Influence of Self-Control, Risk-Taking, Manipulation and Integrity on Organisational Citizenship Behaviour

by

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DECLARATION

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ABSTRACT

Organisations across the world are becoming increasingly more globalised and in order to remain competitive, organisations need to pay attention to their innovation, flexibility, responsiveness and productivity. The goal is not only to survive, but also to succeed in their respective industries. Research has proven that employee behaviours that go beyond the call of duty, assist organisations in remaining competitive in their industries as well as in achieving long-term success.

The term organisational citizenship behaviour (OCB) was first explored by Bateman and Organ (1983), who referred to it as certain behaviours that benefit organisations, though these behaviours cannot be enforced by formal role requirements of an organisation, or come about by a contractual agreement of remuneration. It is voluntary employee behaviour that is performed without the expectation of reward, which leads not only to improved organisational performance, but it also has an advantageous impact on the employees themselves (Organ, 1988).

Research on OCB has determined that individuals with certain characteristics are more likely to exhibit behaviours that go beyond what is required of them. In fact, various characteristics have been identified that may be associated with OCB. To explore this matter further, a theoretical model was developed that proposes certain relationships between self-control, risk-taking, manipulation and integrity, and which may impact the degree to which employees exhibit OCB.

It was hypothesised that manipulation will negatively influence OCB, while self-control and integrity will positively influence OCB. It was further hypothesised that self-control will positively influence integrity, while risk-taking and manipulation will negatively influence integrity. Thus, the main objective of this study was to develop and test a structural model which explains the impact that certain employee characteristics have on integrity and OCB.

Data for this study was collected from a sample of 211 employees within a private hospital in the Southern Cape. The respondents completed a questionnaire that comprised of five different assessment instruments: the Brief Self-Control Scale (BSCS); the Risk-Taking Index (RTI); the Manipulativeness dimension of the Organisational Machiavellianism Scale (OMS); the Ethical Integrity Test (EIT); and the Organisational Citizenship Behaviour Scale (OCBS).

The hypotheses and structural model were empirically tested, using various statistical methods. Each of the measurement scales was subjected to item and reliability analysis, which was found to be satisfactory. Furthermore, a confirmatory factor analysis (CFA) was conducted on the measurement models, and results indicated that reasonable fit was achieved for all the measurement models. Structural Equation Modelling (SEM) was then utilised to ascertain the extent to which the conceptual model fitted the data, as well as to test the relationships among the respective constructs.

The results indicated that significant positive relationships exist between self-control and organisational citizenship behaviour, as well as integrity and organisational citizenship behaviour. It also indicated that significant negative relationships exist between manipulation and integrity, as well as between manipulation and organisational citizenship behaviour. The results, however, indicated only partial support (through Pearson correlations) for the postulated relationships between self-control and integrity, and between risk-taking and integrity.

This study contributes to existing literature by providing insight into the relationships among self-control, risk-taking, manipulation, integrity and OCB. Conclusions were drawn based on these findings, and implications were proposed for managers in organisations. In addition, limitations within the study were identified and recommendations were made for future research.

OPSOMMING

Organisasies regoor die wêreld raak al hoe meer geglobaliseerd. Om mededingend te bly, moet organisasies op innovasie, buigsaamheid, responsiwiteit en produktiwiteit fokus. Die doel is nie net om te oorleef nie, maar om suksesvol te wees in hul onderskeie bedrywe. Navorsing het bewys dat werknemers wat meer doen as hulle plig hul organisasies help om mededingend te bly en dit bring mee dat organisasies op die langtermyn sukses behaal.

Die term organisatoriese burgerskapgedrag is vir die eerste keer deur Bateman en Organ (1983) ondersoek wat daarna verwys het as sekere gedrag waarby organisasies baat kan vind, alhoewel hierdie gedrag nie deur formele rolvereistes van 'n organisasie afgedwing kan word of deur 'n kontraktuele ooreenkoms van vergoeding in werking gestel kan word nie. Dit is die vrywillige gedrag van werksnemers wat uitgevoer word sonder die verwagting van 'n beloning, wat lei tot verbeterde organisatoriese prestasie, maar wat ook voordele vir die werknemers self inhou (Organ, 1988).

Navorsing oor organisatoriese burgerskapgedrag het bevind dat individue met sekere karaktereienskappe geneig is om meer te doen as wat van hulle vereis word. Trouens, verskeie eienskappe is geïdentifiseer wat met organisatoriese burgerskapgedrag geassosieer kan word. Om hierdie saak verder te verken is 'n teoretiese model ontwikkel wat die verband tussen risikoneming, manipulasie, selfbeheersing, en integriteit voorstel wat die mate waarin werknemers organisatoriese burgerskapgedrag uitbeeld, kan beïnvloed.

Dit is veronderstel dat manipulasie organisatoriese burgerskapgedrag negatief sal beïnvloed, terwyl selfbeheersing en integriteit 'n positiewe effek op organisatoriese burgerskapgedrag sal hê. Dit was verder veronderstel dat selfbeheersing 'n positiewe invloed op integriteit sal hê, terwyl risikoneming en manipulasie integriteit negatief sal beïnvloed. Die hoofdoel van hierdie navorsing was om 'n strukturele model saam te stel en te toets om die impak wat sekere werknemer eienskappe op integriteit en organisatoriese burgerskapgedrag het te verklaar.

Data vir hierdie studie was ingesamel met behulp van 'n streekproef van 211 werknemers wat indiens was by 'n privaat hospitaal in die Suid-Kaap. Die respondente het 'n vraelys voltooi wat uit vyf verskillende meetinstrumente bestaan: die kort selfbeheersing skaal; die risikoneming indeks; die manipulerende dimensie van die organisatoriese Machiavellisme skaal; die etiese integriteitstoets; en die organisatoriese burgerskapgedrag skaal.

Die hipoteses en strukturele model is empiries getoets met behulp van verskeie statistiese metodes. Elkeen van die metingskale is onderwerp aan 'n item- en betroubaarheidsontleding, wat bevredigend bevind is. Verder is 'n bevestigende faktorontleding gedoen op die metingsmodelle, en die resultate het aangedui dat 'n redelike passing behaal is vir al die metingsmodelle. Strukturele vergelykingsmodellering is ook aangewend om vas te stel tot watter mate die konseptuele model die data pas asook om die verband tussen die onderskeie veranderlikes te toets.

Die resultate dui daarop dat 'n beduidend positiewe verband tussen selfbeheersing en organisatoriese burgerskapgedrag bestaan, asook tussen integriteit en organisatoriese burgerskapgedrag. Dit het ook aangedui dat 'n beduidend negatiewe verband tussen manipulasie en integriteit bestaan, asook tussen manipulasie en organisatoriese burgerskapgedrag. Die resultate dui egter aan dat slegs gedeeltelike ondersteuning (deur Pearson-korrelasies) vir die verband tussen selfbeheersing en integriteit, asook risikoneming en integriteit gevind is.

Hierdie studie dra by tot bestaande literatuur deur insig te verskaf oor die verband tussen risikoneming, selfbeheersing, manipulasie, integriteit en organisatoriese burgerskapgedrag. Gevolgtrekkings is gemaak op grond van die bevindinge en implikasies is voorgestel vir bestuurders in organisasies. Daarbenewens, is die beperkings van die studie geïdentifiseer en is aanbevelings vir toekomstige navorsing voorgestel.

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CHAPTER 1

INTRODUCTION, BACKGROUND AND OBJECTIVES OF THE STUDY

1.1   Introduction

Mankind manufactured organisations to convert scarce resources into goods and services, and in doing so fulfilled the needs of their communities. To achieve this prime function, a decision must be made about the allocation of the organisation's limited resources. Organisations follow a basic principle, which can be defined as follows: produce the highest possible output with the least possible number of inputs, while satisfying the needs of customers.

This principle shows the importance of people in an organisation. People decide how the functions of an organisation will be utilised and managed, therefore they decide how effective and efficient the factors of production will be. Decisions people make are not the only contributing factor to efficiency and effectiveness, but also the employees' physical efforts, behaviours and attitudes towards their work, workplace and other organisational members play an integral role. These usually dictate the quality of the goods and services as well as the quantity produced or delivered. As such, one can conclude that the individuals who work in an organisation determine the organisation's success through their own performance.

Organisational behaviour, according to Robbins and Judge (2018), is defined as a study that examines the influence that individuals, groups and structures have on behaviour within organisations to improve organisational effectiveness. As previously argued, acts of employees can be either beneficial or harmful toward the functioning of the organisation. The focus in organisational behaviour is to determine how productivity and other positive behaviours, such as organisational citizenship behaviour and job satisfaction, could be improved, while other negative behaviours such as absenteeism, turnover, and deviant behaviour, could be decreased. In this study, the main focus was to examine employee behaviours that go above and beyond what is required of them.

Organisational citizenship behaviour (OCB) is voluntary employee behaviour that goes above and beyond what is traditionally required of them and may positively impact organisational functioning (Organ, 1988). It may not form part of the formal job description and may not be

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included in the conventional reward system (Azmi, Desai & Jayakrishnan, 2016; Van Dyne, Graham & Dienesch, 1994).

Several behaviours are associated with good citizenship: taking on additional assignments, remaining up-to-date in one's field or profession, assisting colleagues voluntarily, complying with company policy and regulations even when no one is looking, remaining positive and tolerating inconveniences that occur in one's job, as well as promoting and protecting one's organisation (Bolino & Turnley, 2003). These types of behaviours are work behaviours that exceed the boundaries of traditional job descriptions and performance measures. Furthermore, these types of behaviours have the potential to have a positive impact on an organisation's long-term success.

1.2   The Importance of Organisational Citizenship Behaviour within the Workplace

Katz (1964) suggests three methods for organisations to be successful. First, an organisation must recruit as well as retain excellent employees. Next, employees must carry out what is required of them – performance standards need to be met or exceeded. Lastly, employees must engage in behaviours that exceed formal job descriptions or job requirements and these behaviours should be innovative and spontaneous. Katz and Kahn (1978) pose that in order for an organisation to perform effectively, its employees need to perform their prescribed duties, as well as exhibit behaviour that exceed that which is formally required of them. Azmi et al. (2016) believe that even though specifying roles for each job reduce the variability and increases the predictability of the quality and quantity of the performance in a job, employees should be encouraged to engage in spontaneous and innovative behaviour. They believe that these novel, natural behaviours would assist in improving the organisation's functioning.

The notion that OCB improves an organisation's performance as it increases the effective functioning of an organisation, is well researched (Azmi et al., 2016; Boiral, Talbot, & Paillé, 2015; Pradhan, Kumari & Kumar, 2017; Rahmawati, Haerani, Taba & Hamid, 2017). Research has found that OCB can improve an organisation's functioning by (a) enhancing productivity; (b) utilising resources more productively; (c) assisting in coordinated activities more effectively; (d) enabling an organisation to adapt to a changing environment; and (e) strengthening an organisation's ability to attract and retain the best employees (Azmi et al.,

2016; Bolino & Turnley, 2003; Dekas, Bauer & Welle, 2013; Podsakoff, MacKenzie, Paine & Bachrach, 2000).

Porter (1999) state that employees increase their productivity when they exhibit OCB and as a result, they increase the competitiveness of their organisation. An empirical study completed by Podsakoff and MacKenzie (1994) found that OCB is responsible for 17% of the variance in organisational performance. Another study done by Koys (2001) proves that OCBs increase organisational effectiveness which results in an increase in organisational profitability. While studying the effectiveness of managers, Vivek (2016) found that OCB is responsible for 26% of the variance in managerial effectiveness. Furthermore, Rose, Miller and Kacirek (2016) found evidence that OCB leads to more efficient, effective and productive research institutions. These mentioned findings are but a sliver of evidence that was found to support the relationship between OCB and organisational productivity.

In fact, Deluga (1995) believes that behaviours that are above and beyond traditional job roles, are crucial for organisational effectiveness, since organisations cannot precisely anticipate the degree to which activities will reach organisational objectives. The entire spectrum of employee behaviours that is required to achieve the stated objectives of each job cannot be fully anticipated (Organ, 1988). Outcomes may occur that were not anticipated for and an organisation should be able to react to these unexpected events. To address those behaviours that are not necessarily anticipated, it is believed that voluntary employee behaviours that are innovative and pro-active are required (George & Brief, 1992).

In addition, studies have shown that OCB correlates with factors proven to contribute to an organisation's efficiency and to promote effective functioning (Davoudi, 2012; Emami, Alizadeh, Nazari & Darvishi, 2012; George & Brief, 1992; Organ, 1988; Organ, Podsakoff, & MacKenzie, 2006; Podsakoff et al., 2000; Tan & Tan, 2008). Some of the more well-known factors that OCBs are related to that positively impact organisational performance, include job satisfaction and organisational commitment (Podsakoff et al., 2000). This further promotes the notion that enacting OCB enhances an organisation's productivity.

Another matter to consider with regard to OCB, is the fact that OCB is found to positively impact the reputation and image of an organisation (Organ, 1988). Organisations with stellar reputations are more likely to have customers who perceive their services and/or products in a favourable light and this leads to increased sales and revenues (Chien, 2003). Also, OCB is

difficult to imitate, and as such, it provides an organisation with a competitive advantage (Bolino & Turnley, 2003).

Another theory posed by Podsakoff et al. (2000) is that OCB may increase an employee's sense of responsibility towards an organisation, since the employee constantly takes the organisation into consideration and behaves according to this sense of responsibility. Once an employee feels responsible for his/her organisation he/she may feel obligated to achieve the organisation's stated goals and objectives.

In addition, OCB enhances an organisation's performance through the creation of social capital. Bolino and Turnley (2003) propose that helping another employee creates a sense of mutual obligation as well as trust between parties. They further state that an employee's involvement in an organisation's affairs results in that employee learning the customs and language of the organisation, which in turn improves communication with other employees, as well as causes the employee to gain a better appreciation of the organisation's values and mission. High levels of social capital enable organisations to (a) elicit employee commitment; (b) attract and retain top employees; (c) be flexible; (d) manage collective action; and (e) develop high levels of intellectual capital (Bolino & Turnley, 2003). Basu, Pradhan and Tewari (2017) agree with this notion. In their study, they not only found that OCB is positively related to social capital, but also that both OCB and social capital lead to increased job performance.

Additionally, Podsakoff et al. (2000) assert that organisations that have a workforce that exhibits OCB, utilise their resources more productively. This notion is supported by research (Bolino & Turnley, 2003; Organ, Podsakoff, & MacKenzie, 2006; Podsakoff & MacKenzie, 1997). OCB is also related to improved resource allocation (Bolino, 1999; Podsakoff et al., 2000). This means, resources are freed up and utilised for more productive purposes.

OCB assists in coordinating activities within and across groups in organisations (Podsakoff et al., 2000). Podsakoff, Ahearne and MacKenzie (1997) ascertained that OCB results in improved group co-ordination and effectiveness. Research shows differing methods of how this occurs. Podsakoff and MacKenzie (1997) found that OCB enhances a team's effectiveness, because it impacts the context in which the task is performed. Kidwell, Mossholder and Bennet (1997) maintain that OCB enhances a team's spirit as well as an organisation's cohesiveness, resulting in improved productivity within and across groups.

Podsakoff et al. (2000) pose that organisations with employees who engage in OCB, assist them in adapting more effectively to changes in the organisation as well as in its environment. Smith, Organ and Near (1983) claim that discretionary behaviour provides an organisation with the flexibility to deal with contingencies that one cannot plan for. Borman and Motowidlo (2014) give several examples in which this is possible. For example, they believe that an organisation will adapt more easily when those employees who are close to the marketplace, voluntarily give information about environmental changes and they voluntarily make suggestions of how one should respond to these changes. Another example given by Borman and Motowidlo (2014) to show how employees can assist an organisation in adapting to changes, is when employees engage in civic virtue by voluntarily attending and participating in meetings.

Organisations attempt to compete in turbulent markets by employing the best intellectual capital available to them. To do so an organisation must attract and retain the best employees; they must be the "employer of choice" (Parker, Taylor & Bagby, 2001). OCB is believed to strengthen an organisation's ability to attract and retain the best employees (Podsakoff & MacKenzie, 1997). Organ (1988) first posed this theory, and support for it was later found (Bolino & Turnley, 2003; Borman & Motowidlo, 2014; Davoudi, 2012; Motowidlo, 2000; Podsakoff et al., 2000). Also, employees who engage in OCB are more committed and they are less likely to leave their organisation (Chen, Hui & Sego, 1998; Bolino, 1999). Further, OCB enhances the social as well as the psychological work environment of organisations (Podsakoff & MacKenzie, 1994), which may assist in creating a positive work environment for employees.

