2010).

In support of this, empirical studies have shown Machiavellianism has a strong negative correlation with integrity (Hong, Koh & Paunonen, 2012), which is further supported by a study also with a negative correlation (-0.52) (Veselka et al., 2011). The results of these studies support the fact that integrity and Machiavellianism have a high negative correlation.

Furthermore, integrity tests have widely been used to predict deviant behaviour in the workplace, especially among lower level or non-managerial employees (Kish-Gephart et al., 2010). The results of these tests have often proven useful in the prevention of deviant behaviours such as manipulation, the crux of Machiavellianism. Thus, integrity is proven to be a univariate predictor of manipulation, predicting Machiavellian tendencies in the test taker (O'Neill & Hastings, 2011). Therefore it is postulated that Machiavellianism has a negative influence on integrity.

2.12 THE RELATIONSHIP BETWEEN TRANSPARENCY AND INTEGRITY

Given the information regarding integrity and transparency above, it can be inferred that integrity and transparency are complimentary constructs. This statement becomes more palatable if one considers the possibility of an employee who is not transparent; it is not likely that this employee will be constituted as an employee who has high integrity. To illustrate this, the definitions of both integrity and transparency will be weighed against each other.

Three elements of transparency have been described in Section 2.7. The three elements of transparent behaviour contain one element that binds the elements to

the construct of integrity. The physical act of engaging in transparent communication with the recipient is the underlying factor among the three elements. This indicates that this physical, tangible act is the tool to measure whether an individual is engaging in transparent communication.

If the communication that takes place between colleagues are not relevant or forthcoming with words and motives, it is not likely that the recipient of the information will view the initiator of the conversation as someone who is high on integrity. This is because for an individual to be perceived as an individual of integrity, communication must first take place. In the instance where non-transparent communication takes place, the provider of the information is not likely to be trusted and is likely to be seen as an individual who does not possess a sense of morality as indicated by the definition of integrity that is provided (Albu & Wehmeier, 2014). Therefore, transparent communication is able to act as a prerequisite for a colleague to be perceived as an individual with integrity.

Trust, as explained above, is a consequence of transparency and can be described as a prerequisite for transparency between leaders and subordinates. Trust has been identified as the confidence that one individual has in another to believe and accept the information being shared. Trust is also described as the confidence in the reliability of information and the integrity of the provider thereof (Ahearne et al.; Eisingerich & Bell; Urban et al.; Yim et al. cited in Parris, Dapko, Arnold & Arnold, 2016).

This proves that also trust is a beneficial consequence of transparency, and transparent communication is vital before a leader or peer can be deemed as an individual with integrity. Consistency is a common factor underlying the definition of integrity, as well as the definition of transparency. In order to communicate transparently, the provider of the information needs to be consistent in his words and actions.

Transparency is regarded as a prerequisite for integrity. An individual communicates in an open and transparent way, which is supported through ethical motives. The provider of the information is more likely to be perceived as consistent. This is because an individual's consistency in values and actions will not be known unless the provider of information explicitly discloses these values. Their values will become

known to their peers since the provider of the information has provided this insight into his/her values through open and transparent communication. Therefore, the more consistence and congruence between their actions and words are witnessed, the more likely integrity will be observed in the actions of the leader or subordinate, but their integrity is reaffirmed through the transparent nature of their communication.

Three prerequisite steps have been identified for the execution of behaviours that can be identified as behaviours that are related to what would be expected of an individual with integrity. One of these steps requires one to act upon what you have discerned, including at a personal cost. This is consistent with what transparency is defined to be, considering that acting in accordance with transparency, requires one to disclose information which one should accept to be held liable for (Bennis et al, 2010).

In addition to this, it has been empirically shown that acting in accordance with the elements of transparency, can aid an individual to maintain his/her standing on integrity regarding the perception of co-workers. Thus, if an individual is considered to be an individual with a high integrity, behaving in a transparent way, will enhance this standing (Kolstad & Wiig, 2009).

Further empirical studies support the fact that transparency and integrity have a positive correlation. A study of Palanski, Kahai and Yammarino (2011) explains how elements of transparency, such as the amount of information shared as well as explanation given to decisions made, will enhance the perceived integrity of the leader or supervisor. The study confirmed this relationship as positive (Palanski et al., 2011). Thus, for this research study it is postulated that transparency has a positive influence on integrity.

2.13 THE RELATIONSHIP BETWEEN MORAL INTELLIGENCE AND OCB

The five dimensions of OCB discussed above (see Section 2.2) are used to describe the underlying motives of an individual who elicits OCBs in an organisation. These dimensions, namely altruism, conscientiousness, sportsmanship, courtesy and civic virtue, will be discussed in terms of how they are influenced by the four capabilities of moral intelligence (Tambe & Shanker, 2014). These dimensions have been described as behaviours which are used to identify individuals engaging in OCBs,

where the capabilities of moral intelligence can be postulated as the driving force behind behaviour.

The concept of moral intelligence is the cognitive component of being cognisant of what is right according to acquired universal principles, whereas 'capability' describes the process of transforming knowledge into action (Shirey, 2007).

The first capability describes the acts of serving others, taking responsibility for one's choices and being able to admit mistakes – known as responsibility (Nixon, 2014). Responsibility can be linked to altruism because both concepts involve serving others. Responsibility can also be related to sportsmanship as this dimension involves the act of perseverance in the face of hardship which will be required when admitting mistakes and taking responsibility for one's actions. Responsibility can also be thought to influence conscientiousness as this dimension is supported by the sense of taking responsibility for the work that needs to be completed. Therefore, it is postulated that responsibility will positively influence altruism, sportsmanship and conscientiousness.

The second capability is termed compassion, which describes the act of respecting and caring for others (Nixon, 2014). This can be seen as related to courtesy, as courtesy describes the act of taking necessary steps in assisting others with personal problems (Tambe & Shanker, 2014). This relationship indicates that should an individual possess compassion as a capability of moral intelligence, he/she is likely to engage in altruistic behaviours as both components describe similar acts.

The third capability of moral intelligence is that of integrity which is defined by Lennick and Kiel as acting consistently with principles and values and standing up for what is right (Nixon, 2014). This capability is related to the civic virtue dimension of OCB. This is, as civic virtue describes, the act of, participating in organisational political processes and giving one's opinion freely (Tambe & Shanker, 2014). It can be postulated that if an individual is willing to stand up for what is right, he/she is more likely to give his/her opinion when he/she is faced with circumstances, which are not in line with what is morally correct. Therefore, the individual is more likely to engage in behaviours which can be identified as those synonymous with civic virtue, should the individual possess integrity, as defined by Lennick and Kiel, as part of their moral intelligence.

The fourth capability is that of forgiveness, which describes an individual's ability to be tolerant of the mistakes of others and of themselves (Nobahar & Nobahar, 2013). This capability is related to courtesy. The act of assisting others where necessary with interpersonal problems will require a degree of forgiveness if the interpersonal problems hinder their performance in the organisational context. The employee requiring assistance will need to be forgiven for possible poor work performance before assisted, to ensure assistance is given genuinely.

It can therefore be understood how the four capabilities of moral intelligence can positively influence the occurrence of the five dimensions of OCB. Furthermore, the dilemma of determining whether behaviour is discretionary will be lessened, when it is considered that the discretionary behaviour is driven by moral principles. This is because discretionary behaviour is driven by moral principles – the motive for the behaviour is no longer in question as there is no malicious intent or behaviours driven by the desire for praise. Therefore, taking into consideration that the behaviour is driven by sound moral principles, it is congruent with true OCB.

Additionally, the definition provided above for OCB (See Section 2.2) illustrates that OCB is flexible, which describes the fact that the actor will engage in OCB only when it is deemed necessary. This however, does not guard the fact that the actor may deem it necessary for ill intent. Therefore, if OCB is driven by sound moral principles, this concern is no longer valid, since the actor will only engage in OCBs when he/she deems it as morally necessary.

Therefore, it was proven that the capabilities of moral intelligence are closely related and are likely to positively affect the dimensions of OCB. The influence of moral intelligence on OCB is likely to decrease the concern of whether OCB is engaged in for the wrong reasons according to the research. It is therefore postulated that moral intelligence will have a positive influence on OCB.

2.14 THE RELATIONSHIP BETWEEN MORAL INTELLIGENCE AND LEADER EFFECTIVENESS

As described in the conceptualisation of leader effectiveness, a paradigm shift has taken place where the role of the leader has become far more complex throughout the changing of organisational environments. The changes in what constitutes an effective leader has since included not only the outcomes in which leaders achieve

organisational goals, but has extended to the way in which these organisational outcomes were achieved.

In conjunction with the way in which these outcomes are achieved, the extent to which tasks are carried out successfully by subordinates and the way in which the leader is able to inspire and empower subordinates, forms part of what constitutes an effective leader (Sudha et al., 2016). This is influenced significantly by the leader's own moral intelligence as a leader's moral intelligence is proven to have a direct effect on his/her behaviour (Mokhtaripour, et al. cited in Nobahar & Nobahar, 2013). It has also been found that when leaders behave in a way which is consistent with their moral principles, it creates a sense of commitment on the part of the members of the organisation. A greater sense of commitment will result in the promotion of the effectiveness and health of the organisation (Shafighi and Shoghi cited in Ghayumi & Imani, 2015).

A possible explanation for this relationship may be found in psychological awareness that are addressed in the Social Cognitive Theory discussed in Section 2.4. As discussed, a subordinate is more likely to be psychologically aware when interacting with his/her leader due to the nature of the relationship within the organisational context. Therefore, the way in which the leader uses his/her moral principles to guide actions and behaviours, is more likely to be identified by the subordinate.

As the moral principles which serve as the basis for moral intelligence is developed, or gained through experiences, it is likely that subordinates who experience their leaders as building their decisions on moral principles, will also adopt these moral principles and enhance their own moral intelligence. This is because subordinates rely on their leaders to determine which behaviours and practices are acceptable in the organisational context (Greenbaum, et al., 2015). Therefore, should subordinates perceive their leader as exercising their moral intelligence throughout decision-making, they are likely to deem this behaviour as the norm and adopt this practice in their own behaviour.

This is supported by the fact that moral intelligence is developed through experience gained throughout life. This is further supported by the development and enrichment of one's own moral intelligence that is not dependent on age (Beheshtifar et al.,

2011). Therefore, a subordinate is able to enhance his/her moral intelligence through the positive influence of his/her leader at any stage of his/her career.

The influence of the leader's moral intelligence on subordinates is likely to have a positive influence on the organisational goals since the subordinates' moral intelligence is further enhanced, organisational goals and objectives will be supported by the subordinates. This is because subordinates will be guided by a moral compass which will direct their behaviour to be beneficial for the organisation (Ghayumi & Imani, 2015).

This is likely to have a direct effect on leader effectiveness, as leaders are deemed effective in conjunction with other previously discussed criteria, regarding how effectively their subordinates are able to perform in a satisfactory way. It is therefore, postulated that moral intelligence will have a positive influence on leader effectiveness.

2.15 THE RELATIONSHIP BETWEEN TRANSPARENCY AND LEADER EFFECTIVENESS

The influence of transparency on leader effectiveness is regarded as beneficial for the leader, the subordinates, as well as for the organisation. Transparency is a tool or mechanism, which is utilized in achieving leader effectiveness. This is since transparency plays an important role in nurturing the relationship between the leader and subordinate, which is the crux of leader effectiveness.

The manner in which information is relayed from the leader to the subordinate regarding organisational goals and/or other relevant instructions, affects the nature of the relationship between the leader and the subordinate. Subordinates base their perceptions of their leaders on the information they receive through either direct communication or on their own perceptions. Transparent communication, as described in Section 2.7, provides the platform for leaders to provide clear, truthful information which the subordinate can use in decision-making and perception formulation. Providing information that is transparent, allows for the alleviation of misinterpreted information or distorted understandings (Vogelgesang & Lester, 2009).

In the instance where the leader is transparent regarding organisational goals and motives, it is more likely that subordinates will commit to the initiatives and support the leader (Vogelgesang & Lester, 2009). Consequently, should leaders choose not to disclose information in a transparent manner, they risk instances where subordinates may reduce their efforts, as they perceive a misalignment in the input-output relationship between themselves and the leader (Simons, et al., 2007). In such an instance, the leader no longer affords the opportunity to be deemed as effective.

The leader requires the perception of the subordinate to be deemed as effective. A further measure of leader effectiveness is whether the organisational performance is enhanced under the guidance of the leader. The use of transparent communication is found to have a significant effect on the positive behavioural intentions of the recipient of the information (Auger, 2014).

It is pertinent to reiterate that transparency is not only defined as open communication, but encompasses all elements of transparent communication described by Rawlins (2009). Furthermore, it was established that should the leader engage in true transparent communication, several positive outcomes are likely to occur, such as an increased trust in the leader, an increase in employee creativity as well as an increase in overall employee performance (Vogelgesang & Lester, 2009). These outcomes are likely to positively affect leader effectiveness.

Therefore, given the above justification, it is postulated that transparency will have a positive influence on leader effectiveness.

2.16 THE STRUCTURAL MODEL

The personality constructs and their subsequent outcomes that have been discussed are proposed in the form of the structural model, which will be used as a tool to validate an integrity test in the organisational context (See Figure 2.1). Three determinants of integrity were postulated, namely Moral Intelligence, Machiavellianism and Transparency. Furthermore, two outcomes of integrity, namely OCB and leader effectiveness, were also identified.

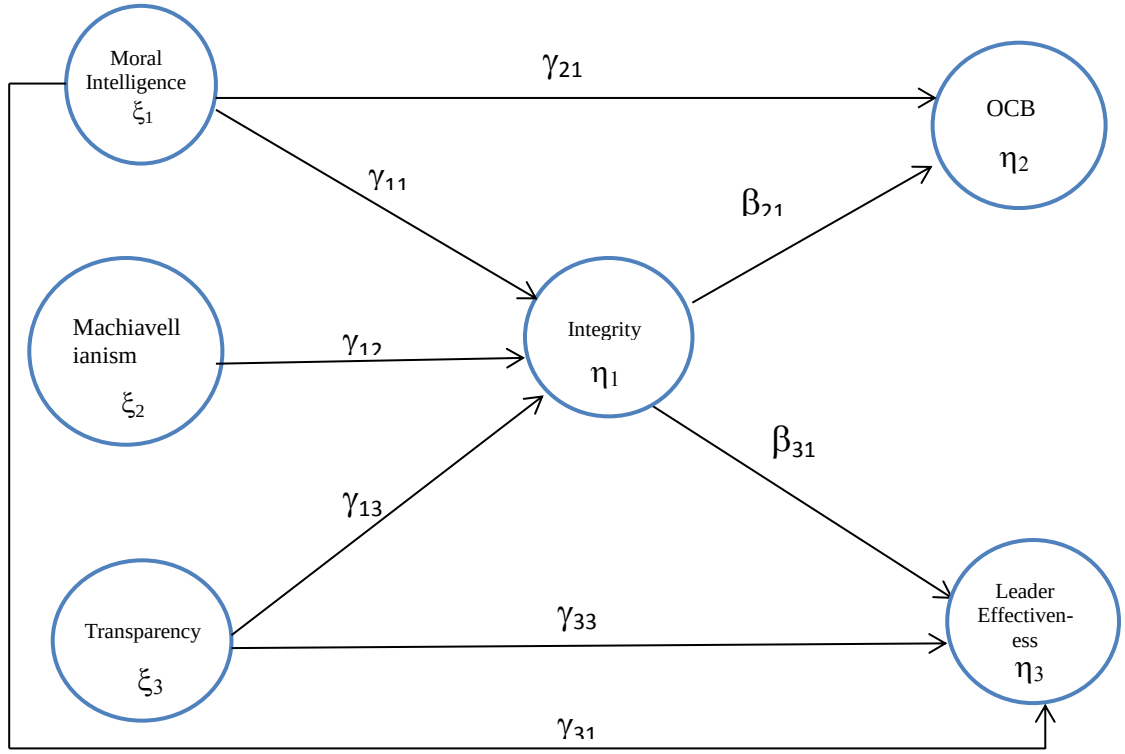

Figure 2.2 Structural Model

2.17 SUMMARY

Chapter 1 has explained the motivation for this study and why integrity is a vital force in the organisational environment. Chapter 2 has given an in-depth explanation of each latent variable and the relationships that integrity has with each construct. The conceptualisation of the proposed constructs which are comprised in the structural model, provides a rationale for the selection of these specific personality constructs and outcomes, as there is a vast array that may prove to describe integrity as well. However, it was proven that these chosen constructs are theoretically and substantially related to integrity, and therefore data needs to be gathered to support these postulated relationships empirically. Thus, the method of conducting the data capturing and subsequent analysis, will be elaborated on in Chapter 3.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The objective of this study, as shown in chapter 1, was to determine the validity of integrity-related personality constructs namely transparency, moral intelligence and Machiavellianism on integrity. Chapter 2 additionally discussed various relationships between the latent variables, including that of leader effectiveness and organisational citizenship behaviour which were proposed as outcomes of these personality-related variables and integrity. These integrity-related constructs form part of the conceptual structural model presented in chapter 2, Figure 2.1. The structural model serves as a graphical depiction of the conceptual model constructed through the process of theoretical modelling in order to determine whether the conceptual model is supported through empirical data.

The relationships found through the theoretical investigation were then tested in order to determine empirical support for these relationships. In order to do so, specific scientific and statistical processes were followed. The statistical process followed will subsequently be explained. This chapter will provide an overview for the following statistical processes/considerations: The research hypotheses, research design, sampling procedure, data collection procedure, an overview of the measurement instruments as well as an explanation of the statistical analysis.

3.2 OVERARCHING SUBSTANTIVE RESEARCH HYPOTHESIS

As it has been shown in chapter 1, the overarching substantive research hypothesis is used to determine the validity of the influence of the selected integrity-related personality constructs (Moral Intelligence, Machiavellianism and Transparency) on the construct of integrity with Organisational Citizenship Behaviour (OCB) and leader effectiveness as the outcomes thereof. In order to determine the validity of this overarching substantive research hypothesis, statistical hypotheses were constructed which will provide the manner in which to test the relationships proposed in this study.

3.3 STATISTICAL HYPOTHESES

In order to determine whether the relationships between the latent variables exist as postulated, statistical hypotheses are needed to depict these relationships. These

hypotheses serve as a method in which to test the fit of the conceptual structural model. Two types of model fit are used to determine the goodness of model fit. The exact model fit is explained by the Satorra-Bentler Chi-Square whereas the close model fit is explained the Root Mean Squared Error of Approximation (RMSEA). The null hypothesis for exact fit explains whether the observed covariance matrix was determined by the hypothesized conceptual model (Diamantopoulos, 1994). The exact model fit therefore, shows whether the model which was produced by the data is as a result of the conceptual model. This will be tested with the use of the following exact fit null hypotheses:

Hypothesis 1:

H_{01}: RMSEA = 0

H_{a1}: RMSEA > 0

If the structural model is found to provide an approximate account of the manner in which Machiavellianism, transparency and moral intelligence affect integrity, with OCB and leader effectiveness as the outcomes, the substantive research hypothesis will result in the following close fit null hypothesis:

Hypothesis 2:

H_{02}: RMSEA ≤ 0.05

H_{a2}: RMSEA > 0.05

The overarching substantive research hypothesis was separated into eight substantive research hypotheses, which can be translated into the following path coefficient statistical hypotheses:

Hypothesis 3:

Integrity (η_1) has a significant positive influence on Organizational Citizenship Behaviour (η_2).

H_{03}: $\beta_{21} = 0$

H_{a3}: $\beta_{21} > 0$

Hypothesis 4:

Integrity (η_1) has a significant positive influence on leader effectiveness (η_3).

H_{04}: $\beta_{31} = 0$

H_{a4}: $\beta_{31} > 0$

Hypothesis 5:

Moral Intelligence (ξ_1) has a significant positive influence on Integrity (η_1).

H_{a5}: $\gamma_{11} = 0$

H_{05}: $\gamma_{11} > 0$

Hypothesis 6:

Machiavellianism (ξ_2) has a significant negative influence on Integrity (η_1).

H_{a6}: $\gamma_{12} = 0$

H_{06}: $\gamma_{12} < 0$

Hypothesis 7:

Transparency (ξ_3) has a significant positive influence on Integrity (η_1).

H_{a7}: $\gamma_{13} = 0$

H_{07}: $\gamma_{13} > 0$

Hypothesis 8:

Moral Intelligence (ξ_1) has a significant positive influence on Organizational Citizenship Behaviour (η_2).

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

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

Hypothesis 9:

Moral Intelligence (ξ_1) has a significant positive influence on leader effectiveness (η_3).

H_{09}: $\gamma_{31} = 0$

H_{a9}: $\gamma_{31} > 0$

Hypothesis 10:

Transparency (ξ_3) has a significant positive influence on leader effectiveness (η_3).

H_{010}: $\gamma_{33} = 0$

H_{a10}: $\gamma_{33} > 0$

3.4 RESEARCH DESIGN

A scientific method of inquiry is required to support the substantive research hypotheses with evidence. This evidence is obtained by testing the operational hypotheses through the use of a research design which provides the method in which to achieve this.

The research design that was utilised was postulated that the validity and reliability of this study was ensured in the most ethical and theoretically correct manner given the nature of this study. This aids the study in determining whether there is merit in the proposed constructs shown in the proposed structural model (*Figure 2.1*) and their validity in their impact on integrity.

An explanatory research design was used to accurately portray how the latent variables are embedded in the structural model and will be used to empirically test the ten substantive research hypotheses. Explanatory research is characterized by the research stage at which explicit theory is explained through hypothesised generalisations which are empirically tested (Peecher & Solomon, 2001).

3.5. SAMPLING

3.5.1. SAMPLING TECHNIQUE

Sampling forms a vital part of the research design as the sampling process serves as a vehicle for collecting the data used to determine whether the substantial research hypotheses are accurate and whether the postulated relationships between the latent variables are merit worthy. It is therefore, of utmost importance that the correct sampling populations are chosen in conjunction with the correct method of sampling appropriate for this study. Babbie and Mouton cited in Burger & Silima (2006) define a sample as a specific subset of a population observed in order to make inferences about the nature of the population itself. For effective sampling to

take place, a distinction must be made between the sampling population and the target population.

The sampling population refers to all the potential subjects who possess the attributes for which the researcher is investigating whereas the target population refers to the population to which the researcher would like to generalize his/her results (Higson cited in Burger & Silima, 2006). A precondition for accurate sampling to take place, the target and the sample population should coincide as far as possible. This is not often the case and therefore an objective of the sampling procedure is to minimize the gap between the sampling and the target populations (Theron, 2014).

In order to achieve this, two main forms of sampling are available in order to obtain the sample in a manner which is appropriate for the purposes of this study. These two forms are identified as probability sampling and non-probability sampling.

Probability sampling is based on the premise that the sample will be a representative of the population from which it is selected if all members of the population have an equal chance of being selected in the sample (Burger & Silima, 2006). It is often associated with quantitative research and on the quantification of constructs. Non-probability sampling is not based on determining the probability of an element being included in the sample. This form of sampling is less complicated and often used in economic studies (Burger & Silima, 2006). For the purposes of this study, non-probability sampling will be appropriate. This is due to the fact that the hypothesis testing is not contingent on the population to satisfy specific demographic criteria in order to draw inferences from the data.

Several variations of probability and non-probability sampling are available to meet different research requirements. Each variation will not be discussed at length, however, the sampling procedure utilised in this study will be discussed below.

3.5.2. DATA COLLECTION PROCEDURE

Non-probability sampling with the use of convenience sampling was used for the purposes of this study. Convenience sampling is also known as availability sampling which is the process whereby respondents are obtained by means of whether the respondents are willing and able to participate in the study, regardless of their

demographics. Researchers often caution against the use of this sampling method due to the lack of generalisability of the results (Burger & Silima, 2006). However, for the purposes of this study, convenience sampling is appropriate.

The sample was obtained through means of contacting of referents at various organisations where institutional consent was obtained to distribute the questionnaire to respondents. The referents of each organization were responsible for distributing the survey as anonymity was strived for as far as possible. The respondents contact details were therefore, not obtained. This is due to the fact that it was deemed important for respondents to feel that their honesty would be respected and kept confidential and would not result in their professional capacity comprised in any way. The questionnaire was then administered across seven industries and to approximately 15 different organisations.

The questionnaire was administered either via an online link that was distributed via the referent or through a paper and pen method. Each respondent was given the opportunity to provide their own individual consent to complete the questionnaire and therefore, the respondents were not obligated to complete the questionnaire when institutional consent was obtained. It was clearly declared that their responses would be kept confidential and any information obtained from each respondent would not be disclosed to anyone in the organisation. It was also made clear that no incentive would be given for completing the questionnaire and that participation was entirely voluntary. The sample is therefore, comprised of individuals who were well informed of the purpose of the study and willing to contribute to the outcome thereof.

As anonymity was strived for, limited biographical information was requested in the questionnaire. The information requested was limited to gender, age, race, job level and industry. Participants were asked to evaluate their perception of their own integrity-related behaviours as well as how effective they perceive their leaders to be. Once all the responses were received, the responses were captured in an SPSS data file which was used for the subsequent data analysis.

In order to perform structural equation modelling (SEM) required to test the above hypotheses, a minimum of 200 cases were required. A total of 208 respondents participated in the survey overall, ensuring the data is satisfactory for data analysis.

3.5.3. DEMOGRAPHICS OF THE SAMPLE

The total number of respondents in the sample obtained was 208. The demographics of this sample are shown in Table 3.1 below.

Table 3.1. Demographics of the sample

Demographic Variable	Frequency	% in sample
Gender		
Male	88	42
Female	120	58
Age		
18-25	22	11
26-35	89	43
36-45	62	30
46-55	21	10
56-65	13	6
66-75	1	0.004
Race		
African	71	34
Indian	70	34
Coloured	51	25
White	15	7
Other	1	0.004
Current Job level		
Non-managerial	74	35
Lower level management (First line manager)	10	5
Middle level management	21	10
Upper level management (Senior manager)	103	50
Industry		
Mining and Manufacturing	70	34
Retail	41	20
Financial Services	30	14
Construction	6	3
Health and Welfare Services	9	4
Parastatal and Public Service	5	2
Other	47	23

3.6. MISSING VALUES

Missing values may occur when collecting data and need to be taken into account when interpreting the results from the statistical analyses in order to deter from drawing inaccurate inferences due to missing cases. The reason for this may be due to absenteeism of employees or due to non-responses for certain items (Mels cited in Prinsloo, 2013). If missing values are apparent in the data set, they need to be accounted for before data analysis takes place. A number of options are available for the treatment of missing values:

- *List-wise deletion*: This includes the deletion of the complete case where the missing values are detected. It can result in the dramatic reduction of sample size if the number of missing values is large, possibly resulting in sample bias.
- *Pair-wise deletion*: This involves deleting only the cases for analysis where missing values are detected. This option could result in complications when the observed covariance matrix is calculated.
- *Imputation by matching*: This option assumes that the missing values have occurred at random and therefore substitutes the missing values with real values.
- *Multiple imputations*: This similarly assumes that the missing values have occurred at random and uses LISREL to create estimates for the missing values.
- *Full information maximum likelihood imputation*: This option utilises an expectation-maximisation algorithm to determine values using the observed cases in the data obtained.
  (Mels cited in Prinsloo, 2013)

The data was inspected for missing values and only one value was missing from the data set. It was decided that Listwise deletion was appropriate as this would only reduce the sample size with one observation, alleviating the risk of possible sample bias due to the small number of missing values.

3.7. MEASURING INSTRUMENTS

Six measuring instruments were selected in order to measure the six constructs chosen to form part of the structural model. The six measurement instruments were chosen due to their theoretical and statistical aptness for the purposes of this study.

Each of the selected instruments will be explained in terms of how they measure the respective constructs. These measurement instruments have been empirically proven to be valid and reliable as it will be discussed below.

3.7.1 LEADER EFFECTIVENESS

The measure for leader effectiveness was developed by Engelbrecht, Wolmarans and Mahembe (2017) and is comprised of six items used to measure an employee's leadership behaviour. This measure uses a six point scale ranging from 1=*Disagree strongly* to 6=*Agree Strongly*.

3.7.2 OCB

Podsakoff and Mackenzie's measure of OCB was constructed to measure the five dimensions of OCB defined in chapter two (Engelbrecht, & Chamberlain, 2005). These dimensions of OCB include altruism, conscientiousness, courtesy, sportsmanship and civic virtue. This measure consists of twenty four items with the dimensions of OCB translating into the subscales of the measure (Engelbrecht, & Chamberlain, 2005). The Cronbach alphas for the individual subscales range from .70 to .85 which are acceptable to conclude each of the subscales are reliable (Mahembe & Engelbrecht, 2014).

These values need to exceed .70, which indicates that it is an acceptable measure for reliability (Nunnally, 1978). Confirmatory Factor Analysis (CFA) confirmed with the Tucker-Lewis Fit index a value of .96 and further the Bentler's incremental fit index with a value of .97 (Podsakoff & Mackenzie, 1994). This indicates that all the items loaded significantly on their specific factors, and therefore, measure the dimensions of OCB that is intended.

3.7.3 INTEGRITY

The measure that will be used to measure integrity is the instrument developed by Engelbrecht (Du Toit, 2015) which is known as the Ethical Integrity Test (EIT). This tool utilises a 5-point Likert scale, which ranges from *Disagree Strongly* to *Agree Strongly*. The scale is comprised of 66 items and loads onto five subscales (Du Toit, 2015). The subscales in this questionnaire are *Righteousness, Frankness, Credibility, Fairness* and *Consistency.* Table 3.2 below describes the definition for each subscale, which is intended to provide insight to differing dimensions of integrity. Table 3.3 shows the number of items for each subscale, the Cronbach

alpha for each subscale as well as a sample item. A high Cronbach alpha of .971 was obtained for the overall scale (Du Toit, 2015).

In a recent study conducted by Anderson (2017), Confirmatory Factor Analyses (CFA) of the EIT showed that the model fitted acceptably with the data. Furthermore, the standardised LAMBDA-X loadings indicated that all the items of the EIT significantly represented the subscales they were designed to (Anderson, 2017).

This measure of integrity was chosen because this measure is based on the same premise that was chosen as a definition of integrity for the purposes of this study. This definition of integrity refers to one acting in accordance with universally accepted ethical values and norms (Du Toit, 2015).

Table 3.2. Definitions of EIT Dimensions

Dimension	Definition
Righteousness	This dimension measures the manner in which the respondent behaves ethically and respectably; practising moral virtues and acts in terms of moral principles.
Frankness	This measures how the respondent acts with truthfulness, authenticity and sincerity.
Credibility	This measures the extent to which the respondent is trustworthy, responsible, reliable and dependable in accordance with the ethical rules and norms of the organisation.
Fairness	This dimension measures the extent to which the respondent treats people equitably, with dignity and respect, making impartial and objective decisions, and does justice to all as far as possible.
Consistency	This dimension focusses on the manner in which an individual behaves persistently in an ethical way; exhibits moral courage to behave consistently in adversity and temptation; and applies the same fundamental principles over time and to a variety of situations. The individual practises what he/she preaches despite of social and emotional pressures.

(Du Toit, 2015)

Table 3.3. EIT Dimension item characteristics

Dimension	No. of Items	Cronbach Alpha	Sample item
Righteousness	14	.911	**Item 6:** I make my decisions based on good (ethical) values **Item 50:** I set an example of how to do things the right way in terms of ethical principles
Frankness	14	.912	**Item 26:** I regard honesty as an important personal value **Item 51:** I shall tell the truth, even if it is unpleasant
Credibility	15	.852	**Item 17:** I keep the secrets that someone tells me **Item 37:** I keep promises that I make to others
Fairness	13	.862	**Item 9:** I give others a fair deal **Item 18:** I act in the best interest of others
Consistency	10	.736	**Item 14:** There is a match between my words and actions **Item 29:** I conduct myself according to the moral values that I uphold and acknowledge

(Du Toit, 2015)

3.7.4 MACHIAVELLIANISM

The measure used to determine Machiavellianism in respondents was developed by Kessler et al., (2010) based on the earlier work of Christie and Geis in 1970 who pioneered the study on Machiavellianism. This scale is known as the Organisational Machiavellianism Scale (OMS), which is comprised of three dimensions and 18 items. The dimensions used in this scale are *Maintaining Power*, *Management Practices* and *Manipulation.* The Cronbach alpha for each dimension is .74, .71 and .77 respectively. This scale utilises a 6-point Likert scale which ranges from 1= *Strong Disagree* to 6= *Strongly Agree* (Kessler et al., 2010).

3.7.5 TRANSPARENCY

The measure for transparency was developed and validated to measure part of an overall measure of authentic leadership, which contains seven items relating to transparency (Walumba, Avolio, Gardner, Wernsing, & Peterson, 2008). These seven items are reflected on a six-point scale ranging from 1= Strong Disagree to 6= Strongly Agree (Walumba, et al., 2008). The CFA showed that all items loaded on their respective factors. A factor loading is considered acceptable if $\lambda ij > .50$ (Hair et al., 2010). A more stringent cut-off value with regard to CFA is where $\lambda ij > .71$ (Hair et al., 2006). The factor loadings of the five transparency items are as follows; .82, .79, .89, .85, .68 (Walumba, et al., 2008). The final factor loading does not meet the higher requirement of Hair et al., (2006) however, it can be considered acceptable.

Cronbach's alpha for this measure of transparency was calculated to be .88, which is sufficiently large (Norman et al., 2010).

3.7.6 MORAL INTELLIGENCE

Moral intelligence was measured using the questionnaire developed by Lennick and Kiel (2011), which consist of 40 questions. A 5-point Likert scale ranges from 1 = *Never* to 5 = *Always*. The face validity was determined in a study conducted at the University of Anar where the face validity was perceived to be 88%. This is high enough to conclude that the measure measures what it appears to measure. Cronbach's alpha was calculated to be .95, which is considered satisfactory (Mirhosseini & Tirgar, 2014). Therefore, this is a sufficiently reliable coefficient of reliability and therefore, an appropriate measure of Moral Intelligence.

3.8 DATA ANALYSIS

Item analysis, dimensionality analysis, CFA as well as structural equation modelling (SEM) will be used to analyse the data collected in order to obtain validation information of the structural model proposed in *Figure 2.1.* This process is followed in order to draw inferences from the results to determine how the latent variables relate to one another and if they influence one another as proposed.

3.8.1 ITEM ANALYSIS

The measurement scales of the various latent variables proposed in the structural model depicted in *Figure 2.1* constructed to measure a particular standing on the construct. This is achieved through the items established to aid this purpose. Each item in each scale is designed to determine the respondent's standing on each latent variable (Prinsloo, 2013). Therefore, in order to determine whether the item is functioning as intended, the internal consistency of each item was determined through the process of item analysis using the Statistical Package for the Social Sciences (SPSS Version 23).

If items show internal consistency, it indicates that the items are coherently and reliably measuring the same underlying construct (Pallant, 2005). If an item does not satisfy the requirements to conclude internal consistency, the item should be considered for revision or deletion. The following guidelines for the Cronbach alpha coefficient, shown in the Reliability Statistics, have been provided by Nunnally (1978)

to determine the extent to which the item can be considered to be internally consistent:

- > .90 and is considered excellent
- Between .80 - .89 is considered good
- Between .70 - .79 is considered adequate
- < .70 the item needs to be reconsidered

Additional information will be inspected to determine whether the items coherently and reliability measure the same intended underlying construct. A reasonable amount of correlation between the items is expected in order to determine this, seen in the Item-Total Statistics table. Pallant (2005) suggests a correlation between .2 and .4 is optimal. If the correlation is higher than this, it may suggest the item is not providing unique information regarding the latent variable or if the correlation is too low, it may be indicative that the item is measuring a different construct. In the instance where all the items satisfy this requirement, internal consistency can be concluded.

This process was conducted for each subscale of each scale for the six constructs contained in the structural model (*Figure 2.1*). Poor items were identified using the guide provided by Nunnally (1978) and subsequently deleted until internal consistency was concluded.

3.8.2 DIMENSIONALITY ANALYSIS

Once confidence is gained in the ability of each item to perform as intended, it needs to be determined whether each subscale is sufficiently measuring one factor. If the subscale is able to successfully measure a single factor, the subscale is unidimensionally valid. In order to determine the unidimensional validity for each subscale, exploratory factor analysis (EFA) was conducted. EFA was conducted after the poor items identified during item analysis were removed. This process was also completed using SPSS.

In order to draw accurate inferences from EFA, two requirements need to be met. The first consideration is that of sample size, if the sample size is not sufficiently large, the EFA is likely to provide distorted results (Pallant, 2005). Several scholars provide differing guidelines in terms of what is sufficiently large. Hair, Black, Babin

and Anderson (2010) suggest a minimum of 15 cases for each parameter contained in the structural model. The structural model proposed in *Figure 2.1* indicates that 8 parameters need to be estimated, which required 120 observations. As the number of observations in the sample exceeds this requirement (208), the data meets the first requirement for EFA.

The second requirement for EFA refers to whether enough inter-item strength exists in the subscale. If there is insufficient strength between the items, it suggests that the items may not relate to the underlying latent variable strongly enough and would therefore, provide a distorted representation of the factor to which each item loads. This is determined through the Kaiser-Meyer-Olkin (KMO) statistic. This statistic produces a value between 0 and 1, where a value >.6 is considered satisfactory. Each subscale's KMO statistic was evaluated in terms of this requirement for each EFA separately.

In order to determine whether the subscale is unidimensional, the eigenvalue greater than one rule was applied. The eigenvalue represents the total amount of variance explained by a single factor, shown in the Total Variance Explained table. If more than one factor achieves an eigenvalue greater than one, it shows that the subscale is multidimensional and is no longer measuring a single construct (Pallant, 2005).

If the eigenvalues suggest that the subscale is multidimensional, the factor matrix should be inspected in order to determine which items are complex items or which items have the lowest factor loadings to be considered for deletion. Tabachnick & Fidell (2001) recommend a factor loading greater than .3 to be acceptable.

This process was followed for each subscale in order to conclude that each subscale is unidimensional.

3.8.3 CONFIRMATORY FACTOR ANALYSIS

Once it has been determined that the subscales reliably measures, with the use of reliable items, what it has been tasked to measure, it needs to be determined whether the tool for each construct measures as predicted in the measurement model. This is determined through the process of CFA, which was conducted using LISREL (8.8). Linear Structural Relationships (LISREL) is a computer-based

programme, which has been created to specifically conduct covariance structural analysis (Diamantopoulos, 1994).

This therefore, is executed to validate the measurement model (Myburgh, 2013). The basis of CFA is founded in the process of testing the specific substantive hypotheses on the latent variables underlying the observed inter-item covariance matrix, the nature of the relationships between the latent variables as well as the nature of the pattern that is formulated by the items loading on their respective factors (Myburgh, 2013).

The extent to which the measurement model is validated is determined through the fit of the conceptual measurement model to the data. The model fits satisfactorily well if the RMSEA < 0.08. If the model achieves this fit, the LAMBA-X matrix needs to be inspected to determine whether items have produced an acceptable factor loading. A factor loading which is considered acceptable is a factor loading which exceeds .30. If the item does not load sufficiently, the item was considered for deletion. If all the items produce satisfactory factor loadings, the factor analysis process is complete and the final stage of statistical analysis can take place, structural equation modelling. The CFA process was conducted for each scale until it was concluded with empirical support that the measurement model is able to closely reproduce the covariances between the items.

3.8.4 STRUCTURAL EQUATION MODELLING

The statistical processes up to this point have been centred on the measurement aspects of the conceptual structural model in terms of how the items contribute to the measurement of the scales and how the scales collaborate in the measurement model. Structural equation modelling (SEM) is the process where the interrelationships discussed in the conceptual structural model is tested. This process provides valuable information in terms of how theoretical relationships can be translated to plausible relationships given the sample data (Kelloway, 2017).

Therefore, SEM will be used to determine the extent to which the factor structure is able to reproduce the observed inter-item covariance matrix as well as the strength and the significance of the correlations featured in the matrix as well as the strength of the loadings on the factors (Myburgh, 2013). This will provide an indication as to

which latent variables have the most significant impact on integrity and whether a specific latent variable may not have a significant influence at all.

In order to establish whether there is validity in the proposed relationships among Machiavellianism, Transparency, Moral Intelligence, Integrity, OCB and Leader Effectiveness, five processes need to be followed to complete the SEM analysis. The first step is that of *model specification* where theory and previous research is used to propose new relationships between constructs to form a conceptual structural model (Kelloway, 2017). Model specification has taken place throughout Chapter 1 and 2 where existing literature was utilised to form hypotheses in order to conceptualise relationships between the constructs to form the structural model.

The second step of SEM refers to *identification*. A researcher would ideally wish to have an over identified model which allows for the data to not completely fit the model which is suitable for hypothesis testing. This was completed through the process of SEM using LISREL 8.8 where the parameters were set to zero, instructing LISREL in which direction the relationships are directed. This allows for each relationship to be subject to possible invalidity, allowing for a specific hypothesis to be rejected (Kelloway, 2017).

The third step of the process is to test the *estimation and fit* of the model. This step estimates the values of the parameter by comparing the values between the observed and estimated covariance matrix. The more similar these values are, the better the fit of the model. The fit of the model will be evaluated in terms of the estimated parameters (Kelloway, 2017). The manner in which the fit is evaluated will be discussed in 3.9.

The fourth step in the SEM process is *model modification* where the conceptualised structural model is modified in terms of the results from fitting the data. Modification involves aspects such as the deletion of specified paths in the model or the addition of paths (Kelloway, 2017). This step is closely followed by the fifth step known as *model re-specification*. This involves adapting the original conceptual structural model in terms of the findings which supported the deletion or addition of paths.

This process was followed to ensure the hypotheses were adequately tested.

3.9. ASSESSING MODEL FIT

The fit of the model is assessed in order to determine the extent to which the empirical data is consistent with the conceptual model (Diamantopoulos & Siguaw, 2000). LISREL produces output in the form of goodness of fit statistics during the SEM process which is used to assess the fit of the model in terms of different forms of fit which provide unique information regarding fit. Each form will be discussed subsequently.

3.9.1 ABSOLUTE MODEL FIT

The assessment of absolute model fit determines the extent to which the parameter estimates are able to reproduce the covariance matrix (Diamantopoulos & Siguaw, 2000; Kelloway, 2017). Absolute model fit is determined by inspecting several fit indices, which will be discussed subsequently.

The first fit index, which is used to determine absolute model fit is the Satorra-Bentler Chi-Square statistic. This statistic is used to show whether the model fits the sample data perfectly. This statistic is used to determine whether the null hypothesis for exact fit is rejected or not. Non-traditionally, the aim is to not reject the null hypothesis for exact fit (H_{01}: RMSEA = 0) by obtaining a non-significant result ($p>0.05$), indicative of perfect model fit (Diamantopoulos & Siguaw, 2000). This test for exact fit is, however, unrealistic and very stringent to conclude fit for the model. Therefore, the test for close fit is deemed more appropriate.

The null hypothesis for close fit (H_{02}: RMSEA ≤ 0.05) of the model is assessed through the Root Mean Square Error of Approximation (RMSEA) value. Reasonable fit is achieved through a RMSEA value of <0.08 whereas good fit is seen through a value of <0.05. Outstanding fit is concluded if the model produces a value of <0.01 (Diamantopoulos & Siguaw, 2000). This is supported through the p-value for close fit, a statistically significant value ($p<0.05$) will indicate that the null hypothesis for close fit should be rejected, concluding no close fit.

Additional information on the fit of the model is provided by the χ^2/df statistic which takes the sensitivity of the χ^2 statistic with regard to sample size into account. A value of between 2 and 5 is considered to be indicative of good model fit (Kelloway cited in Heine, 2013).

The Root Mean Square Residual (RMR) is used to determine the average of the differences between the observed and the fitting covariance matrices. Ideally, one would prefer to have the differences as minimal as possible. Therefore, a value close to 0 is anticipated. Overall, a value below 0.08 is indicative of good model fit (Diamantopoulos & Siguaw, 2000). The Standardised Root Mean Square Residual (SRMR) is used to establish a metric for the RMR. This value ranges between 0 and 1 where $p<0.05$ is indicative of good model fit (Kelloway, 2017).

The final index of absolute model fit is the Goodness of Fit Index (GFI) which indicates the amount of variance and covariance is accounted for by the model; it therefore, shows how closely the model is able to reproduce the observed covariance matrix (Diamantopoulos & Siguaw, 2000). The GFI is considered one of the most reliable indicators of absolute model fit in most cases. A value closer to 1, ideally >0.9, would be indicative of good model fit (Diamantopoulos & Siguaw, 2000).

3.9.2. INCREMENTAL MODEL FIT

Incremental model fit assesses the extent to which the model fit improves when compared to a baseline model which in essence assesses whether the proposed structural model achieves better model fit than a generic model (Diamantopoulos & Siguaw, 2000; Kelloway, 2017). Several indices are indicative of incremental model fit, these will be subsequently discussed.

The first index which provides information of the incremental fit of the model is the Normed Fit Index (NFI) which indicates the percentage of improvement in fit compared to the base model. An indication of good incremental fit is reflected in a value >0.95, indicating that the model fits 95% better than the base model (Hooper, Coughlan & Mullen, 2008; Kelloway, 2017). The Non-Normed Fit Index (NNFI) is also used to indicate incremental fit where a value >0.9 also shows good incremental fit (Kelloway, 2017).

The Incremental Fit Index (IFI) is seen as an important indicator for determining incremental fit. This index is based on the non-central χ^2 distribution and is considered acceptable if the value exceeds .95 (Hooper et al., 2008; Kelloway, 2017).

The final two indices used to determine incremental model fit are the Incremental Fit Index (IFI) and the Relative Fit Index (RFI). Both indices reflect good incremental fit if the indices produce values which are >0.95 (Hooper et al., 2008; Kelloway, 2017).

3.9.3. PARSIMONIOUS MODEL FIT

The parsimonious model fit indices take into account the complexity of the model and is useful when comparing theoretical models as it assesses the extent to which additional parameters should be included (Kelloway 2017). Parsimonious model fit is therefore, not critical in the evaluation of the measurement model proposed in this study.

Table 3.4 provides a convenient summary of the indices required for absolute and incremental model fit.

Table 3.4. Summary of Model Fit indices

Goodness of fit indices	Criteria
Absolute Fit Measures	
Minimum fit function Chi-Square	A non-significant result indicates good model fit.
χ^2/df	Values between 2 and 5 indicate good fit
Root Mean Square Error of Approximation (RMSEA)	Values of 0.08 or below indicate acceptable fit, those below 0.05 indicate good fit, and values below 0.01 indicate outstanding fit.
P-Value for Test of Close Fit (RMSEA < 0.05)	Values > 0.05 indicate good fit.
90% Confidence Interval for RMSEA	This is a 90% confidence interval of RMSEA testing the closeness of fit (i.e., testing the hypothesis H0: RMSEA < 0.05).
Root Mean Square Residual (RMR)	Lower values indicate better fit, with values below 0.08 indicative of good fit.
Standardised RMR	Lower values indicate better fit, with values less than 0.05 indicating good fit.
Goodness of Fit Index (GFI)	Values closer to 1 and > 0.90 represent good fit.
Incremental Fit Measures	
Normed Fit Index (NFI)	Values closer to 1 indicate better fit, with values > 0.90 indicative of acceptable fit and > 0.95 of good fit.
Non-Normed Fit Index (NNFI)	Higher values indicate better fit, with values > 0.90 indicative of acceptable fit and > 0.95 of good fit.
Comparative Fit Index (CFI)	Values closer to 1 indicate better fit, with values > 0.90 indicative of acceptable fit and > 0.95 indicative of good fit.
Incremental Fit Index (IFI)	Values closer to 1 indicate better fit, with values > 0.90 indicative of acceptable fit and > 0.95 of good fit.
Relative Fit Index (RFI)	Values closer to 1 indicate better fit, with values > 0.09 indicative of acceptable fit and > 0.95 of good fit.

(Diamantopoulos & Siguaw, 2000; Hooper et al., 2008; Kelloway, 2017)

3.10. ETHICAL CONSIDERATIONS

A study of human behaviour in the workplace has the potential to provide cause for ethical implications on the wellbeing and sanctity of the respondent's rights. Therefore, it is imperative to consider as far as possible potential ethical missteps and the appropriate manner in which to manage them.

The measurement tools that were utilised in the construction of the survey were mainly tools used in the public domain, which had been previously validated and were readily available. Two measures, which were established and not available in the public domain, were the Ethical Integrity Test (EIT) and the Leader Effectiveness Scale. Consent to use both these tools was obtained from the author of each, Engelbrecht (Du Toit, 2015) and Engelbrecht cited in Du Toit (2015) respectively.

In order to gain respondents, several organisations were approached and provided with an organisational consent form. This form provided information on the purpose of the study, the fact that anonymity was guaranteed as well as the fact that feedback would be offered on completion of the study. Only once organisational consent was obtained, the link to the questionnaire was sent via email to the contact person in the organisation. The contact person was responsible and consented to the distribution of the link on behalf of the student to maintain confidentiality of the respondent.

To ensure that respondents taking part in this study do so willingly and are aware of their responsibility as a participant, informed consent was obtained from each respondent. The informed consent explained the purpose of the study, the requirement of their participation, no remuneration for participation was provided, it was voluntary, and their identities and responses would remain confidential.

The questionnaire presented to respondents required no identifying information, merely the biographical information shown in Table 3.1. This was done to ensure that the respondent's confidentiality was maintained while obtaining valuable information by ensuring that a truly representative sample of the population was obtained. The responses were obtained online and in paper and pen format. The online responses were stored in Stellenbosch University's survey database, SunSurveys, whereas the paper and pen surveys were captured and merged with the online data manually.

No further potential ethical risks were foreseen in the manner in which this study was conducted. The research proposal was submitted and approved by the Ethics Committee of Stellenbosch University in accordance with the standards set out by the Research Ethics Committee for Human Research (Humanities) which govern the safe and ethical research practices in the field of Industrial Psychology.

3.11. SUMMARY

This chapter summarised the statistical analysis procedure conducted in order to determine the plausibility of the theoretical postulation between moral intelligence, transparency, Machiavellianism, integrity, OCB and leader effectiveness proposed in Chapter 2. Chapter 4 will report and discuss the findings produced from the stated statistical analysis.

CHAPTER 4

RESEARCH RESULTS

4.1. INTRODUCTION

Chapter 2 provided a comprehensive theoretical overview of the six constructs contained in the structural model shown in Figure 2.1. Hypotheses were generated from the theoretical linkages discovered in the literature. Chapter 4 discusses and provides the statistical results from the methodology for the data analysis process discussed in Chapter 3. Each subscale, and subsequent overall scale, was subjected to the process of item analysis, dimensionality analysis and confirmatory factor analysis. This provided insight into the manner in which each item uniquely contributes to the measurement of each indicator and latent variable. This also provides insight into the manner in which the constructs fit the measurement model and subsequent structural model. The process of fitting the structural model allows for the hypotheses discussed in Chapter 3 to be rejected or not, providing support for the conceptual relationships found in the literature.

4.2. MISSING VALUES

Missing values within the dataset need to be managed appropriately in order to avoid distorting the inferences drawn from the analysis. As data was collected electronically where respondents were not able to complete the survey if missing values were present, missing values was not a concern for that proportion of the data collection. However, additional data was collected and captured manually where either human error or negligence may play a role in resulting in missing values. Therefore, the missing values were deleted using the Listwise option in SPSS. This option was chosen as upon inspecting the fully captured data, it did not appear to have many missing values and the concern of severely culling the sample size was no longer apparent and was selected as the appropriate option.

4.3. ITEM ANALYSIS

As outlined in Chapter 3, item analysis needs to be performed using SPSS in order to determine whether all the items contributes to the reliability of the scale. This analysis aids the researcher in determining whether all the proposed items are contributing to the measurement of the same underlying construct. This is referred to as internal consistency. Item analysis will highlight those items which appear to not

be measuring the same underlying construct and will be flagged as a poor item which needs to be considered for deletion.

The indicator for internal consistency that will be used is Cronbach's alpha which is shown in the *Reliability Statistics* table of the generated item analysis output. A Cronbach alpha coefficient of .7 or above is considered sufficient in order to conclude internal consistency (Pallant, 2010). This measure is known to be sensitive to the number of items in the scale and may produce a lower coefficient when analysing a subscale with few items. The pursuit for internal consistency is further supported by the use of the Corrected Item-Total Correlation coefficient found in the *Item-Total Statistics* table. This provides additional information in terms of how the item's score correlates with the total score of the scale. It is intended that this correlation is high enough to show the item is measuring the same underlying construct but not too high so as to show that it is not providing a unique contribution. Nunnally (1978) recommended a corrected item-total correlation coefficient of above .2 to be sufficient. Should the item not surpass this criterion, it should be considered for deletion as this indicates that the item does not measure the same intended construct.

This method will be used to determine the internal consistency for each item in each subscale and will be subsequently discussed.

4.3.1. RELIABILITY RESULTS: ETHICAL INTEGRITY TEST (EIT)

The reliability analysis for the EIT was conducted by performing the reliability analysis on each subscale separately using SPSS (Version 23). These subscales are Righteousness, Frankness, Credibility, Fairness and Consistency. These will be reported on consequently.

4.3.1.1. RELIABILITY RESULTS: RIGHTEOUSNESS SUBSCALE

Table 4.1 shows the Reliability Statistics for the Righteousness subscale which consists of 14 items. It can be seen that the Cronbach alpha surpasses the .7 cut-off criterion and therefore, the subscale shows to have satisfactory internal consistency of .9.

Table 4.1. The Reliability Statistics: Righteousness Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.902	.904	14

The Item-total statistics table, Table 4.2, below shows that each item produced a Corrected Item-Total Correlation coefficient higher than .2. Therefore, it is concluded that all items sufficiently measure Righteousness and no items need to be deleted or earmarked as concerning.

Table 4.2. The Item-Total Statistics: Righteousness Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
EIT1	55.53	30.560	.466	.321	.901
EIT6	55.43	30.893	.544	.428	.898
EIT10	55.47	29.748	.694	.567	.892
EIT15	55.59	29.587	.627	.465	.894
EIT20	55.64	28.878	.658	.530	.893
EIT25	55.51	30.232	.532	.337	.898
EIT30	55.87	29.798	.526	.318	.899
EIT35	55.69	29.733	.609	.444	.895
EIT40	55.62	30.682	.502	.367	.899
EIT45	55.58	29.288	.699	.547	.891
EIT50	55.60	29.835	.603	.475	.895
EIT55	55.71	29.143	.696	.577	.891
EIT59	55.64	30.000	.595	.473	.896
EIT63	55.50	30.232	.654	.486	.894

NOTE: EIT: Ethical Integrity Test

4.3.1.2. RELIABILITY RESULTS: FRANKNESS SUBSCALE

Table 4.3 depicts the Reliability Statistics of the Frankness subscale which is comprised of 14 items. This subscale produced a Cronbach alpha coefficient of .869 which satisfies the cut-off value of .7 and raises no concerns with regard to internal

consistency. The subsequent Table 4.4. shows the item-total statistics for the Frankness subscale. It can be seen that no items are below the .2 criterion for deletion.

Table 4.3. The Reliability Statistics: Frankness Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.869	.873	14

Table 4.4. The Item-Total Statistics: Frankness Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
EIT2	56.98	26.879	.437	.339	.867
EIT7	56.76	25.353	.649	.562	.854
EIT11	56.55	26.741	.670	.589	.854
EIT16	56.58	27.501	.490	.373	.863
EIT21	56.52	26.637	.642	.557	.855
EIT26	56.35	27.599	.587	.424	.859
EIT31	56.51	27.256	.603	.436	.857
EIT36	56.50	27.585	.428	.353	.866
EIT41	56.24	28.722	.369	.426	.868
EIT46	56.49	27.275	.472	.449	.864
EIT51	56.69	27.026	.578	.457	.858
EIT56	56.64	27.274	.569	.390	.859
EIT60	56.71	27.482	.470	.280	.864
EIT65	56.66	27.308	.505	.347	.862

NOTE: EIT: Ethical Integrity Test

4.3.1.3. RELIABILITY RESULTS: CREDIBILITY SUBSCALE

Table 4.5 shows the Reliability Statistics for the Credibility subscale which is the largest of the subscales in the EIT in terms of number of items which totals 15 items. The Cronbach alpha surpasses the criterion for internal consistency with an alpha coefficient of .815. Table 4.6 thereafter shows all items which sufficiently contribute

to the measurement of Credibility. EIT3, shown in red, is flagged for concern as it produced a Corrected-Item Total Correlation coefficient of below .2. This item will temporarily be retained as the increase in the Cronbach alpha coefficient if the item were deleted, shown in the last column of Table 4.6, is marginal. This does therefore, not warrant the deletion of the item. This item will, however, be earmarked for further inspection throughout the remainder of the statistical analysis.

Table 4.5. Reliability Statistics: Credibility Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.815	.846	15

Table 4.6. Item-Total Statistics: Credibility Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
EIT3	60.21	29.762	.187	.173	.826
EIT8	59.92	28.960	.438	.358	.804
EIT12	59.79	28.870	.545	.509	.799
EIT17	59.90	27.875	.610	.569	.793
EIT22	59.92	28.690	.570	.427	.797
EIT27	60.44	28.412	.250	.229	.827
EIT32	59.84	28.260	.589	.465	.795
EIT37	60.07	28.633	.537	.476	.798
EIT42	60.06	28.325	.507	.509	.799
EIT47	59.98	28.792	.545	.484	.798
EIT52	60.04	28.897	.517	.432	.800
EIT57	60.21	28.397	.434	.256	.804
EIT61	59.83	28.923	.533	.407	.799
EIT64	60.51	28.976	.252	.234	.822
EIT66	60.12	28.228	.451	.350	.803

NOTE: EIT: Ethical Integrity Test

4.3.1.4. RELIABILITY RESULTS: FAIRNESS SUBSCALE

Table 4.7 shows the Reliability Statistics for the Fairness subscale which is comprised of 13 items. The Cronbach alpha coefficient is higher than that of .7 and therefore, provides evidence for sufficient internal consistency (.84). Table 4.8 below shows the Item-Total statistics for the Fairness subscale which shows that all items sufficiently measure Fairness and no items need to be flagged or deleted.

Table 4.7. Reliability Statistics: Fairness Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.842	.854	13

Table 4.8. Item-Total Statistics: Fairness Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
EIT4	50.03	25.767	.460	.326	.834
EIT9	49.89	27.148	.508	.314	.831
EIT13	50.33	26.696	.356	.379	.842
EIT18	50.09	25.610	.623	.580	.822
EIT23	50.49	25.555	.510	.425	.830
EIT28	49.67	27.410	.509	.320	.832
EIT33	50.08	25.714	.519	.330	.829
EIT38	50.15	25.744	.490	.402	.831
EIT43	50.40	26.281	.370	.217	.842
EIT48	50.00	26.367	.551	.441	.828
EIT53	50.03	26.748	.574	Num.425	.827
EIT58	49.91	26.412	.585	.417	.826
EIT62	49.80	26.652	.549	.425	.828

NOTE: EIT: Ethical Integrity Test

4.3.1.5. RELIABILITY RESULTS: CONSISTENCY SUBSCALE

Table 4.9 shows that the Consistency Subscale, comprising of 10 items does not satisfy the cut-off value of .7 provided by Pallant (2010) and therefore, it can be

concluded that the items do not all sufficiently measure Consistency as originally conceptualised.

Table 4.9. Reliability Statistics: Consistency Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.667	.765	10

The Item-Total Statistics table below, Table 4.10, shows that EIT54 is a poor item as it produced a Corrected Item-Total Correlation coefficient of only .015, shown in red. This is severely under the cut-off score of .2 and should be considered for deletion. The deletion of this item is further supported by the fact that the Cronbach alpha coefficient would increase to above .7 should this item be deleted. Therefore, item EIT54 was deleted.

Table 4.10: Item-Total Statistics: Consistency Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
EIT5	37.12	13.744	.460	.288	.625
EIT14	37.13	13.188	.553	.386	.608
EIT19	37.09	13.022	.547	.558	.606
EIT24	37.17	14.067	.293	.177	.650
EIT29	36.95	13.876	.508	.412	.623
EIT34	37.06	12.914	.624	.567	.596
EIT39	37.05	13.425	.559	.422	.611
EIT44	37.05	14.284	.163	.158	.681
EIT49	36.79	14.333	.289	.184	.651
EIT54	38.08	13.955	.015	.061	.776

NOTE: EIT: Ethical Integrity Test

4.3.1.6. RELIABILITY RESULTS: CONSISTENCY SUBSCALE REVISED

Table 4.11 shows the increase in the Cronbach Alpha coefficient once item EIT54 was removed. It can be seen that with the deletion of EIT54 the internal consistency

significantly increased to a satisfactory alpha coefficient. The Revised Item-Total Statistics table shown in Table 4.12 indicates that with the deletion of EIT54, only item EIT44 remains a concern, highlighted in red. This item will not be deleted at this point as it does not make the cut-off value of .2 with 0.01. Additionally, the increase in the Cronbach alpha if deleted is marginal and does not warrant the deletion of the item at this stage. This item will however, be flagged for concern throughout the subsequent analysis.