This notion that OCB has a positive impact on an organisation's performance is supported by several research findings (Ackfeldt & Coote, 2005; Appelbaum, Al Asmar, Chehayeb, Konidas, Maksymiw-Duszara & Duminica, 2003; Barksdale & Werner, 2001; Bolino, Turnley & Bloodgood, 2002; Cardona, Lawrence & Bentler, 2004; Deluga, 1995; George & Brief, 1992; Katz & Kahn, 1978; Koys, 2001; Latham, Millman & Karambayya, 1997; Nelson & Quick, 1999; Netemeyer, Boles, McKee & McMurrian, 1997; Organ, 1988; Podsakoff et al., 2000). From these statements, it could be argued that the concept of organisational citizenship behaviour is essential in achieving success within an organisation, and it is evident that organisations should value OCB and encourage it within their workforce. It has become a requisite for organisations as OCB has the ability to maximise organisational efficiency, as well as to promote effective functioning within the organisation (Murphy, Athanasou & King,

2002). Workplace behaviours, like OCB, are determined by multiple factors. Therefore, no single and distinct cause exists for OCB, but rather multiple causal factors. In the next section, a brief discussion will follow on what causes OCB.

1.3   Antecedents of Organisational Citizenship Behaviour

Over the years, researchers have placed a great deal of emphasis on determining what causes OCB, and as a result there is a multitude of studies that have identified various different causes. To clarify matters regarding the determination of OCB, researchers have emphasised major groups of antecedents of OCB.

Table 1.1: *A Summary of the Four Sections of OCB Antecedents*

MAIN FOUR SECTIONS OF OCB DETERMINANTS	
Individual Characteristics	
Employee Attitudes 　Job Satisfaction 　Fairness 　Organisational Commitment 　Affective Commitment 　Continuance Commitment 　Trust in the Leader Demographic Variables 　Tenure 　Gender Employee Role Perceptions 　Role Ambiguity 　Role Conflict	Employee Attitude/Individual Differences 　Ability 　Experience 　Training 　Knowledge 　Professional Orientation 　Need for Independence 　Indifference to rewards Dispositional Variables 　Conscientiousness 　Agreeableness 　Positive Affectivity 　Negative Affectivity
Task Characteristics	
Task Feedback Making Tasks Routine	Intrinsically Satisfying Tasks
Organisational Characteristics	
Organisational Formalisation Organisational Inflexibility Advisory/Staff Support Cohesive Group	Spatial Distance from Leader Rewards Outside the Control of the Leader Perceived Organisational Support
Leadership Characteristics	
Transformational Leadership Supportive Leader Behaviours Provision of an Appropriate Model Fostering of the Acceptance of Group Goals Articulation of a Vision High Performance Expectations Intellectual Stimulation	Contingent Reward Behaviour Non-contingent Reward Behaviour Contingent Punishment Behaviour Non-contingent Punishment Behaviour Leader Role Clarification Leader Specification of Procedures Leader-Member-Exchange (LMX)

(Podsakoff et al., 2000, pp.527-529)

Podsakoff et al. (2000) conducted a meta-analytic study of available OCB literature and established that mainly four sections of OCB antecedents exist across a range of occupations: (a) individual characteristics (e.g. employee attitudes, role perceptions); (b) task characteristics (e.g. feedback, intrinsically satisfying tasks); (c) organisational characteristics (e.g. group cohesiveness, perceived organisational support); and (d) leadership characteristics (e.g. articulating a vision; supportive leader behaviours). A summary of the antecedents found by Podsakoff et al. (2000) is provided in Table 1.1.

Table 1.2: *Theoretical Framework of OCB Antecedents*

SEVEN CATEGORIES OF OCB ANTECEDENTS
Job Satisfaction and Organisational Commitment
Affective Organisational Commitment
Role Perceptions
Role Conflict
Role Ambiguity
Role Clarity
Role Facilitation
Leader Behaviours and Leader-Member Exchange
Quality of Leader-Member Relationship
Leader's Contingent Reward Behaviours
Fairness Perceptions
Procedural Justice
Distributive Justice
Individual Dispositions
Positive Affectivity
Negative Affectivity
Conscientiousness
Agreeableness
Motivational Theories
Intrinsic Process
Instrumental Motivation
Self-concept-External Motivation
Self-concept-Internal Motivation
Goal Internalization Motivation
Employee Age

(Jahangir et al., 2004)

Jahangir, Akbar and Haq (2004) conducted an examination into the definition and dimensionality of OCB. From this investigation, they identified a number of antecedents and

developed a theoretical framework. The framework consists of seven categories: (a) job satisfaction and organizational commitment; (b) role perceptions; (c) leadership behaviours and leader-member exchange; (d) fairness perceptions; (e) individual depositions; (f) motivational theories; and (g) employee age. A summary of this framework is shown in Table 1.2.

Certain relationships between OCB and other constructs have been vastly researched, such as job satisfaction and organisational justice, while little research has been done on other constructs. It is the belief of this researcher that more value is added in examining unknown or unclear relationships than examining established relationships. Therefore, the purpose of this study is to investigate the relationship between certain employee characteristics, integrity and OCB that have not been extensively researched.

1.4   The Research Domain

As proven in a previous section, OCB is beneficial for organisations and investing in its enhancement is necessary for organisations to continue to exist and remain competitive in their industries. To benefit from OCB, one must gain a better understanding of the construct, why it is important, and how to enhance it within one's workforce. Knowing why employees exhibit OCB, will assist in motivating this behaviour. It is for this reason that research into OCB is so vital. Research on OCB has mainly taken place internationally and little research has studied OCB within South Africa. Research in a South African context therefore is lacking, and a gap exists that needs to be filled. Studies like this one may assist in providing organisations with a means to identify individuals who are more likely to exhibit OCB within an organisation.

Most research on OCB focuses on the determinants of OCB and this may be why a vast number of determinants of OCB have been obtained. A large number of OCB determinants is under the control of the organisation as well as its management. Other research on OCB determinants has found evidence that certain individuals are more predisposed to go beyond the call of duty than others (Bolino & Turnley, 2003). In order to present a study that is both manageable and meaningful, a selection of variables had to be made. That is, the scope of the study was limited. Therefore, the aim of this study is to research a certain selection of variables that act as determinants of OCB, which may predict such behaviours. Even though only certain variables are targeted, the study does not ignore the numerous other relevant constructs that research has found to be related to OCB.

In Chapter 2, a literature review of the constructs integrity and OCB, specifically the definition and measurement thereof, was completed. The literature review also included the antecedents of OCB. Following this review, it was decided that this study would focus on the influence that three specific variables have on integrity and OCB. All three of these variables are characteristics of employees and will likely be antecedents of integrity that cause OCB. The probable antecedents are (a) self-control; (b) risk-taking; and (c) manipulation.

In this study it is posed that one's ability to overcome or alter one's inner responses (i.e. self-control) will lead one to ultimately refrain from acting on them and maintain one's desired ethical or moral behaviour (i.e. acting with integrity) (Riggio, Zhu, Reino, & Maroosis, 2010). It is further believed that the willingness to partake in risky behaviour may result in unethical behaviour such as dishonesty, as one makes decisions based on one's perception of being caught (Gino & Margolis, 2011). Furthermore, it is proposed that an individual who would deceive and manipulate another for personal gain, is more likely to behave unethically and without integrity (Kish-Gephart, Harrison, & Treviño, 2010). It is also held that an individual that acts in accordance with moral values and principles, will illustrate these principles through their behaviours by, for example, displaying their compassion in assisting others, or by proactively preventing problems from occurring (Eisenberg, 2000).

The specific antecedents of OCB were selected, based on the fact that the results obtained from previous research are inconsistent and possibly contradictory. These variables have not been studied in relation to one another and not enough research has been completed on these constructs in relation to integrity and OCB. In this study, the aim is to provide a unique contribution to the field of organisational psychology, by improving the understanding of integrity and its relation to OCB. Thus, the plan is to investigate these constructs in an integrated manner within the framework of a model, and thereby assess the ability of this model to predict and create conditions that could lead to an increase in the prevalence of OCB within an organisation.

1.5   Research Initiating Question

The research-initiating question driving this study is:

Why is there variance in organisational citizenship behaviour amongst employees?

1.6   Research Goal and Objectives of this Study

The general aim of this study is to examine the influence that selected personality-related dimensions have on integrity, and the influence these dimensions and integrity have on organisational citizenship behaviour. More specifically, the objectives of this study were to:

- ❖ develop a structural model that explains variance in organisational citizenship behaviour in organizations;
- ❖ test the model's absolute fit;
- ❖ evaluate the significance of the hypothesized paths in the model;
- ❖ provide recommendations for further research; and
- ❖ provide practical implications for managers in organisations.

This study was built on previous studies in order to gain a greater understanding of the role of integrity in organisational citizenship behaviour, and to develop new insights into this area of study. The goal was to improve one's understanding of integrity and OCB and to attain insight into what causes integrity and in turn leads to OCB. In an attempt to achieve this goal, the relationships between certain personality-related variables, integrity and OCB were examined. These variables were selected because they might possibly influence integrity and result in OCB, and relatively little research exist on the role that these variables play with regard to integrity and OCB.

It is desired that this research be completed in an integrated way. The variables were studied within the framework of a conceptual model. Insights that were obtained from this study may contribute to management practices within an organisation and assist in creating and sustaining OCB within an organisation.

1.7   Overview of the Study

In Chapter 1 a brief introduction is made into the concept OCB and how important it is in the organisational context. The rationale for the selection of the specific antecedents of OCB is also provided. Furthermore, the research domain, research-initiating question, research goals and objectives are identified.

In Chapter 2 a review of relevant literature is discussed, centring on the constructs that were focused on in this study. The objective here was to gain a better understanding of the constructs

as well as the relationships that were proposed among them. In addition, hypotheses were formed, based on these relationships and a structural model was developed.

Chapter 3 describes the research methodology that was used to formally assess the proposed structural model. The research design in terms of the research approach is discussed specifically, and the statistical hypotheses are stated. The research method is also discussed in terms of the research participants, the sample size and the data collection method. Furthermore, the measuring instruments and the statistical analyses that were utilised, are revealed.

In Chapter 4 the research results obtained from the statistical analysis are examined. The significant and insignificant relationships which were hypothesized in Chapter 2, are revealed.

Lastly, in Chapter 5 a discussion follows on the findings from this study. Conclusions on these findings are drawn and the limitations that were encountered during the study are mentioned. The impact that these findings may have on managers in organisations as well as on future research, were also discussed.

CHAPTER 2

LITERATURE REVIEW

2.1   Introduction

In Chapter 1, a brief introduction was made of the concept OCB. The chapter argued the importance of OCB in the organisational context. It also presented the research domain, research-initiating question, research goals and objectives, and it provided an overview of the study. In Chapter 2, a review of the literature is presented, which centres around the constructs that were focused on in this study. Each construct is discussed in terms of its definition as well as its relationship with the other selected latent variables.

2.2   Conceptualisation of Organisational Citizenship Behaviour

The concept of organisational citizenship behaviour (OCB) has been studied, examined and defined by a number of researchers over the past thirty years (Bolino, Hsiung, Harvey & LePine, 2015; Borman & Motowidlo, 2014; Coxen, Van der Vaart & Stander, 2016; Davoudi, 2012; Emami et al., 2012; Finkelstein, 2006; Kasekende, Munene, Otengei & Ntayi, 2016; Organ et al., 2005, 2006; Paillé, Boiral & Chen, 2013; Podsakoff, Podsakoff, Mackenzie, Maynes & Spoelma, 2014; Podsakoff, Podsakoff, Whiting & Blume, 2009; Xerri & Brunetto, 2013). The next section will commence by defining the concept OCB.

2.2.1 Definition of Organisational Citizenship Behaviour

While the origins of OCB can be traced back to the 1930s, the first definition was only conceptualised by Organ in the late 1980s. Organ (1988, p. 4) defined OCB as "individual behaviour that is discretionary, not directly or explicitly recognised by the formal reward system, and that in the aggregate promotes the effective functioning of the organisation". Thus, OCB is traditionally described as voluntary behaviour of an employee that benefits the effectiveness of an organisation, but it does not need to be rewarded in any formal way or satisfy any contractual agreement between the organisation and the employee.

Over the last 30 years, many researchers attempted to conceptualise OCB and although different definitions now exist, OCB remains the same at its core. Van Dyne et al. (1994), for instance, describe OCB as the behaviours that employees put forth which exceed the traditional

assessments of job performance. They also state that OCBs are not fundamentally part of formal job descriptions, and as such they are not included in the traditional reward system. This definition agrees with that of Jacqueline, Shapiro, Kessler and Purcell (2004) who state that OCB is an extra-role behaviour that is not formally required and as a result does not form part of one's job requirements, but it is rather contingent on employee consent.

Consistently, Finkelstein (2006) pose that OCB is employee activities that go beyond formal job requirements and contribute to the effective functioning of an organisation. This agrees with a definition given by Midha, Mathur and Jain (2014) who state that OCB in essence is employee actions that transcend prescribed role requirements. Msweli-Mbanga and Lin (2003) view OCB as a function of an individual's initiative, his/her helping behaviour, allegiance and loyalty to his/her organisation. Somech and Drach-Zahavy (2004) believe OCB is employee behaviour within the organisation that is noble, altruistic and productive.

The definitions above, highlight certain elements of the traditional construct of OCB. First, the behaviour exceeds formal role requirements of a job. Next, OCB is spontaneous behaviour that cannot be enforced by an organisation. As OCB is voluntarily performed and does not form part of an employee's job requirements, no employee is obligated to perform these behaviours, and no employee may be reprimanded for not engaging in this type of behaviour. As a result, OCB is not recognised by a formal reward system or structure and consequently employees engage in OCB willingly without the expectation of rewards. Lastly, OCB improves the overall functioning of an organisation.

Similar elements were identified by Van Dyne, Cummings, and Parks (1995) for extra-role behaviours, where extra-role behaviour is "behaviour which benefits the organisation and/or is intended to benefit the organisation, which is discretionary, and which goes beyond existing role expectations" (Van Dyne et al., 1995, p.218). The elements include that (a) employee behaviour must be voluntary; (b) the actions of the employee must be intentional; (c) employee behaviour must be positive (that is, perceived positive by either the employees themselves or someone else); and (d) engaging in such behaviours must predominantly benefit others and not the employee themselves.

Examples of citizenship behaviours are assisting colleagues with a work-related problem; accepting work orders without argument; tolerating temporary impositions that might occur without complaint; and promoting a positive work climate that is tolerable and minimises

distractions (Bateman & Organ, 1983). Other examples of OCB include: remaining informed about one's organisation; voluntarily accepting additional responsibilities; following organisational rules even when no one is watching; promoting and protecting one's organisation; performing at levels that exceed enforceable standards; remaining positive; being punctual; staying late or working over weekends; volunteering; avoiding unnecessary conflict in the workplace; and tolerating inconveniences (Bateman & Organ, 1983; Organ, 1988; Podsakoff et al., 2000).

Even though the original definition of OCB developed by Organ (1988) is widely accepted and utilised, it received criticism from other researchers (Organ, 1997). One criticism that is relevant in this study is that Organ's (1988) definition stresses that the behaviour should be extra-role, while other researchers propose that OCB measurement instruments actually measure behaviours that are in-role (Organ, 1994b).

Morrison (1994) was one researcher who challenged the assumption that OCB should not be classified as extra-role behaviours. In his study, Morrison (1994) asked participants to classify 30 items that were obtained from different OCB measures into either in-role or extra-role behaviour. It was found that a variety of these OCBs were classified as in-role rather than extra-role behaviour. Similarly, Vey and Campbell (2004) investigated whether participants perceived OCB items as in-role or extra-role behaviour, as well as whether individual differences influenced this perception. They found that the majority of Organ's (1994a) OCB items, except a variety of altruism and civic virtue items, were in fact considered to be in-role behaviours by younger employees. Thus, the issue raised is, that a clear distinction between extra-role behaviours and in-role behaviours does not exist and that it may differ from person to person.

Another criticism about Organ's (1988) definition is that it is not contractually guaranteed in a formal reward system, while evidence suggests that OCB may in fact lead to monetary compensation (Azmi et al., 2016). To respond to these criticisms, Organ (1997) adapted his original definition of OCB. He redefined OCB as "contributions to the maintenance and enhancement of the social and psychological context that supports task performance" and advised researchers to utilise this new definition in future (Organ, 1997, p. 91). Though a new problem did occur. Organ's (1997) new, redefined definition of OCB is not widely known by researchers and the previously developed definition is still used today. It has become the

colloquial understanding of OCB. "Going the extra mile" and "doing beyond what is required" remains a popular way of conceptualising OCB, despite the criticisms (Azmi et al., 2016).

A possible solution for the above-mentioned problem was proposed by Van Dyne et al. (1994). They advise that researchers should use both in-role and extra-role behaviours to describe OCB. Van Dyne et al. (1994) believe the problem will be rectified as one does not distinguish between in-role and extra-role behaviours, but one classifies all positive behaviour that occurs within the organisation as OCB. Thus, OCB should include all behaviours that benefit the organisation.