Table 4.11 Reliability Statistics: Consistency Subscale Revised

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.776	.797	9

Table 4.12 Item-Total Statistics: Consistency Subscale Revised

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
EIT5	33.92	11.386	.511	.287	.748
EIT14	33.93	11.165	.531	.360	.744
EIT19	33.89	10.682	.605	.556	.732
EIT24	33.98	11.694	.329	.175	.775
EIT29	33.75	11.548	.555	.410	.745
EIT34	33.86	10.632	.676	.567	.723
EIT39	33.85	11.235	.576	.416	.740
EIT44	33.86	11.824	.199	.157	.807
EIT49	33.59	11.855	.348	.178	.770

NOTE: EIT: Ethical Integrity Test

4.3.2. RELIABILITY RESULTS: MORAL COMPETENCY INVENTORY (MCI)

The reliability analysis was conducted on each of the MCI's ten subscales. The reliability analysis was conducted on each subscale using SPSS (Version 23) and the results thereof will be provided and discussed below.

4.3.2.1. RELIABILITY RESULTS: ACTING CONSISTENTLY WITH PRINCIPLES, VALUES AND BELIEFS SUBSCALE

Table 4.13 below shows the Reliability Statistics of Acting consistently with principles, values and beliefs, which is comprised of 4 items. This shows that the Cronbach alpha coefficient satisfies the .7 cut-off provided by Pallant (2010). Table 4.14 shows the Item-total statistics table which shows that all the items are collaboratively measuring Acting consistently with principles, values and beliefs.

Table 4.13. Reliability Statistics: Acting consistently with principles, values and beliefs Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.728	.728	4

Table 4.14. Item-Total Statistics: Acting consistently with principles, values and beliefs Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MCI1	12.42	2.621	.429	.217	.716
MCI11	12.48	2.260	.508	.277	.676
MCI21	12.38	2.284	.578	.434	.632
MCI31	12.39	2.287	.564	.428	.640

NOTE: MCI: Moral Competency Inventory

4.3.2.2 RELIABILITY RESULTS: TELLING THE TRUTH SUBSCALE

Table 4.15 shows the reliability statistics for the Telling the truth subscale which consists of 4 items. As shown in red, the Cronbach alpha coefficient does not meet the required criterion to conclude internal consistency of the subscale. Therefore, the item-total statistics table needs to be inspected to determine which item(s) need to be considered for deletion. Table 4.16 shows that no items should be considered as poor items as they do not fall below .2. Additionally, the deletion of any items would

not increase the Cronbach alpha coefficient but would rather decrease it. Therefore, as mentioned above, the Cronbach alpha test for internal consistency is sensitive to the number of items in the subscale, this may be an explanation for the low alpha coefficient. However, this subscale as a whole will be flagged for further inspection throughout the remainder of the statistical analysis.

Table 4.15. Reliability Statistics: Telling the truth Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.561	.573	4

Table 4.16. Item-Total Statistics: Telling the truth Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MCI2	12.74	2.570	.292	.093	.534
MCI12	12.29	2.527	.418	.195	.433
MCI22	12.34	2.641	.397	.182	.454
MCI32	12.60	2.415	.297	.098	.537

NOTE: MCI: Moral Competency Inventory

4.3.2.3. RELIABILITY RESULTS: STANDING UP FOR WHAT IS RIGHT SUBSCALE

The Cronbach alpha coefficient for standing up for what is right, comprising of 4 items, shown in Table 4.17 does not meet the requirement of .7 as specified by Pallant (2010). The Item-Total statistics table, shown in Table 4.18, shows that no items need to be deleted and will subsequently decrease the alpha coefficient if a specific item is deleted. Therefore, Standing up for what is right will also be flagged as a concern to be noted in subsequent analyses.

Table 4.17. Reliability Statistics: Standing up for what is right Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.622	.630	4

Table 4.18. Item-Total Statistics: Standing up for what is right Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MCI3	12.01	3.700	.354	.129	.585
MCI13	12.15	3.374	.420	.190	.538
MCI23	12.04	2.776	.456	.208	.516
MCI33	11.74	3.981	.413	.175	.559

NOTE: MCI: Moral Competency Inventory

4.3.2.4. RELIABILITY RESULTS: KEEPING PROMISES SUBSCALE

Table 4.19 shows the Reliability Statistics for Keeping promises which contains 4 items. Highlighted in red, the insufficient Cronbach alpha coefficient is shown. Consequently, the Corrected Item-Total Correlation coefficients in Table 4.20 show that all the items are sufficiently measuring keeping promises as they all surpass the cut-off value of .2. Additionally, the Cronbach alpha would not increase should either of the items be deleted. Therefore, Keeping promises will be flagged for consideration throughout the subsequent analyses.

Table 4.19. Reliability Statistics: Keeping promises Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.654	.656	4

Table 4.20. Item-Total Statistics: Keeping promises Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MCI4	12.70	2.220	.441	.203	.584
MCI14	12.75	1.995	.441	.208	.582
MCI24	12.94	2.184	.415	.182	.599
MCI34	12.68	2.024	.445	.203	.579

NOTE: MCI: Moral Competency Inventory

4.3.2.5. RELIABILITY RESULTS: TAKING RESPONSIBILITY FOR PERSONAL CHOICES SUBSCALE

Table 4.21 shows the Reliability statistics for Taking responsibility for personal choices which is comprised of 4 items. As it shows below in red, the Cronbach alpha coefficient does not meet the requirement to satisfy the conclusion of internal consistency. Subsequently, as it can be seen in Table 4.22, each item correlates highly enough with the total score for Taking responsibility for personal choices to conclude that each item contributes to the measurement of Taking responsibility for personal choices. There is no increase in the Cronbach alpha coefficient in order to warrant the deletion of an item, therefore, Taking responsibility for personal choices will be flagged throughout the subsequent statistical analyses.

Table 4.21. Reliability Statistics: Taking responsibility for personal choices Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.684	.696	4

Table 4.22. Item-Total Statistics: Taking responsibility for personal choices Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MCI5	12.55	2.896	.508	.348	.592
MCI15	12.31	3.163	.534	.348	.592
MCI25	12.63	3.105	.386	.163	.668
MCI35	12.82	2.527	.477	.229	.621

NOTE: MCI: Moral Competency Inventory

4.3.2.6. RELIABILITY RESULTS: ADMITTING MISTAKES AND FAILURES SUBSCALE

Table 4.23 below describes the Reliability Statistics for Admitting mistakes and failures, which contains 4 items. The Cronbach alpha coefficient, highlighted in red, does not satisfy the criterion of .7 and therefore, internal consistency for admitting mistakes and failures cannot be concluded at this stage. Furthermore, the Corrected Item-Total Correlation coefficients shown in Table 4.24, show that all the items exceed the required .2 cut-off value with no significant changes in the Cronbach alpha coefficient to warrant item deletion. Therefore, Admitting mistakes and failures will be flagged for concern throughout the remainder of the statistical analysis.

Table 4.23. Reliability Statistics: Admitting mistakes and failures Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.652	.667	4

Table 4.24. Item-Total Statistics: Admitting mistakes and failures Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MCI6	12.56	2.730	.488	.302	.546
MCI16	12.39	2.858	.520	.326	.536
MCI26	12.50	2.773	.428	.192	.587
MCI36	12.92	2.703	.330	.110	.670

NOTE: MCI: Moral Competency Inventory

4.3.2.7. RELIABILITY RESULTS: EMBRACING RESPONSIBILITY FOR SERVING OTHERS SUBSCALE

Table 4.25 shows that the embracing responsibility for serving others subscale, containing 4 items, does not meet the requirement to conclude internal consistency (.61). Furthermore, the Corrected Item-Total Correlation coefficients, shown in Table 4.26, show that each item correlates strongly enough with the total subscale score to conclude that no poor items form part of this subscale. Additionally, the deletion of any item would not bring the Cronbach alpha coefficient to a satisfactory coefficient of at least .7. Therefore, this subscale will be earmarked for concern throughout the remainder of the statistical analysis.

Table 4.25. Reliability Statistics: embracing responsibility for serving others Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.605	.604	4

Table 4.26. Item-Total Statistics: embracing responsibility for serving others Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MCI7	12.02	2.849	.322	.108	.580
MCI17	11.83	2.898	.337	.116	.569
MCI27	12.05	2.629	.446	.219	.490
MCI37	12.36	2.308	.444	.225	.487

NOTE: MCI: Moral Competency Inventory

4.3.2.8. RELIABILITY RESULTS: ACTIVELY CARING ABOUT OTHERS SUBSCALE

Table 4.27 shows the Reliability Statistics for Actively caring about others which contains 4 items. It can be seen, in red, that this subscale does not meet the requirement for internal consistency of .7. Table 4.28 shows that all the items correlate highly enough with the total score for the subscale to conclude that there are no poor items. Additionally, the deletion of any item would not improve the internal consistency of the subscale. Therefore, the Actively caring about others subscale will be flagged for concern.

Table 4.27. Reliability Statistics: Actively caring about others Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.671	.676	4

Table 4.28. Item-Total Statistics: Actively caring about others Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MCI8	12.41	2.746	.476	.259	.590
MCI18	11.90	3.125	.502	.270	.580
MCI28	12.09	3.171	.414	.176	.630
MCI38	12.31	2.890	.434	.191	.619

NOTE: MCI: Moral Competency Inventory

4.3.2.9. RELIABILITY RESULTS: ABILITY TO LET GO OF ONE'S MISTAKES SUBSCALE

Table 4.29 shows the Reliability Statistics for the Ability to let go of one's mistakes Subscale. This subscale is comprised of 4 items and, as shown in red, does not meet the requirement for internal consistency of .7. Table 4.30 shows that all items have sufficient correlations, above .2, to conclude that all the items measure Ability to let go of one's mistakes. The Cronbach's alpha if Item Deleted column in Table 4.29 shows that if item MCI29 was removed, the subscale would achieve internal consistency. Therefore, this item was removed in order to satisfy the requirement of .7.

Table 4.29. Reliability Statistics: Ability to let go of one's mistakes Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.676	.682	4

Table 4.30. Item-Total Statistics: Ability to let go of one's mistakes Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MCI9	11.95	3.229	.540	.297	.568
MCI19	12.25	2.722	.488	.298	.592
MCI29	12.15	3.490	.310	.144	.700
MCI39	12.14	2.922	.524	.321	.564

NOTE: MCI: Moral Competency Inventory

4.3.2.10. RELIABILITY STATISTICS: ABILITY TO LET GO OF ONE'S MISTAKES SUBSCALE REVISED

It can be seen in Table 4.31 that the Cronbach Alpha coefficient increased with the deletion of MCI29. Ability to let go of one's mistakes is now able to satisfy the criterion for internal consistency. Additionally, it can be seen in Table 4.32 that all the remaining items correlate strongly enough with the total subscale score in order to conclude that each item measures Ability to let go of one's mistakes. No further items need to be considered for deletion or need to be flagged.

Table 4.31. Reliability Statistics: Ability to let go of one's mistakes Subscale Revised

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.700	.704	3

Table 4.32. Item-Total Statistics: Ability to let go of one's mistakes Subscale Revised

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MCI9	7.93	2.140	.468	.221	.672
MCI19	8.24	1.507	.540	.298	.589
MCI39	8.13	1.704	.565	.319	.546

NOTE: MCI: Moral Competency Inventory

4.3.2.11. RELIABILITY ANALYSIS: ABILITY TO LET GO OF OTHERS' MISTAKES SUBSCALE

Table 4.33 shows that the internal consistency cut-off value of .7 is not met for Ability to let go of others' mistakes as the Cronbach alpha coefficient is below that of .7 (.63). Additionally, it can be seen in Table 4.34 that all the items in this scale correlate highly enough with the total score of the subscale in order to conclude that each item measures Ability to let go of others' mistakes sufficiently. It can also be seen in Table 4.34 that the deletion of any item will not sufficiently improve the Cronbach alpha coefficient in order to obtain internal consistency. Therefore, this subscale will be flagged for concern throughout the remainder of the statistical analysis.

Table 4.33. Reliability Statistics: Ability to let go of others' mistakes Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.629	.627	4

Table 4.34. Item-Total Statistics: Ability to let go of others' mistakes Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MCI10	11.98	2.574	.503	.258	.483
MCI20	11.69	3.006	.425	.184	.548
MCI30	11.48	3.613	.307	.118	.624
MCI40	12.22	2.663	.416	.207	.558

NOTE: MCI: Moral Competency Inventory

4.3.3. RELIABILITY ANALYSIS: ORGANISATIONAL CITIZENSHIP BEHAVIOUR SCALE (OCBS)

The OCBS is comprised of 5 subscales which were subjected to a reliability analysis using SPSS (Version 23). The subscales used in the OCBS are as follows: Civic Virtue, Courtesy, Sportsmanship, Conscientiousness and Altruism. The reliability analysis of each of these subscales will be presented below.

4.3.3.1. RELIABILITY RESULTS: CIVIC VIRTUE SUBSCALE

Table 4.35 shows the Reliability Statistics for the Civic Virtue Subscale which is comprised of 4 items. It is shown in red below, the Cronbach alpha coefficient for this subscale does not meet the requirement of at least .7 to conclude internal consistency. The Item-Total statistics table shown in Table 4.36 shows that no items are below the cut-off value of .2 to indicate a poor item. Additionally, the exclusion of any single item will result in a decrease of the Cronbach alpha coefficient. Therefore, no item will be deleted; however, the subscale as a whole will be earmarked as a concern throughout the remainder of the statistical analysis.

Table 4.35. Reliability Statistics: Civic Virtue

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.625	.628	4

Table 4.36. Item-Total Statistics: Civic Virtue

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OCBS6	11.17	3.793	.382	.175	.572
OCBS9	11.35	3.485	.428	.184	.538
OCBS11	11.62	3.523	.362	.146	.591
OCBS12	11.21	3.569	.454	.215	.521

NOTE: OCBS: Organisational Citizenship Behaviour Scale

4.3.3.2. RELIABILITY RESULTS: COURTESY SUBSCALE

The Cronbach alpha for the Courtesy subscale shown in Table 4.37 satisfies the cut-off score of .7 in order to conclude internal consistency. Therefore, each of the five items can be seen with the aid of Table 4.38 to correlate strongly enough with the total subscale score to conclude that each item sufficiently measures Courtesy. Therefore, no items were flagged or deleted as a result.

Table 4.37. Reliability Statistics: Courtesy Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.702	.700	5

Table 4.38. Item-Total Statistics: Courtesy Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OCBS4	16.60	3.458	.438	.226	.661
OCBS8	16.93	2.946	.523	.323	.625
OCBS14	16.58	3.645	.388	.165	.680
OCBS17	16.83	3.638	.404	.189	.674
OCBS20	16.79	3.172	.543	.334	.616

NOTE: OCBS: Organisational Citizenship Behaviour Scale

4.3.3.3. RELIABILITY RESULTS: SPORTSMANSHIP SUBSCALE

The third subscale of the OCBS is the sportsmanship subscale, which is comprised of 5 items. These items are reverse-scoring items and were therefore, recoded in SPSS prior to the reliability analysis in order to prepare the items suitably. This is indicated with (R) following the name of the item. Table 4.39 shows that this subscale achieved a satisfactory Cronbach alpha coefficient followed by satisfactory Corrected Item-Total Correlation coefficients shown in Table 4.40. Therefore, no items need to be flagged or considered for deletion as all items sufficiently contribute to the measurement of the Sportsmanship Subscale.

Table 4.39: Reliability Statistics: Sportsmanship Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.783	.785	5

Table 4.40: Item-Total Statistics: Sportsmanship Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OCBS2(R)	13.4615	18.540	.515	.277	.757
OCBS5(R)	13.1346	17.499	.630	.418	.719
OCBS7(R)	13.0048	18.536	.588	.378	.735
OCBS16(R)	13.9567	17.616	.531	.282	.755
OCBS19(R)	13.3077	18.581	.540	.294	.749

NOTE: OCBS: Organisational Citizenship Behaviour Scale

4.3.3.4. RELIABILITY RESULTS: CONSCIENTIOUSNESS SUBSCALE

Table 4.41 shows the Reliability Statistics for the conscientiousness subscale, which indicates that this subscale does not meet or exceed the .7 cut-off value as provided by Pallant (2010). Table 4.42 shows that none of the 5 items contained in this subscale produced a Corrected Item-Total Correlation coefficient of below .2 in order to be flagged for deleted. Additionally, the deletion of any single item will not improve

the current Cronbach Alpha coefficient in order to obtain internal consistency. Therefore, this subscale will be flagged as a concern in the remainder of the statistical analysis.

Table 4.41. Reliability Statistics: Conscientiousness Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.617	.622	5

Table 4.42. Item-Total Statistics: Conscientiousness Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OCBS3	16.69	4.543	.338	.158	.579
OCBS18	16.58	4.641	.308	.110	.592
OCBS21	17.06	3.832	.360	.142	.577
OCBS22	16.73	3.995	.526	.286	.485
OCBS24	16.76	4.413	.348	.130	.574

NOTE: OCBS: Organisational Citizenship Behaviour Scale

4.3.3.5. RELIABILITY RESULTS: ALTRUISM SUBSCALE

The Reliability Statistics for the Altruism subscale is shown in Table 4.43, which contains 5 items. It can be seen in red that the Cronbach alpha coefficient does not meet the required .7 in order to conclude internal consistency. Upon inspection of the Item-Total Statistics table, shown in Table 4.44, it can be seen that all the items sufficiently correlate with the total score of the subscale and the deletion of any single item will not improve the Cronbach alpha coefficient. Therefore, this subscale will be earmarked as a concern for the subsequent statistical analysis.

Table 4.43. Reliability Statistics: Altruism Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.675	.690	5

Table 4.44. Item-Total Statistics: Altruism Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OCBS1	16.09	3.954	.463	.329	.612
OCBS10	15.88	4.187	.421	.260	.631
OCBS13	16.45	3.544	.382	.173	.658
OCBS15	16.02	3.768	.543	.323	.578
OCBS23	16.20	3.766	.388	.191	.645

NOTE: OCBS: Organisational Citizenship Behaviour Scale

4.3.4. RELIABILITY ANALYSIS: TRANSPARENCY SCALE

The scale used to measure Transparency in this study does not have subscales and it contains 7 items. The reliability analysis was conducted on the Transparency scale as a whole.

4.3.4.1. RELIABILITY RESULTS: TRANSPARENCY SCALE

The reliability analysis for the Transparency scale produced favourable results. Table 4.45 shows that the Cronbach alpha coefficient meets and exceeds the cut-off value of .7 in order to conclude that the scale achieves internal consistency. Furthermore, each item correlated sufficiently high with the total scale in order to conclude that each item contributes to the measurement of Transparency. This can be seen in Table 4.46. Therefore, no items were flagged or deleted.

Table 4.45. Reliability Statistics: Transparency Scale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.806	.806	7

Table 4.46. Item-Total Statistics: Transparency Scale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
TRANS1	25.77	27.270	.556	.367	.778
TRANS2	25.75	28.287	.457	.379	.795
TRANS3	25.80	26.935	.573	.418	.775
TRANS4	25.92	27.695	.495	.296	.789
TRANS5	25.88	26.789	.499	.303	.789
TRANS6	25.92	24.767	.617	.543	.766
TRANS7	25.65	25.978	.588	.476	.772

NOTE: TRANS: Transparency

4.3.5. RELIABILITY ANALYSIS: ORGANISATIONAL MACHIAVELLIANISM SCALE (OMS)

The OMS is comprised of three subscales, namely; Maintaining Power, Management Practices and Manipulativeness. Reliability analyses was conducted on each of these subscales separately and will be subsequently discussed.

4.3.5.1. RELIABILITY RESULTS: MAINTAINING POWER SUBSCALE

Table 4.47 show the Reliability Statistics for the Maintaining Power subscale, which contains 6 items. The Cronbach alpha coefficient for this subscale does not meet the requirement of .7 and therefore, internal consistency cannot be concluded. Table 4.48 shows the Item-Total Statistics for this subscale. It can be seen that no items have produced Corrected Item-Total Correlation coefficients below that of .2 in order to warrant deletion. However, if item OMS4 were deleted, the subscale would achieve internal consistency (.704), therefore, this item was subsequently deleted.

Table 4.47. Reliability Statistics: Maintaining Power Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.684	.724	6

Table 4.48. Item-Total Statistics: Maintaining Power Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OMS1	22.79	14.834	.432	.383	.639
OMS2	22.84	15.303	.447	.380	.639
OMS3	22.58	15.394	.512	.376	.628
OMS4	24.34	12.331	.342	.175	.704
OMS5	23.13	14.612	.461	.256	.631
OMS6	23.17	13.487	.452	.265	.630

NOTE: OMS: Organisational Machiavellianism Scale

4.3.5.2. RELIABILITY ANALYSIS: MAINTAINING POWER SUBSCALE REVISED

Table 4.49 shows that the Cronbach alpha coefficient has improved upon the deletion of item OMS4 and the subscale now satisfies the requirement of meeting or exceeding .7 in order to conclude internal consistency. Furthermore, it can be seen from Table 4.50 that no more items need to be considered for deletion or need to be flagged as all the remaining 5 items have produced a Corrected Item-Total Correlation coefficient of higher than .2.

Table 4.49. Reliability Statistics: Maintaining Power Subscale Revised

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.704	.724	5

Table 4.50. Item-Total Statistics: Maintaining Power Subscale Revised

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OMS1	19.36	8.221	.504	.383	.636
OMS2	19.41	8.629	.522	.379	.634
OMS3	19.15	8.958	.543	.365	.633
OMS5	19.69	8.465	.453	.251	.658
OMS6	19.74	8.106	.351	.187	.719

NOTE: OMS: Organisational Machiavellianism Scale

4.3.5.3. RELIABILITY RESULTS: MANAGEMENT PRACTICES SUBSCALE

The Reliability Statistics for the Management Practices subscale is shown in Table 4.51 below. This subscale is comprised of 6 reverse-scored items which were recoded in order to prepare the items for the subsequent analyses to follow. This is indicated with (R) following the name of the item. It can be seen in Table 4.51 that the Cronbach alpha coefficient for this subscale surpasses the required .7 in order to conclude internal consistency. It can also be seen in Table 4.52 that no items need to be considered for deletion or need to be flagged for concern as each item correlates sufficiently with the total score of the subscale to conclude that each item contributes to the measurement of Management Practices.

Table 4.51. Reliability Statistics: Management Practices Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.808	.804	6

Table 4.52. Item-Total Statistics: Management Practices Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OMS7(R)	19.7837	35.600	.593	.402	.772
OMS8(R)	19.5096	34.299	.678	.493	.751
OMS9(R)	20.5625	41.329	.351	.136	.822
OMS10(R)	19.2019	34.278	.696	.558	.747
OMS11(R)	19.1587	34.453	.668	.538	.754
OMS12(R)	20.1490	40.224	.420	.194	.808

NOTE: OMS: Organisational Machiavellianism Scale

4.3.5.4. RELIABILITY RESULTS: MANIPULATIVENESS SUBSCALE

Table 4.53 shows the Reliability Statistics for the Manipulativeness subscale, which contains 6 items. It can be seen that this subscale produced a Cronbach alpha coefficient that well surpasses the cut-off value of .7, therefore, internal consistency can be concluded. Additionally, it can be seen in Table 4.54 that all the items correlate sufficiently with the total score of the subscale to conclude that all the items are contributing to the measurement of Manipulativeness. Therefore, no items need to be considered for deletion.

Table 4.53. Reliability Statistics: Manipulativeness Subscale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.873	.873	6

Table 4.54. Item-Total Statistics: Manipulativeness Subscale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OMS13	14.05	40.027	.589	.376	.866
OMS14	13.24	39.891	.568	.350	.870
OMS15	14.13	36.438	.753	.599	.838
OMS16	14.33	37.100	.749	.600	.839
OMS17	13.63	37.103	.700	.527	.848
OMS18	14.04	36.689	.698	.503	.848

NOTE: OMS: Organisational Machiavellianism Scale

4.3.6. RELIABILITY ANALYSIS: LEADER EFFECTIVENESS SCALE

The Leader Effectiveness scale used in this study does not contain any subscales as it is comprised of 6 items. Therefore, the reliability analysis was conducted using these 6 items on the scale as a whole.

4.3.6.1 RELIABILITY RESULTS: LEADER EFFECTIVENESS SCALE

Table 4.55 shows the reliability results for the Leader Effectiveness Scale. This scale produced a Cronbach alpha coefficient that well surpasses the cut-off value of .7, therefore, indicating that the scale possesses internal consistency. Table 4.56 shows that each item of the scale contributes to the measurement of Leader Effectiveness and therefore, no items need to be considered for deletion.

Table 4.55. Reliability Statistics: Leader Effectiveness Scale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.861	.862	6

Table 4.56. Item-Total Statistics: Leader Effectiveness Scale

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
LE1	24.72	11.632	.552	.312	.858
LE2	24.83	11.030	.679	.543	.834
LE3	24.85	10.846	.708	.559	.828
LE4	24.62	12.161	.577	.354	.851
LE5	24.82	11.461	.709	.662	.829
LE6	24.87	11.054	.710	.671	.828

NOTE: LE: Leader Effectiveness

4.3.7. SUMMARY OF THE ITEM ANALYSIS RESULTS

Table 4.57 below summarises the results obtained from the item analysis results. It can be seen that not all the subscales used in this study are internally consistent, however, their Item-Total Correlations indicate that the respective items of each subscale sufficiently measure the same underlying construct. These subscales will be flagged in the subsequent analyses.

Table 4.57. Summary of the Item Analysis Results

Scale	Mean	Standard Deviation	Cronbach's Alpha	Number of items deleted	Number of items retained
EIT: Righteousness	59.88	5.867	.902	0	14
EIT: Frankness	60.94	5.587	.869	0	14
EIT: Credibility	64.35	5.699	.815	0	15
EIT: Fairness	54.24	5.521	.842	0	13
EIT: Consistency	38.08	3.736	.776	1	9
MCI: Acting consistently with principles, values and beliefs	16.55	1.963	.728	0	4
MCI: Telling the truth	16.66	1.984	.561	0	4
MCI: Standing up for what is right	15.98	2.336	.622	0	4
MCI: Keeping promises	17.02	1.832	.654	0	4
MCI: Taking	16.77	2.168	.684	0	4

responsibility for personal choices					
MCI: Admitting mistakes and failures	16.79	2.099	.652	0	4
MCI: Embracing responsibility for serving others	16.09	2.048	.605	0	4
MCI: Actively caring about others	16.24	2.186	.671	0	4
MCI: Ability to let go of one's mistakes	12.15	1.868	.700	1	3
MCI: Ability to let go of other's mistakes	15.79	2.165	.629	0	4
OCBS: Civic Virtue	15.12	2.383	.625	0	4
OCBS: Courtesy	20.93	2.214	.702	0	5
OCBS: Sportsmanship	16.7163	5.18744	.783	0	5
OCBS: Conscientiousness	20.96	2.472	.617	0	5
OCBS: Altruism	20.16	2.357	.675	0	5
Transparency	30.12	5.946	.806	0	7
OMS: Power	24.34	3.512	.704	1	5
OMS: Management Practices	23.6731	7.13357	.808	0	6
OMS: Manipulativeness	16.68	7.293	.873	0	6
Leader Effectiveness	29.74	3.990	.861	0	6

NOTE: EIT: Ethical Integrity Test, MCI: Moral Competency Inventory, OCBS: Organisational Citizenship Behaviour Scale, OMS: Organisational Machiavellianism Scale.

4.4 DIMENSIONALITY ANALYSIS:

The purpose of dimensionality analysis is to ascertain whether each subscale is measuring the underlying construct whilst not contributing to the measurement of more than one construct. This is known as uni-dimensionality. Therefore, dimensionality analysis was used to determine whether the assumption of uni-dimensionality can be satisfied for each item in combination with the other items in each subscale as well as to further identify poor items which produce poor factor loadings (Spangenberg & Theron, 2005).

Dimensionality analysis was conducted using SPSS (Version 23) using the remaining items from each subscale that met the requirements from the item analysis stage. This analysis was completing by means of Exploratory Factor Analysis (EFA). This technique is commonly used in order to explore interrelationships among a set of variables and is suited in the early stages of research, such as in this study (Pallant, 2010).

In order to determine whether each scale was factor analysable, the Kaiser-Meyer-Olkin (KMO) measure of sample adequacy needs to be satisfied before the results can be interpreted. The KMO ranges between 0 and 1, however, this needs to be greater than .6 in order to continue with the interpretation of the results as suggested by Tabachnick and Fidell cited in Pallant (2010). This will be the first requirement the subscale needs to satisfy. If the data is factor analysable, the Eigenvalues will be inspected. If there exists more than one Eigenvalue greater than 1, it is an indication that there is more than one factor in the subscale. This is known as the eigenvalue rule or Kaiser's criterion (Pallant, 2010).

The factor loadings of each item will need to meet or exceed the cut-off value of .5 in order to be retained. In the event of only one Eigenvalue exceeding 1, no items would need to be removed as this will be indicative of all the items contained in the subscale or scale contributing solely to one underlying construct. Principal Axis factoring with Direct Oblimin rotation was used for each subscale which allows for the interpretation of the strength of the correlations between items in each subscale (Pallant, 2010). The results of the dimensionality analysis will be discussed separately for each subscale.

4.4.1. DIMENSIONALITY ANALYSIS: EIT

The dimensionality of the EIT was analysed by conducting the analyses on each subscale separately. This analysis will provide information on whether more than one factor exists in each subscale, whether items need to be removed or whether it needs to be considered to divide a subscale according to the number of factors extracted.

4.4.1.1 DIMENSIONALITY RESULTS: RIGHTEOUSNESS SUBSCALE

The KMO measure for sampling adequacy shows that the data was factor analysable as it produced a value of .903. This is well above the cut-off value of .6

and therefore, the remainder of the results can be interpreted. Utilising the Eigenvalue rule, two factors obtained Eigenvalues greater than 1 (5.847 and 1.122). This indicates that there is more than one factor within the Righteousness subscale. The pattern matrix is provided in Table 4.58. This matrix shows that there are two clear factors upon which certain items load.