As it is evident from the above discussion, immense research exists on the construct OCB, however, a debate regarding the definition still continues and as a result a uniform definition of OCB is non-existent. This may be due to a variety of reasons, including the fact that most of the research on OCB focuses on understanding the relationship between other constructs and OCB, or it may be because research on OCB has rapidly expanded over the last 30 years, causing some perplexity about the nature of the construct (Podsakoff et al., 2000). Despite this fact, one can see that consistencies do exist in research. In this study, OCB will not solely be regarded as extra-role behaviours, but will include the notion that OCB is positive and organisational relevant type of behaviour.

2.2.2 Typologies of Organisational Citizenship Behaviour

To date there is no agreement in literature with regards to the number of dimensions that exist in OCB. Williams and Anderson (1991), for instance, propose two dimensions of OCB, while Organ (1988) proposes five dimensions. In an in-depth review of OCB literature, Podsakoff, et al. (2000) found that almost thirty different forms of citizenship behaviour exist. These are the majority of behaviours included in the dimensions of OCB: voluntarily helping others (without selfish intent); volunteering; active involvement in organisational activities; avoiding/preventing unnecessary conflicts; keeping up with developments in one's field/profession; gracefully tolerating impositions; maintaining a positive attitude; being innovative without expecting any reward; punctuality; taking on extra tasks; following company rules even when no one else is looking; promoting and protecting the organisation; and performing tasks beyond the normal role requirements (Bateman & Organ, 1983; Organ, 1988; Podsakoff et al., 2000).

2.2.2.1   Smith, Organ and Near's (1983) Typology

Smith et al. (1983) initially held that OCB consists of two dimensions, namely altruism and general compliance. These two dimensions, they believed, would increase organisational effectiveness in their own unique way. They described altruism, as behaviours that assist others in face-to-face situations, while general compliance is considered as behaviours of an ideal worker.

Altruistic behaviours include helping others who have been on sick leave or whose workloads are excessive (Smith et al., 1983). Other examples include: offering to do tasks that are not required and assisting new employees to adapt to the workplace (Smith et al., 1983). Generalised compliance on the other hand, is exhibited, for example when an employee is punctual (Smith et al., 1983). Other behaviours are, not taking excessive breaks, not using company resources for personal use, and not leaving early. These behaviours are more an impersonal form of an employee's conscientious citizenship (Smith et al., 1983).

It should, however, be noted that if, for example one individual displays helping behaviour, it will not improve an organisation's functioning. For the behaviour to be beneficial for an organisation, it should be exhibited by an accumulation of employees over a longer period of time (Smith et al., 1983).

Later, Organ (1988) reviewed the above-mentioned dimensions and developed his own typology. In this typology, general compliance was replaced by other OCB dimensions.

2.2.2.2   Organ's (1988) Typology

Organ (1988) considered OCB a multi-dimensional construct. He attributed five different dimensions to OCB: (a) altruism; (b) civic virtue; (c) conscientiousness; (d) courtesy; and (e) sportsmanship.

Altruism, the first dimension, is similar to the one mentioned in the previous section. It is defined as one individual assisting another with work-related tasks on his or her own accord (Organ, 1988). This behaviour is discretionary and aids a specific individual or a group of individuals in a task-related manner. Organ (1988) adds that this behaviour includes assisting an organisation's customers as well as the vendors. Assisting a new hire on how to use office equipment is one example of altruism. Another example may be when one employee is helping

another to catch up on work after they were on sick leave. One can notice that these examples are similar to the ones provided in the previous section.

When an employee exhibits civic virtue, the second dimension, he or she is deeply concerned with the organisation and its political life (Organ, 1988). This dimension shows that an employee is actively interested in the life of the organisation and is concerned about the organisation's well-being (Mahembe & Engelbrecht, 2014). The employee becomes involved with organisational life, for example by attending optional meetings, staying up-to-date with the organisation's performance, or performing a task that benefits the organisation's image (Organ, 1988). Other examples include participating in policy development, monitoring the organisation's strengths, weaknesses, opportunities and threats, and attending organisational events (Chien, 2003; Podsakoff et al., 2009).

Conscientiousness, which is also referred to as compliance, appears when an employee accepts and adheres to the rules, regulations and procedures of an organisation (Mahembe & Engelbrecht, 2014; Organ, 1988). It also includes an employee executing his or her roles in excess of the minimum requirements of these role behaviours (Podsakoff et al., 1990). One example is, where an employee attends work while in fact he has a valid reason not to, such as a cold. Other examples include being punctual, finishing tasks or assignments before the due date or spending more time at work than what is required of them (Chien, 2003; Organ et al., 2006; Podsakoff et al., 2009).

The courtesy dimension is preventative behaviour. An employee voluntarily assists a colleague to prevent a problem from occurring (Organ, 1988). Furthermore, this behaviour is targeted at preventing or avoiding conflicts within the workplace and being mindful of the repercussions of one's actions (Chaitanya & Tripathi, 2001). One example of courtesy is to notify others before one initiates an action that will have an impact on them. Another example is when one notifies one's organisation when one is going to be absent or late.

Sportsmanship, the last dimension, is the readiness of an employee to accept less than ideal situations without protest (Organ, 1988). When employees exhibit sportsmanship behaviours, they do not complain during difficult times or they avoid the occurrence of trivial grievances. That is to say, an employee good-naturedly tolerates the occasional hardships and limitations that may take place during the course of a job (Farh, Zhong & Organ, 2004). In this case an

employee remains positive. One example of sportsmanship is, when an employee does not complain about overtime or about a deadline of a project (Chien, 2003; Podsakoff et al., 2009).

This five-dimension typology for organisational citizenship behaviour, proposed by Organ (1988), is the most investigated framework compared to other taxonomies. LePine, Erez, and Johnson (2002) even provided reasons for this. First, Organ's (1988) typology has a longer history than other typologies and it is also more widely published. Next, Podsakoff et al. (2000) developed a measurement instrument for Organ's (1988) dimensions, which proved to be psychometrically sound and widely accepted by scholars. Lastly, researchers in the field of OCB believe that Organ's (1988) dimensions are beneficial across situations and organisations in the long run.

2.2.2.3   Williams and Anderson's (1991) Typology

Williams and Anderson (1991), believing that each behavioural dimension of OCB overlaps with the other, and that these dimensions should be amalgamated into different subgroups, classified OCB into two separate components that signify whether the behaviour is aimed at the individual or the organisation (Williams & Anderson, 1991).

Organisational Citizenship Behaviour-Individual (OCBI) is behaviours that are directed at individuals in the work environment (apart from the employee implementing OCB) (Williams & Anderson, 1991). These behaviours benefit specific individuals, for example one employee assists another who has been absent, to catch up.

The second component, Organisational Citizenship Behaviour-Organisation (OCBO), is discretionary behaviour that is focused on the organisation as a whole (Williams & Anderson, 1991) and they benefit the organisation as a whole. An employee may for instance, give his/her organisation advance notice when he/she is unable to attend work.

In this taxonomy, OCB is thus the extent to which individual members of an organisation are able and willing to engage in behaviours that benefit the organisation (OCBO) and individuals within the organisation (OCBI) (Mahembe & Engelbrecht, 2014). Recently an addition was made to the OCBI/OCBO subgroups, called change orientated citizenship (Chiaburu, Oh, Berry, Li & Gardner, 2011).

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OCB was initially classified as prosocial behaviour, meaning it was directed either toward individuals (OCBI) or towards the organisation (OCBO) (Chiaburu et al., 2011). Later, OCB was also classified as proactive behaviour. This form aims to alter and enhance certain parts of an organisation through positive modifications (LePine et al., 2002; Podsakoff et al., 2014). It is named change-orientated citizenship (OCB-CH). In order to exhibit OCB-CH an employee, for example would come up with an innovative way to improve the work conditions of the organisation. OCB-CH are exemplified by taking charge, being adaptive, personal initiative behaviours, being creative and innovative (Chiaburu et al., 2011).

It should, however, be noted that the use of OCBI/OCBO subgroups may oversimplify a study. When one oversimplifies in research, one loses detail and thus may make the wrong conclusions or lose valuable insight. It is for this reason that this framework will not be the main focus of this study.

2.2.2.4 Podsakoff, MacKenzie, Paine and Bachrach's (2000) Typology

After an in-depth examination of literature, Podsakoff et al. (2000) found that almost thirty different forms of OCB have been proposed. They identified seven themes or dimensions of OCB within this research: (a) helping behaviour; (b) sportsmanship; (c) organisational loyalty; (d) organisational compliance; (e) individual initiative; (f) civic virtue; and (g) self-development.

The first dimension identified helping behaviour and is characterised "as voluntarily helping others with or preventing the occurrence of, work-related problems" (Podsakoff et al., 2000, p.516). Examples of helping behaviour include assisting new employees to adjust to the workplace, giving colleagues or the organisation advanced notice when necessary, or helping colleagues to cope with a heavy workload.

The second dimension, sportsmanship, was originally defined by Organ (1988) as the readiness of an employee to accept less than ideal situations without protest. That is, an employee tolerates the inconveniences related to his/her job without complaint. Podsakoff et al. (2000) improved on this definition by adding that such an employee will also maintain a positive attitude whilst he/she experiences these less than ideal situations or impositions. This includes not being offended when their suggestions are turned down; sacrificing personal interest in favour of the work; and not taking rejection personally (Podsakoff et al., 2000).

The next theme, organisational loyalty, mainly consists of three parts. First, employees promote their organisation to others outside the organisation (Podsakoff et al., 2000). Next employees guard and defend an organisation against threats, while the last part describes how employees remain loyal and committed to an organisation, even during adverse conditions (Podsakoff et al., 2000).

Organisational compliance, the fourth dimension, occurs when employees internalise and accepts the rules, regulations and procedures of an organisation, and by doing that they also adhere to them (Podsakoff et al., 2000). This is also true in situations where the employee is not observed or monitored to ensure compliance (Podsakoff et al., 2000).

The following theme, individual initiative, is the act of engaging in task-related behaviours to such an extent that one exceeds minimal requirements or what is generally expected (Podsakoff et al., 2000). It is also perceived as discretionary behaviour (Podsakoff et al., 2000). It includes behaviours such as voluntarily improving one's task or the organisation's performance through creative and innovative acts; continuing with additional enthusiasm and vigour to achieve the objectives of one's job, taking on extra responsibilities by choice and encouraging others to do the same (Podsakoff et al., 2000).

Civic virtue emerges as an employee's overall interest and/or commitment to his/her organisation (Podsakoff et al., 2000). It can be displayed by (a) an employee's willingness to actively participate in an organisation's governance; (b) surveying the environment for threats and opportunities; and (c) being on the lookout for the organisation's best interests (Podsakoff et al., 2000).

The last theme, self-development, is the act of improving one's knowledge, skills and abilities on one's own volition (Podsakoff et al., 2000). Improvement can be obtained by participating in training courses, remaining up to date with the latest development in one's field, or to obtain new skills.

As is evident in this section, immense research exists on the construct OCB. A debate regarding the definition of OCB still continues and no uniform definition of OCB has been made. OCB has been described as specific discretionary behaviours that benefit an organisation. Further, it can be seen as behaviours that are not enforced by formal rule obligations or elicited by contractual requirements. On the other hand, studies maintain that OCB cannot solely be regarded as extra-role behaviours and they advise that OCB should include the notion that

OCBs are positive and organisational relevant type of behaviour. The literature review further shows that there is no agreement in literature regarding the number of dimensions that exist in OCB, but that numerous typologies exist.

For the purpose of this study, OCB was defined as intentional employee behaviour, which may not directly or clearly be recognised within an organisation's reward system, but it promotes the functioning of the organisation.

The next section contains a review of the definition of integrity.

2.3   Conceptualisation of Integrity

2.3.1   Introduction

Similar to OCB, the construct of integrity has been awarded numerous definitions and the development of one complete universal definition for integrity has eluded researchers. It is believed that the current definitions of integrity are either too broadly or too narrowly defined. Taking this into consideration, understanding the definition of integrity is still critical for the purpose of this study.

2.3.2 Definition of Integrity

From a broad perspective, integrity can be described and thus divided into two sections: (a) personal consistency; or (b) complying with moral norms or expectations (Koehn, 2005). In the next section the two types of definitions are discussed.

2.3.2.1   Integrity as Personal Consistency

Personal consistency refers to the regularity in doing what one says one will do and remaining true to one's nature and beliefs (Koehn, 2005). This stems from honesty, a state of adhering to ethical and moral principles, as well as being of sound moral character (Koehn, 2005).

According to Koehn (2005), the problem with defining integrity as personal consistency is that the moral aspect is omitted in the definition. Individuals who do not have moral values, but do act in accordance with their beliefs, thoughts and words, are perceived as having integrity (Koehn, 2005). This implies that the nature of the physical act is insignificant as long as the act agrees with the individual's beliefs and thoughts, even if these beliefs and thoughts are not morally sound.

2.3.2.2 Integrity as Complying with Moral Norms or Expectations

In the second definition of integrity, morality is described as an inherent component of integrity. This is due to the fact that integrity is the act of complying with moral norms or expectations. Koehn (2005), however, expresses concern about this definition. He acknowledges that the act of conforming to moral rules may only be an act of conforming to social norms or standards of a group, and that the individual or individuals in question may in fact not have integrity and are only acting in accordance to how others believe they should act. Also, some social expectations or norms may not be morally correct.

In fact, in their study Taylor and Gaita (1981) argue that an individual who truly has integrity, will defy social norms in order to stay true to their own moral principles. According to this belief, an individual who would disregard social conventions in the belief that what he or she is doing is right, is a person with integrity. Thus, a person with integrity will acknowledge the shortcomings of socially acceptable standards and they will not conform to the standards that lack moral principles. He or she would rather persist with their own set of principles in the belief that this action is preferred to that of social norms. This argument gives rise to more questions, for instance, what is 'right', who deems what is right, what are moral principles.

In an attempt to resolve the uncertainty of the term 'integrity' in organisational literature, Palanski and Yammarino (2007) reviewed over thirty articles relating to integrity and the meaning of integrity. After they had identified a variety of meanings of integrity, Palanski and Yammarino (2007) suggested an operational definition.

2.3.2.3 An Operational Definition of Integrity

Palanski and Yammarino (2007) classify the various definitions and meanings of integrity into five categories. The categories are: (a) integrity as wholeness; (b) integrity as consistency in words and actions; (c) integrity as consistency in adversity; (d) integrity as being true to oneself; and (e) integrity as moral or ethical behaviour.

Integrity as wholeness describes a situation where an individual's character as a whole can be defined as having integrity (Palanski & Yammarino, 2007). It can thus be said that the overall assessment of an individual's character reveals whether he/she has integrity or not.

Palanski and Yammarino (2007) state that integrity as consistency in words and actions is concerned with consistency in social behaviours. If what a person does what he/she says he/she will do, then that which is said and done matches. That person then has integrity, according to this definition.

Integrity as consistency in adversity, refers to the exhibition of integrity despite being engrossed in a difficult situation where one is morally challenged. According to Palanski and Yammarino (2007), this form of integrity takes place in a challenging situation where an individual makes a decision that is based on their morals. It can be argued that in this definition of integrity, a challenging situation is required in order for integrity to exist (Palanski & Yammarino, 2007).

Acting in accordance with one's beliefs or principles corresponds with integrity as being true to oneself. Within this classification, Palanski and Yammarino (2007) propose that integrity is related to authenticity. They define authenticity as a situation where an individual acknowledges his or her personal experiences and acts according to these experiences.

In the last category, integrity as moral or ethical behaviour, an individual is perceived to have integrity when he/she acts in accordance with his/her moral principles (Palanski & Yammarino, 2007).

Palanski and Yammarino (2007) acknowledge the fact that the various definitions of integrity overlap, and some definitions are interchangeable. They believe this complicates the operationalisation, measurement and testing of integrity, and causes confusion. To solve this problem, they suggested that integrity should be viewed as a virtue. Palanski and Yammarino (2007) use the phrase a "discrete component of a good character" as the description of a virtue. In the next section, integrity as a virtue is discussed.

2.3.2.4 Integrity as a Virtue

Palanski and Yammarino (2007) argue that when viewing integrity as a virtue, integrity is best expressed as consistency of words and actions, the second category of their five categories. They further argue that the other categories defining integrity can each be acknowledged as virtues on their own. Table 2.1 summarises the operationalisation of the definition of integrity by viewing it as a virtue.

Palanski and Yammarino (2007) did, however, identify a problem with this view of integrity. They realised that their preferred perspective of integrity allowed an individual who may not be moral or ethical, to have integrity. To counter this problem, they theorise that an individual who has a morally good character will have a variety of virtues of which some will be morally good, such as honesty and trustworthiness.

Palanski and Yammarino (2007) also consider the definition of integrity as consistency of words and actions as it is regarded on the level of analysis of an entity. They decide to define integrity as the consistency of an acting entity's words and action so that the definition can refer to the words and actions of, for instance, an individual, group or organisation.

Table 1.1: *Integrity in Comparison to Other Virtues*

The use of integrity in organisational literature	The related virtue
Consistency of words and actions	Integrity
Being true to oneself	Authenticity
Consistent behaviour in adversity	Courage
Moral or ethical behaviour	
Honest	Honesty
Trustworthy	Trustworthiness
Just/Fair	Fairness
Caring	Compassion
Wholeness	Character

(Palanski & Yammarino, 2009, p.406)

In the next section, the non-moral definition of integrity is discussed.