In order to obtain one factor for the subscale, the items with the lowest factor loadings were removed. In order to determine which item produced the lowest factor loading, the dimensionality analysis was conducted once more, however, SPSS was instructed to extract only one factor. This method produces an effective solution, which clearly indicates the weakest item. More specifically, the factor matrix was able to describe which item explains the least amount of variance in the latent variable, namely, Righteousness. The first attempt at uni-dimensionality was made when item EIT1 (.488) was removed. The dimensionality analysis was performed again and two factors remained. The item with the lowest factor loading was once again removed, item EIT25 (.541). The dimensionality analysis was performed once more. Upon removal of these two items, one factor was extracted using the Eigenvalues rule and the uni-dimensionality hypothesis was met. The final Factor Matrix is shown below in Table 4.59.

Table 4.58. Pattern Matrix: Righteousness subscale

Pattern Matrix[a]		
	Factor	
	1	2
EIT40	.734	.141
EIT63	.682	-.075
EIT6	.595	-.034
EIT50	.580	-.119
EIT59	.564	-.123
EIT30	.360	-.243
EIT20	.081	-.685
EIT1	-.102	-.650
EIT25	-.030	-.643
EIT55	.232	-.570
EIT45	.317	-.482
EIT10	.328	-.471

EIT35	.277	-.423
EIT15	.357	-.362
Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.		
a. Rotation converged in 23 iterations.		

NOTE: EIT: Ethical Integrity Test

Table 4.59. Factor Matrix: Righteousness subscale revised

Factor Matrix[a]	
	Factor 1
EIT10	.732
EIT55	.726
EIT45	.724
EIT63	.707
EIT20	.677
EIT50	.656
EIT15	.648
EIT35	.640
EIT59	.637
EIT6	.584
EIT30	.561
EIT40	.557
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 4 iterations required.	

NOTE: EIT: Ethical Integrity Test

4.4.1.2. DIMENSIONALITY RESULTS: FRANKNESS SUBSCALE

The KMO measure for sampling adequacy, .866, was satisfied for the Frankness subscale as this measure exceeded .6 and factor analyses could proceed. The dimensionality analysis for Frankness showed that three factors exist in this subscale. This can be seen in the Pattern Matrix shown in Table 4.60 below. This is cause for concern and the item factor loadings need to be inspected for poor items.

In order to do so, the SPSS was instructed to extract only one factor, which indicated the item which explains the least amount of variance in Frankness to be EIT41, and was subsequently removed. This process continued until only one factor was extracted and the uni-dimensionality assumption was met. This process resulted in the further removal of the following items in order of removal: EIT36, EIT46, EIT60, EIT2 and EIT65. Table 4.61 shows the final Factor Matrix after all the poor items were removed and uni-dimensionality was achieved.

Table 4.60. Pattern Matrix: Frankness Subscale

Pattern Matrix[a]			
	Factor		
	1	2	3
EIT11	.874	.050	-.063
EIT21	.684	-.016	.139
EIT16	.656	.029	-.050
EIT56	.501	.114	.111
EIT41	-.104	.817	-.032
EIT46	.168	.583	-.007
EIT36	.070	.470	.112
EIT26	.240	.369	.200
EIT51	-.149	.039	.855
EIT65	.014	.109	.532
EIT7	.421	-.172	.530
EIT31	.068	.200	.518
EIT2	.100	-.086	.518
EIT60	.207	.108	.280
Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.[a]			
a. Rotation converged in 9 iterations.			

NOTE: EIT: Ethical Integrity Test

Table 4.61. Factor Matrix: Frankness subscale revised

Factor Matrix[a]	
	Factor
	1
EIT21	.773
EIT11	.755
EIT7	.735

EIT56	.610
EIT16	.605
EIT31	.594
EIT26	.593
EIT51	.548
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 5 iterations required.	

NOTE: EIT: Ethical Integrity Test

4.4.1.3. DIMENSIONALITY RESULTS: CREDIBILITY SUBSCALE

The KMO measure for sampling adequacy satisfied the cut-off value as it produced a value of .843, therefore, factor analysis is able to proceed. The same process was followed for the Credibility subscale as for that of the Righteousness and Frankness however, four factors were extracted for Credibility. The Pattern Matrix depicting four factors is shown below in Table 4.62. Therefore, the Factor Matrix needs to be inspected for the items with the lowest factor loadings produced after the dimensionality analysis was completed once more where SPSS was tasked to extract only one factor. Item EIT3 produced the lowest factor loading in the second dimensionality analysis with a factor loading of .164. This item, interestingly, was flagged for concern during the item analysis step of the data analysis see 4.3.1.3. Therefore, support was found for the deletion of this item. Upon the removal of this item, four factors remained. This process was repeated until one factor was extracted and the uni-dimensionality was met. This process resulted in the further removal of the following items in order of removal: EIT57, EIT52, EIT8, EIT64, EIT27, EIT66 and EIT12. The final Factor Matrix with the remaining items is shown in Table 4.63.

Table 4.62. Pattern Matrix: Credibility subscale

Pattern Matrix[a]				
	Factor			
	1	2	3	4
EIT42	.829	.085	.033	-.029
EIT37	.709	-.106	-.012	-.134
EIT47	.657	.063	.060	.202

EIT61	.539	-.189	.011	-.021
EIT57	.229	-.140	.140	.208
EIT17	.072	-.791	.011	-.014
EIT12	-.031	-.790	-.039	.048
EIT8	.055	-.626	.142	-.220
EIT32	.172	-.507	.072	.130
EIT22	.261	-.432	-.105	.165
EIT27	-.049	-.315	-.028	.141
EIT64	.037	.098	.736	.082
EIT3	-.024	-.062	.460	-.022
EIT66	.002	-.127	.109	.710
EIT52	.416	-.031	-.067	.434
Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.[a]				
a. Rotation converged in 8 iterations.				

NOTE: EIT: Ethical Integrity Test

Table 4.63. Factor Matrix: Credibility subscale revised

Factor Matrix[a]	
	Factor 1
EIT42	.685
EIT47	.668
EIT37	.667
EIT61	.646
EIT32	.627
EIT17	.601
EIT22	.600
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 4 iterations required.	

NOTE: EIT: Ethical Integrity Test

4.4.1.4. DIMENSIONALITY RESULTS: FAIRNESS SUBSCALE

The Fairness subscale satisfied the measure of sampling adequacy with a KMO value of .861. The dimensionality analysis however, did not meet the uni-

dimensionality requirement as three factors were extracted. The Pattern Matrix is shown in Table 4.64 where the three factors can be seen. The same procedure was followed where the dimensionality analysis was performed once again where one factor is extracted, in order to ensure consistency. It was found that EIT13 was the item with the lowest factor loading and therefore, explains the least significant variance in Fairness. This item was removed but it was not successful in obtaining uni-dimensionality. This process was repeated until uni-dimensionality was obtained. The items removed are as follows in order of removal: EIT13, EIT43, EIT23 and EIT4. The final Factor Matrix is shown in Table 4.65.

Table 4.64. Pattern Matrix: Fairness subscale

Pattern Matrix[a]			
	Factor		
	1	2	3
EIT62	.725	-.042	-.290
EIT58	.680	.013	.005
EIT38	.675	-.126	.117
EIT48	.636	.016	.312
EIT33	.579	.012	.048
EIT28	.562	.037	.045
EIT9	.517	.123	-.202
EIT53	.516	.191	.050
EIT4	.401	.219	-.312
EIT18	.160	.768	-.106
EIT13	-.138	.747	-.020
EIT23	.091	.612	.172
EIT43	.224	.236	.354
Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.[a]			
a. Rotation converged in 5 iterations.			

NOTE: EIT: Ethical Integrity Test

Table 4.65. Factor Matrix: Fairness subscale Revised

Factor Matrix[a]	
	Factor
	1
EIT58	.699
EIT62	.666

EIT48	.656
EIT53	.637
EIT28	.594
EIT38	.578
EIT9	.571
EIT33	.562
EIT18	.539
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 4 iterations required.	

NOTE: EIT: Ethical Integrity Test

4.4.1.5. DIMENSIONALITY RESULTS: CONSISTENCY SUBSCALE

The KMO measure for sampling adequacy was satisfied for the Consistency subscale as the value obtained was .829, exceeding the requirement of .6. The initial dimensionality analysis extracted two factors indicating multi-dimensionality, shown below in Table 4.66. The Factor Matrix was inspected, obtained from the second dimensionality analysis where one factor was instructed, and it was found that item EIT44 produced the lowest factor loading. The dimensionality analysis was repeated once this item was removed and uni-dimensionality was achieved. Therefore, EIT44 was the only item to be removed in order to achieve uni-dimensionality at this point in the data analysis process. The Factor Matrix from the revised subscale is shown in Table 4.67.

Table 4.66. Pattern Matrix: Consistency subscale

Pattern Matrix[a]		
	Factor	
	1	2
EIT19	.839	-.133
EIT34	.793	.014
EIT14	.655	-.038
EIT29	.575	.154
EIT39	.526	.267
EIT5	.508	.144
EIT24	.449	-.081
EIT44	-.074	.641

EIT49	.177	.378
Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.[a]		
a. Rotation converged in 5 iterations.		

NOTE: EIT: Ethical Integrity Test

Table 4.67. Factor Matrix: Consistency subscale revised

Factor Matrix[a]	
	Factor 1
EIT34	.791
EIT19	.764
EIT29	.646
EIT14	.636
EIT39	.636
EIT5	.573
EIT24	.411
EIT49	.327
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 5 iterations required.	

NOTE: EIT: Ethical Integrity Test

4.4.2. DIMENSIONALITY ANALYSIS: MORAL COMPETENCE INVENTORY (MCI)

The dimensionality analysis was completed for each of the ten subscales in the MCI. Each subscales' dimensionality results will be presented and discussed below.

4.4.2.1. DIMENSIONALITY RESULTS: ACTING CONSISTENTLY WITH PRINCIPLES, VALUES AND BELIEFS SUBSCALE

The first subscale of the MCI is Acting consistently with principles, values and beliefs. This subscale surpassed the cut-off for the KMO measure for sampling adequacy as the value for the KMO was .673. The dimensionality analysis was conducted for SPSS to freely extract factors and only one factor was extracted using the Eigenvalue greater than one rule (2.213). Thus, Acting consistently with principles, values and beliefs achieved uni-dimensionality. The Factor Matrix is presented in Table 4.68.

Table 4.68. Factor Matrix: Acting consistently with principles, values and beliefs Subscale

Factor Matrix[a]	
	Factor
	1
MCI21	.753
MCI31	.735
MCI11	.575
MCI1	.476
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 8 iterations required.	

NOTE: MCI: Moral Competency Inventory

4.4.2.2. DIMENSIONALITY RESULTS: TELLING THE TRUTH SUBSCALE

The KMO value for the Telling the truth subscale is .665, this surpasses the cut-off of .6 and indicates that the data is factor analysable. Using the Eigenvalue greater than one rule, only one factor was extracted (1.766), satisfying the uni-dimensionality assumption. The Factor Matrix for the Telling the truth subscale is shown below in Table 4.69.

Table 4.69. Factor Matrix: Telling the truth Subscale

Factor Matrix[a]	
	Factor
	1
MCI12	.632
MCI22	.590
MCI32	.403
MCI2	.396
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 9 iterations required.	

NOTE: MCI: Moral Competency Inventory

4.4.2.3. DIMENSIONALITY RESULTS: STANDING UP FOR WHAT IS RIGHT SUBSCALE

The Standing up for what is right subscale was shown to be factor analysable with a KMO of .705. Standing up for what is right also satisfied the uni-dimensionality assumption as only one factor was extracted using the Eigenvalue greater than one rule (1.901). The Factor Matrix of the factor loadings for each item is shown in Table 4.70.

Table 4.70. Factor Matrix: Standing up for what is right Subscale

Factor Matrix[a]	
	Factor
	1
MCI23	.619
MCI13	.571
MCI33	.549
MCI3	.452
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 7 iterations required.	

NOTE: MCI: Moral Competency Inventory

4.4.2.4. DIMENSIONALITY RESULTS: KEEPING PROMISES SUBSCALE

The KMO value for Keeping promises is .706, surpassing the .6 cut-off, indicating the data is factor analysable. The Eigenvalue greater than one rule was implemented and only one factor was extracted (1.967), indicating that the Keeping promises subscale is uni-dimensional. The Factor Matrix for Keeping promises is shown below in Table 4.71.

Table 4.71. Factor Matrix: Keeping promises Subscale

Factor Matrix[a]	
	Factor
	1
MCI14	.582
MCI34	.577
MCI4	.575

MCI24	.537
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 5 iterations required.	

NOTE: MCI: Moral Competency Inventory

4.4.2.5. DIMENSIONALITY RESULTS: TAKING RESPONSIBILITY FOR PERSONAL CHOICES SUBSCALE

The KMO statistic for Taking responsibility for personal choices was .684, indicating that the data is suitable for factor analysis. The Eigenvalue greater than one rule showed that one factor was extracted (2.102). This indicates that the Taking responsibility for personal choices subscale satisfies the uni-dimensionality assumption. The Factor Matrix for the Taking responsibility for personal choices subscale is shown below in Table 4.72.

Table 4.72. Factor Matrix: Taking responsibility for personal choices Subscale

Factor Matrix[a]	
	Factor 1
MCI15	.717
MCI5	.700
MCI35	.560
MCI25	.444
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 8 iterations required.	

NOTE: MCI: Moral Competency Inventory

4.4.2.6. DIMENSIONALITY RESULTS: ADMITTING MISTAKES AND FAILURES SUBSCALE

The measure for sampling adequacy was met as the KMO statistic for the Admitting mistakes and failures subscale was .695. The Eigenvalue greater than one rule resulted in one factor being extracted (2.020), indicating that the subscale is uni-dimensional. The Factor Matrix for this subscale is shown below in Table 4.73.

Table 4.73. Factor Matrix: Admitting mistakes and failures Subscale

Factor Matrix[a]	
	Factor
	1
MCI16	.731
MCI6	.679
MCI26	.528
MCI36	.390
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 10 iterations required.	

NOTE: MCI: Moral Competency Inventory

4.4.2.7. DIMENSIONALITY RESULTS: EMBRACING RESPONSIBILITY FOR SERVING OTHERS SUBSCALE

The KMO statistic for this subscale was .667, exceeding the required measure of sampling adequacy of .6. Therefore, the data was suitable for factor analysis. The Eigenvalue greater than one rule resulted in one factor being extracted (1.840). This shows that the Embracing responsibility for serving others subscale is uni-dimensional. The factor matrix for this subscale is shown below in Table 4.74. It can be seen that item MCI37 is the item that produced the strongest factor loading of the four items.

Table 4.74. Factor Matrix: Embracing responsibility for serving others Subscale

Factor Matrix[a]	
	Factor
	1
MCI37	.649
MCI27	.634
MCI17	.423
MCI7	.409
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted.	

8 iterations required.

NOTE: MCI: Moral Competency Inventory

4.4.2.8. DIMENSIONALITY RESULTS: ACTIVELY CARING ABOUT OTHERS SUBSCALE

The KMO measure for sampling adequacy produced a favourable statistic of .712 which indicates that the data is factor analysable. The Eigenvalues shows that one factor was extracted (2.031). This indicated that the items contribute to the measurement of one underlying factor and is therefore, uni-dimensional. The factor matrix for the Actively caring about others subscale is shown in Table 4.75.

Table 4.75. Factor Matrix: Actively caring about others Subscale

Factor Matrix[a]	
	Factor
	1
MCI18	.661
MCI8	.635
MCI38	.538
MCI28	.510
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 8 iterations required.	

NOTE: MCI: Moral Competency Inventory

4.4.2.9. DIMENSIONALITY RESULTS: ABILITY TO LET GO OF ONE'S MISTAKES SUBSCALE

The dimensionality analysis was completed on Ability to let go of one's mistakes using the remaining items that were retained after item analysis (see 4.3.2.9). The KMO measure for sampling adequacy produced a satisfactory value of .663. The Eigenvalue greater than one rule resulted in one factor being extracted (1.886). The Ability to let go of one's mistakes subscale is therefore, uni-dimensional. The Factor Matrix for this subscale is shown in Table 4.76 where it can be seen that item MCI39 has the strongest factor loading.

Table 4.76. Factor Matrix: Ability to let go of one's mistakes Subscale

Factor Matrix[a]	
	Factor
	1
MCI39	.741
MCI19	.688
MCI9	.571
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 11 iterations required.	

NOTE: MCI: Moral Competency Inventory

4.4.2.10. DIMENSIONALITY RESULTS: ABILITY TO LET GO OF OTHER'S MISTAKES SUBSCALE

The final subscale for the MCI is Ability to let go of others' mistakes. This subscale also produced a satisfactory KMO measure for sampling adequacy of .673 which surpasses the requirement of greater than .6. The Eigenvalue greater than one rule resulted in one factor being extracted (1.900) indicating that the subscale meets the uni-dimensionality assumption. The Factor Matrix for Ability to let go of others' mistakes is shown in Table 4.77 where is shown that item MCI10 is the item with the highest factor loading.

Table 4.77. Factor Matrix: Ability to let go of others' mistakes Subscale

Factor Matrix[a]	
	Factor
	1
MCI10	.699
MCI40	.550
MCI20	.547
MCI30	.394
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 11 iterations required.	

NOTE: MCI: Moral Competency Inventory

4.4.3. DIMENSIONALITY ANALYSIS: OCBS

The dimensionality analysis was completed on each of the five subscales comprised in the OCBS. The dimensionality analysis was executed in a manner where SPSS was free to extract as many factors as were present. The results of these analyses will be presented below.

4.4.3.1. DIMENSIONALITY RESULTS: CIVIC VIRTUE SUBSCALE

The Civic Virtue subscale produced a satisfactory KMO measure for sampling adequacy value of .688, indicating that the factor analysis process may proceed without drawing inaccurate inferences from the data. The Eigenvalue greater than one rule indicated that one factor was extracted (1.895), indicating that the Civic Virtue subscale meets the uni-dimensionality assumption. The Factor Matrix for this subscale is shown in Table 4.78. OCBS12 can be seen below as the item with the highest factor loading.

Table 4.78. Factor Matrix: Civic Virtue Subscale

Factor Matrix[a]	
	Factor
	1
OCBS12	.627
OCBS9	.564
OCBS6	.522
OCBS11	.471
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 8 iterations required.	

NOTE: OCBS: Organisational Citizenship Behaviour Scale

4.4.3.2. DIMENSIONALITY RESULTS: COURTESY SUBSCALE

The KMO measure for sampling adequacy was satisfied where the value produced for this subscale was .718. The dimensionality results show that one factor produced an Eigenvalue greater than one (2.287). This indicates that the Courtesy subscale is uni-dimensional. The Factor Matrix for this subscale is shown in Table 4.79.

Table 4.79. Factor Matrix: Courtesy Subscale

Factor Matrix[a]	
	Factor 1
OCBS20	.686
OCBS8	.662
OCBS4	.521
OCBS17	.494
OCBS14	.466
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 7 iterations required.	

NOTE: OCBS: Organisational Citizenship Behaviour Scale

4.4.3.3. DIMENSIONALITY RESULTS: SPORTSMANSHIP SUBSCALE

The KMO measure for sampling adequacy resulted in a satisfactory value of .817 which exceeds the requirement of greater than .6. The factor analysis results in one factor producing an Eigenvalue that is greater than one (2.696), indicating that the Sportsmanship subscale is uni-dimensional. The Factor Matrix for this subscale is shown below in Table 4.80. This table shows that item OCBS5(R) has the strongest factor loading of all the five reverse-scoring items.

Table 4.80. Factor Matrix: Sportsmanship Subscale

Factor Matrix[a]	
	Factor 1
OCBS5(R)	.747
OCBS7(R)	.691
OCBS19(R)	.620
OCBS16(R)	.607
OCBS2(R)	.588
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 6 iterations required.	

NOTE: OCBS: Organisational Citizenship Behaviour Scale

4.4.3.4. DIMENSIONALITY RESULTS: CONSCIENTIOUSNESS SUBSCALE

The Conscientiousness subscale produced a satisfactory KMO measure of sampling adequacy of .713 which exceeds the requirement of .6. The Eigenvalue greater than one rule resulted in the extraction of one factor (2.013). This indicates that the Conscientiousness subscale meets the uni-dimensionality assumption. The Factor Matrix is shown in Table 4.81. It can be seen from this table that OCBS22 has the strongest factor loading of the five items.

Table 4.81. Factor Matrix: Conscientiousness Subscale

Factor Matrix[a]	
	Factor
	1
OCBS22	.758
OCBS3	.461
OCBS21	.456
OCBS24	.442
OCBS18	.393
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 13 iterations required.	

NOTE: OCBS: Organisational Citizenship Behaviour Scale

4.4.3.5. DIMENSIONALITY RESULTS: ALTRUISM SUBSCALE

The KMO measure for sampling adequacy for the Altruism subscale produced a value of .680, this exceeds the required .6, indicating the data is factor analysable. The Eigenvalue greater than one rule resulted in the extraction of one factor (2.246). This indicates that the Altruism subscale meets the uni-dimensionality assumption. The Factor Matrix for the Altruism subscale is shown in Table 4.82 below where it can be seen that item OCBS15 loads the strongest on this subscale.

Table 4.82. Factor Matrix: Altruism Subscale

Factor Matrix[a]	
	Factor
	1
OCBS15	.687
OCBS1	.633

OCBS10	.537
OCBS23	.465
OCBS13	.463
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 8 iterations required.	

NOTE: OCBS: Organisational Citizenship Behaviour Scale

4.4.4. DIMENSIONALITY ANALYSIS: TRANSPARENCY

The dimensionality analysis was executed using the seven items contained in the Transparency scale. These results will be reported on and discussed below.

4.4.4.1. DIMENSIONALITY RESULTS: TRANSPARENCY

The KMO measure for sampling adequacy resulted in .777, indicating that the data is suitable for factor analysis as it exceeds the value of .6. However, the Eigenvalue greater than one rule produced two factors with values greater than one, 3.250 and 1.138 respectively. The Pattern Matrix shown in Table 4.83 depicts the two factors extracted from the Transparency scale. In order to determine the item, which loads the least on this scale, dimensionality analysis was repeated with the specification that only one factor is to be extracted. This provided showed that TRANS2 explained the least amount of variance in Transparency. This item was subsequently removed and the dimensionality analysis was repeated.

The Eigenvalue greater than one rule showed that the removal of TRANS2 was beneficial as only one factor was extracted (2.969). Therefore, the Transparency scale now meets the uni-dimensionality assumption. The revised Factor Matrix for the Transparency scale is shown in Table 4.84. It can be seen that the factor loadings varied from .770 to .527.

Table 4.83. Pattern Matrix: Transparency Scale

Pattern Matrix[a]		
	Factor	
	1	2
TRANS6	.964	-.129
TRANS7	.710	.035
TRANS5	.514	.104
TRANS4	.333	.286

TRANS2	-.146	.852
TRANS3	.133	.643
TRANS1	.205	.521
Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.[a]		
a. Rotation converged in 7 iterations.		

NOTE: TRANS: Transparency

Table 4.84. Factor Matrix: Transparency Scale Revised

Factor Matrix[a]	
	Factor
	1
TRANS6	.770
TRANS7	.726
TRANS5	.588
TRANS1	.577
TRANS3	.565
TRANS4	.527
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 5 iterations required.	

NOTE: TRANS: Transparency

4.4.5. DIMENSIONALITY ANALYSIS: ORGANISATIONAL MACHIAVELLIANISM SCALE

The dimensionality analysis was completed on each of the three subscales of the OMS scale separately. The results of the dimensionality analyses will be reported on and discussed below.

4.4.5.1. DIMENSIONALITY RESULTS: POWER SUBSCALE

The dimensionality analysis was conducted on the Power subscale using the remainder of the items from item analysis. The KMO measure for sampling adequacy produced a satisfactory result of .722, which indicates that the data is suitable for factor analysis. However, the Eigenvalue greater than one rule resulted in the extraction of two factors, 2.408 and 1.061, respectively. When SPSS was

instructed to extract only one factor after performing the dimensionality analysis once more, it was found that OMS6 should be considered for deletion.

Dimensionality analysis was repeated on the Power subscale without OMS6. The deletion of this item proved to be beneficial as the Eigenvalue greater than one rule extracted only one factor (2.240). This indicates that the Power subscale is uni-dimensional. The revised Factor Matrix with the remaining items is shown in Table 4.86.

Table 4.85. Pattern Matrix: Power Subscale

Pattern Matrix[a]		
	Factor	
	1	2
OMS1	.790	-.072
OMS2	.724	.007
OMS3	.637	.103
OMS5	-.018	.798
OMS6	.021	.507
Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.[a]		
a. Rotation converged in 4 iterations.		

NOTE: OMS: Organisational Machiavellianism Scale

Table 4.86. Factor Matrix: Power Subscale Revised

Factor Matrix[a]	
	Factor
	1
OMS2	.735
OMS3	.724
OMS1	.706
OMS5	.397
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 6 iterations required.	

NOTE: OMS: Organisational Machiavellianism Scale

4.4.5.2. DIMENSIONALITY RESULTS: MANAGEMENT PRACTICES SUBSCALE

The KMO measure for sampling adequacy provided support for factor analysis with a value of .820 which exceeds the required minimum of .6. The Eigenvalue greater than one rule resulted in the extraction of one factor (3.109) indicating that the Management Practices subscale is uni-dimensional. The Factor Matrix for this subscale is shown in Table 4.87 below. It can be seen that item OMS10(R) loads the strongest of the six reverse-scoring items.

Table 4.87. Factor Matrix: Management Practices Subscale

Factor Matrix[a]	
	Factor
	1
OMS10(R)	.799
OMS11(R)	.768
OMS8(R)	.764
OMS7(R)	.661
OMS12(R)	.468
OMS9(R)	.388
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 5 iterations required.	

NOTE: OMS: Organisational Machiavellianism Scale

4.4.5.3. DIMENSIONALITY RESULTS: MANIPULATIVENESS SUBSCALE

The Manipulativeness subscale produced a KMO measure for sampling adequacy of .882, which surpasses the requirement of .6 minimum and provides support for factor analysis. The Eigenvalue greater than one rule resulted in the extraction of one factor only with an Eigenvalue of 3.691. This indicates that the Manipulativeness subscale is uni-dimensional and measures a single underlying factor. The Factor Matrix for the Manipulativeness subscale shown below in Table 4.88. This shows that all the items load strongly on the single factor with item OMS15 loading the highest.

Table 4.88. Factor Matrix: Manipulativeness Subscale

Factor Matrix[a]	
	Factor 1
OMS15	.825
OMS16	.820
OMS17	.764
OMS18	.756
OMS13	.625
OMS14	.601
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 5 iterations required.	

NOTE: OMS: Organisational Machiavellianism Scale

4.4.6. DIMENSIONALITY ANALYSIS: LEADER EFFECTIVENESS SCALE

The dimensionality analysis was conducted on the six items contained in the leader effectiveness scale. The results of the dimensionality analysis will be reported and discussed below.

4.4.6.1. DIMENSIONALITY RESULTS: LEADER EFFECTIVENESS SCALE

The KMO measure for sampling adequacy produced satisfactory results providing support for factor analysis with a value of .819, exceeding the required minimum of .6. The factor analysis resulted in the extraction of one factor which produced an Eigenvalue of 3.572. This indicates that the Leader Effectiveness scale is uni-dimensional. The Factor Matrix shown in Table 4.89 shows that all the items load sufficiently high on the factor and varied from .793 to .594.

Table 4.89. Factor Matrix: Leader Effectiveness Scale

Factor Matrix[a]	
	Factor 1
LE6	.793
LE5	.786
LE3	.766

LE2	.732
LE4	.624
LE1	.594
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 5 iterations required.	

NOTE: LE: Leader Effectiveness

4.4.7. SUMMARY OF THE DIMENSIONALITY ANALYSIS

The dimensionality analysis resulted in the deletion of a number of items. The deletion of these items resulted in the uni-dimensionality of all the subscales or scales utilised in this study. In order to maintain confidence in the reliability of the subscales where items were removed, an additional item analysis was conducted only on the subscales where items were deleted. This will not be reported on individually, however, a summary table is provided below in Table 4.90. It can be seen that with the deletion of certain items, confidence in the internal consistency of the items and subscales can be maintained. It is therefore, concluded that all subscales or scales utilised in this study are reliable and uni-dimensional.

Table 4.90. Summary of Item analysis – Post Dimensionality analysis

Scale	Mean	Standard Deviation	Previous Cronbach's Alpha	Cronbach's Alpha after Dimensionality Analysis	Total Number of items deleted	Number of items retained
EIT: Righteousness	51.17	5.168	.902	.898	2	12
EIT: Frankness	34.88	3.550	.869	.854	6	8
EIT: Credibility	30.82	3.002	.815	.830	8	7
EIT: Fairness	38.53	3.885	.842	.836	4	9
EIT: Consistency	33.86	3.439	.776	.807	2	8
Transparency	25.75	5.319	.806	.795	1	6
OMS: Power	19.74	2.847	.704	.719	2	4

NOTE: EIT: Ethical Integrity Test, OMS: Organisational Machiavellianism Scale.

4.5. EVALUATING THE MEASUREMENT MODELS

The measurement model for each scale used in this study was evaluated by means of Confirmatory Factor analysis (CFA). The measurement model describes the manner in which each latent variable is measured by the indicator variables (Diamantopoulos & Siguaw, 2000). The CFA provides insight into the relationship between the indicator variables which were intended to measure the latent variables and whether the measurement model fits the empirical data obtained (Diamantopoulos & Siguaw, 2000). The subscales, or latent variables, were formed into item parcels or indicator variables, and were used to determine the measurement model fit.

Prior to conducting the CFA for each subscale, the data was tested for normality. The CFA utilises an assumption that the data is distributed normally. Therefore, it needs to be determined whether this assumption was met. This assumption was not satisfied for all the scales, therefore, in order to deter the risk of obtaining inflated solutions for each CFA, the data was normalised for each (DeCoster, 2001).

Therefore, each scale was subjected to CFA using Robust Maximum Likelihood.

The model fit was obtained by importing the data for each scale into LISREL (Version 8.8) which was then used to execute the analyses. In determining the fit of the model, the first hypothesis to be tested was the test for exact fit which is assessed in order to determine whether the null hypothesis for exact fit is rejected or not (H01: RMSEA = 0). The hypothesis for exact fit is determined by assessing the Satorra-Bentler χ^2 statistic where the objective is to not reject the null hypothesis, indicating that the model has exact fit. This is a notoriously stringent assessment and therefore, if the model achieves close fit, this will be acceptable (Diamantopoulos, 1994).

The second hypothesis tested was to test the null hypothesis for close fit (H02: RMSEA ≤ 0.05). This is tested using the Root Mean Square Error of Approximation (RMSEA) value. The model achieves reasonable fit if the RMSEA value is <0.08 and good fit if the RMSEA value is <0.05 (Diamantopoulos & Siguaw, 2000). If poor model fit is achieved, the Completely Standardardised solution was inspected for further poor items negatively influencing the fit of the measurement model.

Furthermore, each measurement model will be interpreted in terms of the criteria stipulated in Chapter 3. The absolute and incremental fit measures will provide further structure for the interpretation of the fit statistics. The parsimonious fit statistics will not be interpreted as these provide insight when comparing models, which is not the focus of this study. Absolute fit measures provide information on how well the covariances are predicted by the parameter estimates from the sample. Incremental fit measures provide information on how fit improved with the use of the proposed model in comparison to a base model (Diamantopoulos & Siguaw, 2000).

The absolute and incremental fit statistics for each tool used in this study will be discussed subsequently.

4.5.1. EVALUATING THE MEASUREMENT MODEL FIT OF THE ETHICAL INTEGRITY TEST

In order to conduct CFA, the data was imported into LISREL in the form of the scale in its entirety, including the items and the five corresponding subscales. The items, which were removed during the item analysis and dimensionality process were excluded from the CFA.

The results of the initial goodness of fit index, the RMSEA (0.0552), indicated that the EIT measurement model showed acceptable fit with the data. The null hypothesis for exact fit was rejected (1382.297; p = 0.0), indicating that the model does not have exact fit. The p-value for Close Fit (0.0494) indicates that model does not achieve close fit. (< .05). As the EIT is a new scale, it was decided to identify poor items for deletion in order to achieve a close fit. In order to do so, the Completely Standardised Lambda-X solution was inspected. A poor item is found where the item's loading does not exceed the cut-off of .5. Item EIT49 produced the lowest item and is highlighted in red in Table 4.91. This indicates that this item, EIT49, detracts from the goodness of fit of the EIT Measurement model. It was therefore, decided to remove this item.

Once this item was removed, the CFA analysis was repeated where the goodness of fit statistics was inspected, shown in Table 4.98 below. The Completely Standardised solution for Lambda-X Revised is shown in Table 4.92. The model's close fit improved with the deletion of EIT49 and the null hypothesis for close fit was

not rejected (p-value of close fit > .05). Thus, it was decided to not delete any further poor items as close model fit was achieved.

The absolute fit measures indicate that the revised EIT measure has achieved satisfactory measurement model fit. The RMSEA value (0.0551) indicates that the measurement model produced reasonable fit. The χ^2/df did not achieve the required values of between 2 to 5 to indicate good fit. This value reached short of this cut-off values with 1.626. The RMR value is also indicative of good model fit as it meets the requirement of <0.08. However, the Standardised RMR did not (0.0623). The GFI did also not meet the required value of > 0.9 to indicate the sample covariance matrix is reproduced.

The incremental fit indices for the EIT measurement model all exceed the required value of > 0.95. Thus, good comparative fit was achieved for the EIT Measurement model.

The CFA analysis showed that the EIT measurement model produced reasonable model fit. This indicates that the EIT Measurement Model is able to closely reproduce the observed covariance matrix.

Table 4.91. Completely Standardised solution for LAMBDA-X: EIT

	RIGHT	FRANK	CRED	FAIR	CONS
EIT5					0.585
EIT6	0.612				
EIT7		0.696			
EIT9				0.508	
EIT10	0.73				
EIT11		0.748			
EIT14					0.635
EIT15	0.648				
EIT16		0.59			
EIT17			0.618		
EIT18				0.603	
EIT19					0.732
EIT20	0.705				
EIT21		0.729			
EIT22			0.63		
EIT24					0.487
EIT26		0.565			

EIT28				0.597	
EIT29					0.673
EIT30	0.548				
EIT31		0.625			
EIT32			0.666		
EIT33				0.567	
EIT34					0.786
EIT35	0.676				
EIT37			0.638		
EIT38				0.532	
EIT39					0.715
EIT40	0.586				
EIT42			0.677		
EIT45	0.691				
EIT47			0.699		
EIT48				0.721	
EIT49					0.413
EIT50	0.687				
EIT51		0.622			
EIT53				0.743	
EIT55	0.737				
EIT56		0.623			
EIT58				0.628	
EIT59	0.653				
EIT61			0.617		
EIT62				0.651	
EIT63	0.705				

NOTE: RIGHT: Righteousness, FRANK: Frankness, CRED: Credibility, FAIR: Fairness, CONS: Consistency, EIT: Ethical Integrity Test.

Table 4.92. Completely Standardised solution for LAMBDA-X: EIT Revised

	RIGHT	FRANK	CRED	FAIR	CONS
EIT5					0.585
EIT6	0.611				
EIT7		0.696			
EIT9				0.508	
EIT10	0.730				
EIT11		0.748			
EIT14					0.638
EIT15	0.646				
EIT16		0.590			
EIT17			0.618		
EIT18				0.602	
EIT19					0.738

EIT20	0.706				
EIT21		0.729			
EIT22			0.628		
EIT24					0.490
EIT26		0.565			
EIT28				0.597	
EIT29					0.676
EIT30	0.550				
EIT31		0.626			
EIT32			0.666		
EIT33				0.568	
EIT34					0.794
EIT35	0.675				
EIT37			0.638		
EIT38				0.534	
EIT39					0.717
EIT40	0.588				
EIT42			0.678		
EIT45	0.693				
EIT47			0.699		
EIT48				0.721	
EIT50	0.685				
EIT51		0.622			
EIT53				0.742	
EIT55	0.738				
EIT56		0.623			
EIT58				0.630	
EIT59	0.653				
EIT61			0.618		
EIT62				0.651	
EIT63	0.704				

NOTE: RIGHT: Righteousness, FRANK: Frankness, CRED: Credibility, FAIR: Fairness, CONS: Consistency, EIT: Ethical Integrity Test.

4.5.2. EVALUATING THE MEASUREMENT MODEL FIT OF THE MORAL COMPETENCE INVENTORY (MCI)

The MCI was evaluated in terms of the same procedure utilising Confirmatory Factor Analysis. The goodness of fit statistics is shown below in Table 4.98.

The RMSEA value indicates that the model achieved reasonable fit (RMSEA = 0.0583). The p-value for close fit (0.0109) indicates that the model did not achieve close fit (< 0.05) indicating that the null hypothesis for close fit is rejected. The null

hypothesis for exact fit was also rejected (1117.331; p = 0.0) indicating that the model did not achieve exact fit.

In terms of the absolute fit statistics, the χ^2/df is below the minimum requirement of 2 and therefore, does not indicate good model fit. The RMR value is below 0.08, which indicates good model fit (0.0406), although the standardised RMR did not (> .05). The GFI also does not provide support for good model fit as this value does not exceed the requirement of >0.9.

In terms of the incremental fit indices, the NNFI, CFI and IFI indicate good model fit (>0.95) whereas the NFI and the RFI indicate acceptable model fit (> 0.9).

The CFA analysis showed that the MCI measurement model produce acceptable overall model fit. This indicates that it the MCI Measurement Model is able to reproduce the observed covariance matrix.

The Completely Standardised solution for Lambda-X was inspected and a number of items did not meet the threshold of > 0.5, indicated in red, shown below in Table 4.93. However, all items achieved .3 factor loadings, which is acceptable.

Table 4.93. Completely Standardised solution for Lambda-X: MCI

	Acting consistently with principles, values and beliefs	Telling the truth	Standing up for what is right	Keeping promises	Taking responsibility for personal choices	Admitting mistakes and failures	Embracing responsibility for serving others	Actively caring about others	Ability to let go of one's mistakes	Ability to let go of other's mistakes
MCI1	0.487									
MCI2		0.398								
MCI3			0.442							
MCI4				0.597						
MCI5					0.665					
M						0.623				

CI6										
MCI7							0.539			
MCI8								0.561		
MCI9									0.656	
MCI10										0.498
MCI11	0.614									
MCI12		0.622								
MCI13			0.570							
MCI14				0.664						
MCI15					0.683					
MCI16						0.687				
MCI17							0.483			
MCI18								0.607		
MCI19									0.628	
M										0.583

CI20										
MCI21	0.732									
MCI22		0.581								
MCI23			0.563							
MCI24				0.537						
MCI25					0.554					
MCI26						0.642				
MCI27							0.623			
MCI28								0.584		
MCI30										0.602
MCI31	0.759									
MCI32		0.560								
MCI33			0.669							
MC				0.506						

I34										
MCI35					0.586					
MCI36						0.471				
MCI37							0.500			
MCI38								0.603		
MCI39									0.724	
MCI40										0.464

NOTE: MCI: Moral Competency Inventory

4.5.3. EVALUATING THE MEASUREMENT MODEL FIT OF THE ORGANISATIONAL CITIZENSHIP BEHAVIOUR SCALE (OCBS)

CFA was performed on the OCBS and the five latent variables, namely Civic Virtue, Courtesy, Sportsmanship, Conscientiousness and Altruism in conjunction with the 24 items in the scale.

The goodness-of-fit statistics are shown below in Table 4.98 which be used to determine the fit measures for the OCBS. The RMSEA for the OCBS shows that the model achieved good model fit (0.0463).

The absolute fit measures for the OCBS measurement model shows that the null hypothesis for exact fit is rejected as $p < 0.01$ (349.614; $p = 0.0$) however; the null hypothesis for close fit is not rejected as the p-value indicates good model fit (0.707). The χ^2/df does not indicate good model fit since this value does not fall within prescribed range of 2-5. The RMR indicates good model fit (0.0549) whereas the Standardised RMR do not show support for good model fit (0.0653). The GFI support

the conclusion of acceptable model fit as it marginally missed the critical cut-off value.

The incremental fit measures will indicate good model fit if these indices exceed the critical cut-off value of .95. The NFI and the RFI marginally missed the requirement of 0.90 and therefore, do indicate acceptable model fit. However, the NNFI, CFI and IFI do exceed the cut-off value, indicating good model fit (0.959, 0.964 and 0.964 respectively).

Overall, the CFA indicated that the OCBS attained acceptable model fit. The Completely Standardised solution for Lambda-X was inspected to determine whether any poor items exist and as seen below in Table 4.94, a number of items do not meet the required cut-off value of >0.50, indicated in red. However, all items reached the level of .30, demonstrating acceptable factor loadings.

Table 4.94. Completely Standardised solution for Lambda-X: OCBS

	CV	COURT	SPORTS	CONSC	ALTR
OCBS1					0.603
OCBS3				0.625	
OCBS4		0.543			
OCBS6	0.600				
OCBS8		0.652			
OCBS9	0.554				
OCBS10					0.549
OCBS11	0.405				
OCBS12	0.679				
OCBS13					0.522
OCBS14		0.573			
OCBS15					0.646
OCBS17		0.514			
OCBS18				0.447	
OCBS20		0.692			
OCBS21				0.432	
OCBS22				0.728	
OCBS23					0.583
OCBS24				0.389	
OCBS2R			0.518		
OCBS5R			0.729		
OCBS7R			0.712		
OCBS16R			0.602		

OCBS19R			0.632		

NOTE: CV: Civic Virtue, COURT: Courtesy, SPORTS: Sportsmanship, CONSC: Conscientiousness, ALTR: Altruism, OCBS: Organisational Citizenship Behaviour Scale.

4.5.4. EVALUATING THE MEASUREMENT MODEL FIT OF THE TRANSPARENCY SCALE

The CFA was used to evaluate the measurement model fit of the Transparency scale with the remaining 6 items. The CFA showed that the model produced poor fit with a RMSEA value of 0.0873. In order to improve the model fit, TRANS6 was removed due to the fact that this item showed to have the highest modification index (21.553), indicating a problematic item.

The CFA was conducted with the remaining 5 items and produced more satisfactory results, as it can be seen in Table 4.98 below. The null hypothesis for exact fit is not rejected as p > 0.05 (4.141; p = 0. 529). The null hypothesis for close fit is not rejected which indicates the model has does have close model fit (P-value of close fit = 0.761).

In terms of the absolute fit indices, the χ^2/df does not fall within the desired range of 2-5 which does not show good model fit. However, the RMSEA value indicates that the model achieves outstanding fit (0.0). The RMR supports the conclusion of good model fit (0.0418) which is further supported by the Standardized RMR as it meets the requirement of < 0.05. Furthermore, the GFI exceeds the cut-off value of 0.9 and also provides support for the conclusion of good model fit.

The incremental fit measures for the Transparency scale all produced values of >0.95 and therefore, provide confident support for the conclusion of good model fit.

The CFA analysis showed that the Transparency measurement model produced exact and close model fit. This indicates that it can be determined that the Transparency Measurement Model is able to closely reproduce the observed covariance matrix.

The Completely Standardised solution for Lambda-X for the Transparency Scale is shown below in Table 4.95. It can be seen that all the factor loadings are > 0.50 except for TRANS4. The decision was taken to not remove this item due to the fact

that the transparency measurement model obtained acceptable model fit in conjunction with the fact that TRANS4 does not achieve the criterion only marginally. Therefore, the deletion of the item would provide no further improvement to the model as the model is highly satisfactory in its current state. Therefore, empirical support for each item is obtained.

Table 4.95. Completely Standardised solution for Lambda-X: Transparency Scale

	TRANS
TRANS1	0.657
TRANS3	0.641
TRANS4	0.499
TRANS5	0.568
TRANS7	0.657

NOTE: TRANS: Transparency

4.5.5. EVALUATING THE MEASUREMENT MODEL FIT OF THE ORGANISATIONAL MACHIAVELLIANISM SCALE

The OMS was subjected to CFA with the use of the three subscales as latent variables namely, Power, Management Practices and Manipulativeness where the 16 items are the indicator variables.

The RMSEA for the OMS (0.0558) shows that the model has acceptable model fit. The goodness of fit statistics is shown in Table 4.98.

The OMS goodness of fit statistics indicate that the null hypothesis for exact fit is rejected as $p < 0.05$ (166.202; $p = 0.000$). The OMS measurement model has shown to possess close fit (p value > .05), the null hypothesis for close fit is therefore, not rejected.

In terms of absolute model fit, the χ^2/df value does not support the conclusion of good measurement model fit as this value does not meet the 2-5 range requirements. The RMR and the Standardized RMR also do not indicate good model fit as these indices do not meet or exceed their respective requirements (0.143 and 0.0675 respectively). The GFI marginally missed the acceptable model fit conclusion (0.894).

The following incremental fit measure results all exceeded the requirement of 0.95 in order to conclude good model fit: NNFI, CFI and the IFI. However, the NFI and the RFI show acceptable model fit (> 0.90).

The CFA analysis showed that the OMS measurement model produced close model fit. This indicates that the OMS Measurement Model is able to closely reproduce the observed covariance matrix.

The Completely Standardised solution for Lambda-X is shown below in Table 4.96. It can be seen that three items do not meet the cut-off value of > 0.5; however, all items reached the level of .30, demonstrating acceptable factor loadings.

Table 4.96. Completely Standardised solution for Lambda-X: OMS

	POWER	MP	MANIP
OMS1	0.725		
OMS2	0.691		
OMS3	0.717		
OMS5	0.426		
OMS13			0.622
OMS14			0.599
OMS15			0.803
OMS16			0.812
OMS17			0.761
OMS18			0.756
OMS7R		0.607	
OMS8R		0.731	
OMS9R		0.348	
OMS10R		0.782	
OMS11R		0.772	
OMS12R		0.448	

NOTE: OMS: Organisational Machiavellianism Scale

4.5.6. EVALUATING THE MEASUREMENT MODEL FIT OF THE LEADER EFFECTIVENESS SCALE

The leader effectiveness scale was subjected to the CFA using the 6 items as the indicator variables and leader effectiveness as the latent variable. The analysis showed that the RMSEA value for the leader effectiveness scale indicates that the scale produced poor model fit (0.165). The modification indices showed that LE6 produced the highest loading (42.983), indicating a problematic item. This item was therefore, removed and the analysis was conducted with the remaining 5 items, the

results of which is shown below in Table 4.98. The null hypothesis for exact fit is not rejected (7.827; p = 0. 166) and the measurement model did achieve close fit (P-value of close fit = 0.405).

In terms of absolute fit, the χ^2/df value does not indicate good model fit at it does not meet the range requirement of 2-5 (1.565). The RMR shows support for good model fit (0.0199) which is corroborated with the Standardised RMR value (0.0276) as the index is below 0.05. The GFI also indicates good model fit as the index exceeds the critical cut-off value of 0.95 in order to support good model fit.

The incremental fit indices for the leader effectiveness scale further indicate good model fit as all the indices exceed the critical cut-off score of 0.95.

The goodness of fit results provides significant support for the leader effectiveness measurement model which is further supported by the Completely Standardised Lambda-X matrix, shown below in Table 4.97. It can be seen that each item loads sufficiently high on leader effectiveness. Therefore, all the items were retained and empirical support for the leader effectiveness scale was obtained.

Table 4.97. Completely Standardised solution for Lambda-X: Leader Effectiveness Scale

	LEADER
LE1	0.625
LE2	0.810
LE3	0.812
LE4	0.638
LE5	0.684

NOTE: LE: Leader Effectiveness

Table 4.98. Fit indices for measurement models for the EIT, MCI, OCBS, Transparency, OMS and Leader Effectiveness scales

Indices	EIT	MCI	OCBS	TRANS	OMS	LE
Absolute Fit Measures						
Satorra-Bentler Scaled Chi-Square	1382.297 (P = 0.0)	1117.331 (P = 0.0)	349.614 (P = 0.0)	4.141 (P = 0. 529)	166.202 (P = 0.000)	7.827 (P = 0. 000)
Degrees of freedom (df)	850	657	242	5	101	5
χ^2/df	1.626	1.701	1.445	0.828	1.646	1.565

Root Mean Square Error of Approximation (RMSEA)	0.0551	0.0583	0.0463	0.0	0.0558	0.0523
P-Value for Test of Close Fit (RMSEA < 0.05)	0.0561	0.0109	0.707	0.761	0.254	0.405
Root Mean Square Residual (RMR)	0.0253	0.0406	0.0549	0.0418	0.143	0.0199
Standardised RMR	0.0623	0.0702	0.0653	0.0265	0.0675	0.0276
Goodness of Fit Index (GFI)	0.699	0.736	0.860	0.989	0.894	0.981
Incremental Fit Measures						
Normed Fit Index (NFI)	0.951	0.927	0.892	0.985	0.925	0.986
Non-Normed Fit Index (NNFI)	0.979	0.964	0.959	1.007	0.963	0.990
Comparative Fit Index (CFI)	0.981	0.968	0.964	1.000	0.969	0.995
Incremental Fit Index (IFI)	0.981	0.968	0.964	1.003	0.969	0.995
Relative Fit Index (RFI)	0.948	0.917	0.877	0.969	0.911	0.972

NOTE: EIT: Ethical Integrity Test, MCI: Moral Competency Inventory, OCBS: Organisational Citizenship Behaviour Scale, TRANS: Transparency, OMS: Organisational Machiavellianism Scale, LE: Leader Effectiveness Questionnaire.

4.5.7. FITTING THE OVERALL MEASUREMENT MODEL

The overall measurement model was fitted in order to determine the manner in which the six measurement tools utilised in this study were able to maintain their measurement integrity when used in conjunction with one another.

Confirmatory Factor Analysis (CFA) was adopted in order to fit the overall measurement model. In order to prepare the data appropriately for this process, item parcels were constructed. Item parcelling has received peppered support across a number of researchers proficient with psychometric best practice. However, it was chosen to parcel the items used in this study due to the fact that utilising a large number of items has the potential to increase the likelihood of obtaining obtuse correlations. Certain items may share variance in such a large item group, which may not be included in the focus of this study, causing misrepresented factor

loadings. Additionally, solutions obtained from item parcelled data are more likely to be stable (Holt, 2004).

A further need for the use of parcelling presented itself in terms of the sample size of the sample obtained in this study in comparison with the number of items. When using a disproportionate ratio of sample size to number of items, it often occurs that the results are also skewed. Furthermore, as it was found that the data was not normal, parcelling is often used to combat the negative effects found when utilising non-normal data (Holt, 2004).

Therefore, due to the benefits of using item parcels relating to this study, item parcelling was deemed as appropriate. The method chosen to parcel the items was random assignment. This method allowed for items to be assigned to parcels at random within the common variable, as the name suggests (Little, Cunningham, Shahar & Widaman, 2002). This process resulted in a total of 32 parcels which contained between 2 and 6 items each.

Furthermore, when using CFA, an assumption is kept constant that the data is distributed normally. Therefore, before commencing, it needs to be determined whether the data charts a normal distribution. It was determined that the data was not normal for the overall measurement model. Therefore, the data was normalised in order to alleviate the risk of obtaining results that indicate that the indicator explains variance in the latent variable when it is not the case (DeCoster, 2001).

As the data was found to be non-normal, although normalised, further precautions were taken to ensure inaccurate parameter estimates were not obtained or the standard error of parameter estimates nor model fit statistics were not adversely affected in any manner. Therefore, this precaution manifested through the use of Robust Maximum Likelihood (RML). Therefore, the data was normalised and supplemented by using RML. The data was then deemed suitable for CFA, the results of which are subsequently discussed.

The goodness of fit statistics for the overall measurement model is shown below in Table 4.99. The RMSEA value (0.0392) for the overall measurement model indicates that model achieved good model fit, according to the required criterion stipulated in Chapter 3 (see Table 3.4).

The null hypothesis for exact fit was rejected for the overall measurement model (591.801; $p < 0.001$). The null hypothesis for close fit was not rejected as the model achieves good close fit (P-Value of Close Fit = 0.985).

The χ^2/df index, however, does not meet the range requirement of 2-5 and therefore, does not support the indication of good model fit. The RMR shows good model fit as the index does meet the criterion of < 0.08. The Standardised RMR, however, marginally exceeds the required criterion to corroborate the finding of good fit (0.0513). The GFI also did not exceed the criterion of > 0.90 to indicate good model fit (0.832).

In terms of the incremental fit indices, all the indices indicate that the model achieved good model fit as all the indices exceed the critical cut-off value of 0.95. This provides encouragement for the fact that the model fits better than a generic model (Diamantopoulos & Siguaw, 2000; Kelloway, 2017).

Therefore, the complete measurement model obtained empirical support for the capability of the items to measure the constructs they were designed for when utilised in the proposed model.

A path diagram depicting the overall measurement model containing the item parcels is shown below in Figure 4.1.

Table 4.99. Goodness of fit indices for the overall measurement model

Indices	
Absolute fit indices	
Satorra-Bentler Scaled Chi-Square	591.801 (P = 0.000)
χ^2/df (df=449)	1.31
Root Mean Square Error of Approximation (RMSEA)	0.0392
P-Value for Test of Close Fit (RMSEA < 0.05)	0.985
Root Mean Square Residual (RMR)	0.0172
Standardised RMR	0.0513
Goodness of Fit Index (GFI)	0.832
Incremental fit indices	
Normed Fit Index (NFI)	0.968
Non-Normed Fit Index (NNFI)	0.991

Comparative Fit Index (CFI)	0.992
Incremental Fit Index (IFI)	0.992
Relative Fit Index (RFI)	0.964

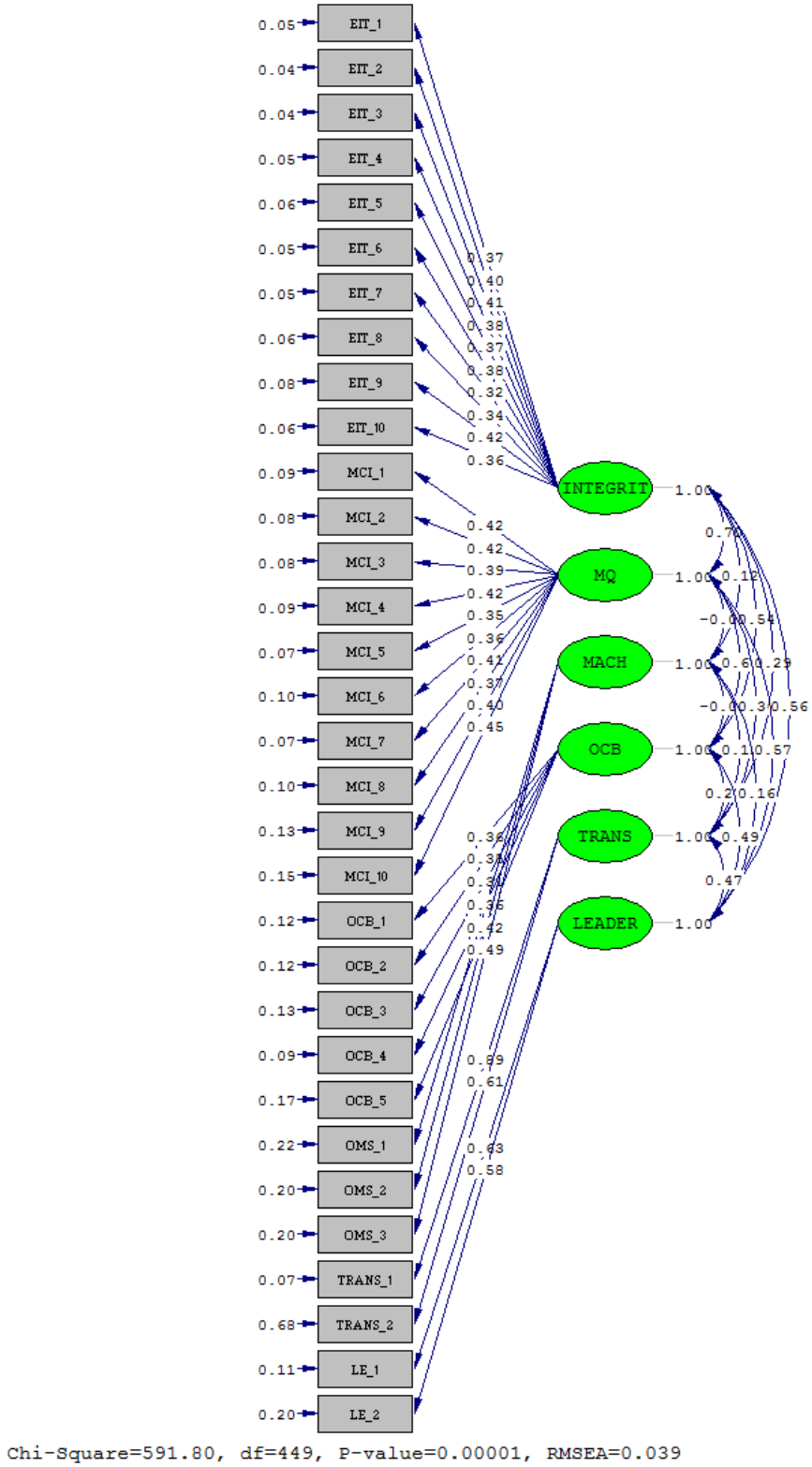

Figure 4.1. Path diagram for the overall measurement model

4.6. FITTING THE OVERALL STRUCTURAL MODEL

The structural model was fitted through LISREL (8.80) using the random item parcels used in fitting the overall measurement model. The structural model was used to

determine the relationships between the latent variables (Diamantopoulos & Siguaw, 2000). The fit statistics are shown below in Table 4.100.

The null hypothesis for exact fit was rejected (590.438; $p < 0.01$). This indicates that the structural model did not achieve exact fit. The RMSEA value for model fit shows that the structural model achieved good model fit (0.0383). The p-value of close fit shows that the null hypothesis for close fit is not rejected (0.991), indicating that the structural model did achieve close model fit.

The RMR value indicates that the model achieved good fit as this value is below .08. However, the Standardised RMR did not corroborate this finding as this value is above that of 0.05. The Standardised RMR value marginally did not achieve the conclusion of good model fit (0.0531). The Goodness-of-fit index (GFI) did not support the hypothesis of good model fit, as the value did not exceed the required 0.9.

The incremental fit indices would indicate good model fit if these values exceed 0.95. This would indicate whether the model in this study improved the fit compared to a baseline model (Diamantopoulos & Siguaw, 2000). The indices, which form part of the incremental fit indices include Normed Fit Index (0.968), Non-Normed Fit Index (0.992), Comparative Fit Index (0.992), Incremental Fit Index (0.992) and the Relative Fit Index (0.965). It can be seen that all the incremental fit indices support the conclusion of good model fit, indicating the model fits better than a baseline model.

Overall, it can be empirically concluded that the structural model fits the data well given the conclusions drawn from the goodness of fit statistics. The complete fitted structural model is shown below in Figure 4.2.