2.3.2.5   Integrity as a Non-Moral Concept

Bauman (2013) believes that Palanski and Yammarino (2007) make a convincing argument for defining integrity as a non-moral concept. He accepts their argument for its usefulness in clarifying the definition of integrity and in the conceptualisation of the concept to the perceived consistency between an entity's words and actions. Bauman (2013), however, expresses his concern to depict a concept that is abundantly ethical in nature in terms of a non-ethical trait.

Bauman (2013) maintains that there are three reasons why integrity should be expressed as a moral concept. His first reason is that the conventional use of integrity strongly reinforces a definition that is moral. His argument is that in everyday life non-scientific individuals use the term to communicate the act of being morally trustworthy.

To further motivate his argument, Bauman (2013) presents the case of a man called Jones. Jones is a leader who is committed to funding a project and this commitment was acknowledged to his subordinates (Bauman, 2013). After learning that the project may cause serious harm to children, Jones withdraws his bid to fund the project, since he is morally committed not to cause harm to others (Bauman, 2013). If integrity is the consistency between words and actions, as is argued by Palanski and Yammarino (2007), then Jones would not be a person of integrity, due to the fact that he did not fund the project as he promised (Bauman, 2013). In this case, his words do not match his actions. On the other hand, if integrity is expressed or termed as moral trustworthiness, Jones would be a person of integrity, since the action of withdrawing his funds was based on his moral and ethical principles (Bauman, 2013). Bauman (2013) proposes that this last perception of Jones's character is more relevant and holds more importance to society than the other perception.

Bauman's (2013) second reason for not restricting integrity to a non-moral description is that literature relies on its ethical meaning on a regular basis. In most situations, it is believed that integrity is defined by researchers and scholars as having a moral or ethical component. Bauman (2013) utilises Palanski and Yammarino's (2007) revision of the meaning of integrity in business literature to defend his own point of view. The majority of the definitions and understandings of the term integrity in the revision were expressed in some moral or ethical manner or they have a moral or ethical component.

Bauman's (2013) third and final reason not to disregard the moral component or perspective of integrity, is due to the fact that integrity as a moral concept is used in critical research regarding ethical commitments. The results found in this type of research studies can convey valuable insights into the understanding of human behaviour and the prediction of human behaviour in the workplace (Bauman, 2013). A better understanding can increase the possibility of manipulating these behaviours to positively affect the functioning of the organisation, which in turn, can lead to an increase in productivity or effectiveness (Bauman, 2013).

It is for these three reasons that Bauman (2013) advises not using a singular, non-moral description of integrity. He suggests that a more beneficial course of action for defining integrity would be, to employ the definition of integrity as the concept of personal or behavioural integrity, in order to inquire into the consistency or wholeness facet of integrity.

2.3.2.6   Behavioural Integrity

According to Simons (2002, p.19), behavioural integrity is 'the perceived pattern of alignment between an actor's words and deeds'. Thus, Simons (2002) regards behavioural integrity as a non-moral concept that can be described as an ascribed trait.

Simons (2002) attributes five properties to behavioural integrity: (a) subjective in nature; (b) an ascribed trait; (c) unitary or domain specific; (d) ascribed to individuals, groups, teams, as well as organisations; and (e) a disproportionate weight is placed on enhancement and depletion.

Behavioural integrity is fundamentally subjective in nature due to the fact that the perceiver is closely involved in determining an individual's behavioural integrity (Simons, 2002). It can also be because the actor, the relationship between the actor and perceiver, and the traits, past and emotional or mental state of the perceiver, can influence his or her perception of behavioural integrity (Simons, 2002). However, Simons (2002) acknowledges the fact that the actor's actual conduct influences the perceptions of behavioural integrity to some extent, since the behaviour may be observed over a period of time.

In a situation where the individual's words and actions do not match, Simons (2002) believe that behavioural integrity can be recognised as a trait, due to the fact that the perceivers are more likely to attribute an individual's behaviour to his or her personal qualities, rather than attribute the behaviour to the situation or factors thereof. He further argues that even when an individual's behaviour is not focused on his or her values, the perceivers will still observe it as his or her values. It is for these reasons that behavioural integrity is described as a trait.

Simons (2002) acknowledges the fact that no preference has been made for unitary or domain specificity with regard to behavioural integrity. One individual will observe another's inconsistent behaviour between words and actions and apply his or her understanding of that behaviour of the individual he or she is observing as a whole, while another will only look at the context and apply his or her understanding of that behaviour in the specific context that it took place (Simons, 2002). For example, if Sarah, John and Lara's manager, says that she values punctuality, but she is repeatedly late for their meetings, John may perceive Sarah as having low behavioural integrity, while Lara might perceive Sarah as valuing punctuality in others but not in herself.

The fourth property of behavioural integrity, according to Simons (2002), can be ascribed to entities on multiple levels, such as when a person, group or organisation is described as having or not having behavioural integrity. Organisations, for instance, can have their own set of values and act according to these values; employees can even view an organisation as having an identity of its own.

Lastly, Simons (2002) attributes the last property of behavioural integrity to the notion that trust is slow to attain, while it is easy to lose. He argues that there is an imbalance between the act of attributing behavioural integrity to an entity and retracting it. That is, the misalignment between words and actions are tallied higher than that of alignments. This emphasises the importance of the alignment between words and actions. This is important especially in the employment relationship since perceptions could influence the functioning of the organisation negatively.

2.3.2.7   A Conceptual Framework of Integrity

A conceptual framework of integrity was developed by Barnard, Schurink and De Beer (2008) in order to build an understanding of integrity in the South African workplace. During the study different behaviours were identified that pertained to integrity. They developed categories that reflected behaviours that were believed to be manifestations of integrity and these behaviours were clustered together to form ten competencies of integrity. These were included as one of the five themes in the conceptual framework of integrity (Barnard et al., 2008): (a) the foundational drives; (b) authenticity; (c) functions of integrity; (d) developmental context of integrity; and (e) the competencies of integrity. The conceptual framework of integrity and integrity development is presented in Figure 2.1.

Barnard et al. (2008) found that there are two foundational drives of integrity: (a) the moral compass; and (b) the inner drive. The moral compass is when an individual has a core set of values and principles and lives according to these values and principles (Barnard et al., 2008). When having a moral compass, one has the tendency to stand by one's values, beliefs and principles (Barnard et al., 2008). An inner drive on the other hand, has to do with an individual's wants, goals, aspirations and needs (Barnard et al., 2008).

The inner drive can, however, be both something that drives as well as threatens integrity (Barnard et al., 2008). The wants and needs of one individual can be the motivational forces that bring about achievements, hard work or progress – factors that underlie integrity (Barnard

et al., 2008). Then again, an individual's inner drive can motivate one toward self-gain (Barnard et al., 2008). It can cause one to act selfishly and in a self-seeking manner and in doing so others may be harmed or disregarded (Barnard et al., 2008). These types of behaviours could be without integrity.

Barnard et al. (2008) further state, that living a life of authenticity in relation to the moral compass and inner drive, is essential to having integrity. It is believed that being true to oneself, being genuine and forthright, results in one having integrity (Barnard et al., 2008). It was further indicated that living in congruence with both drives, requires one to find a balance between these drives since the drives may be in conflict (Barnard et al., 2008). The moral compass may motivate one to act in a more altruistic, other-focused manner, while one's inner drive may be disregarded (Barnard et al., 2008). Alternatively, one's inner drive may persuade one to act in a more self-centred manner (Barnard et al., 2008).

Integrity was further connected to particular elements of cognitive and affective functioning (Barnard et al., 2008). Barnard et al. (2008) propose that integrity is related to differentiating between what is right and wrong in a certain context – called moral intelligence. They posit that this ability to know what is right and wrong is centred on one's knowledge of what is accepted by society (norms and principles) and how it should be applied (that is, moral knowledge), as well as on one's ability to reflect on why it is accepted and how acceptable it is (moral reasoning).

They further theorise that integrity requires self-insight. One can only act according to one's values and priorities if one knows oneself (self-knowledge) (Barnard et al., 2008). In order to possess integrity, one needs to judge oneself against norms and principles (self-reflection) to ensure that one's actions and values align (Barnard et al., 2008).

Barnard et al. (2008) continues by saying one's conscience holds a function that exhibits negative feelings when it judges that one's behaviour is incongruent with one's moral compass. They further state that one's conscience motivates oneself to remain true by setting standards that one wishes to uphold.
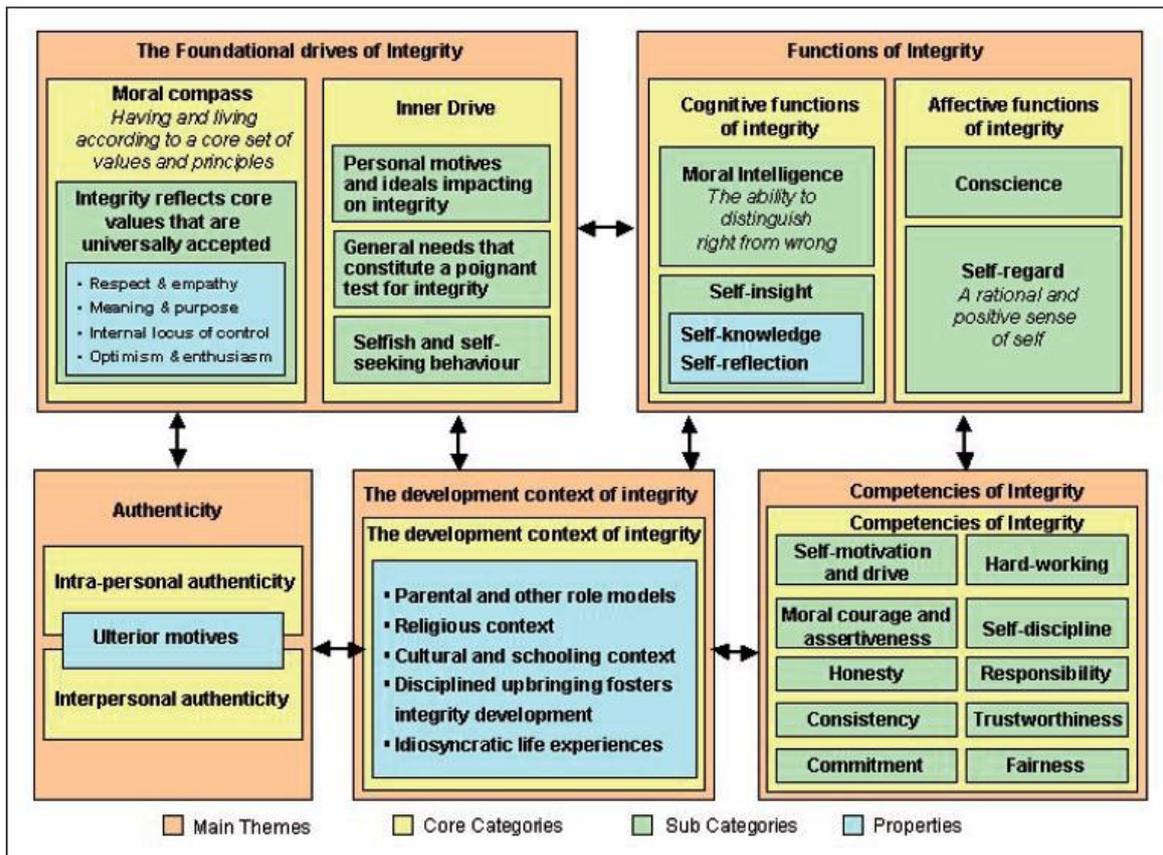
Figure 2.1: **Conceptual Framework of Integrity and Integrity Development**

(Barnard et al., 2008, p.47)

Self-regard is also believed to play a critical role in one's integrity (Barnard et al., 2008). Barnard et al. (2008) posit that a poor sense of self, no matter if it is based on feelings of inferiority or an inflated self-esteem, is related to low integrity.

These functioning elements may facilitate one's ability to balance your moral compass and inner drive and in doing so, influence the degree to which one has integrity (Barnard et al., 2008). It is for this reason that morally-related behaviour is aided by the cognitive functioning elements of moral intelligence and self-insight, as well as the affective functioning elements of a sensitive conscience and self-regard (Barnard et al., 2008).

Barnard et al. (2008) suggest that one's upbringing is a critical element in the development of integrity; however, it is not only one's parents and other role models that are important in integrity development. Daily experiences shape one's integrity and thus, integrity continuously develops and changes over time (Barnard et al., 2008). Barnard et al. (2008), furthermore,

acknowledge that individuals behave and feel differently in different contexts and that this also influences the degree to which individuals act with integrity. They also propose that an individual's integrity should be based on daily actions even though integrity is a varying construct. The last theme of the Barnard et al. (2008) framework consists of behaviours related to integrity, which are discussed in the next section.

2.3.2.8   The Ten Competencies of Integrity

Barnard et al. (2008) identified behaviours that pertain to integrity and these behaviours were categorised in order to form ten competencies: (a) self-motivation and drive; (b) moral courage and assertiveness; (c) honesty; (d) consistency; (e) commitment; (f) diligence; (g) self-discipline; (h) responsibility; (i) trustworthiness; and (j) fairness. Each competency is defined in Table 2.2.

These competencies reflect behaviours that may result in behavioural manifestations of integrity (Barnard et al., 2008). Barnard et al. (2008) believe manifestations result in living genuinely with one's drives, distinguishing between right and wrong, knowing oneself and having a positive, coherent self-esteem, in addition to having a moral conscience that one lives by (Barnard et al., 2008).

In modern leadership theories, morality is a constant theme. It is for this reason that it is wise to investigate integrity in terms of a leadership perspective.

2.3.2.9   Integrity in Modern Leadership Theories

In an attempt to define leadership integrity, Bauman (2013) investigates integrity in leadership theory and proposes core features of integrity in the process. The core feature of moral integrity is 'acting consistently from moral values' (Bauman, 2013, p. 6). Bauman (2013) proposes that identity-conferring commitments to moral values, are the cognitive structure that produces integrity and is the reason why leaders act consistently moral across situations which make them morally trustworthy.

Table 2.2: *Competencies of Integrity*

Competency	Competency Definition
Self-motivation and drive	An inner drive and energy to set goals and work hard to achieve them, to fulfil commitments and to maintain or even exceed standards of performance.
Moral courage and assertiveness	The courage to act on and stand up for what one believes and to show one's principles and values publicly and to voice them. This includes the courage of self-reflection in the quest for self-insight.
Honesty	Truthfulness with oneself and others about one's intentions and capacity. This includes telling the truth and declaring one's intentions. It manifests in transparent and open communication and in sharing information proactively.
Consistency	The consistent application of and living according to core values and principles in all the different areas of one's life (i.e. work and personal life).
Commitment	Perseverance to attain what one has committed oneself to do and to one's duties, responsibilities and obligations, whether it is a public (commitment to others) or a private (commitment to oneself) commitment, and despite difficult or otherwise challenging circumstances.
Diligence	The display of a diligent attitude towards one's work, of perseverance in one's work effort and of an industrious character.
Self-discipline	Discipline to live according to one's values and principles and to attain what one has set out to do (as expressed in one's inner drive). Discipline to function within the boundaries of one's moral compass, within agreed-upon rules and principles and within commitments to oneself and others.
Responsibility	The acceptance of responsibility for one's goals and aspirations, for one's limitations and strengths, for the choices that one makes and for the consequences of one's actions. The acceptance of responsibility for other people or institutions, for their interests and for one's role in one's interrelationships with them.
Trustworthiness	The display of a reputation for keeping one's word, commitments and responsibilities to the effect that others can trust one to do what one says.
Fairness	Fairness, equitability and non-bias in one's decision-making, especially in decisions that involve and impact others.

(Barnard et al., 2008, p. 45)

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Bauman (2013) proposes that identity-conferring commitments and different values unite to form different types of integrity. He identifies three types of leadership integrity and names each according to a known individual. He called it the three faces of leadership integrity.

a.   The Three Faces of Leadership Integrity

The faces are: (a) substantive leadership integrity (Ellen Johnson-Sirleaf); (b) formal leadership integrity (Amon Goeth); and (c) personal leadership integrity (Thomas More) (Bauman, 2013).

The first face, substantive leadership integrity, is integrity a leader has when he/she has identity-conferring commitments to moral values (Bauman, 2013). When a leader has substantive leadership integrity, the leader will not dishonour values of respect, honesty, trust and fairness (Bauman, 2013). This definition of integrity is similar to moral integrity and is related to ethical leadership theories.

The second face is formal leadership integrity, and can be described as having identity-conferring commitments to immoral values (Bauman, 2013). Immoral values are the reverse of moral values and are in violation of moral values (Bauman, 2013). Some immoral values are power, wealth and prestige (Bauman, 2013).