Table 4.100. Structural Model Goodness of fit statistics

Indices	
Absolute fit indices	
Satorra-Bentler Scaled Chi-Square	590.438 (P = 0.00)
χ^2/df (df=453)	1.3034
Root Mean Square Error of Approximation (RMSEA)	0.0383
P-Value for Test of Close Fit (RMSEA < 0.05)	0.991

Root Mean Square Residual (RMR)	0.0179
Standardised RMR	0.0531
Goodness of Fit Index (GFI)	0.832
Incremental fit indices	
Normed Fit Index (NFI)	0.968
Non-Normed Fit Index (NNFI)	0.992
Comparative Fit Index (CFI)	0.992
Incremental Fit Index (IFI)	0.992
Relative Fit Index (RFI)	0.965

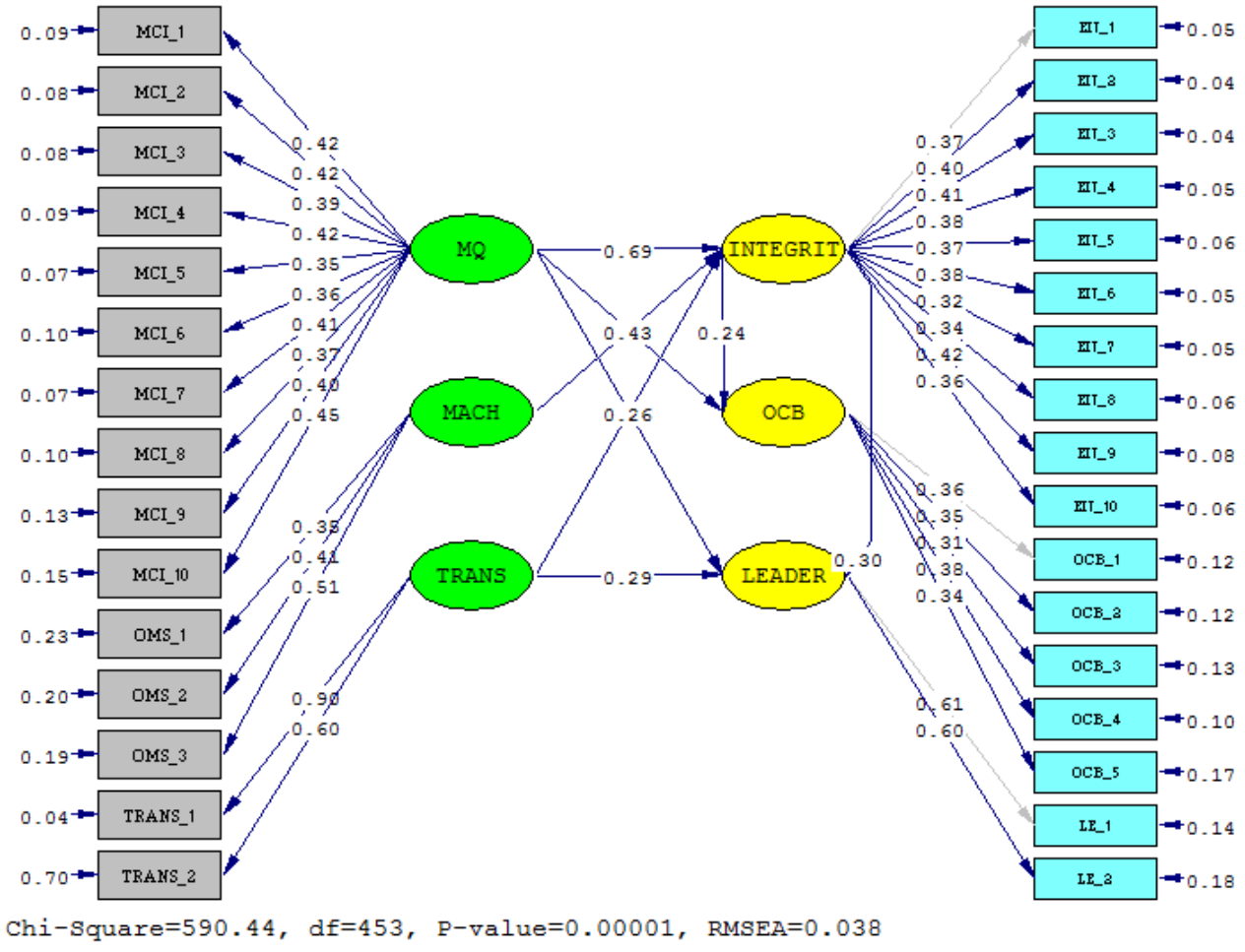

Figure 4.2. Path diagram: Complete Structural Model

4.7. RELATIONSHIPS BETWEEN THE LATENT VARIABLES

As it can be seen in Section 4.6, the structural model fits the data well. As this conclusion was drawn, it is vital to determine whether the relationships postulated in the conceptualisation phase of this study were supported by the results from fitting the structural model.

In determining whether the relationships between the latent variables exist as hypothesised, three factors will be taken note of. The first of which is to inspect the output delivered during fitting the Structural model to determine whether the direction of the relationship is as hypothesised. The second factor to determine is the strength of these relationships and whether the magnitudes of the relationships are strong enough. The third factor is to determine the R^2 value, which indicates the amount of variance explained in the endogenous variable by the latent variable and whether the amount of variance explained is sufficient.

The manner in which these three factors will be determined is by interpreting selected data from the output generated through fitting the structural model. The first of which is the unstandardised Gamma (Γ) and the unstandardised Beta (β) matrices. The unstandardised gamma matrices indicate the strength of the relationships in terms of path coefficients (γ_{ij}) between the exogenous variables (ξ_i) and the endogenous variables (η_i). The unstandardised Beta matrix will provide valuable insight into the nature of the relationship, which exists between the endogenous latent variables. The path coefficients will be determined as significant if $t > |1.644|$, given each is statistically significant ($p < 0.05$). A value, which satisfies this criterion, will indicate that the null hypothesis will be rejected in favour of the alternative hypothesis shown in Chapter 3.

The unstandardised Gamma matrix provided information as to whether Hypothesis 5 (H_{05}), Hypothesis 6 (H_{06}), Hypothesis 7 (H_{07}), Hypothesis 8 (H_{08}), Hypothesis 9 (H_{09}), and Hypothesis 10 (H_{010}), were supported empirically as postulated. The unstandardised Gamma matrix is shown below in Table 4.101. The unstandardised Beta matrix will provide information regarding whether Hypothesis 3 (H_{03}) and Hypothesis 4 (H_{04}) were supported empirically, which is shown below in Table 4.102.

Table 4.101. Unstandardised Gamma (Γ) Matrix

Unstandardised Gamma (Γ) Matrix			
	MQ	**MACH**	**TRANS**
INTEGRIT	0.693	0.130	0.021
	(0.080)	(0.058)	(0.074)
	8. 674	2.242	0.279
OCB	0.429	-	-
	(0.101)	-	-
	4.234	-	-
LEADER	0.259	-	0.294
	(0.095)	-	(0.081)
	2.718	-	3.613

NOTE: MQ: Moral Intelligence, MACH: Machiavellianism, TRANS: Transparency, INTEGRIT: Integrity, OCB: Organisational Citizenship Behaviour, LEADER: Leader Effectiveness.

Table 4.102. Unstandardised Beta (β) Matrix

	INTEGRIT	**OCB**	**LEADER**
INTEGRIT	-	-	-
OCB	0.243	-	-
	(0.102)	-	-
	2.385	-	-
LEADER	0.303	-	-
	(0.091)	-	-
	3.331	-	-

NOTE: INTEGRIT: Integrity, OCB: Organisational Citizenship Behaviour, LEADER: Leader Effectiveness.

4.7.1. THE RELATIONSHIP BETWEEN MORAL INTELLIGENCE AND INTEGRITY

The relationship between moral intelligence (ξ_1) and integrity (η_1) was found to be supported as it can be seen that this relationship is significantly positive as postulated as the t-value exceeds the critical cut-off score (8.674 > 1.644).

Therefore, Hypothesis 5 (H_{05}: $\gamma_{11} = 0$) is rejected in favour of the alternative hypothesis (Ha_5: $\gamma_{11} > 0$) as support was found for this relationship as postulated.

4.7.2. THE RELATIONSHIP BETWEEN MACHIAVELLIANISM AND INTEGRITY

The relationship between Machiavellianism (ξ_2) and integrity (η_1) was postulated to be significantly negative. This however, was not found in the unstandardised Gamma matrix. It was found that this relationship is significantly positive. Therefore, alternative Hypothesis 6 (H_{a6}: $\gamma_{12} < 0$) was not supported.

4.7.3. THE RELATIONSHIP BETWEEN TRANSPARENCY AND INTEGRITY

Support for the postulated relationship between transparency (ξ_3) and integrity (η_1) was not found as the t-value representing the relationship between these two latent variables did not exceed the critical cut-off score (0.279 < 1.644), as shown in red in Table 4.101.

Therefore, alternative Hypothesis 7 (H_{a7}: $\gamma_{13} > 0$) was not supported.

4.7.4. THE RELATIONSHIP BETWEEN MORAL INTELLIGENCE AND ORGANISATIONAL CITIZENSHIP BEHAVIOUR

The postulated relationship between moral intelligence (ξ_1) and organisational citizenship behaviour (η_2) was found to be positively significant (4.234> 1.644).

Therefore, Hypothesis 8 (H_{08}: $\gamma_{21} = 0$) is rejected in favour of the alternative hypothesis (H_{a8}: $\gamma_{21} > 0$) as the relationship between moral intelligence and organisational citizenship behaviour was as postulated.

4.7.5. THE RELATIONSHIP BETWEEN MORAL INTELLIGENCE AND LEADER EFFECTIVENESS

The relationship between Moral Intelligence (ξ_1) and Leader Effectiveness (η_3) was found to be significantly positive as postulated as the t-value exceeded the critical cut-off score (2.718 > 1.644).

Therefore, Hypothesis 9 (H_{09}: $\gamma_{31} = 0$) is rejected in favour of the alternative hypothesis (H_{a9}: $\gamma_{31} > 0$) as the relationship is significantly positive as postulated.

4.7.6. THE RELATIONSHIP BETWEEN TRANSPARENCY AND LEADER EFFECTIVENESS

The relationship between transparency (ξ_3) and leader effectiveness (η_3) was found to be supported empirically as the t-value exceeds the critical cut-off score (3.613 > 1.644).

Therefore, Hypothesis 10 (H_{010}: $\gamma_{33} = 0$) is rejected in favour of the alternative hypothesis (H_{a10}: $\gamma_{33} > 0$) as the relationship between transparency and leader effectiveness was significantly positive as postulated.

4.7.7. THE RELATIONSHIP BETWEEN INTEGRITY AND ORGANISATIONAL CITIZENSHIP BEHAVIOUR

The relationship between integrity (η_1) and organisational citizenship behaviour (η_2) was found to positively significant, as seen in the Beta matrix shown in Table 4.102, as the t-value exceeds the critical cut-off value (2.385 > 1.644).

Therefore, Hypothesis 3 (H_{03}: $\beta_{21} = 0$) is rejected in favour of the alternative hypothesis (Ha_3: $\beta_{21} > 0$) as the relationship between these two latent variables is as postulated.

4.7.8. THE RELATIONSHIP BETWEEN INTEGRITY AND LEADER EFFECTIVENESS

Support for the relationship between integrity (η_1) and leader effectiveness (η_3) was found as the t-value exceeds the critical cut-off value (3.331 > 1.644), indicating this relationship to be significantly positive.

Therefore, Hypothesis 4 (H_{04}: $\beta_{31} = 0$) is rejected in favour of the alternative hypothesis (Ha_4: $\beta_{31} > 0$) as this relationship was found to be supported as postulated.

4.8. STRUCTURAL MODEL MODIFICATION INDICES

The modification indices are inspected in order to determine whether additional parameters, which have not previously been estimated would improve the fit of the model. The modification indices show the extent to which the Chi-Square value would decrease. A value > 6.64 would provide strong support for the addition of

another parameter. Should a modification index surpass this criterion, it would only be added if it makes theoretical sense to do so.

Table 4.103 shows the Modification indices for Gamma which indicate whether additional parameters should be set free between the exogenous and the endogenous variables. It can be seen that no additional parameters need to be estimated in order to improve the fit of the structural model.

Table 4.103. Modification indices for Gamma

	MQ	MACH	TRANS
INTEGRIT	-	-	-
OCB	-	0.462	0.599
LEADER	-	1.034	-

NOTE: MQ: Moral Intelligence, MACH: Machiavellianism, TRANS: Transparency, INTEGRIT: Integrity, OCB: Organisational Citizenship Behaviour, LEADER: Leader Effectiveness.

Table 4.104 describes the modification indices for additional paths between the endogenous variables. It can be seen that no additional parameters need to be estimated as no indices exceed the criterion of > 6.64.

Table 4.104. Modification indices for Beta

	INTEGRIT	OCB	LEADER
INTEGRIT	-	0.012	0.067
OCB	-	-	3.291
LEADER	-	2.281	-

NOTE: INTEGRIT: Integrity, OCB: Organisational Citizenship Behaviour, LEADER: Leader Effectiveness.

4.9. UNIVARIATE RELATIONSHIPS BETWEEN THE LATENT VARIABLES

The solutions provided by the Confirmatory Factor Analysis (CFA) leading to this point in the study aided the understanding of the current, proposed univariate relationships between the latent variables. The Product Moment correlation matrix was generated in order to provide further clarity in terms of the strength and the direction of the relationships between the variables (Pallant, 2010). The Product Moment Correlation matrix is provided in Table 4.105.

The Pearson correlation coefficient explains the direction of the relationship between two latent variables by the use of a positive or a negative sign in front of the correlation. The negative relationships are indicated in red which explains that if the respondent's standing on one variable increases, the other will decrease. The value of the correlation coefficient shows the strength of the relationship. A value of r=.10 to .29 indicates a small correlation. A value between r=.30 to .49 will indicate an average correlation. A value of r=.50 to 1.0 will indicate a high correlation with a value of │1│ indicating a perfect correlation (Pallant, 2010).

4.9.1. THE CORRELATION BETWEEN INTEGRITY AND ORGANISATIONAL CITIZENSHIP BEHAVIOUR

The relationship between integrity and Organisational Citizenship Behaviour (OCB) indicates an average correlation, suggesting that there exists a moderately strong relationship between these two latent variables ($r = .475$, $p < 0.01$). This provides further support for H_{03} as postulated.

4.9.2. THE CORRELATION BETWEEN INTEGRITY AND LEADER EFFECTIVENESS

The relationship between integrity and leader effectiveness also indicates an average, positive correlation between the latent variables ($r = .493$, $p < 0.01$). This provides additional support for H_{04} as postulated.

4.9.3. THE CORRELATION BETWEEN MORAL INTELLIGENCE AND INTEGRITY

The relationship between moral intelligence and integrity shows a high positive correlation ($r = .650$, $p < 0.01$).This suggests that this relationship is further supported as postulated (H_{05}).

4.9.4. THE CORRELATION BETWEEN MACHIAVELLIANISM AND INTEGRITY

The relationship between Machiavellianism and integrity is shown as an insignificant correlation. This does not support Hypothesis 6.

4.9.5. THE CORRELATION BETWEEN TRANSPARENCY AND INTEGRITY

The relationship between transparency and integrity indicates a significant but small positive correlation between the two latent variables. ($r = 272$; $p < 0.01$). Thus, a partial support was found for Hypothesis 7.

4.9.6. THE CORRELATION BETWEEN MORAL INTELLIGENCE AND ORGANISATIONAL CITIZENSHIP BEHAVIOUR

The relationship between moral intelligence and OCB indicates that there is a strong positive correlation between these two latent variables. ($r = .516$; $p < 0.01$).This corroborates the support found for Hypothesis 8 as discussed in 4.7.1.

4.9.7. THE CORRELATION BETWEEN MORAL INTELLIGENCE AND LEADER EFFECTIVENESS

The relationship between moral intelligence and leader effectiveness can be seen to have a strong, positive correlation with one another. ($r = .514$; $p < 0.01$). This provides further support for the relationship as postulated (H_{09}).

4.9.8. THE CORRELATION BETWEEN TRANSPARENCY AND LEADER EFFECTIVENESS

The relationship between transparency and leader effectiveness can be seen to have an average, positive correlation ($r = .373$; $p < 0.01$), providing further support for the relationship as postulated (H_{010}).

Table 4.105. Product Moment Correlation Matrix

Correlations							
		INTEGRITY	**MQ**	**OCB**	**MACH**	**TRANS**	**LEADER**
INTEGRITY	Pearson Correlation	1	.650**	.475**	.099	.272**	.493**
	Sig. (2-tailed)		.000	.000	.157	.000	.000
	N	208	208	208	208	208	208
MQ	Pearson Correlation	.650**	1	.516**	-.029	.327**	.514**
	Sig. (2-tailed)	.000		.000	.682	.000	.000
	N	208	208	208	208	208	208
OCB	Pearson Correlation	.475**	.516**	1	-.065	.238**	.413**
	Sig. (2-tailed)	.000	.000		.353	.001	.000
	N	208	208	208	208	208	208
MACH	Pearson Correlation	.099	-.029	-.065	1	.116	.101
	Sig. (2-tailed)	.157	.682	.353		.095	.147
	N	208	208	208	208	208	208
TRANS	Pearson	.272**	.327**	.238**	.116	1	.373**

	Correlation						
	Sig. (2-tailed)	.000	.000	.001	.095		.000
	N	208	208	208	208	208	208
LEADER	Pearson Correlation	.493**	.514**	.413**	.101	.373**	1
	Sig. (2-tailed)	.000	.000	.000	.147	.000	
	N	208	208	208	208	208	208
**. Correlation is significant at the 0.01 level (2-tailed).							

NOTE: INTEGRIT: Integrity, MQ: Moral Intelligence, OCB: Organisational Citizenship Behaviour, MACH: Machiavellianism, TRANS: Transparency, LEADER: Leader Effectiveness.

4.10. SUMMARY

The purpose of this chapter was to report on the findings using the method described in Chapter 3. This method commenced through the process of item analysis, dimensionality analyses (EFA) and concluding with confirmatory factor analysis. The results reported on were generally favourable in terms of how the relationships between the variables were conceptualised. Hereafter, the discussion will turn to a more focussed discussion of the results obtained, followed by recommendations for future research and managerial implications.

CHAPTER 5

DISCUSSION OF RESULTS, CONCLUSION, AND SUGGESTIONS FOR FUTURE RESEARCH

5.1. INTRODUCTION

The conceptualisation of each of the six constructs discussed in Chapter 2 was analysed empirically through the process denoted in Chapter 3, and the results thereof were presented in Chapter 4. This chapter will discuss the implications of how these findings will affect the purpose of the study, whether the proposed relationships found in theory were plausible or not, as well as the implications of the findings on future research in the field of Industrial Psychology.

5.2. PURPOSE AND MOVATION FOR THE STUDY

The purpose of this study was to determine the extent to which three personality-related constructs, namely transparency, moral intelligence and Machiavellianism could predict the extent to which a person possesses integrity. This would then further be validated through the outcomes of integrity in terms of behaviours related to Organisational Citizenship Behaviour (OCB) and the perception of leader effectiveness.

Additionally, these constructs also proposed to have additional effects on OCB and leader effectiveness, providing further validation for the fact that these constructs are integral to the effective functioning of an organisation. Furthermore, it was proposed that should the theoretical conceptualisation of the proposed relationships among the constructs be supported, the integrity questionnaire to obtain the results could be utilised as a screening tool for recruitment and selection purposes, to reliably select individuals who possess integrity.

The selection of employees who possess integrity was postulated to minimise the occurrence of unethical decision-making and to influence control throughout organisations. The findings used to either support or not support the postulations, proposed in Chapter 2, are discussed below.

5.3. SUMMARY OF THE FINDINGS

To determine whether the relationships between the six constructs contained in the structural model were plausible, several processes were followed to ensure the reliability and validity of the measurement, as well as the relationships between the constructs.

The first statistical analysis performed on the constructs was that of item analysis. This process ensured that the items were internally consistent in that they were contributing to the measurement of the same subscale or scale. Once item analysis was completed and internal consistency for each subscale or scale was ascertained, exploratory factor analysis (EFA) was used to determine whether each subscale or scale satisfied the unidimensionality assumption (Diamantopoulos & Siguaw, 2000).

Once unidimensionality was confirmed for each subscale or scale, confirmatory factor analysis (CFA) was utilised to determine whether each item adequately measured the latent variable it was designed to measure, and whether the items and subscales or scales found in the measurement model continued to measure what it was intended to (Diamantopoulos & Siguaw, 2000). Up to this point each process was aided through the identification of poor items and the subsequent deletion of the poor items, to obtain the satisfactory results and to ensure the reliability of the measurement.

The final process was that of structural equation modelling (SEM), which determines whether the relationships proposed in the conceptual structural model are plausible, given the sample data. This is determined through assessing the goodness of fit statistics to determine the extent to which the proposed model could sufficiently reproduce the observed covariance matrix. Additionally, the strength of the parameters denoting the postulated relationships is determined by inspecting the Beta and Gamma matrices (Diamantopoulos & Siguaw, 2000). These findings will be discussed below.

5.3.1. CONCLUSION OF THE RELIABILITY ANALYSIS

Item analysis was conducted to determine whether the items contained in each subscale could be deemed as internally consistent. Should the items satisfy the requirements to conclude internal consistency, it would be indicative that the item can reliably measure the intended latent variable.

To conclude internal consistency, each subscale or scale and item needed to satisfy two requirements. The first requirement was for the whole subscale to achieve a Cronbach alpha value which exceeds 0.70 (Pallant, 2010). This measurement is known to be sensitive to the number of items in the subscale or scale, and therefore is not the only requirement relied on to conclude internal consistency. If the scale or subscale achieves an alpha coefficient which exceeds the cut-off score of 0.70, the item-total correlation for each item was inspected to determine the extent to which the single item correlates with the whole scale.

It was expected that the correlation coefficient is high enough to indicate that the item contributes to the measurement of the same latent variable, however, not too high to indicate that the item does not provide unique information which would render the item redundant. The item-total correlation coefficient should ideally exceed 0.20 (Nunnally, 1978). Should the item and the subscale satisfy both requirements, the subscale and the items were regarded as internally consistent.

This conclusion was not drawn for each item or subscale initially. Several subscales did not meet the 0.70 cut-off value, or a number of items also did not meet the cut-off value of 0.20. It was then deemed necessary to delete the problematic items by determining whether the alpha coefficient would increase with the deletion of the item. If this was the case, the item was removed to conclude internal consistency for the subscale. This process was followed until internal consistency was found for each subscale. The following subscales were subject to item deletion: EIT (Consistency); MCI_9 and OMS (Maintaining Power).

Once the process of item deletion was completed to achieve a satisfactory Cronbach alpha, the final Cronbach alpha for each subscale used in this study ranged from 0.561 to 0.902. All subscales, but one ($\alpha = 0.561$), achieved alphas above 0.60, which is acceptable for research purposes (Pallant, 2010). The subscale, which did not meet the critical cut-off of 0.60 was subject to deletion, because the subscale had been obtained from a previously validated and reliable scale. Furthermore, the final item-total correlations all attained the critical cut-off value of 0.20.

Therefore, the acceptable results obtained in the reliability analysis permitted the progression to exploratory factor analysis (EFA).

5.3.2. CONCLUSION OF THE EXPLORATORY FACTOR ANALYSIS

EFA was used to determine whether the unidimensionality assumption was met for each subscale. A subscale or scale can be deemed as unidimensional if the subscale or scale contributes to the measurement of one underlying factor. If this is not met, unidimensionality cannot be concluded and it would need to be determined whether complex items exist in the subscale or scale, that are appropriate for deletion or alteration (Spangenberg & Theron, 2005).

To determine whether a subscale or scale is unidimensional, the Kaiser-Meyer-Olkin (KMO) measure of sample adequacy needs to exceed 0.60 before the results are further interpreted. If the KMO does not exceed this cut-off value, the data is not factor-analysable and the results are not deemed an accurate representation of whether the data is unidimensional (Tabachnick & Fidell cited in Pallant, 2010).

If the data is deemed factor-analysable, the eigenvalue greater than one rule is applied. The eigenvalue for each factor was therefore inspected. If only one eigenvalue exceeded one, the subscale or scale is then concluded as unidimensional (Pallant, 2010). Furthermore, each item needs to load sufficiently on the subscale or scale to conclude that the item contributes satisfactorily to the measurement of the subscale or scale. Pallant (2010) recommends a minimum factor loading of 0.50.

The EFA showed that not all subscales or scales were unidimensional, nor did all the items load sufficiently large enough on the subscale or scale. Therefore, subscales that were multidimensional were inspected to determine which items did not load large enough, or were significantly loading on more than one factor, indicating the item was a complex item. It was then concluded that the removal of such items would result in the unidimensionality of the subscale or scale. Each of these items was removed individually when the unidimensionality was assessed after the removal of each single item. When the removal of the single item did not result in unidimensionality, the factor loadings were again inspected for complex items.

This process resulted in the further deletion of items in the following subscales and scales: EIT – Righteousness, EIT – Frankness, EIT – Credibility, EIT – Fairness, EIT – Consistency, Transparency and OMS – Power. The final range of factor loadings

for all the unidimensional subscales ranged from 0.327–0.825, and was regarded as acceptable (> 0.30).

5.3.3. CONCLUSION OF THE CONFIMATORY FACTOR ANALYSIS

The confirmatory factor analysis (CFA) was utilised to determine whether the scales in the measurement model were able to satisfactorily measure the latent variables (Diamantopoulos & Siguaw, 2000). Each scale was analysed separately to determine whether the individual items in the entire scale all contributed to the measurement of the intended latent variable.

To determine the success of the operationalisation of the measurement model for each subscale or scale, the fit of the measurement model needs to be determined. The model fit refers to whether the empirical data provides support for the way in which the latent variables was operationalised and whether their measurement provides support for the validity and the reliability (Diamantopoulos & Siguaw, 2000).

To draw conclusions regarding the model fit, model fit indices were inspected to inspect each subscale for acceptable model fit. The fit index is the p-value test for close fit where a value > 0.50 would be indicative of good model fit. The Root Mean Square Error of Approximation (RMSEA) is the second index which is inspected to determine acceptable model fit. A RMSEA value of < 0.08 describes reasonable model fit whereas a RMSEA value of < 0.05 indicates good model fit (Diamantopoulos & Siguaw, 2000). In the instance where the model did not achieve acceptable model fit in terms of these indices, it may be indicative of further poor items in the model.

To determine which items may be contributing to the poor model fit, the Completely Standardised Lambda-X solution was inspected for factor loadings which do not exceed 0.50. The item with the lowest factor loading in this instance was chosen and removed, thereafter, the CFA was conducted without the poor item to determine whether the removal of the poor item was successful in improving the model fit.

This process was repeated for each scale and will be discussed regarding the absolute and incremental fit for each measurement model, using the empirical data collected in the process outlined in Chapter 3 (n=208).

5.3.3.1. SUMMARY OF THE ABSOLUTE FIT MEASURES

The absolute fit of the measurement model determines the extent to which the parameter estimates could reproduce the covariance matrix (Diamantopoulos & Siguaw, 2000; Kelloway, 2017).

The first scale, that was analysed, was the Ethical Integrity Test (EIT) which is comprised of five subscales: Righteousness, Frankness, Fairness, Consistency and Credibility). The initial CFA for the EIT indicated that the model achieved good fit (RMSEA = 0.0552) however, item EIT49 showed a poor factor loading, which supported the removal of this item (0.413). Upon its removal, the model achieved good close fit with no items showing a poor factor loading (P-value of close fit > 0.05). The χ^2/df did not meet the required range of between 2–5 to support the conclusion for good close fit. However, the Root Mean Square Residual (RMR) value does support the conclusion for a good fit, since it is below the 0.08 criterion. Neither the Standardised RMR (> 0.05) nor the Goodness of Fit Index (GFI) (< 0.90) support the conclusion of good model fit as both indices do not meet the requirement. Therefore, all the absolute fit measures do not support the conclusion of good model fit. However, the null hypothesis for close fit was not rejected, ultimately concluding close model fit, which is satisfactory.

The second scale subjected to the CFA was the Moral Competency Inventory (MCI), which consists of ten subscales. All items achieved 0.30 factor loadings, which is acceptable (see Table 4.93).

The null hypothesis for close fit was rejected as the model did not produce close model fit (p-value of close fit < 0.05). The RMSEA value indicated that the model achieved reasonable fit (0.0583). The χ^2/df index however, does not support this conclusion as the index does not meet the requirement of the range 2–5. The SRMR and the GFI also do not support the conclusion of good model fit as the respective indices do not meet their requirements. However, the RMR does support the conclusion of good model fit. Overall, the MCI produced acceptable absolute model fit.

The third scale analysed was the Organisational Citizenship Behaviour Scale (OCBS), which is comprised of five subscales, namely altruism, conscientiousness, courtesy, sportsmanship and civic virtue.

The null hypothesis for close fit was not rejected because the p-value for close fit shows close model fit (0.707). Additionally, the RMSEA value shows the model produced good model fit (< 0.05). The χ^2/df, the SRMR and the GFI do not meet the required critical cut-off values. However, the RMR did meet the requirement for good model fit (< 0.08). Therefore, the OCBS was able to reproduce the observed covariance matrix reasonably well.

The fourth scale, which was subjected to the CFA, was the Transparency scale, comprised of the remaining six items. The CFA showed that the Transparency scale may contain one poor item (TRANS6) as this item produced the highest loading on the modification indices (21.553). The decision was taken to remove this item, as this would be likely to improve the fit of the model. The CFA was therefore completed using the five remaining items in the scale.

The null hypothesis for close fit was not rejected as the p-value for close fit exceeded the required criterion (> 0.05), which is further supported by the RMSEA value which reported excellent model fit (RMSEA = 0.00). The χ^2/df does however, not support this conclusion as the index does not meet the range requirement of 2–5. The RMR value does support the conclusion of good model fit as the index exceeds the criterion of (< 0.08) which is seconded by the SRMR which also meets the criterion (< 0.05). The GFI also exceeds the cut-off value of > 0.90 to conclude good model fit. Therefore, the Transparency scale could confidently fit the data well.

The fifth scale subjected to the CFA was the Organisational Machiavellianism Scale (OMS), which is comprised of three subscales namely Manipulativeness, Management Practices and Maintaining Power.

The null hypothesis for close fit was not rejected as the p-value for close fit is > 0.05 and the RMSEA value showed acceptable model fit (0.0558). However, the remainder of the absolute fit indices did not support this conclusion, as neither the χ^2/df nor the RMR, SRMR, or the GFI met its respective criteria. However, close fit

was achieved for the OMS, and therefore it is concluded that the OMS fit the data satisfactorily.

The final scale subjected to CFA was the Leader Effectiveness Questionnaire. This scale is comprised of six items. Item LE6 produced a concerning high modification index in the initial CFA (42.983), indicating the possibility of this item being a complex item. The decision was therefore taken to remove this item as it was likely to improve the fit of the model. The CFA was therefore conducted with the five remaining items.

The null hypothesis for close fit was not rejected as the p-value for close fit was large enough ($p > 0.05$). The RMSEA value provided support for the conclusion of close fit as the index indicated the model achieved acceptable model fit (RMSEA=0.0523). The χ^2/df however, did not meet the range requirement of 2–5 to conclude good model fit. The RMR and the Standardised RMR support the conclusion of good model fit as both indices exceeded their respective critical cut-off values. The GFI also supports the conclusion of good model fit (> 0.90).

Therefore, all the scales were subjected to the CFA analysis to determine whether the measurement model fits the data well and whether the model could successfully operationalise the latent variables. The results and degree to which each scale was able to achieve this, varies. However, in terms of absolute model fit, each subscale produced acceptable model fit. These results are shown in Table 4.98.

5.3.3.2. SUMMARY OF THE INCREMENTAL FIT MEASURES

Incremental fit provides valuable information regarding how the model improved by using the proposed model, compared to a base model (Diamantopoulos & Siguaw, 2000). The incremental fit for each scale was analysed and the results are provided in Table 4.98.

The incremental fit for each scale is determined by five indices which are obtained from the goodness of fit statistics. The EIT produced indices, which support the conclusion of good incremental fit (> 0.95). The incremental fit indices for the MCI showed that the NNFI, CFI and IFI exceeded the required criteria to conclude good model fit, however, the NFI and the RFI showed only acceptable model fit (> 0.90).

The OCBS, however, produced varied results regarding concluding incremental fit. The Normed Fit Index (NFI) and the Relative Fit Index (RFI) did not meet the requirement to support acceptable incremental fit of the measurement model. However, the Non-Normed Fit Index (NNFI), Comparative Fit Index (CFI) and the Incremental Fit Index (IFI) did produce indices which satisfy the required criteria (> 0.95) in order to conclude good comparative model fit.

The transparency scale produced incremental fit indices which provided substantial support for the conclusion of good comparative model fit. This is because each index exceeded the cut-off value of 0.95. The CFA for the OMS produced results which indicate that the NNFI, CFI and the IFI exceeded the cut-off score of 0.95 in order to indicate good model fit. However, the NFI and the RFI indicated acceptable model fit only (> 0 .90).

The final scale, which was subjected to CFA to deduce incremental fit, was that of leader effectiveness. This scale also produced satisfactory results in that each index provided support for the conclusion of good comparative model fit (> 0.95). Therefore, overall, all the scales achieved acceptable incremental model fit.

5.3.4. CONCLUSION OF THE STRUCTURAL EQUATION MODELLING

The statistical analyses that were conducted ensured the internal reliability and construct validity of the measures utilised in the measurement model. As it was ascertained that the constructs in the model are accurately measured, the relationships between the latent variables can be analysed. To determine the nature of the direct relationships between the latent variables as well as the absolute fit of the structural model, the following statistical process will be discussed as explained in Chapter 3.

The statistical analysis chosen to determine this, was structural equation modelling (SEM), as SEM provides a unique advantage of suggesting relationships between latent variables, which may have been omitted throughout the theorising process (Schreiber, Stage, King, Nora & Barlow, 2006). The outcome of SEM results in the goodness of fit statistics, which are used to draw inferences regarding the fit of the structural model. Additionally, the Gamma and the Beta matrices provide unique information regarding the strength, direction and plausibility of the postulated relationships. A summary of the SEM results will subsequently be provided.

5.3.4.1. SUMMARY OF THE GOODNESS OF FIT INDICES FOR THE STRUCTURAL MODEL

To accurately measure the fit of the structural model, the items of the tools were used to create parcels. These parcels were used to perform SEM using LISREL 8.8. The results of the analysis are shown in Table 4.100.

The null hypothesis for exact fit is measured by the p-value described by the Satorra-Bentler Scaled Chi-Square index. The null hypothesis for exact fit is rejected ($p < 0.001$). This indicates that the observed covariance matrix was not reproduced by the structural model. The hypothesis for exact fit is a stringent assessment of the plausibility of the model and therefore, the test for close fit was relied on.

The null hypothesis for close fit is assessed through the p-value for close fit. The model showed close fit through a value of 0.991. Therefore, the null hypothesis for close fit was not rejected. Additionally, the RMSEA value further supports the conclusion of good model fit, since it shows that the model achieved good model fit (< 0.05).The χ^2/df statistic provides additional information regarding the fit of the model, since it takes the degrees of freedom into account which the Satorra-Bentler Scaled Chi-Square statistic does not. A desired χ^2/df lies between the range of 2–5 to indicate good model fit (Kelloway cited in Heine, 2013). However, this statistic does not meet this requirement to show good model fit.

The Root Mean Square Residual (RMR) index produced a statistic which is closer to 0 than to 1. This index is desired to produce a value that is at least below 0.08 (Diamantopoulos & Siguaw, 2000). The RMR value of 0.0179 meets this requirement and shows that the differences between the observed and the fitted covariance matrices are minimal. The Standardised RMR creates a metric for the RMR value which assists comparability of the model. This statistic produced an unsatisfactory value (> 0 .05) (Kelloway, 2017).

The Goodness of Fit Index (GFI) did not support the conclusion of good model fit (< 0.90). However, the preceding indices, which contribute to the determination of absolute model fit, support acceptable fit. Ultimately, the null hypothesis for close fit was not rejected, concluding close fit for the model, which supported the second substantive research hypothesis postulated in this study.

The incremental fit of the model describes how the fit of the model improved compared to the baseline model (Diamantopoulos & Siguaw, 2000). All the incremental fit statistics showed that the model improved significantly, as these values exceeded the desired index of 0.95. This indicated that the model achieved good incremental model fit.

Overall, the structural model achieved fit statistics, which are satisfactory to conclude that the structural model satisfactorily reproduced the observed covariance matrix.

Furthermore, the modification indices which were obtained through the SEM analysis, provide valuable insight into whether additional paths should be considered in the model. This may provide added insight into possible theoretical postulations, which were overlooked during the theorizing stage of the research journey. The modification indices showed that no additional paths need to be considered to form part of the structural model. This provides recognition of successful theorising.

The relief of the low modification indices is short-lived since support for the postulated relationships need to be obtained through inspecting the Beta (β) and the Gamma (Γ) matrices. The β and the Γ matrices provide information about whether the relationships proposed in the structural model are significant. The Γ and the β matrices are shown in Tables 4.101 and 4.102 respectively, and the results thereof will be discussed below.

5.3.4.2. SUMMARY OF THE GAMMA MATRIX

The gamma matrix was inspected to determine whether the postulated relationships between the endogenous and the exogenous latent variables were empirically supported. This provides information on the strength of the relationship. The nature of each relationship will be interpreted and discussed.

The relationship between Moral Intelligence and Integrity

The relationship between Moral Intelligence (ξ_1) and Integrity (η_1) was found to be positive and significant. This is because this relationship exceeded the critical cut-off value (t >1.645). The t-statistic which exceeds the critical cut-off value (8.674) is positive and sufficiently large, which suggests a significant, positive relationship.

Theoretical support for the inclusion of this relationship was found through the conceptualisation of both constructs, as well as the theoretical relationships found between the constructs discussed in Section 2.10. It was proposed that the universal principles established throughout life experiences would provide how personal moral principles are established. These moral principles are relied on when faced with ethical dilemmas and decision-making in the occupational and personal capacity. The reliance and acting in accordance with the established moral principles is what constitutes one's moral intelligence (Lennick & Kiel, 2011).

The consistency of the reliance on moral values and beliefs was furthermore, described by the definition selected for integrity in this study. Therefore, it was postulated that the more consistent the individual in relying on moral values, the more likely it will be that the individual will be regarded as someone with integrity. This study has therefore produced empirical evidence for this relationship.

Thus, given the support found for this relationship, individuals with moral intelligence would demonstrate integrity, and as such, they are more likely to be better rounded and prefer to lead a principled life (Narvaez & Lapsley, 2009).

As support has been gained for this relationship, it is appropriate to deduce that individuals with a higher moral intelligence are able to make more morally consistent decisions, addressing the concerns of Connelly, et al. (2006) and Teper et al. (2015), where the relationship between moral intelligence and integrity was questioned. Therefore, individuals with a high moral intelligence are more likely to make consistent decisions synonymous with an individual of integrity, than those without. This is pertinent to take note of, given the fact that consistency is one of the indicators used to measure integrity in this study. Moral intelligence will therefore serve as a way to aid consistency of moral, integrity-related decision-making.

Additionally, the results of this study corroborated the findings of Verhezen (2007), which speculated that moral leaders will be more likely to address ethical dilemmas and integrity-related topics in the workplace. Therefore, should leaders possess substantial moral intelligence, they are more likely to behave in a manner which is consistent with integrity-related behaviours. This is likely to assist in the further development of moral intelligence, as postulated in Section 2.10.

Therefore, if one's moral intelligence is high and are relied on throughout decision-making, establishing a firm moral drive, the individual is more likely to engage in integrity-related behaviours. The support found for this relationship echoes the statement of Piaget quoted in Section 2.10, that the relationship between ability and behaviour is more complex than originally conceptualised. However, with well-established moral principles, this relationship may become better understood through time and with more focus on this relationship in future research.

The relationship between Machiavellianism and Integrity

The relationship between Machiavellianism (ξ_2) and Integrity was found to be significantly positive. This relationship was postulated to be negative, however, this postulation was not reflected empirically.

The literature predominantly found that Machiavellianism has a negative influence on integrity (Hong, Koh & Paunonen, 2012; Kisch-Geppard, Harrison & Trevino, 2010; Veselka et al., 2011). The finding of this study is disconcerting, since it suggests that integrity and Machiavellianism are positively correlated. This is a grave concern considering that 50% of the respondents in this study were senior managers. This however, may be reflective of what was found by Pilch and Turska (2015) in that individuals who are high Machiavellians tend to occupy leadership positions and they are more likely to achieve positive performance appraisals and be more satisfied in their roles.

However, this may not be the sole reason for the findings presenting disconcerting results. Chapter 2 provided a thorough analysis of both constructs where various dimensions of each construct were discussed. If one bears in mind the definitions chosen for the respective constructs and if one re-inspects the dimensions, it can be observed how the dimensions may correlate positively.

A study conducted by Kessler et al., (2010) which re-examined what is known about the construct of Machiavellianism, analysed the construct in terms of how it is related to various constructs commonly researched and compared. It was found that Management Practices and Maintaining Power, two of the constructs used in this study to measure Machiavellianism, were found to possess political skill, emotional

intelligence and conscientiousness. This is an underlying factor why a positive correlation was found between Machiavellianism and integrity.

The reason for this could be postulated since individuals who are high on Machiavellianism, value expediency above all else, as discussed in Section 2.6. Therefore, if these individuals wish to advance in their endeavours, whichever it may be, they are likely to engage in practices that would allow them to do so. Furthermore, if a leader is high on Machiavellianism, they would behave in a way to maintain their power. Therefore, it is an indication of how these two traits of a high Machiavellian would correlate positively with integrity, since integrity as defined in this study, relates to the way in which individuals behave in accordance with universally accepted values and norms (Du Toit, 2015).

If individuals behave consistently with this definition, they are more likely to be regarded as individuals with integrity, who behave in accordance with good management practices, as well as individuals who are able to maintain their organisational power in a socially accepted way.

Furthermore, as this study encompasses respondents from across South Africa, that represents a good proportion of the racial demographics of the country, the sense of morality may be subjective to the respondents' cultural background and/or circumstances. This is pertinent as the definition of integrity that is provided, relates to universally accepted values and norms. It is well known that South African subcultures, of which there are many, possess several contrasts regarding what is considered acceptable, ethical or universally accepted. This may play a significant role in the findings of this study, as the sense of morality implied may not be universal but cultural specific. Relativity in terms of morality is seen as a moral value, which is developed through socio-cultural norms and personal circumstances or experiences, and does not consider universal morality (Ruiz-Palomino & Bañön-Gomis, 2017). This is further enhanced in the organisational context, which is influenced considerably through the rich history of South Africa and through the ethical and regulatory implications it has on new and emerging organisations (Irwin, 2011).

It can therefore, be seen that Machiavellianism and integrity may be conceptually conflicting at face value, however, upon further inspection and a deeper analysis,

these constructs could correlate with each other positively, given the context in which an individual operates.

The relationship between Transparency and Integrity

The relationship between Transparency (ξ_3) and Integrity is insignificant according to the SEM results (see Table 4.101). However, a positively significant product-moment-correlation ($r = 0.272$, $p < 0.001$) was found between transparency and integrity (see Table 4.105). Therefore, this relationship was partially supported as postulated.

The positive relationship between transparency and integrity is logically and theoretically sound (Albu & Wehmeier, 2014; Kolstad & Wiig, 2009; Palanski et al., 2011; Parris, et al., 2016). To perceive an individual as someone with integrity and who is trustworthy, transparent communication must take place (Albu & Wehmeier, 2014).

Support for this relationship was found by Palanski, et al., (2011) who studied the way transparent communication influences integrity on an individual level, as well as on a team level. Positive results were found in both a controlled and an uncontrolled environment ($b = 0.78$, $p < 0.01$ and $b = 0.84$, $p < 0.01$ respectively) (Palanski, et al., 2011). Further support for transparency as an antecedent for integrity was found in this study for both controlled and uncontrolled environments, where transparency explained significant variance in integrity ($r^2 = 0.61$ and $r^2 = 0.70$).

Furthermore, the integration and overview of the findings from Parris, et al. (2016) and Kolstad and Wiig (2009), highlighted the finding that transparency in literature is most often attributed on an organisational level, which suggests a possible limiting factor in this relationship. Transparency is most often attributed to an organisation or on an organisational level as opposed to on an individual level. Although the essence of the construct is similar, the motive is not. On an organisational level, it can be argued that the motive to reflect transparency is in the interest of the stakeholder's perceptions and not due to a moral drive to be transparent. Kolstad and Wiig (2009) corroborated this in their study, which states that transparency is often regarded as a way in which to maintain the norms of integrity in order to ward off corruption in organisations. If the intent is purely to place the organisation in a

more favourable light, it is unlikely that transparency would be positively and significantly related to integrity.

Therefore, contrasting the studies of transparency, indications are that transparency can be a moral or non-moral construct. Only morally-related transparent behaviour would lead to integrity-related behaviour. Thus, a relatively low positive relationship is expected between these variables.

The relationship between Moral Intelligence and OCB

The relationship between Moral Intelligence and OCB (η_2) is positively significant as postulated. This is seen through a path coefficient with a statistically significant regression slope coefficient ($t > 1.645$).

The findings of this study provide confidence in the proposed reasoning in the literature for the positive correlation between moral intelligence and OCB (Nixon, 2014; Nobahar & Nobahar, 2013; Tambe & Shanker, 2014). The first of which is the postulation that the responsibility capability contained in the conceptualisation of the construct of moral intelligence is likely to have a positive influence on altruism, sportsmanship and conscientiousness (Nixon, 2014). As support for this relationship has been found, it is likely that to behave with responsibility, will influence the likelihood of altruistic behaviour, sportsmanship, as well as conscientiousness.

The second capability of moral intelligence relates to behaving compassionately, which is related to the altruistic component of integrity. As support for this relationship was found, it can be speculated that an individual who is capable of behaving compassionately and have compassion for others, is more likely to behave altruistically, than an individual who does not have compassion.

The third capability of moral intelligence termed by Lennick and Kiel (2011) is integrity, which is defined as the ability to act consistently with principles and values and standing up for what is right (Nixon, 2014). This was postulated to have a positive effect on the civic virtue dimension of OCB, which highlights the act of participating in organisational political processes and giving one's opinion freely (Tambe & Shanker, 2014). As support for the relationship between moral intelligence and OCB was found, it can be postulated that individuals who possess moral intelligence, since they can stand up for what is right in terms of integrity as defined

above, are more likely to give their opinion freely when they are not in agreement with a political process. This is likely to serve as a method in which to curb unethical decision-making as the individuals are likely to base their opinion on morals and values.

The fourth capability of moral intelligence that was conceptually related to OCB is forgiveness which is related to courtesy of OCB. Given the results obtained in this study, it is likely that individuals who can forgive themselves and others for mistakes made, will be likely to genuinely forgive and to provide assistance to others when others make mistakes (Nobahar & Nobahar, 2013).

The components underlying OCB were scrutinised by the researcher, as noted in Chapter 2. This involved criticisms because this behaviour is not truly discretionary, as instances arise where OCBs are rewarded (Podsakoff, et al., 2014). However, Özduran and Tanova (2017) highlighted that the motives for the OCBs should be determined to ascertain whether the behaviour is truly OCB. Moral intelligence provides a vehicle for these motives to be determined.

Moral intelligence as discussed in Chapter 2, is described as an individual's mental capacity to apply universal principles to personal values, goals and actions (Lennick & Kiel, 2011). Theoretically, the greater the individual's moral intelligence, the greater the capacity to apply universally accepted principles to the organisational context. Therefore, if the individual's behaviour is guided by such principles, it is likely that the underlying motive will not be in question.

This finding contributes to research for both constructs. The discrepancy in the discretionary nature of OCB is relieved if the actor possesses high moral intelligence. Furthermore, the outcomes of moral intelligence found in the organisational context has not received as much empirical support as other popular forms of intelligence, such as emotional intelligence (Beheshtifar, et al., 2011). Therefore, the empirical finding of the positive relationship between moral intelligence and OCB provides support for further research on the nature of this relationship.

The relationship between Moral Intelligence and Leader Effectiveness

The relationship between moral intelligence and leader effectiveness (η_3) produced a path coefficient, which suggests that this relationship is significant, as it exceeds the

critical cut-off value ($t > 1.645$). Additionally, this relationship was found to be positive and statistically significant ($p < 0.05$) as postulated.

The results produced in this study corroborates those found by Nobahar and Nobahar (2013) and by Ghayumi and Imani (2015) that a leader's moral intelligence has a direct influence on the effectiveness of the leader. This indicates that if the leader possesses a significant degree of moral intelligence, the leader's subordinates are likely to be more committed and have a greater possibility of increasing organisational health and effectiveness, as discussed in Section 2.14. This significant result supports the conceptualisation of both constructs and the way the proposed relationship between moral intelligence and leader effectiveness was rationalised.

Thus, should a leader have a well-developed moral intelligence, the leader is more likely to make decisions and take actions which are guided by established moral principles. The reliance on moral principles to guide the leader's behaviour was proven in this study and the leader will more likely be deemed as effective.

The relationship between Transparency and Leader Effectiveness

The final relationship shown in the Gamma matrix is the relationship between transparency and leader effectiveness. This relationship was positive as well as statistically significant, as postulated.

Transparency communication was conceptualised as a necessary element in the perception of leader effectiveness between subordinates and their leader (Albu & Wehmeier, 2014). This study showed empirical support for this conceptualisation. This relationship is a logical and theoretical prerequisite for a leader to be deemed effective. This is because if leaders are not transparent in their communication (Rawlins, 2009), it is not likely that the subordinates will be committed and supportive of the leaders (Vogelgesang & Lester, 2009).

The information used to determine whether a leader is effective is attained by the communication that takes place between the subordinate and the leader. If the leader willingly omits information or does not admit what is hidden, the subordinate is not likely to respond with positive behaviour (Auger, 2014). The effect of transparent

communication on leader effectiveness is therefore significant, and is empirically supported by this study.

The effect of transparent communication may have wider reaching effects than conceptualised in Section 2.15. As it was postulated, leaders who do not engage in transparent communication, risk the perception of unfairness or injustice in terms of the input-output nature of the relationship between the leader and the subordinate. Thus, should subordinates perceive their leader as not communicating in a way which is fully transparent, they are likely to supplement the misinformation with reduced efforts, which could result in the leader no longer being perceived as effective (Simons, et al., 2007). Therefore, as support for this relationship has been found, it is likely that if leaders are transparent in their communication, they are more likely deemed as effective, since their subordinates are more likely to perceive them as effective and they will be willing to align their efforts accordingly.

Therefore, according to the gamma matrix in Table 4.101, five out of the six relationships proposed were supported or partially supported by the results from this study.

5.3.4.3. SUMMARY OF THE BETA MATRIX

The Beta matrix depicts the relationships between the endogenous latent variables which are shown in Table 4.102. Each of these relationships will be discussed below.

The relationship between Integrity and OCB

The relationship between integrity and OCB was found to be positively significant. This is because the strength of the path coefficient exceeds the critical cut-off value ($t > 1.645$) with a statistically significant regression slope.

The support found for this relationship corroborates the findings of Zhang et al. (2013); Rego et al. (2010); and Tomlinson et al. (2014), as discussed in Chapter 2 where similar findings were obtained. This study shows that employees who possess a high or significant level of integrity, are more likely to engage in OCBs. This finding shows that if an individual behaves consistently with his/her ethical values, they are more likely to engage in OCBs.

Furthermore, subordinates are likely to be engaged in OCB if their leaders possess significant levels of integrity (Zhang, et al., 2013). As postulated in Chapter 2, Social Cognitive Theory may play a significant role in the contribution of OCBs in the organisation by subordinates, if their leader possesses a significant level of integrity. The fact that subordinates' awareness is heightened when they are interacting with their leaders, is likely to result in their engagement of OCBs since this is the behaviour they perceive from their leaders.

Additionally, the postulation of the relationship between integrity and OCB placed specific emphasis on the element of conscientiousness, which forms part of OCB. This study shows support for the fact that if an employee possesses a high level of integrity, the employee is more likely to be perceived as conscientious. This reasoning stems from the fact that conscientiousness forms part of OCB and is described as the consistency of an individual's personal values in the absence of a witness to the consistency. According to the definition of integrity, the individual who possesses integrity is likely to act with universally accepted values and norms. Therefore, if individuals possess a significant degree of integrity, they are likely to behave in accordance with these values and norms, regardless of an audience to witness the behaviour.

The relationship between Integrity and Leader Effectiveness

The relationship between integrity and leader effectiveness is statistically significant and positive. This path coefficient exceeds the critical cut-off value ($t = 2.385$) and is statistically significant ($p < 0.05$).

This empirical finding shows that individuals who possess significant levels of integrity, will have a positive effect on leader effectiveness. Therefore, leaders who are consistent in their personal beliefs and ethical values, are likely to have a positive influence on their subordinates to achieve organisational goals in a way which is mutually beneficial, which is consistent with the findings presented by Hooijberg, et al. (2010). This is also likely to result in further overall organisational effectiveness. This finding mirrors findings by Storr (2004) that subordinates are likely to perceive their leaders as effective if they lead with integrity.

Therefore, the support for the positive relationship between integrity and leader effectiveness shows that leaders who are committed to their personal beliefs and values, who lead with righteousness, fairness, consistency, frankness and credibility, are more likely to be deemed effective. Their subordinates are more likely to feel motivated and inspired to achieve organisational goals and aligned tasks set out by the leader.

Leaders who possess integrity are deemed by their subordinates as consistent, which allows subordinates to gain trust in their leader and that will foster a commitment to objectives set out by the leader. This is aligned to the findings by Grover and Moorman (2007) that for leaders to be deemed as effective, they need to have integrity as a prerequisite. Successful attainment of the objectives will therefore provide further support for the designation of an effective leader. This echoes the propositions of Zehnder et al. (2017) that the notion that an effective leader is no longer solely determined through the tangible outcomes, but rather in the way that subordinates are motivated and empowered to achieve organisational goals.

Therefore, relationships postulated through theorising depicted in the beta matrix as shown in Table 4.102, were supported empirically.

5.4. LIMITATIONS OF THE STUDY AND IMPLICATIONS FOR FUTURE RESEARCH

The aim of this study was to validate a proposed integrity test with moral intelligence, Machiavellianism and transparency as antecedents, and leader effectiveness and OCB as outcomes of integrity. The overall findings of the study are satisfactory, however, elements of the study have room for improvement.

The first limitation of the study is the sampling method selected for this study. As convenience sampling was chosen due to time and financial constraints, little control over the sample obtained was possible. To draw more accurate inferences from the sample, it is suggested that the sampling process be restricted to a form or probability sampling, namely simple random sampling, stratified sampling, cluster sampling, multistage cluster sampling, systematic sampling, or probability proportional to size sampling (Burger & Silima, 2006).

This is likely to provide the added advantage of alleviating the possibility of researcher bias, generating a more statistically accurate sample, as well as the ability to generalise the findings to the population (Burger & Silima, 2006). The current sample collected for this study was not representative of the intended demographic for this study – non-managerial employees – and therefore, the possibility of supporting postulations regarding this demographic is not possible. It is also suggested that a larger sample should be acquired. This will assist in developing a norm group if the results of integrity validation test are favourable.

As some relationships proposed in this model are relatively new to the field of industrial psychology, like those related to moral intelligence, it would be more valuable to explore possible additional moderating or mediating relationships relating to moral intelligence. This is likely to provide the opportunity to gain more fruitful and comprehensive insight into these relationships. This is suggested as these relationships are empirically supported and warrant a further theoretical and conceptual foundation for future exploration.

Furthermore, the positive relationship between Machiavellianism and integrity provided cause for concern, in that respondents may possibly possess Machiavellian tendencies, or the way in which integrity was tested might need to be revised. As the psychometric body of research grows, so do the respondents and the context in which assessment takes place. It is suggested that conditional reasoning testing should seriously be considered as an alternative.

Conditional reasoning is a method adopted to measure implicit personality traits. This was developed to alleviate the possibility of faking good when responding to questionnaires which are intended to measure integrity (O'Connell, Lawrence, Chang, Wolf, Minton & Petor, 2015). Although social desirability did not form part of the questionnaire, it is a possibility that faking formed part of the results as the questionnaire explicitly stated the intent of each section of the questionnaire to maintain ethical research transparency. Conditional reasoning is suggested as an alternative as this provides the possibility of measuring implicit biases, which individuals utilise as a method to justify their behaviour which provides insight into their personalities (O'Connell, et al., 2015). If conditional reasoning is applied to

determine the nature of the relationship between Machiavellianism and integrity, it is likely to provide a more valuable and insightful depiction of the relationship.

An additional limitation of this study is exposed through the absence of the availability of alternative language options for the questionnaire. Most of the respondents who volunteered to take part in the study were not English native speakers, which may have provided a linguistic misinterpretation when completing the questionnaire. This may result in a skewed representation of the respondents' viewpoint on the latent variable. Therefore, it is suggested that the questionnaire be available in English and at least two other official languages to accommodate the majority of the respondents and to ensure accurate responses.

A further limitation of the study relates to the statistical process followed. Confirmatory factor analysis was performed using LISREL (8.8) on each of the subscales, followed by the entire scale. To cross validate the results of the study, the structural model should be tested on another sample to determine whether the structural model fits the second sample as well as the first, thereby cross validating the results. Cross validation should also be supported by a longitudinal study where the causal inferences drawn from the conceptual model are given additional conviction.

Another limitation of this study is the fact that respondents were required to base their responses on their perception of their own behaviour. Therefore, this study is rendered as a single source study. To improve the validity of the responses, additional methods for responses are required, such as peer evaluations on all the constructs.

To address the limitation of the lack of determination for moderating and mediating effects in the model, it is suggested that the effect of courage as a mediator should be added to the model. Courage is suggested, as this construct has received little attention in how it relates to integrity and effective leadership, yet is has widely been described as a prerequisite for an individual to behave with integrity (Palanski, Cullen, Gentry & Nichols, 2015). However, Sosik, Gentry and Chun (2012) found that integrity and courage were the two constructs which resulted in having the most significant influence on executive performance. Sosik et al. (2012) further found that

such leaders can influence their subordinates to also behave with courage in the face of the adversity.

A further motivation for the addition and exploration of the effect of courage on the relationship between integrity and leader effectiveness is because if an individual has the ability to act in accordance with universally accepted values and norms as defined in this study (Du Toit, 2015), it does not guarantee or imply that the individual will engage in integrity-related behaviour. Therefore, the conceptualisation of integrity as it was conducted in this study, could be seen as lacking the motivation behind behaving with integrity. Therefore, courage is postulated to be the vehicle to take the ability to behave with integrity into action (May in Sosik et al., 2012).

Furthermore, additional support for this inclusion was found in the empirical support, proving that when adversity is high, behavioural courage and integrity is at its highest. Thus, if a leader has substantial courage and integrity, he/she will be more inclined to act on these traits when circumstances are tense. This is regarded as a highly desirable occurrence given the current organisational ethical missteps, as highlighted in Chapter 1. Therefore, the inclusion of this construct is likely to provide a further in-depth conceptualisation of the vast nature of integrity and leader effectiveness.

5.5. MANAGERIAL IMPLICATIONS

This study produced valuable insights into the relationships between moral intelligence, Machiavellianism, transparency, integrity, Organisational Citizenship Behaviour (OCB) and leader effectiveness. The results demonstrated that it is important for leaders to focus on moral intelligence during selection decisions and training programmes, since moral intelligence has a positive impact on integrity behaviour, OCB and leader effectiveness. Furthermore, it is essential for leaders to influence the integrity-related behaviour of employees, since integrity has a positive effect on OCB and leader effectiveness. It is also imperative for managers to focus on transparent communication since transparency has a positive influence on integrity-related behaviour of employees, as well as on the effectiveness of leaders in organisations.

The first implication relates to the strongest relationship found in the structural model which constitutes the relationship between moral intelligence and integrity.

Organisations and recruitment and selection initiatives have begun to appreciate the insight emotional intelligence brings into the effectiveness of a leader, however, these practices do not focus on what predicts whether a candidate is able to engage in decision-making which is in line with his/her established moral principles (Nixon, 2014). This is becoming increasingly imperative given the changing global context in which organisations need to adapt to conduct business, coupled with the increase in competition for scarce job opportunities.

It is therefore earnestly suggested that moral intelligence measures should be adopted by organisations during the recruitment and selection process. The inclusion of a moral intelligence measure will not only provide certainty in the moral principles of the potential employees, but it was proved that the individuals who possess moral intelligence are likely to act with integrity and to engage in OCBs, and are also more likely to be deemed effective leaders by their subordinates. Furthermore, Chapter 2 indicates the exorbitant amount of money that could be saved if employees were more willing to engage in OCBs. This is suggested as a method to encourage this saving.

The inclusion of a moral intelligence measure may prove to be costly if applied on all organisational levels when undergoing recruitment and selection, therefore it is suggested that it is adopted for managerial and higher positions. This is suggested with the assumption or precondition that employees who are promoted, are also subjected to psychometric evaluation before awarded the promotion. This implicit support for the Social cognitive theory was demonstrated in this study in that subordinates are likely to look to the leader to determine which behaviours are acceptable in the workplace, and should these behaviours be consistently guided by moral principles, subordinates are also likely to further develop their moral intelligence. This alleviates the need for lower-level position applicants to be subjected to moral intelligence assessments, mitigating excessive additional costs.

The second managerial implication is a consequence of the first. The way organisations attempt to create a climate that fosters the consistency in moral values and behaviours, is to focus on encouraging this nature of consistency. Organisations who have suffered at the helm of unethical decision-making, such as Enron, Steinhoff and Madoff, may not have succumbed to such immoral dealings if the

organisational climate had genuinely supported ethical and moral consistency (Nixon, 2014).

The way the climate is fostered may be executed through several mechanisms such as the alignment of performance appraisals, the way in which recognition for tasks well done is given, the nature of incentives provided, and the way in which employees get recognition that they are valued through appropriate benefits and/or developmental opportunities. The mechanism chosen to be altered to support moral and ethical functioning, is less significant than the way in which it is aligned to the organisational values and purpose. If the chosen mechanism is misaligned to the values or vision of the organisation, it may result in overall confusion for the incumbents of the organisation and the efforts may be regarded as pretentious. Therefore, the mechanism that is altered, should focus on celebrating and appreciating those who genuinely champion integrity-related behaviours driven by moral principles.