The third face of leadership integrity, personal leadership integrity, does not have identity-conferring commitments to either moral or immoral values, but to personal values (Bauman, 2013). Personal values are values which individuals choose for themselves, which for some reasons are important to them, and which only the individuals must abide by (Bauman, 2013). This type of integrity is similar to behavioural and personal integrity.

Treviño, Hartman, and Brown (2000) conducted a study in ethical leadership, where they found that a number of personal characteristics or values were related to ethical leadership and that an ethical leader proactively attempts to influence the behaviour of his or her followers in order to bring about or promote ethical behaviour. This led to the separation of ethical leadership into two pillars: the moral person and the moral manager (Treviño et al., 2000). The moral person is discussed in the next section.

b.   A Moral Person

Treviño et al. (2000, p.141) assert that being a moral person "encompasses who you are, what you do, and what you decide, as well as making sure that others know about this dimension of you as a person". It is integral to who a person is. Therefore, they pose that a moral person

possesses certain traits, acts in certain ways, and makes decisions that are based on their ethical principles.

They believe a moral person is: (a) honest and trustworthy; (b) fair; (c) authentic; (d) bases decisions on principles; (e) cares about others and society; (f) would act morally at home and at work; (g) has integrity; (h) does what is right; (i) exhibiting concern for others through their actions and would treat them right; (j) open to and communicative with others; and (k) personally moral.

A moral person, according to Trevino et al. (2000) is understood to hold ethical values and principles and base decisions on these values and principles. This person will aim to achieve objectivity and fairness; the decisions that are made would reflect the person's concerns for society and for the community (Treviño et al., 2000).

Fry and Kriger (2009) have a similar argument; they propose that a leader could exhibit ethical behaviours in order to be seen as ethical or by being ethical as it forms part of his or her personal values. Riggio et al. (2010) agree with the perspective that the personal values of leaders play an important role in being a moralist. Their theory is discussed in the next section.

c. *The Four Cardinal Virtues*

Riggio et al. (2010) describe four "cardinal virtues" that motivate a leader's ethical behaviour: (a) prudence; (b) courage; (c) temperance; and (d) justice. Prudence is the act of deliberating between decisions in a moral dilemma (Riggio et al., 2010). Situations arise when one has to make a choice between different actions in a moral dilemma. Prudence will lead one to consider all the consequences relating to a choice, as well as one's feelings or moral values regarding the choice, in order to choose the action with the best outcome. According to Riggio et al. (2010), prudence may not be classified as a moral virtue, however, it is related to morality.

Courage, on the other hand, has to do with one's strength and perseverance in doing what one believes is right and ethical (Riggio et al., 2010). This virtue is again not a moral virtue, but may be required in order to make the right choice in a difficult situation.

Temperance has to do with one's ability to restrain oneself from making self-serving decisions and displaying other self-indulgent behaviour (Riggio et al., 2010). Part of being a moral person is not to abuse one's power for self-serving interests. It is rather preferred that a moral person should be humble.

The last 'cardinal virtue', according to Riggio et al. (2010), is justice. They believe that one must be just and righteous in order to be a moral person. The consequences of one's decisions must not harm others and one's actions must respect the individuals concerned. Riggio et al. (2010) further state that in order to be just, one must be honest, open and respectful.

Duska (2013) also stresses the importance of the four 'cardinal virtues' in his definition of integrity. He proposes that integrity means "having your moral act together" (Duska, 2013, p. 21). This togetherness can then be expressed as 'wholeness' and can be achieved by embodying all four 'cardinal virtues'. He thus believes that a person with integrity is a person whose judgements are based on good values, who is master of himself/herself, and who is courageous enough to engage in honourable pursuits.

This discussion on the definition of integrity reiterates the idea of varying concepts of integrity. With regard to the definition of integrity in this study, it is preferred that the focus should be on integrity as a moral concept. For this study, integrity was thus defined as acting in accordance with one's moral beliefs and values.

Since a new integrity measure was used in this study, a discussion about the measurement of integrity and different integrity assessment instruments will now follow.

2.3.3 Measurement of Integrity

The first integrity test made its appearance at the end of the 1940s, and since the 1980s its popularity and usefulness has rapidly increased (Wanek, 1999). It is believed that the use of integrity tests has increased, due to the support it received, the involvement of psychologists in the development of the measures, and the fact that the use of polygraphs has been banned (Wanek, 1999).

An integrity test that was developed to assess integrity, honesty and the test-taker's dependability, is a pen-to-paper self-report test (Ones, Viswesvaran & Schmidt, 1993). This test is used to aid with the prediction of the test-taker's job performance, as well as behaviours on the job that may be counterproductive (Ones et al., 1993). An integrity test will differentiate between individuals who exhibit counterproductive or undesirable behaviour and those that do not exhibit these behaviours.

An organisation would like to predict the likelihood that counterproductive behaviours could occur, since it is assumed that dishonest, unreliable and untrustworthy individuals, generally perform poorer in their job and they are more likely to engage in behaviours that are undesirable for the organisation, such as stealing, absenteeism and tardiness (Ones et al., 1993). Since integrity tests are used to predict behaviour, these tests are favoured in selection practices.

When an integrity test is used in the selection process, the applicant must meet a specific criterion to be accepted or acknowledged for the job. The criterion is at the discretion of the organisation in question and it would be included in the organisation's employment policies.

Sackett, Burris and Callahan (1989) propose that integrity tests can be classified into two categories: (a) overt integrity tests; and (b) personality-orientated integrity tests. Overt integrity tests, also referred to as 'clear-purpose tests', measure an individual's stance on theft and are used to determine if the individual has committed dishonest and illegal behaviour in the past (Sackett et al., 1989).

It is typical to find that an overt test has two sections: (a) attitudes and (b) admissions (Sackett et al., 1989). Attitudes is related to the individual's stance on theft, which are the individual's attitudes and beliefs (Sackett et al., 1989). In this section, methods are used to determine the individual's opinion of theft, theft in society (its frequency and extent), as well as the punishment for stealing (Sackett et al., 1989). It further investigates an individual's perception of the possibility of theft in the workplace, rationalisation, and knowledge of theft taking place (Sackett et al., 1989). This section also includes the investigation of the individual's own assessment of his or her honesty (Sackett et al., 1989).

Admissions of overt tests is about an individual's involvement in theft and other activities that are illegal (Sackett et al., 1989). This section would establish whether such involvement has taken place, and if it did, it would further investigate that involvement. If, for instance, a theft has taken place, the amount that was stolen will be determined and how the individual behaved after the theft (Sackett et al., 1989). Other interesting activities in this section are, e.g. illegal gambling, drug use or the distribution of drugs, and being intoxicated on the job. In overt tests applicants are asked overt questions in order to obtain a relatively accurate view of their honesty.

Personality-orientated integrity tests (also known as 'disguised purpose tests') are used to predict a variety of counterproductive behaviours and not only theft (Sackett et al., 1989). A

broad range of behaviours like violence, excessive tardiness, absenteeism, and drug abuse are tested. The prediction is made by measuring different personality traits, such as conscientiousness, trustworthiness, emotional stability, agreeableness and reliability (Sackett et al., 1989). These tests are generally developed by experts in the field of psychology and are closely associated with personality assessment measures (Sackett, 1994).

Though it seems that these two types of integrity tests have a decided nature, in practise this is not the case. Some personality-orientated integrity tests do use overt questions in its assessment, while some overt tests have items that are not apparently related to integrity. It is for this reason that Wanek (1999) defines both overt and personality-orientated integrity tests as paper-and-pencil tests that concentrate on the characteristics of integrity, trustworthiness, dependability, reliability, honesty and conscientiousness.

In order to measure integrity accurately, reliably and validly, an adequate sample of variables must be covered, and these variables must be representative of the construct. The assessment should also be based on objective, scientific procedures and principles (Van Iddekinge et al., 2012).

All psychological assessment instruments are only as useful and effective as its technical properties allows the instruments to be. One such priority property in assessing a measure, is reliability. Reliability occurs when a measure consistently measures what it intends to measure. A measure is highly reliable when similar results are obtained from situations that are consistent.

The usefulness and effectiveness of an instrument is further dependent on its validity. Validity assesses how successful the instrument is measuring or predicting what it is supposed to measure or predict. Validity assesses how successful the instrument is in achieving its purpose. Ones and Viswesvaran (2001) define criterion-related validity as the degree to which the selection test scores correspond to a criterion. They further state that criterion-related validity is necessary to establish the operational usefulness of an integrity test.

To understand the measurement of integrity better, some well-known internationally utilised integrity measures are reviewed. Thereafter, a South African integrity test is discussed.

2.3.3.1   International Integrity Measures

This section will review some integrity measures that are currently internationally utilised. The measures are Simons' Behavioural Integrity (BI) Scale; Palanski, Kahai and Yammarino's (2010) Integrity Scale; The Leadership Virtues Questionnaire (LVQ); and The Scale of Moral Identity.

a. *Simons' Behavioural Integrity (BI) Scale*

Simons, Friedman, Lui, and Parks (2007) developed, as well as validated an eight-item scale in order to assess how followers perceive their superiors' integrity. This scale is referred to as the Behavioural Integrity (BI) scale.

The main focus of the BI scale is the behavioural integrity of individual leaders (Simons et al., 2007). This scale mainly assesses promise-keeping and the consistency between an individual's values (both adopted and actual) (Simons et al., 2007). The items that were chosen to measure behavioural integrity were assessed on a five-point Likert scale, where 1 on the scale equals 'strongly disagree' and 5 equals 'strongly agree' (Simons et al., 2007). Table 2.3 contains the BI scale.

To ascertain whether support exists for the application of the behavioural integrity construct, a construct validation study was performed on a sample of 1666 independent hotel employees (Simons et al., 2007). Strong scale reliabilities were found for the written surveys as well as for the oral surveys, that were offered to individuals who were illiterate (Simons et al., 2007). The Cronbach's alpha ($α$) for the English and Spanish written surveys was 0.96 ($n = 1219$) and 0.94 ($n = 322$), respectively, while the oral surveys obtained a Cronbach's alpha equal to 0.96 ($n = 125$) (Simons et al., 2007). Furthermore, by using confirmatory and exploratory factor analysis, Simons et al. (2007) established that each of the two scales measured different concepts. The analyses further showed that the two-factor model is a significant improvement on the single-factor model (Simons et al., 2007).

A number of researchers have used the BI scale in order to assess integrity in their studies. Palanski and Yammarino (2011) used Simons' BI scale to assess the behavioural integrity of leaders in order to determine whether a correlation exists between a leader's behavioural integrity and a follower's job performance. They found high internal consistency in two of their studies ($α = 0.98$ and $α = 0.96$). In another study, Kannan-Narasimhan and Lawrence (2012) used six of the eight items in the BI scale to determine the behavioural integrity of senior

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management and the behavioural integrity of their companies' supervisors. They found that both the BI scales are reliable with *α = 0.93* each. Some researchers such as Palanski, Kahai, and Yammarino (2010) have also developed their own integrity scale based on Simons' BI scale.

Table 3.3: *Simons' Behavioural Integrity (BI) Scale*

Behavioural Integrity
The following items were rated on a 5-point Likert scale (5 = *strongly agree*, 4 = *agree*, 3 = *neither agree nor disagree*, 2 = *disagree*, 1 = *strongly disagree*):
There is a match between my manager's words and actions.
My manager delivers on promises.
My manager practices what he/she preaches.
My manager does what he/she says he/she will do.
My manager conducts himself/herself by the same values he/she talks about.
My manager shows the same priorities that he/she describes.
When my manager promises something, I can be certain that it will happen.
If my manager says he/she is going to do something, he/she will.

(Simons et al., 2007, p. 665)

b. *Palanski, Kahai, and Yammarino (2010) Integrity Scale*

Palanski, Kahai and Yammarino (2010) developed a behavioural integrity scale based on Simons' BI scale. Additionally, they used the terminology of Simons et al.'s (2007) behavioural integrity, as well as Palanski and Yammarino's (2007) multi-level theory of integrity in the development of their scale.

As previously mentioned, Simon's BI scale includes two sub-dimensions: (a) the consistency between adopted values and enacted values; and (b) the consistency between promises made and promises kept (Simons et al., 2007). Palanski et al. (2010) retain these two sub-dimensions to form their own two-factor behavioural integrity scale that can be applied to an entity, like teams or groups. Seeing that Simons' BI scale is based on individual leaders, they adapted the items into questions so that it would apply to teams, groups and organisations. Table 2.4 provides examples of such adaptations.

The items were assessed using behaviourally anchored responses on a five-point Likert scale (Palanski et al., 2010). The responses range from 0, 'not at all', to 4, 'frequently, if not always'

(Palanski et al., 2010). The data that was collected for testing purposes was self-reports of team members (Palanski et al., 2010).

Table 4.4: *Adaptation of BI Items*

Simons' sample item	Adaptation of sample item
When this person promises something, I can be certain that it will happen	How often does this team keep promises?
This person conducts himself/herself by the same values that he/she talks about	How often does this team act in a way that shows that these values are actually important?

(Palanski et al., 2010, p. 6)

In order to evaluate the relationship between team virtues (such as behavioural integrity) and performance, a study was done on both temporary and permanent work teams with 35 and 16 teams, respectively (Palanski et al., 2010). Individual item reliability, internal consistency and discriminant validity were tested for (Palanski et al., 2010).

By examining the factor loadings of the BI scale on the construct that is equivalent to it, the scale was determined to have individual item reliability (Palanski et al., 2010). This is due to the fact that the temporary work teams had a factor and cross-factor loading of 0.92 and 0.84 and the permanent work team had a factor and cross-factor loading of 0.98 each (Palanski et al., 2010).

The construct internal consistency of the BI scale was determined using internal scale reliability and determining the average variance extracted (AVE), which measures the underlying construct's variance (Palanski et al., 2010). Both criteria for temporary and permanent work teams were met (Palanski et al., 2010). Internal consistency reliability (ICR) for the temporary work teams was equal to 0.88, and for permanent work teams it was 0.98, and AVE was equal to 0.78 and 0.96, respectively (Palanski et al., 2010).

Palanski et al. (2010) assessed discriminant validity by determining that an item loads higher on the construct it measures than on any other construct, and that an item shares more variance with its construct than with any other. It was determined that both criteria were met, for both temporary and permanent work teams (Palanski et al., 2010).

c. The Leadership Virtues Questionnaire

Riggio et al. (2010) created a character-based measure to assess the virtues of ethical leaders. The instrument was named the Leadership Virtues Questionnaire (LVQ). Riggio et al. (2010) believe that an ethical leader is an individual who possesses the four cardinal virtues of prudence, temperance, fortitude and justice, thus they developed a rating instrument to assess these virtues.

Table 5.5: *The Leadership Virtues Questionnaire (LVQ)*

Prudence Items

1. Does as he/she ought to do in a given situation.

2. Does not carefully consider all the information available before making an important decision that impacts others. (R)

3. Boldly jumps into a situation without considering the consequences of his/her actions. (R)

4. Does not seek out information from a variety of sources so the best decision can be made. (R)

5. Considers a problem from all angles and reaches the best decision for all parties involved.

Fortitude Items

1. Would rather risk his/her job than do something that was unjust.

2. May have difficulty standing up for his/her beliefs among friends who do not share the same views. (R)

3. Fails to make the morally best decision in a given situation. (R)

4. May hesitate to enforce ethical standards when dealing with a close friend. (R)

5. Ignores his/her "inner voice" when deciding how to proceed. (R)

Temperance Items

1. Seems to be overly concerned with his/her personal power. (R)

2. Is not overly concerned with his/her own accomplishments.

3. Wishes to know everything that is going on in the organization to the extent that he/she micromanages. (R)

Justice Items

1. Gives credit to others when credit is due.

2. Demonstrates respect for all people.

3. May take credit for the accomplishments of others. (R)

4. Respects the rights and integrity of others.

5. Would make promotion decisions based on a candidate's merit.

6. Does not treat others as he/she would like to be treated. (R)

Note:
R = reversed item.
Response scale: 1 = Not at all; 2 = Once in a while; 3 = Sometimes; 4 = Fairly often; 5 = Frequently, if not always.

(Riggio et al., 2010, p. 242)

The LVQ is administered by the leader's followers. It is therefore, an other-rated measure and the leader's character is determined by the follower's perception of the leader's possession of the four virtues (Riggio et al., 2010). Due to the fact that Riggio et al. (2010) developed a scale to measure the four different cardinal virtues, the LVQ consists of four factors. These four factors each have their own items.

Prudence and fortitude are both assessed by five items, temperance is assessed by three items and justice by six items, and as such, the LVQ consists of 19 items (Riggio et al., 2010). The items of the LVQ are presented in Table 2.5. The items are assessed by using a five-point Likert scale, based on a response format (1 = 'Not at all'; 5 = 'Frequently, if not always') (Riggio et al., 2010).

After an exploratory and confirmatory factor analysis, it was determined that the LVQ has high internal consistency of α = 0.97 and α = 0 .96, respectively (Riggio et al., 2010). The model also fits the data well, since RMSEA is 0.07 (Riggio et al., 2010).

The Scale of Moral Identity is discussed in the next section.

a. The Scale of Moral Identity

Zhu, Riggio, Avolio and Sosik (2011) created a five-item scale, The Scale of Moral Identity, to measure the moral identity of individuals. They define an individual's moral identity as "the degree to which a person identifies himself or herself as a moral person" (Zhu et al., 2011, p. 151).

The scale is according to a five-point Likert scale, where an individual is asked to respond to a statement by selecting between the range of 1 to 5 (1 = 'strongly disagree'; 5 = 'strongly agree'). The Scale of Moral Identity is presented in Table 2.6.

Zhu et al. (2011) conducted both an exploratory and confirmatory factor analysis on the Scale of Moral Identity. The scale obtained high internal consistency as the Cronbach's alpha was equal to 0.91 (Zhu et al., 2011). The exploratory and confirmatory factory analysis was conducted with two subsamples and showed that the data fits well with a one-factor structure (χ^2 = 43.75, df = 10, p < 0 .01, comparative fit index (CFI) = 0.97, RMSEA = 0.08) (Zhu et al., 2011). The one-factor structure explained 74.76% of the variance and all factor loadings were 0.78 and higher (Zhu et al., 2011).

Table 6.6: *The Scale of Moral Identity*

Please indicate the degree to which you agree with the following statements (1 = *strongly disagree*, 5 = *strongly agree*). There is no right or wrong answer.

1. I view being an ethical person as an important part of who I am.

2. I am committed to my moral principles.

3. I am determined to behave consistent with my moral ideals or principles.

4. I am willing to make a sacrifice to be loyal to my moral values.

5. I am willing to place the collective interest over my own personal ego and interest.

(Zhu et al., 2011, p. 161)

Zhu et al. (2011) further compared the ethical leadership scale, the authentic leadership scale and the laissez-faire leadership scale with their scale, in order to test its construct validity. They found that their scale correlates positively with ethical and authentic leadership, and it correlates negatively with the laissez-faire leadership scale. These findings indicate that The Scale of Moral Identity has convergent and discriminant validity.

Zhu et al. (2011) also argue that their scale has predictive validity, since Zhu (2006) has proven that there is a positive correlation between moral identity and moral decision intention (as cited in Zhu et al., 2011). It is for these reasons that the Scale of Moral Identity can be classified as valid and reliable.

In the next section the Giotto Test is discussed.

b. The Giotto Test

The Giotto Test assesses integrity by means of a work-based personality questionnaire (Rust, 1999). The Giotto Test mainly addresses property deviance and performance deviance of workplace dishonesty (Rust, 1999). This questionnaire consists of 101 items and the scores are produced on seven scales (Rust, 1999). The scales are based on the Prudentius model of personality and they relate to the following contrary concepts: (a) prudence/folly; (b) fortitude/inconstancy; (c) temperance/anger; (d) justice/injustice; (e) faith/infidelity; (f)

charity/envy; and (g) hope/despair (Rust, 1999). The traits of the Giotto are evaluative in nature and therefore they are measured using an ipsative format (Rust, 1999).

The test consists of two sections (Rust, 1999). In the first section, test-takers were asked to select between one of two items that suited them most, where in fact the test-taker was choosing between two virtues or two vices (Rust, 1999). The second section consisted of multiple-choice questions where only one choice was required (Rust, 1999).

The Giotto's inter-scale correlations were found to be less than 0.5 which indicates that there is no correlation with the social desirability scale that is larger than 0.3 (Rust, 1999). The Giotto Test was further proven to have content validity, since the nature of the adjectives obtained high and low loadings on each scale for positive and negative directions (Rust, 1999). All the dimensions, except charity, correlated significantly with the equivalent scales on the social desirability scale (Orpheus scales) with the correlations ranging from 0.4 to 0.58 (Rust, 1999). There was no equivalent charity scale in the Orpheus scale (Rust, 1999). The internal consistency for each dimension of the validation sample was approximately 0.72 (Rust, 1999).

In the next section a South African integrity measure is discussed.

2.3.3.2   South African Integrity Measures

While the previous section focused on international integrity measures, this section will review an integrity measure that was developed in South Africa. The measure is the Ethical Integrity Test.

a. *Engelbrecht's Ethical Integrity Test*

Engelbrecht (as cited in Du Toit, 2015) developed an integrity scale, the Ethical Integrity Test (EIT) specifically for the South African population. The items on the EIT are assessed using responses on a five-point Likert scale (Du Toit, 2015). The responses ranged from 'disagree strongly' to 'agree strongly' (Du Toit, 2015).

In the EIT ethical integrity is described as "acting in accordance with universally accepted principles, values and norms" (Du Toit, 2015, p. 65). This assessment consists of five dimensions: (a) behavioural consistency; (b) righteousness; (c) frankness; (d) credibility; and (e) fairness. The EIT consists of 66 items (Du Toit, 2015). The behavioural consistency dimension consists of 10 items, while righteousness and frankness consist of 14 each (Du Toit,

2015). The last twee dimensions, credibility and fairness, consist of 15 and 13 items respectively (Du Toit, 2015). The definition of each of the dimensions, as well as sample items, can be viewed in Table 2.7.

Table 7.7: *The Defined EIT Dimensions*

Behavioural Consistency

Definition

Refers to persistently behaving in an ethical way; exhibiting moral courage to behave consistently in adversity and temptation; and applying the same fundamental principles over time and to a variety of situations. The individual practises what he/she preaches despite social and emotional pressures.

Examples of an Item

Item 5: I consistently behave in an ethical way.
Item 19: I practice what I preach.

Righteousness

Definition

Refers to behaving ethically and respectably; practising moral virtues and acting in terms of moral principles.

Examples of an Item

Item 20: I use my moral beliefs to make decisions.
Item 35: My behaviour is guided by sound principles.

Frankness

Definition

Refers to acting with truthfulness, authenticity and sincerity   .

Examples of an Item

Item 7: I shall tell the truth, even under pressure from others.
Item 16: People can believe what I say.

Credibility

Definition

Refers to trustworthy, responsible, reliable and dependable behaviour in accordance with the ethical rules and norms of the organisation.

Examples of an Item

Item 22: People can depend on me.
Item 37: I keep promises that I make to others.

Fairness

Definition

Refers to treating people equitably and with dignity and respect, making impartial and objective decisions, and doing justice to all.

Examples of an Item

Item 23: My major concern is always what is best for the other person.
Item 28: I treat people with dignity and respect.

(Adapted from Du Toit, 2015, p. 66-67)

A statistical analysis was conducted on the EIT and it was found that the entire scale has a Cronbach's Alpha of 0.97 (Du Toit, 2015). The following Cronbach's Alpha were produced for the respective dimensions: behavioural consistency of 0.74; credibility of 0.85; frankness of 0.91; fairness of 0.86; and righteousness of 0.91 (Du Toit, 2015). Due to the fact that these coefficients exceed 0.70, the measure can be deemed acceptable.

The discussion in the first section of this chapter explicitly stresses the importance of integrity as a moral concept. It can thus be concluded that an integrity measure should be selected that assesses the moral dimensions of integrity in the construct domain.

The definition of self-control is discussed in the next section.

2.4 Conceptualisation of Self-Control

2.4.1   Introduction

Immense research on the definition of self-control has taken place over the years, however dissent exists regarding how self-control should be defined (Duckworth & Kern, 2011). It should be noted though, that the majority of self-control theories believe that self-control should be defined as the ability to alter or override one's dominant response tendencies, in order to regulate one's behaviour, thoughts and emotions (De Ridder, Lensvelt-Mulders, Finkenauer, Stok, & Baumeister, 2012). A discussion regarding the definition of self-control follows.

2.4.2   Definition of Self-Control

Rachlin (1974) broadly defines self-control as deciding between alternatives which arrive at different times. Consider an individual who has to decide between either eating healthily or not. Immediate satisfaction can be obtained from less healthier foods, such as cakes and chocolates, while eating healthily increases one's health in the long run and may result in weight loss. Decisions are thus made based on the alternatives that one receives.

A similar definition of self-control is given by Peterson and Seligman (2004) who state that individuals display self-control when they control their responses in order to pursue their goals and live up to their standards. Responses in this case refer to emotions, thoughts, impulses, and performances, while standards are performance targets, moral injunctions, ideals, norms, and others' expectations. Similarly, Hamburg and Pronk (2015) define self-control as one's ability

to forego one's short-term satisfaction in order to pursue one's long-term goals and desires. Another definition of self-control is that it is an individual's general tendency to refrain from a certain act, due to the fact that the long-term consequences outweigh the momentary advantage that one will obtain from the act (Gottfredson & Hirschi, as cited in Restubog, Garcia, Wang & Cheng, 2010).

According to the above definitions, one exerts self-control when one is modifying one's responses which suppresses one's goal, therefore another goal is pursued that is perceived to have a greater long-term utility (Mccullough & Willoughby, 2009). Rachlin (1974) believes that one exhibits self-control when one believes the future reward outweighs the present reward, or one accepts a current discomfort if a greater one is expected in the future. Because self-control is exhibited in order to obtain desirable responses and evade undesirable responses, self-control constitutes as a prerequisite for self-regulation (De Ridder et al., 2012; Muraven & Baumeister, 2000; Tangney, Baumeister & Boone 2004).

Two types of self-control have been identified: (a) state self-control; and (b) dispositional self-control (Tangney et al., 2004). State self-control describes self-control that differs across situations as well as time (De Ridder et al., 2012). One person may exhibit more self-control when tempted by sugary foods, than when that person is confronted with a heated argument and is trying to remain calm. Dispositional self-control, on the other hand, is characterised as those self-control behaviours that are relatively stable across situations and time (Gottfredson & Hirschi, as cited in De Ridder et al., 2012).

In this study the focus is on stable personality characteristics and it is for this reason that attention is given to dispositional self-control. For the purpose of this study, self-control is a tendency to modify one's responses in order to suppress one goal in pursuit of another which is perceived to have a higher intrinsic value.

In the next section a discussion will follow regarding the conceptualisation of risk-taking.

2.5 Conceptualisation of Risk-Taking

2.5.1   Introduction

Risk-taking has been studied for a number of reasons and, as a result, the literature available today is both vast and diverse. The majority of the research on risk-taking focuses on its relation

to health issues (Byrnes, Miller & Schafer, 1999). Other research focuses on the risk-taking in relation to the adaptiveness of human behaviour, the rationality of human thought and the difference between nature and nurture (Byrnes et al., 1999). Over the years more research has focused on investigating risk-taking behaviour within the workplace. The next section will contain a discussion regarding the definition of risk-taking.

2.5.2   Definition of Risk-Taking

Every single individual has to constantly make decisions in their day-to-day lives and these decisions involve varying levels of risk. These risks will also vary and include a wide range of choices, such as choosing where and what to study after school, or which company to invest in. Risk further differs in terms of the degree of risk. Some decisions taken will of course carry more risk than others. For example, deciding between two restaurants may not carry the same weight as deciding whether or not to drive when one is intoxicated. Furthermore, individuals differ in terms of their willingness to engage in risky behaviour. Some individuals are more willing to engage in risky behaviour than others, while there are individuals who prefer to live sheltered lives. Individuals' risk-taking also varies in different situations and across different times.

When one considers the reasons why people take risks one can ascertain that for the most part a risk is taken for a possible gain, or a possible loss that is avoided. Most research, as a result, defines risk-taking in terms of the consequences that may result. Consider the general definition given by Gullone and Moore (2000) where risk-taking is the partaking of an individual in a behaviour that involves possible negative consequences that are balanced against perceived positive consequences. From this definition it is clear, that one risks a loss in pursuit of gaining a positive outcome. A similar definition was given by Renn (1998) who states that risk-taking is an action that causes uncertain consequences and the consequences might either be positive or negative.

Risk-taking is also defined in other terms. Levenson (1990) defines risk-taking as any intentional activity that entails novelty or danger sufficient to create anxiety in most people. According to Figner and Weber (2011), one takes a risk when one chooses from different options the one with the highest outcome variability. Nicholson, Soane, Fenton-O'Creevy and Willman (2005) define risk-taking in terms of goals and values, stating that essentially when one partakes in risky behaviour one implements options that could lead to negative

consequences. Figner and Weber (2011) on the other hand, pose that risk-taking occurs when one deliberately and affectively evaluate one's available choice options and balance these options with one's conflicting motivations. From this evaluation one decides to act in a certain manner.

There are mainly three themes with regard to risk-taking (Byrnes et al., 1999; Figner and Weber, 2011; Nicholson et al., 2005): (a) domain-specificity; (b) individual differences; and (c) a combination of situational and individual approaches (Nicholson et al., 2005). These determinants that possibly cause risky behaviour are either a person's characteristic, the characteristics of the situation or a combination of both.

The first theme, domain-specificity, is related to expected utility theories (Nicholson et al., 2005). Kahneman and Tversky's (1979) prospect theory is one example of this. Themes such as this theorise that generally differences exist between situations that could promote either risk-taking or risk aversion within individuals (Byrnes et al., 1999). Research in this area will focus on the specific domain and not the generalisability of individual's risk-taking behaviour. The main thought in this theme is that risk-taking cannot be reduced to a single personality trait (Figner & Weber, 2011). Rather this theme focuses on how individuals will make different decisions in different situations. For instance, one individual may not be as risky with his/her life savings as with his/her choice in sports. One cannot, for example, classify one individual as having a high degree of risk-taking behaviour, solely based on the fact that that individual base jumps or skydives over the weekends. On the other hand, if that individual takes risks in a variety of life domains, it would be more appropriate to label him/her as risk-taker.

The next theme focuses on individual's differences. Examples of such themes are: Zuckerman's (1991) sensation-seeking personality and Kelling, Zirkes, and Myerowitz's (1976) "Risk as Value" hypothesis. According to Byrnes et al. (1999), this theme comprises of theories that explain the differences between individuals who regularly take risks and those who regularly avoid risks. Research in this area focuses on individual characteristics, such as age, culture, genes, gender and personality, in order to determine the degree to which an individual will take risks (Figner & Weber, 2011). This theme therefore focuses on understanding individual difference factors in relation to risk-taking.

The last theme is a combination of the previous two themes. Research has proven that one can be risk-seeking in some areas in one's life and risk-averse in others, while one still maintains

a relatively consistent view of risk (Nicholson et al., 2005). Thus, both general and domain-specific risk propensities exist. This approach, according to Bromiley and Curley (1992), is the most comprehensive method to determine an individual's risk-taking behaviour. This is because various individual characteristics are examined at the same time across different situations or conditions. The focus of this study is on the last theme, which focuses on both individual as well as situational approaches to risk-taking.   For the purpose of this study, risk-taking is defined as the act of implementing options that could lead to negative consequences in pursuit of a goal.

In the next section, a discussion will follow regarding the definition of manipulation.

2.6 Conceptualisation of Manipulation

2.6.1   Introduction

The concept of manipulation it seems, has always emerged when human behaviour is explained, or assessments are made about other individuals' characters. Every person has their own way of defining manipulation. Generally speaking, manipulation is thought of as lying or deceitful behaviour that someone uses in order to further their own means. Manipulation is also prominent in psychology, especially psychopathy. Even though manipulation is a frequently used concept, its conceptualisation is not clear. In the next section a discussion will follow regarding the definition of manipulation in terms of general human behaviour.

2.6.2   Definition of Manipulation

Manipulation is a concept that is frequently used in everyday life. It is used to describe someone's actions or motivations. It is even used to describe someone's character. Even though it is such a common concept, there is no agreement on its definition. Some researchers define manipulation according to its end results, while others define it purely as motivations behind the actions. A few themes have come to light on the conceptualisation of manipulation.

Ackerman's (1995) definition of manipulation focuses on the manipulatee. She proposes two conditions for an act to be manipulative. Firstly, the action(s) require someone to go against what that person believes is natural or appropriate, or what that person intended to do. She continues to say that this condition is not sufficient on its own as it includes non-manipulative actions, such as 'Watch out! There's a bus coming,' or 'Mind the step'. The second condition

is when the action pressures an individual in a way that is difficult for that person to say no to (Ackerman, 1995). Therefore, the action makes it uncomfortable for the manipulatee to oppose the manipulator.

Other definitions are centred on intent. For instance, Buss (1987, p.1218) defines manipulation as "the ways in which individuals intentionally or purposefully (although not necessarily consciously) alter, change, influence, or exploit others". According to this definition, no malicious intent is needed in order to qualify behaviour as manipulative.

Manipulation has also been defined as a personality trait. According to Overbeek, Biesecker, Kerr, Stattin, Meeus and Engels (2006), manipulativeness is one's inclination to deliberately manipulate another person's thoughts and feelings as well as the excitement that one obtains from such behaviour.

Personal gain for the manipulator is also a central theme in the discussion of manipulation. This is evident in Brown's (1997) conceptualisation of manipulativeness in terms of the desirability of the end results of the manipulative action, or to be more accurate, the undesirability thereof. Therefore, it is suggested that manipulation is the promotion of end results that are unsuitable for the parties concerned (except the manipulator), through the use of deception and other manipulative techniques.