Therefore, this study has provided empirical support for the hypotheses as postulated in Chapter 2. Thus it can be motivated that organisations are likely to benefit from greater emphasis on integrity-related mechanisms which genuinely support and encourage integrity-related behaviours.

5.6. CONCLUSION

The results from the statistical analysis provided in Chapter 4 were discussed and elaborated on in Chapter 5. The various relationships between the constructs were discussed in terms of the specific hypotheses contained in the conceptual model. Possible sources for the nature of the relationships were discussed, given the strength and the direction of the relationship. It was found and elaborated on that the positive relationship between transparency and integrity was partially supported. Additionally, the relationship between Machiavellianism and integrity was postulated to be negative, however, this relationship was found to be positive.

The discussion and the inferences drawn from the results provided insight in the way the study was limited, as well as how the study could be improved, by implementing the theoretical suggestions provided. Furthermore, the causal relationships between the constructs also provided a basis for the amendment of managerial practices to generate more integrity-focussed organisations.

This study produced results with empirical support, how the inclusion of emphasis on integrity-related factors such as moral intelligence, are likely to result in beneficial outcomes, such as employees engaging in OCBs and leaders being perceived as effective.

If organisations incur the relatively minimal costs in investing in practices which promote the moral and ethical nature of its incumbents through adopting practices which support this, they are likely to reap significant rewards. These rewards are not limited to organisational benefits, but are likely to have a snowball effect on societies and families of incumbents. Therefore, an idealistic plea resonates from the results brought forth in this study, where a call is made for a greater focus on the moral- and integrity-related principles possessed by those in power and by those new to the labour market. If a greater emphasis is placed on what really matters, the business headlines may be something to look forward to in the near future.

REFERENCE LIST

10 corruption scandals that rocked South Africa. (2015, September 22). Retrieved from: https://businesstech.co.za/news/general/99074/10-corruption-scandals-that-rocked-south-africa/.

About The Eastern Cape Department of Education. (2017, June 28). Retrieved from: http://www.ecdoe.gov.za/about-ecdoe/mission-vision-and-values.

Albu, O.B. & Wehmeier, S. (2014). Organizational Transparency and Sense-Making: The Case of Northern Rock. *Journal of Public Relations Research, 26,* 117–133.

Anderson, R. (2017). *Influence of integrity and servant leadership on trust in leaders and ethical culture.* Unpublished Master's thesis. University of Stellenbosch: Stellenbosch.

Araslı, H. & Baradarani, S. (2014). Role of Job Satisfaction in the relationship of Business Excellence and OCB: Iranian Hospitality Industry. *Procedia - Social and Behavioral Sciences*, *109*, 1406 – 1415.

Auger, G.A. (2014). Trust Me, Trust Me Not: An Experimental Analysis of the Effect of Transparency on Organizations. *Journal of Public Relations Research, 26*, 325–343.

Bachrach, D. G., Bendoly, E., & Podsakoff, P. M. (2001). Attributions of the "causes" of group performance as an alternative explanation of the relationship between organizational citizenship behaviour and organizational performance. *Journal of Applied Psychology, 86*(6), 1285-1293.

Barnard, A., Schurink, W., & De Beer, M. (2008). A conceptual framework of integrity*. SA Journal of Industrial Psychology*, *34*(2), 40-49.

Bauman, D.C. (2013). Leadership and the three faces of integrity. *The Leadership Quarterly, 24*, 414-426.

Beheshtifar, M., Esmaeli, Z., & Moghadam, M.N. (2011). Effect of moral intelligence on leadership. *European Journal of Economics, Finance and Administrative Sciences, 43*, 6-11.

Bennis, W., Goleman, D., & O'Toole, J. (2010). *Transparency: How leaders create a culture of candor*. San Francisco, CA: Jossey-Bass.

Berkelaar, B.L. (2014). Cybervetting, Online Information, and Personnel Selection: New Transparency Expectations and the Emergence of a Digital Social Contract. *Management Communication Quarterly, 28*(4), 479–506.

Berry, C.M., Sackett, P.R. & Wiemann, S. (2007). A review of recent developments in integrity test research. *Personnel Psychology, 60*, 271–301.

Bolino, M.C., Hsiung, H., Harvey, J., & LePine, J.A. (2015). "Well, I'm Tired of Tryin'!" Organizational Citizenship Behaviour and Citizenship Fatigue. *Journal of Applied Psychology*, *100*(1), 56–74.

Bolino, M.C., Klotz, A.C., Turnley, W.H. & Harvey, J. (2013). Exploring the dark side of organizational citizenship behaviour. *Journal of Organizational Behaviour, 34*, 542-559.

Burger, A., & Silima, T. (2006). Sampling and sampling design. *Journal Of Public Administration, 41*(3.1), 656-658.

Camara, W.J. & Schneider, D.L. (1995). Questions of Construct Breadth and Openness of Research in Integrity Testing. *American Psychologist, 50*(6), 459-460.

Castille, C.M., Kuyumcu, D. & Bennett, R.J. (2017). Prevailing to the peers' detriment: Organizational constraints motivate Machiavellians to undermine their peers. *Personality and Individual Differences, 104*, 29–36.

Christensen, L.T., & Cheney, G. (2015). Peering into transparency: Challenging ideals, proxies, and organizational practices. *Communication Theory, 25*, 70-90.

Ciulla, J. B. (2004). Ethics and leadership effectiveness. *The nature of leadership*, 302-327.

Connelly, B.S., Lilienfeld, S.O., & Schmeelk, K.M. (2006). Integrity tests and morality: associations with ego development, moral reasoning, and psychopathic personality. *International Journal Of Selection And Assessment, 14*(1), 82-86.

Cooper, J.F. & Nirenberg, J. (2012). Leader effectiveness. *Encyclopaedia of Leadership.* Thousand Oaks, CA: SAGE, 845-854.

Craig, S.B., & Gustafson, S.B. (1998). Perceived leader integrity scale: An instrument for assessing employee perceptions of leader integrity. *Leadership Quarterly, 9*(2), 127-145.

Debusscher J., Hofmans, J., & De Fruyt, F. (2016). The effect of state core self-evaluations on task performance, organizational citizenship behaviour, and counterproductive work behaviour. European Journal of Work and Organizational Psychology, 25(2), 301-315.

DeCoster, J. (2001). Transforming and Restructuring Data. Retrieved: December, 13, 2017, from http://www.stat-help.com/notes.html.

Diamantopoulos, A. (1994). Modelling with LISREL: A Guide for the Uninitiated. *Journal of Marketing Management, 10*, 105-136.

Diamantopoulos, A., & Siguaw, J.A. (2000). *Introducing LISREL: a guide for the uninitiated*. London: Sage.

Dietz, G. & Hartog, D. (2006). Measuring trust inside organisations. *Personnel Review, 35*(5), 557-588.

Dineen, B.R., Lewicki, B.J. & Tomlinson, E.C. (2006). Supervisory guidance and behavioural integrity: Relationships with employee citizenship and deviant behavior. *Journal of Applied Psychology, 91*(3), 622-635.

Duska, R.F. (2005). A look at integrity in financial services. *Journal of Financial Services Professionals,* 26-28.

Du Toit, M. (2015). *The development of an ethical integrity test.* Unpublished Master's thesis. University of Stellenbosch: Stellenbosch.

Engelbrecht, A.S., & Chamberlain, L. (2005). The influence of transformational leadership on organizational citizenship behaviour through justice and trust. *Management Dynamics*, *14*(1), 2-13.

Engelbrecht, A.S., Heine, G. & Mahembe, B. (2017). Integrity, ethical leadership, trust and work engagement. *Leadership & Organization Development Journal, 38*(3), 368-379.

Engelbrecht, A.S.; Wolmarans, J. & Mahembe, B. (2017). Effect of ethical leadership and climate on effectiveness. *SA Journal of Human Resource Management, 15*(1), 1-8.

Faramarzi, M., Jahanian, K., Zarbakhsh, M., Salehi, S. & Pasha, H. (2014). The role of moral intelligence and identity styles in prediction of mental health problems in healthcare students. *Health, 6*, 664-672.

Ferguson, R. (n.d.). *What are the common values shared by Fortune 500 companies?* Retrieved from: http://forgingvalues.com/17-common-values/.

Fine, S., Goldenberg, J., & Moam, Y. (2015). Integrity testing and the prediction of counterproductive behaviours in the military. *Journal of Occupational and Organizational Psychology*, *89*(1), 1-21.

Fine, S., Horowitz, I., Weigler, H. & Basis, L. (2010). Is good character good enough? The effects of situational variables on the relationship between integrity and counterproductive work behaviors. *Human Resource Management Review, 20*, 73–84.

Frazier, M.L., Johnson, P.D., Gavin, M., Gooty, J. & Snow, D.B. (2010). Organizational Justice, Trustworthiness, and Trust: A Multifoci Examination. *Group & Organization Management, 35*(1), 39–76.

Gardner, W.L., Fischer, D. & Hunt, J, G. (2009). Emotional labor and leadership: A threat to authenticity? *The Leadership Quarterly, 20*, 466–482.

Geis, F.L. & Moon, T.H. (1981). Machiavellianism and Deception. *Journal of Personality and Social Psychology, 41*(4), 766-775.

Ghayumi, A. & Imani, M.N. (2015). Relationship between moral intelligence and organizational health from the perspective of managers of Islamic Azad Universities in Tehran. *International Journal of Learning & Development, 5*(4), 40-52.

Global Economic Crime Survey 2016: 5th South African edition. (2016, March). Retrieved from: https://www.pwc.co.za/en/publications/global-economic-crime-survey.html.

Greenbaum, R.L., Mawritz, M.B. & Piccolo, R.F. (2015). When Leaders Fail to "Walk the Talk": Supervisor Undermining and Perceptions of Leader Hypocrisy. *Journal of Management, 41*(3), 929–956.

Grobler, P., Bothma, R., Brewster, C., Carey, L., Holland, P., & Warnich, S. (2011). *Contemporary issues in human resource management.* (4th ed.). Oxford: Oxford University Press.

Grover, S.L. & Moorman, R.H. (2007). Grasping the meaning and interpretation of integrity in business leadership. *European management journal, 25*(3), 167-170.

Guiab, M.R., Sario, M.L.P. & Reyes, Jr., V.F. (2015). Self-perceived moral intelligence of faculty and students: its implication to teacher education. *International Refereed Research Journal, 6*(2), 106-119.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. (2010). *Multivariate Data analysis: a global perspective.* (7th Ed). Upper Saddle River, NJ: Prentice Hall.

Hazizadeh, M. & Ebrahimpour, H. (2015). Effect of Moral Intelligence on employee performance: Evidence from Ardebil gas company. *Singaporean Journal Of Business Economics, And Management Studies, 3*(7), 129-133.

Heine, G. (2013). *The influence of integrity and ethical leadership on trust and employee work engagemen*t. Unpublished Master's thesis. University of Stellenbosch: Stellenbosch.

Hernandez, M., Eberly, M.B., Avolio, B.J. & Johnson, M.D. (2011). The loci and mechanisms of leadership: Exploring a more comprehensive view of leadership theory. *The Leadership Quarterly, 22*, 1165–1185.

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

Hinkin, T.R. & Schriesheim, C.A. (2015). Leader reinforcement, behavioural integrity, and subordinate outcomes: A social exchange approach. *The Leadership Quarterly*, *26*, 991-1004.

Holt, J.K. (2004). *Item Parcelling in Structural Equation Models for Optimum Solutions,* Presented at Annual Meeting of the Mid-Western Educational Research Association, Columbus, Ohio, October 13 – 16. Northern Illinois University.

Hong, R.Y., Koh, S. & Paunonen, S.V. (2012). Supernumerary personality traits beyond the Big Five: Predicting materialism and unethical behavior. *Personality And Individual Differences, 53*, 710-715.

Hooijberg, R. Lane, N. & Diversé, A. (2010). Leader effectiveness and integrity; wishful thinking? *International Journal of Organizational Analysis, 18*(1), 59-75.

Hooper, D., Coughlan, J. & Mullen, M. R. (2008). Structural Equation Modelling: Guidelines for Determining Model Fit. *The Electronic Journal of Business Research Methods, 6*(1) 53 – 60.

Horn, J., Nelson, C.E. & Brannick, M.T. (2004). Integrity, Conscientiousness, and Honesty. *Psychological Reports, 95*, 27-38.

Hunter, W.F.J.R. (2014). *The role of integrity and personality in counterproductive work behaviour*. Unpublished doctoral dissertation, University of Stellenbosch, Stellenbosch.

Irwin, J. (2011). *Doing business in South Africa: an overview of ethical aspects*. London, UK: Institute of Business Ethics.

Jena, R.K. & Goswami, R. (2014). Measuring the Determinants of Organizational Citizenship Behaviour. *Global Business Review, 15*(2), 381–396.

Kannan-Narasimhan, R. & Lawrence, B.S. (2012). Behavioral Integrity: How Leader Referents and Trust Matter to Workplace Outcomes. *Journal of Business Ethics, 111*, 165–178.

Kayes, D.C., Stirling, D., & Neilsen, T.M. (2007). Building organizational integrity. *Business Horizons, 50*, 61-70.

Kelloway, K.E. (2017). *Structural Equation Models Theory and Development In: Using Mplus for Structural Equation Modeling: A Researcher's Guide.* Thousand Oaks: SAGE Publications, Inc.

Kessler, S.S., Bandelli, A.C., Spector, P.E., Borman, W.C., Nelson, C.E., & Penny. L.M. (2010). Re-examining Machiavelli: A three dimensional model of Machiavellianism in the workplace. *Journal of Applied Social Psychology, 40*(8), 1868-1896.

Kilduff, G.J. & Galinsky, A.D. (2016). The spark that ignites: Mere exposure to rivals increases Machiavellianism and unethical behaviour. *Journal of Experimental Social Psychology, 69*, 156–162.

Kisch-Geppard, J.J., Harrison, D.A., & Trevino, L.K. (2010). Bad apples, bad cases, and bad barrels: Meta-analysis evidence about success of unethical decisions at work. *Journal of Applied Psychology*, *95*(1), 1-31.

Koehn, D. (2005). Integrity as a business asset. *Journal of Business Ethics, 58*, 125–136.

Kolstad, I. & Wiig, A. (2009). Is transparency the key to reducing corruption in resource-rich countries? *World Development, 37*(3), 521-532.

Koopman, J., Lanaj, K. & Scott, B.A. (2016). Integrating the bright and dark sides of OCB: A daily investigation of the benefits and costs of helping others. *Academy of Management Journal, 59*(2), 414–435.

Kowalski, C.M., Vernona, P.A. & Schermer, J.A. (2017). Vocational interests and dark personality: Are there dark career choices? *Personality and Individual Differences, 104*, 43–47.

Lakshman, C. & Estay, C. (2016). Attributional complexity and leadership: Test of a process model in France and India. *International Journal of Cross Cultural Management, 16*(1), 53–76.

Lee, K. & Ashton, M.C. (2005). Psychopathy, Machiavellianism, and Narcissism in the Five-Factor Model and the HEXACO model of personality structure. *Personality and Individual Differences, 38*, 1571-1582.

Lennick, D., & Kiel, F. (2006). Moral intelligence for successful leadership. *Leader to Leader,* 13-16.

Lennick, D., & Kiel, F. (2011). *Moral Intelligence: Enhancing business performance and leadership success in turbulent times*. Boston, MA: Pearson Education, Inc.

Leroy, H., Palanski, M.E. & Simons, T. (2012). Authentic Leadership and Behavioral Integrity as Drivers of Follower Commitment and Performance. *Journal of Business Ethics, 107*, 255–264.

Lin, X. & Leung, K. (2014). What signals does procedural justice climate convey? The roles of group status, and organizational benevolence and integrity. *Journal of Organizational Behavior, 35*, 464–488.

Little, T.D., Cunningham, W, A., Shahar, G. & Widaman, K.F. (2002). To Parcel or Not to Parcel: Exploring the Question, Weighing the Merits. *Structural Equation Modeling, 9*(2), 151–173.

Mahembe, B. & Engelbrecht, A.S. (2014). The relationship between servant leadership, organizational citizenship behaviour and team effectiveness. *SA Journal of Industrial Psychology, 40*(1), 1-10.

Mahembe, B., Engelbrecht, A.S., Chinyamurindi, W. & Kandekande, L.R. (2015). A study to confirm the reliability and construct validity of an organisational citizenship behaviour measure on a South African sample. *SA Journal of Industrial Psychology, 41*(1), 1-8.

Marcus, B., Lee, K., & Ashton, M.C. (2007). Personality dimensions explaining relationships between integrity tests and counterproductive behavior: Big five or one in addition. *Personnel Psychology, 60*, 1-34.

Martin, S.R, CÔté, S. & Woodruff, T. (2016). Echoes of our upbringing: how growing up wealthy or poor relates to narcissism, leader behaviour, and leader effectiveness. *Academy of Management Journal, 59*(6), 2157–2177.

Martin, G.S., Keating, M.A., Resick, C.J., Szabo, E., Kwan, H.K., Peng, C. (2013). The meaning of leader integrity: A comparative study across Anglo, Asian, and Germanic cultures. *The Leadership Quarterly, 24,* 445–461.

McAlister, A.L., Perry, C.L. & Parcel, G.S. (2008). How individuals, environments, and health behaviors interact: Social Cognitive Theory. *In health behavior and health education: theory, research, and practice* (pp. 169-188). San Francisco, CA: Jossey-Bass.

McHoskey, J. (1995). Narcissism and Machiavellianism. *Psychological Reports, 77*, 755-759.

Mirhosseini, S.H. & Tirgar, H. (2014). Relationship between moral intelligence and behavioural vulnerabilities. *Management and Technology*, 583-592.

Moorman, R.H., Darnold, T.C. & Priesemuth, M. (2013). Perceived leader integrity: Supporting the construct validity and utility of a multi-dimensional measure in two samples. *The Leadership Quarterly, 24,* 427–444.

Morrow, M.R. (2012). Fairness and Justice in Leading-Following: Opportunities to Foster Integrity in the First 100 Days. *Nursing Science Quarterly, 25*(2), 188–193.

Murphy, P. E., Laczniak, G.R., & Wood, G. (2007). An ethical basis for relationship marketing: A virtue ethics perspective. *European Journal of Marketing, 41*(1), 37–57.

Murphy, K.R., & Lee, S.L. (1994). Personality variables related to integrity test scores: The role of conscientiousness. *Journal of Business and Psychology, 8*(4), 413-424.

Myburgh, H.M. (2013). *The development and evaluation of a generic individual non-managerial performance measure*. Unpublished master's thesis, University of Stellenbosch, Stellenbosch.

Narvaez, D. (2010). The Emotional Foundations of High Moral Intelligence In Latzko, B. & Malti, T. (Eds.), *Children's moral emotions and moral cognition: Developmental and educational perspectives. New Directions for Child and Adolescent Development*, (pp 77–94). San Francisco, CA: Jossey-Bass.

Narvaez, D. & Lapsley, D.K. (2009). *Personal, Identity and Character explorations in moral psychology.* New York, NY: Cambridge University Press.

Nobahar, N. & Nobahar, M. (2013). A study of moral intelligence in the library staff of Bu-Ali Sina University. *Advances in Environmental Biology, 7*(11), 3444-3447.

Noelliste, M. (2013). Integrity: An interpersonal perspective. *Human Resource Development Review, 12*(4), 474-499.

Norman, S.M., Avolio, B.J., & Luthans, F. (2010). The impact of positivity and transparency on trust in leaders and their perceived effectiveness. *The Leadership Quarterly*, *21*(3), 350-364.

Nunnally, J.C. (1978). *Psychometric Theory*. McGraw-Hill: New York.350–364.

Nixon, M.M. (2014). Aaron Feuerstein: a case study in moral intelligence. In M.M. Nixon (Eds*.), Proceedings of American Society of Business and Behavioural Sciences Annual Conference* (pp 478-492). Las Vegas, NV: South University.

O'Boyle, E.H., Forsyth, D.R., Banks, G.C., & McDaniel, M.A. (2012). A meta-analysis of the dark triad and work behaviour: A social exchange perspective. *Journal of Applied Psychology*, *97*(3), 557-79.

O'Connell, M.S., Lawrence, A.D., Chang, L., Wolf, D., Minton, M. & Petor, J. (2015). *Conditional Reasoning Applied to Integrity: An Obvious Choice*. Paper presented at Society for Industrial and Organizational Psychology. Philadelphia: PA.

O'Neill, T.A. & Hastings, S.E. (2011). Explaining workplace deviance behavior with more than just the ‘‘Big Five”. *Personality and Individual Differences, 50*, 268-273.

Ones, D.S., Viswesvaran, C. (2001). Integrity tests and other Criterion-focused Occupational Personality Scales (COPS) used in personnel selection. *International Journal Of Personality And Assessment¸ 9*(1), 31-39.

Organ, D.W. (1997). Organizational Citizenship Behaviour: Its construct clean-up time. *Human Performance, 10*(2), 85-97.

Özduran, A. & Tanova, C. (2017). Manager mindsets and employee organizational citizenship behaviours. *International Journal of Contemporary Hospitality Management, 29*(1), 589-606.

Pahlavania, F. & Azizmalayeri, K. (2016). The Relationship between Moral Intelligence with Organizational Development. *International Academic Journal of Organizational Behavior and Human Resource Management, 3*(6), 31-38.

Palanski, M.E., Cullen, K.L., Gentry, W.A., & Nichols, C.M. (2015). Virtuous Leadership: Exploring the Effects of Leader Courage and Behavioral Integrity on Leader Performance and Image. *Journal of Business Ethics, 132*, 297–310.

Palanski, M.E., Kahai, S.S. & Yammarino, F.J. (2011). Team virtues and performance: an examination of transparency, behavioural integrity, and trust. *Journal of Business Ethics, 99*, 201-216.

Palanksi, M.E., & Yammarino, F.J. (2007). Integrity and leadership: Clearing the conceptual confusion. *European Management Journal, 25*(3), 171-184.

Palanksi, M.E., & Yammarino, F.J. (2009). Integrity and leadership: A multi-level conceptual framework. *Leadership Quarterly, 20*, 405–420.

Palanksi, M.E., & Yammarino, F.J. (2011). Impact of behavioral integrity on follower job performance: A three-study examination. *The Leadership Quarterly, 22*, 765–786.

Pallant, J. (2005). *SPSS survival manual: a step by step guide to data analysis using SPSS.* Australia, NSW: Allen & Unwin.

Pallant, J. (2010*). SPSS survival manual A step by step guide to data analysis using the SPSS program*. 4th Edition. New York, USA: McGraw Hill.

Pana, L. (2006). Artificial Intelligence and Moral intelligence. *TripleC, 4*(2), 254-264.

Parris, D.L., Dapko, J.L. Arnold, R.W. & Arnold, D. (2016). Exploring transparency: a new framework for responsible business management. *Management Decision, 54*(1), 222-247.

Peecher, M.E., & Solomon, I. (2001). Theory and Experimentation in Studies of Audit Judgments and Decisions: Avoiding Common Research Traps. *International Journal of Auditing*, *5*, 193-203.

Pilch, I & Turska, E. (2015). Relationships Between Machiavellianism, Organizational Culture, and Workplace Bullying: Emotional Abuse from the Target's and the Perpetrator's Perspective. *Journal of Business Ethics*, *128*, 83-93.

Podsakoff, P.M., & Mackenzie, S.C. (1994). Organizational citizenship behaviours and sales unit effectiveness. *Journal of Marketing Research*, *31*, 351-363.

Podsakoff, N.P., Podsakoff, P.M., Mackenzie, S.C., Maynes, T.D., & Spoelma, T.M. (2014). Consequences of unit-level organizational citizenship behaviours: A review and recommendations for future research. *Journal of Organizational Behavior, 35*, 87–119.

Prinsloo, J. (2013). *Modification, elaboration and empirical evaluation of the Burger Learning Potential model*. Unpublished Master's thesis, Stellenbosch University, Stellenbosch, South Africa.

Quick, J.C., & Goolsby, J.L. (2013). Integrity first: Ethical leaders and followers. *Organizational Dynamics, 42*, 1-7.

Quick, J.C., & Nelson, D.L., (2011). *Principles of Organizational Behaviour: Realities and Challenges.* United States of America: Cengage Learning.

Rawlins, B. (2009). Give the emperor a mirror: Toward developing a stakeholder measurement of organizational transparency. *Journal of Public Relations Research, 21*(1), 71–99.

Rego, A., Ribeiro, N. & Cunha, M.P. (2010). Perceptions of organizational virtuousness and happiness as predictors of organizational citizenship behaviours. *Journal of Business Ethics*, *93*, 215–235.

Ruiz-Palomino, P. & Bañön-Gomis, A. (2017). The negative impact of chameleon-inducing personalities on employees' ethical work intentions: The mediating role of Machiavellianism. *European Management Journal, 35*, 102-115.

Sadeghi, A. & Pihie, Z.A.L. (2012). Transformational leadership and its predictive effects on leadership effectiveness. *International Journal Of Business And Social Science, 3*(7), 186-197.

Schnackenberg, A.K. & Tomlinson, E.C. (2016). Organizational Transparency: A New Perspective on Managing Trust in Organization-Stakeholder Relationships. *Journal of Management, 42*(7), 1784–1810.

Schreiber, J.B., Stage, F.K., King, J., Nora, A. & Barlow, E.A. (2006). Reporting Structural Equation Modelling and Confirmatory Factor Analysis Results: A Review*. The Journal of Educational Research, 99*(6), 323-337.

Shirey, M.R. (2007). Moral Intelligence for the Leader and Entrepreneur. *Clinical nurse specialist CNS, 21*(2), 71-73.

Simons, T., Friedman, R., Liu, L.A. & Parks, J.M. (2007). Racial differences in sensitivity to behavioural integrity: Attitudinal consequences, in-group effects, and “trickle down” among black and non-black employees. *Journal Of Applied Psychology, 92*(3), 650-665.

Simons, T., Leroy, H., Collewaert, V. & Masschelein, S. (2015). How Leader Alignment of Words and Deeds Affects Followers: A Meta-analysis of Behavioral Integrity Research. *Journal of Business Ethics, 132,* 831–844.

Singh, U. & Srivastava, K.B.L. (2016). Organizational Trust and Organizational Citizenship Behaviour. *Global Business Review, 17*(3), 594–609.

Sosik, J.J., Gentry, W.A., & Chun, J.U. (2012). The value of virtue in the upper echelons: A multisource examination of executive character strengths and performance. *The Leadership Quarterly, 23,* 367–382.

Spangenberg, H & Theron, C.C. (2005). Promoting ethical follower behaviour through leadership of ethics: The development of the ethical leadership inventory (ELI). *South African Journal of Business Management, 36*(2), 1-18.

Storr, L. (2004). Leading with integrity: a qualitative research study. *Journal of Health Organization and Management, 18*(6), 415-434.

Sudha, K.S., Shahnawaz, M. G. & Farhat, A. (2016). Leadership Styles, Leader's Effectiveness and Well-being: Exploring Collective Efficacy as a Mediator. *Vision, 20*(2), 111–120.

Tabachnick, B.G., & Fidell, L.S. (2001). *Using Multivariate Statistics*. Michigan: Allyn and Bacon.

Tambe, S., & Shanker, M. (2014). A Study of Organizational Citizenship Behaviour (OCB) and Its Dimensions: A Literature Review. *International Research Journal of Business and Management*, *1*, 67-73.

Teper, R., Tullett, A. M., Page-Gould, E. & Inzlicht, M. (2015). Errors in Moral Forecasting: Perceptions of Affect Shape the Gap Between Moral Behaviors and Moral Forecasts. *Personality and Social Psychology Bulletin, 41*(7), 887–900.

Theron, C.C. (2014). *Research Methodology* [PowerPoint slides]. Retrieved from http://learn.sun.ac.za/course/view.php?id=1087.

Tomlinson, E.C., Lewicki, R.J., & Ash, S.R. (2014). Disentangling the Moral Integrity Construct: Values Congruence as a Moderator of the Behavioral Integrity–Citizenship Relationship. *Group & Organization Management, 39*(6), 720 – 743.

Van Zyl, A. (2014). How Civil Society Organizations Close the Gap between Transparency and Accountability. *Governance: An International Journal of Policy, Administration, and Institutions, 27*(2), 347–356.

Verhezen, P. (2007). The (Ir)Relevance of Integrity in Organizations In Sampford, C. & Connors, C. (Eds.), *World Ethics Forum Conference Proceedings* (pp 391-406). London, UK: Griffith University.

Veselka, L., Schermer, A.J., & Vernon, P. A. (2011). Beyond the big five: The dark triad and the supernumerary personality inventory. *Twin Research and Human Genetics, 14*(2), 158–168.

Vogelgesang, G.R., Leroy, H., & Avolio, B.J. (2013). The mediating effects of leader integrity with transparency in communication and work engagement/performance. *The leadership quarterly, 24*, 403-415.

Vogelgesang, G.R., & Lester, P.B. (2009). How Leaders Can Get Results by Laying it on the Line. *Organizational Dynamics, 38(*4), 252–260.

Walumba, F.O., Avolio, B.J., Gardner, W.L., Wernsing, T.S., & Peterson, S.J. (2008). Authentic Leadership: Development and Validation of a Theory-Based Measure? *Journal of Management, 34*(1), 89-126.

Wanek, J.E., Sackett, P.R., & Ones, D.S. (2003). Towards an understanding of integrity test similarities and differences: *An item-level analysis of seven tests. Personnel Psychology, 56,* 873-894.

Weikamp, J. G. & Göritz, A. S. (2016). Organizational citizenship behaviour and job satisfaction: The impact of occupational future time perspective. *Human Relations, 69*(11), 2091–2115.

Wolmarans, J. (2014). *The effect of core ethical values on ethical leadership, organisational justice, ethical climate and leader effectiveness*. Unpublished Master's thesis, Stellenbosch University, Stellenbosch, South Africa.

Yukl, G., Gordon, A. & Taber, T. (2002). The hierarchical taxonomy of leadership behaviour: integrating a half century of behaviour research. *Journal of Leadership and Organization Studies, 9*(1), 15-32.

Zehnder, C., Herz, H. & Bonardi, J. (2017). A productive clash of cultures: Injecting economics into leadership research. The *Leadership Quarterly 28*, 65–85.

Zhang, G., Bai, Y., Arran Caza, A. & Wang, L. (2013). Leader Integrity and Organizational Citizenship behaviour in China. *Management and Organization Review, 10*(2), 299-319.