It should, however, be noted that people intervene or act a certain way that may be manipulative in nature, to obtain a certain end result that may positively impact others' lives. In fact, manipulative tactics may mainly be utilised to positively benefit another individual. Consider a concerned parent who schemes and lies in order to get her son to be committed to a drug rehabilitation centre. The tactics that the woman uses may be inherently manipulative, but the end result may be beneficial to her son. The question now is whether this woman is manipulative or not.

Brown (1997) would in fact conclude that the woman's actions were manipulative. He proposes that manipulation is an "action that is aimed at bringing a person to act in a certain way or to have a certain belief or attitude, this outcome being sought in a way that departs from open dialogue, bypasses or subverts the person's rational capacity, and makes use of some other feature of the person's psychology" (Brown, 1997, p.143). According to this definition, even though the woman's son benefits from the rehabilitation centre, her actions were manipulative.

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Following this train of thought, the next question that arises is whether manipulation is warranted or not. Buss (1987) argues that manipulation is not only necessary but required. He states that manipulative tactics are necessary for survival. Individuals manipulate in order to obtain resources or assistance, form alliances, and gain trust. Again, when one considers the woman's actions in order to assist her son in receiving help for his addiction, an argument could be made in support of her actions. Her deception resulted in her son obtaining the necessary help he needs, and this may improve his quality of life. Her deception may even have prevented his death by accidental overdose. Another example could be when one individual lies to a friend about what a third party said about the friend in order to spare the friend's feelings. The knowledge of what the third party said may be inconsequential, but it may hurt the friend's feelings and negatively impact their self-worth. Thus, lying about what was said may be beneficial for the friend.

With these arguments, one can agree that in certain cases manipulation may be warranted. The problem that one faces now is to determine when in fact manipulative actions are warranted and when they are not. Again, a compelling argument can be made to consider the outcomes of the manipulation as a method to determine whether the manipulative actions are reasonable. The following questions, however arise: If the end justifies the means, whose end is justified? Manipulation may be beneficial for some parties but not for others. How can one defend the beneficial outcomes for one party above another? Also, how far is too far? Are there actions that do not justify the means? How are these actions determined?

Baron (2003) postulated that having skills to manipulate may at times be necessary, but having the attitudes of a manipulator and perceiving others from a manipulative person's point of view, is troublesome. Ackerman (1995) proposed that a main component in the definition of manipulation is ethics. She states that one can determine whether an action is manipulative by considering the ethics involved. According to this perspective an act is only classified as manipulative once it is deemed to be unethical. This study will utilise this moral perspective when examining manipulation.

For the purpose of this study, manipulation is defined as an intentional act of altering, influencing or exploiting a person in order to attain a certain personal benefit and outcome that goes against the interests of that person.

2.7 The Relationships between the Variables

The next section will consider the proposed relationships between the selected variables. Each proposed relationship is discussed.

2.7.1 Integrity and Organisational Citizenship Behaviour

Earlier in Chapter 2, an extensive discussion followed on the definition of integrity. Though no universal definition has been identified, it is clear from the discussion that acting in accordance to one's moral principles is fundamental to the definition. If one considers acting in accordance with a core set of values and principles as essential regarding integrity, one must also consider that this set of values and principles form part of the forces that drive human behaviour as behaviour is partially driven internally.

Human behaviour, according to Quick and Nelson (2013), is explained by internal processes as well as external factors. A person's actions and behaviours are driven by their thinking, feeling, beliefs, and personal values, as well as external events, behavioural consequences and environmental forces. By focusing on the internal processes, it is plausible to propose that a person's moral principles may have an impact on their behaviour at work, such as their citizenship behaviour. In an attempt to explain this notion, the integrity related virtue, compassion, and the OCB dimension altruism (also referred to as helping behaviour), are considered.

During their operationalisation of integrity, Palanski and Yammarino (2009) reviewed over thirty articles relating to integrity and identified several themes (discussed in detail in Chapter 2 above). One theme identified within organisational literature, is moral or ethical behaviour. In this theme, a person with integrity will display moral or ethical behaviour that includes being honest, trustworthy, just and fair, as well as caring. It is proposed that a virtue such as compassion will drive a person to exhibit altruistic behaviours, since a caring, compassionate person may be more inclined to assist a colleague with a work-related task if he/she perceives this person to be in need. It is proposed that a person who values compassion, is more likely to help a colleague who has been ill to catch up on work, as they would be motivated to assist in alleviating another's burden. What is more, Trevino et al. (2000) state that a moral person is someone who exhibits concern for others through his/her actions, and would treat others right.

In their study (as discussed earlier), Barnard et al. (2008) maintain that certain behaviours pertain to integrity. They called these behaviours manifestations of integrity and clustered the behaviours into groups to form ten competencies of integrity. When one considers these competencies, one finds that correlations may exist between the competencies and OCB.

Consider the competency self-motivation and drive. It is described as an inner drive to set and achieve goals, as well as to fulfil commitments and to maintain or exceed performance standards (Barnard et al., 2008). When one exceeds performance standards, one is in fact doing more than what is required for a specific job. Furthermore, going beyond the call of duty and exceeding performance standards, is discretionary behaviour that stems from an individual's inner drive.

When contemplating on self-motivation and drive, one may find relationships with OCB dimensions. Executing one's duties beyond the minimum requirements of a job, according to Organ (1988), forms part of the conscientiousness dimension of OCB. It may relate to the individual initiative dimension of Podsakoff et al.'s (2000) typology (discussed earlier in this chapter) as it is the act of engaging in behaviours that exceed minimum standards.

Taking Barnard et al.'s (2008) other competencies into account, one may find that correlations exist between these competencies and dimensions of OCB. For instance, it is likely that the self-discipline and trustworthiness competencies may correlate with Podsakoff et al.'s (2000) organisational compliance dimension, as one requires discipline to function within the agreed upon rules of the organisation, as well as the trustworthiness to keep one's word and follow the rules that one has agreed to when entering the organisation.

Another relationship may be between the competencies of responsibility, honesty, and fairness with the OCB dimension of courtesy (a dimension of Organ's (1988) typology which was discussed earlier). When one takes responsibility for one's actions and consider the impact that it may have on others, one is likely to assist in preventing problems from occurring by being mindful of the repercussions of one's actions. One could also assist in preventing problems by proactively sharing information openly with the individuals who may be affected by one's actions; forewarning them of the situation when needed. These are but a few considerations with regard to the link between Barnard et al.'s (2008) ten competencies and OCB.

When investigating the correlation between integrity and OCB, one finds that most research focuses on the impact that perceived leadership integrity has on the contextual performance of

subordinates or followers. Only some research, however, has been conducted on the integrity-OCB relationship, which is focused on in this study, and which is the correlation between an individual's integrity and their own citizenship behaviour.

While exploring the impact that core evaluations of leaders had on their attitudinal and behavioural outcomes, Eisenberg (2000) found that integrity is positively related to OCB. That said, he found that leaders who perceived themselves as having a higher level of integrity, expressed that they exhibited more OCBs than those leaders who perceived themselves as having lower levels of integrity. Turnipseed (2002) established that ethical individuals exhibit more OCBs. He suggests that OCB is the manifestation of ethical behaviour in the workplace. This mindset is supported by Ryan (2001) who found that professional behaviour in the workplace that is deemed to be intrinsically good by employees as well as economically beneficial by their employer, can be explained by moral reasoning.

Also, Tomlinson, Lewicki and Ash (2014) established a positive relationship between behavioural integrity and certain OCBs. Walumbwa and Schaubroeck (2009) also ascertained that those individuals who behave ethically within organizations, tend to portray the same personality characteristics as those individuals who frequently exhibit OCBs. The postulation thus is:

Integrity has a positive influence on organisational citizenship behaviour.

2.7.2 Self-Control and Integrity

Self-control is the act of modifying one's responses and thereby suppressing one goal in order to pursue another goal (McCullough & Willoughby, 2009). Self-control can thus be viewed as deciding between alternatives. Peterson and Seligman (2004) state that individuals display self-control when they control their responses in order to pursue their goals and live up to their standards. It is the ability to forego one's short-term satisfaction in order to pursue one's long-term goals and desires.

In their conceptualisation of integrity (discussed earlier), Barnard et al. (2008) theorise that there are two foundational drives of integrity: (a) the moral compass; and (b) the inner drive. According to them, the moral compass is the core set of values and principles that an individual has, and by which he/she lives. An inner drive is an individual's wants, goals, aspirations and

needs (Barnard et al., 2008) where the inner drive can contribute as well as hinder an individual's integrity.

Some wants and needs may motivate individuals to act according to their moral principles and values, while others may motivate them towards self-gain, and actions that are selfish and self-serving. These actions may go against one's moral principles and values. In a situation where one is confronted with a want or need that is self-serving and goes against one's morals and values, one has to decide whether one will give in to the want or need, or to deny oneself. One is thus confronted with two alternatives, and one's level of self-control may affect the situation. It is likely that an individual who exhibits self-control will supress the self-serving need in favour of living up to their moral principles and values.

According to Riggio et al. (2010), restraining oneself from making self-serving decisions and exhibiting other self-indulgent behaviour is a cardinal virtue that underlies ethical behaviour. This virtue is called Temperance and is one of the four cardinal virtues that motivate ethical behaviour (also discussed earlier). Duska (2013) agrees with this notion that mastering oneself and one's desires will assist a person in having to act morally. Regulating oneself may assist one to achieve what one sets out to achieve and to remain true to oneself, thus, displaying personal consistency (a concept underlying integrity, which was discussed earlier in Chapter 2).

Even though limited research exists on the relationship between self-control and integrity, some call attention to its existence. In Wanek, Sackett and Ones (2003) study on seven integrity tests and its dimensions, self-control or impulse control was one of the 23 thematic composites identified which correlates with integrity. Self-control is thus a factor that was included in a few integrity assessments. The proposition thus is:

Self-control has a positive influence on integrity.

2.7.3 Risk-Taking and Integrity

According to Gullone and Moore (2000), risk-taking is the act of partaking in a behaviour that involves possible negative consequences that are balanced against perceived positive consequences. One thus risks a loss in the pursuit of another outcome. It is any intentional action that entails novelty or danger that is sufficient to create anxiety in most people

(Levenson, 1990). Consequently, risk-taking is the intentional participation in a situation where the consequences are unknown.

It is also likely that most risks are chanced for a personal gain. Nicholson et al. (2005) define risk-taking in terms of goals and values, stating that essentially when one partakes in risky behaviour one implements options that could lead to negative consequences in pursuit of one's goals. This could relate to the inner drive mentioned in the previous section. As it was theorised by Barnard et al. (2008), individuals have an inner drive that motivate their behaviours as they have wants and needs that influence them. A risk-taker may be more likely to chance a negative consequence in order to achieve a goal and attain his/her want or need. A moral person may be less likely to risk a negative consequence, in order to attain a personal goal, especially if that consequence may harm others.

Even though little research has investigated the relationship between risk-taking and integrity, it is proposed that individuals who take high risks will also be more likely to exhibit unethical behaviour. It is believed that individuals who are willing to take high risks and are comfortable with pushing the limits, are more likely to breach ethical norms and standards and as such exhibit less integrity. The ethical risk hypothesis states that one's ethical behaviour varies according to how one perceives the related risk (Rettig & Rawson, 1963). When one considers the ethical risk hypothesis, one must also consider an individual's risk-taking behaviour.

It is believed that an individual who is a risk-taker will be more comfortable exhibiting unethical behaviour if he/she believes he/she will get away with it, while an individual who takes less risks, will not be willing to act unethically. This concept is supported by Gino and Margolis (2011) who pose that one makes decisions regarding one's ethical behaviour based on the perception of being caught out. Gino and Margolis (2011) also found that an individual exhibits higher levels of dishonesty when they are prone to risky behaviour.

Furthermore, risk-taking is a factor which is assessed in some measurement instruments that assess integrity. While investigating the similarities and differences of seven different integrity tests, Wanek et al. (2003) produced 23 thematic composites of integrity tests of which risk-taking/thrill-seeking is one. The proposition thus is:

Risk-taking has a negative influence on integrity.

2.7.4 Manipulation and Integrity

From the literature review, it was found that manipulation is defined as "action that is aimed at bringing a person to act in a certain way or to have a certain belief or attitude, this outcome being sought in a way that departs from open dialogue, bypasses or subverts the person's rational capacity, and makes use of some other feature of the person's psychology" (Brown, 1997, p.143). It is the promotion of end results (except the manipulator) by deception and other manipulative techniques that are unsuitable for the parties concerned (Overbeek et al., 2006).

Manipulation is an action used by someone for personal gain by using deceptive methods and which goes against the will of another person. Personal gain and deceptiveness are central elements of manipulation, but it goes against the concept of integrity and the virtues that are related to it. Virtues identified by Palanski and Yammarino (2009) that are related to integrity include honesty, trustworthiness, fairness, and compassion, which contrast with deception and self-interest.

Trevino et al. (2000) believed that a moral person is honest and trustworthy. This is in complete contrast to a person who exhibits manipulative tactics as these actions involve dishonesty and deceit. Furthermore, a moral person treats people equally and with dignity and respect, makes impartial and objective decisions, and does justice to all. This again contradicts the manipulative action as it promotes outcomes that are unsuitable and undesirable for the other parties involved, but beneficial to the manipulator.

Ackerman (1995) is of the belief that ethics is a main component in the definition of manipulation. She states that one can determine whether an action is manipulative by considering the ethics involved. According to this perspective, an act is only classified as manipulative once it is deemed to be unethical.

Even though no empirical research could be found that specifically links the constructs of manipulation and integrity, research could be found regarding the relationship between Machiavellianism and integrity and ethical behaviour (Connelly, Lilienfeld & Schmeelk, 2006; Hollon & Ulrich, 1979; Richmond, 2001). Manipulation, as previously mentioned, is at the core of the Machiavellianism personality construct. Machiavellianism is a construct that fundamentally has amoral and unethical behaviour at its centre to use others for their own personal gain (Nelson & Gilbertson, as cited in Kish-Gephart et al., 2010).

While investigating the relationships between the Dark Triad Traits (narcissism, psychopathy, and Machiavellianism) and Supernumerary Personality Inventory traits, Veselka, Schermer and Vernon (2011) found that Machiavellianism is positively related to manipulativeness. They also found that it is negatively correlated with integrity. Furthermore, Kish-Gephart et al. (2010) found that an individual who manipulate another in order to gain personally, is more likely to behave unethically and make unethical choices at work. The postulation thus is:

Manipulation has a negative influence on integrity.

2.7.5 Self-Control and Organisational Citizenship Behaviour

It was established that individuals exhibit self-control when they regulate and control their responses in order to pursue their goals and live up to their standards. They do this by modifying their responses and foregoing one goal in order to pursue another. Self-control is a general tendency to refrain from a certain act in order to obtain a greater reward.

Most research agrees that self-control facilitates the promotion of desirable behaviour as well as the inhibition of undesirable behaviours (De Ridder et al., 2012). Since individuals with higher self-control are more likely to control their impulses, they are able to exhibit behaviours that result in a positive outcome, like obtaining an advantage or avoiding a disadvantage. Therefore, it is theorised that someone with high self-control will also exhibit more citizenship behaviours than those with less.

Self-control stresses an individual's capacity to contemplate long-term consequences of their behaviour and will therefore restrain behaviour that is perceived to result in undesirable consequences if necessary (Zettler, 2011). People exhibit self-control when they believe the future reward outweighs the present reward, or they accept a current discomfort if a greater one is expected in the future (Rachlin, 1974).

Consider Smith et al.'s (1983) generalised compliance dimension (which was discussed earlier in Chapter 2). Individuals who have high self-control may reason that exhibiting ideal worker behaviours may create current discomforts, but in the long-term it will be beneficial for them. It is likely that they will, for instance, perceive punctuality and timekeeping in the long-term as being beneficial for them as it may convey to their employer that they are reliable and dependable. People with high self-control may perceive the long-term benefits of exhibiting altruistic behaviours. They may, for instance, be cognizant of the fact that assisting a colleague

now, may result in more work now, but it might also result in obtaining that colleague's assistance in the future.

The capacity to consider the consequences of one's actions can also assist in preventing problems from happening in the work place. It may also help in accepting less than ideal situations without protest, as one may see the benefit that may result from accepting the current discomfort as a greater benefit in the future. Self-control might also, assist in adhering to organisational rules and regulations.

When investigating the relationship between self-control and citizenship behaviour within an academic context, Zettler (2011) found that high self-control is related to increased citizenship behaviours at a university. Zettler (2011) similarly hypothesised that student self-control tendencies will not only result in students persistently achieving their goals, but also behaving in such a way that it has beneficial consequences, like attending optional classes or courses.

Self-control was also found to be related to some of the dimensions of OCB – most notably its possible relation to conscientiousness. A few researchers have proven that self-control is associated with conscientiousness (O'Gorman & Baxter, 2002; Olson, 2005; Tangney et al., 2004). The postulation thus is:

Self-control has a positive influence on organisational citizenship behaviour.

2.7.6 Manipulation and Organisational Citizenship Behaviour

At its core OCB is positive, pro-social behaviours that benefit organisations and their members, while manipulation is generally negative behaviours that are in the interest of the manipulator. OCB are primarily behaviours that are intended to positively benefit a person or an organisation other than the individual who is exhibiting the behaviour (Turnipseed, 2002).

Even though no research could be found between the constructs of manipulation and OCB, research was found on the relationship between Machiavellianism and OCB (Borman & Motowidlo, 1997; Wolfson, 1981). This is of interest since manipulation is a core element in Machiavellianism. In a study conducted by Becker and O'Hair (2007), it was found that a negative relationship exists between Machiavellianism and OCB. In this case, Machiavellianism is defined as an individual's tendency to behave manipulatively (Becker & O'Hair, 2007).

Similarly, Zagenczyk, Restubog, Kiewitz, Kiazad and Tang (2014, p.1101) found evidence across four independent studies that Machiavellianism is a predictor of contextual performance, where contextual performance is defined as "behaviours that are not officially sanctioned but affect the broader work environment". Using a multi-sample design and multi-source data across four studies, they found that employees who scored high on Machiavellianism tend to exhibit less citizenship behaviour than those employees who scored low on Machiavellianism. It also showed that employees who scored high on Machiavellianism exhibited more organisational deviant behaviours than those who scored lower.

Zettler and Solga (2013) investigated the relationship with Machiavellianism and certain performance outcomes. They proved that an inverted U-shaped relationship exists between Machiavellianism and the three dimensions of OCB (OCB-I; OCB-O; and OCB-CH). In this study, Zettler and Solga (2013) define Machiavellianism as being insensitive to others, deceitful or self-centred. It could thus be suggested that manipulation would similarly have a negative impact on OCB as manipulation is defined as going against the interests of others by changing their behaviour to benefit oneself. The postulation thus is:

Manipulation has a negative influence on organisational citizenship behaviour.

2.8 Structural Model

In order to gain a holistic view of the nature of the relationships proposed above, the relevant variables are integrated. From the integration, a theoretical model is formed that illustrates the proposed linkages between the selected constructs. Figure 2.2 depicts the structural model that was developed in this study.

The dependent/endogenous variables in this study, OCB and Integrity, are symbolised by ETA (η). The independent/exogenous variables, self-control, risk-taking and manipulation are denoted by the symbol KSI (ξ).

The model, furthermore, comprises of paths between variables and these paths indicate the relationships between the different constructs. The symbol GAMMA (γ) describes a path between an exogenous variable and an endogenous variable. Further, BETA (β) represents a path between two endogenous variables. ZETA (ζ), on the other hand, is the residual errors in the latent endogenous variables. It symbolizes the errors in structural equations and depicts the error terms of $\eta1$ and $\eta2$ in this study.

60
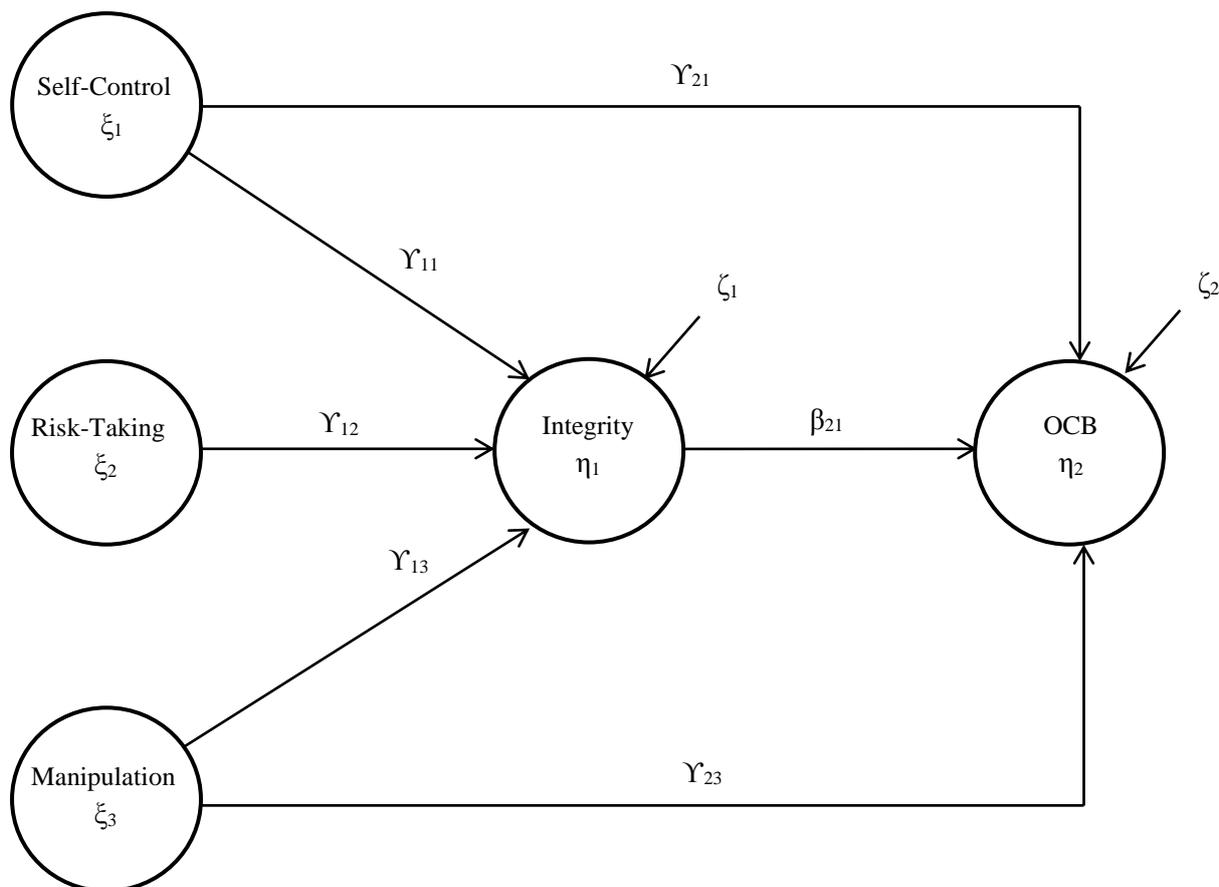
Figure 2.2: **Structural Model**

2.9 Summary

This chapter conducted a literary review on the constructs OCB, integrity, self-control, risk-taking, and manipulation. Each construct is discussed in terms of its conceptualisation. The measurement of integrity was also discussed as a new South African measurement instrument was used in this study. In addition, this chapter, focused on specific personality factors in relation to integrity and OCB. The relation between integrity and OCB was also discussed. It was theorised: integrity and self-control positively influence OCB; and that self-control positively influences integrity; while risk-taking negatively influences integrity; and manipulation negatively influences integrity and OCB. Lastly, a proposed theoretical structural model was conceptualised from the proposed relationships.

CHAPTER 3

RESEARCH METHODOLOGY

3.1   Introduction

In Chapter 2, specific causal relationships were hypothesised between the latent variables self-control, risk-taking, manipulation, integrity and OCB. A proposed theoretical structural model was conceptualised from these arguments and is included in Chapter 2 (Figure 2.2). The purpose of this chapter is to outline the specific research process that was followed to provide empirical evidence of the hypothesised relationships in Chapter 2. This includes a discussion of the study's research design, sampling, missing values, measuring instruments and statistical analysis procedure that were used during the study.

3.2   Research Design

The purpose of this study was to empirically test the merit of the hypothesised structural relationships between the latent variables proposed in the structural model in Figure 2.2. In Table 3.5 the statistical hypotheses are provided that propose the specific relationships among the exogenous latent variables (ξ) and the endogenous latent variables (η). In this study a quantitative approach was used through the acquisition of primary data.

To empirically investigate the research hypotheses, a plan is required that will provide precise empirical evidence. This plan is referred to as the research design (Kerlinger & Lee, 2000). According to Babbie and Mouton (2001), a research design is the outline of how a researcher intends to conduct his/her inquiry. The research design is determined by the research problem, as well as the type of evidence that is required to address the research problem (Babbie & Mouton, 2001). Its function is to determine the certainty with which the empirical evidence can be used in arguments for or against the hypotheses that are being assessed.

An *ex post facto* correlation design was utilised to assess the overarching substantive research hypothesis in this study. The logic of an *ex post facto* correlation design is to obtain measures of the observed variables in order to calculate the observed covariance matrix (Kerlinger & Lee, 2000). This design is utilised to confirm the degree to which independent and dependent observed variables co-vary. Due to the fact that the latent variables cannot be manipulated, the *ex post facto* correlation design was used in the structural model. Estimates for both the

structural and measurement model parameters were acquired repetitively, for the reproduction of the observed covariance matrix to be as close as possible (Diamantopoulos & Siguaw, 2000).

3.3   Sampling

According to Babbie and Mouton (2001), sampling is the process where observations are selected. There are two types of sampling methods: (a) non-probability sampling; and (b) probability sampling (Babbie & Mouton, 2001). A non-probability sampling technique is used in this study. In non-probability sampling the probability that a specific individual is selected from the population is not known.

There are four types of non-probability sampling techniques: (a) convenience sampling where subjects are selected for their availability; (b) purposive or judgemental sampling where subjects are selected on the foundation of expert judgement; (c) snowball sampling where initial subjects are selected and additional subjects are acquired from the information that is obtained from the initial subjects; and lastly (d) quota sampling is where subjects are selected for specific characteristics, such as age, gender, ethnic group or education level (Babbie & Mouton, 2001; Kline, 2005). For practical reasons, convenience sampling was utilised in this study.

3.3.1 Data Collection Procedure

The research hypotheses described in this chapter were empirically tested by analysing the responses obtained from selected measures of employees within a private hospital in the Southern Cape. The participants in this study thus evaluated their own self-control, risk-taking, manipulation, integrity and organisational citizenship behaviour, and these responses were used to analyse the relationships between self-control, risk-taking, manipulation, integrity and organisational citizenship behaviour.

Data was gathered via the Stellenbosch University web-based e-Survey service [SUrveys]. An electronic version of the questionnaire was developed using Checkbox. The web-based e-Survey service protects the identity and confidentiality of participants as it collects data anonymously. Participants received an email from their organisation containing a link, which provided them with access to the questionnaire. The sample for this research was thus selected based on their willingness to participate in the study.

3.3.2 The Demographic Profile of the Sample

The final sample consisted of 211 respondents, of which 29 (13.74%) were male and 182 (86.26%) were female. The ages of the respondents ranged from 19 to 69. The average age of the sample was 40, with the largest sample within the 30 to 49 range. Table 3.1 provides the descriptive statistics of the sample.

Table 3.1: *Biographical Information of the Sample*

SAMPLE PROFILE		
Gender		
	Amount	Percentage
Male	29	13.74 %
Female	182	86.26 %
Age		
	Amount	Percentage
< 20	1	0.47 %
20-29	46	21.80 %
30-39	58	27.49 %
40-49	59	27.96 %
50-59	34	16.11 %
60-69	13	6.16 %
Race		
	Amount	Percentage
African/Black	15	7.11 %
Indian	3	1.42 %
Coloured	30	14.22 %
White	163	77.25 %
Current Job Level		
	Amount	Percentage
Non-Managerial	139	65.88 %
Lower Level Management	29	13.74 %
Middle Level Management	20	9.48 %
Upper Level Management	23	10.90 %

3.4   Missing Values

Before data is analysed, the missing values must be addressed. The method that one uses to address missing values is determined by the number and the nature of the missing values (Kline, 2005). Missing values may result if a respondent is unwilling to respond to a specific item or if the respondent did not understand the specific item (Kline, 2005).

There are different methods that can be utilised to address the issue of missing values. A popular method is a list-wise deletion, where cases that contain missing values are omitted entirely from the analysis (Kline, 2005). Only complete cases are thus included in the analysis. Unfortunately, this will result in a decrease in the sample size.

Another method to address missing values is pair-wise deletion. In pair-wise deletion the variables of the cases containing the missing values are deleted and not the complete case (Kline, 2005). Therefore, the case is not deleted from the entire set of analyses, but that the case is only deleted from the particular analysis section for which there are no observed score (Byrne, 2013).

Missing values can also be addressed by inserting an estimated value into the variable that is missing a value (Kline, 2005). The estimated value can be the arithmetic mean, or a value can be derived by predicting a score based on the values of other variables by using multiple regression. The method of inserting an arithmetic mean into the variable is called mean imputation. According to Byrne (2013), this method can cause problems due to the fact that an arithmetic mean represents the most likely score and could therefore reduce the variance of the variable. In the case of regression-based imputation, missing values are replaced by a predicted score, using multiple regression based on the values of other variables (Kline, 2011).

In this study, list-wise deletion was used to address missing values. Of the 214 employees who completed the questionnaire, 3 responses were deleted. The sample size, thus, decreased from 214 to 211.

3.5   Measuring Instruments

In order to measure the relevant variables in this study five different assessment instruments were used. That is, the Brief Self-Control Scale for measuring self-control, the Risk-Taking Index for measuring risk-taking, the manipulation sub-scale of the Organisational

Machiavellianism Scale for measuring manipulation, the Ethical Integrity Test for measuring integrity, and the Organisational Citizenship Behaviour Scale for measuring organisational citizenship behaviour.

3.5.1 Organisational Citizenship Behaviour

Organisational citizenship behaviour was measured with the adapted Organisational Citizenship Behaviour Scale (OCBS), which was developed by MacKenzie, Moorman, and Fetter (1990). This scale was adapted by Engelbrecht and Chamberlain (2005), and Hendrikz (2017) into a self-rating measure. The original questionnaire consists of 24 items measuring the five construct domains that were specified by Organ (1988), namely altruism, conscientiousness, courtesy, civic virtue, and sportsmanship (Podsakoff et al., 1990). Each item is answered by a five-point Likert scale, which ranges from 'strongly disagree' to 'strongly agree' (Podsakoff et al., 1990). Reliabilities for the scale were reported as ranging from α=0.70 to α = 0.85 for civic virtue and altruism, respectively (Moorman, 1991). The confirmatory factor analysis further produced a Tucker-Lewis Index (TLI) of 0.94 for the goodness of fit (Moorman, 1991).

3.5.2 Integrity

Integrity was measured by means of the Ethical Integrity Test (EIT) that was developed by Engelbrecht (as cited in Du Toit, 2015). The assessment comprises of 66 items with the following dimensions: (a) behavioural consistency; (b) righteousness; (c) frankness; (d) credibility; and (e) fairness (Du Toit, 2015) (see Chapter 2). From the statistical analysis conducted by Anderson (2017), the Cronbach's Alpha produced for each subscale of the EIT was deemed satisfactory, ranging from 0.93 to 0.96. Furthermore, the CFA indicated that reasonable fit was obtained for the EIT measurement model (with a RMSEA value of 0.0669, Standardised RMR of 0.0476 NFI of 0.978, and CFI of 0.988 (Anderson, 2017).

3.5.3 Self-Control

Self-control was measured by the Brief Self-Control Scale (BSCS) that was developed by Tangney, Baumeister, and Boone (2004) (see Chapter 2). They originally developed a 36-item scale, the Self-Control Scale, to assess a person's ability to override or alter their inner responses, as well as their ability to interject when they desire to or behave in an undesirable manner. Like the full scale, the BSCS uses a 5-point Likert scale that ranges from 1 'not like me at all' to 5 'very much like me' (Tangney et al., 2004). The items assess a person's ability to regulate his/her behaviour as well as a person's impulse control (Tangney et al., 2004). Table 3.2 contains the Brief Self-Control Scale.

Table 3.2: *The Brief Self-Control Scale*

The Brief Self-Control Scale
The following items are rated on a 5-point Likert scale (1 = *not like me at all,* 2 = *a little like me*, 3 = *somewhat like me*, 4 = *mostly like me*, 5 = *very much like me*):
1. I am good at resisting temptation.   2. I have a hard time breaking bad habits. (R)   3. I am lazy. (R)   4. I say inappropriate things. (R)   5. I do certain things that are bad for me, if they are fun. (R)   6. I refuse things that are bad for me.   7. I wish I had more self-discipline. (R)   8. People would say that I have iron self-discipline.   9. Pleasure and fun sometimes keep me from getting work done. (R)   10. I have trouble concentrating. (R)   11. I am able to work effectively toward long-term goals.   12. Sometimes I can't stop myself from doing something, even if I know it is wrong. (R)   13. I often act without thinking through all the alternatives. (R)
*(R) = Reversed Item

(Tangney et al., 2004)

To ascertain whether the two scales are psychometrically sound, Tangney et al. (2004) conducted two large studies. From the statistical analysis, it was proven that the BSCS has adequate internal consistency with a Cronbach's alpha of 0.83 and 0.85 (Tangney et al., 2004). The analysis also shows that the scale has a good test-retest reliability of $\alpha = 0.87$ over a period of three weeks (Tangney et al., 2004). This scale also displayed a strong correlation ($r = 0$ .93 and 0.92) with the full 36-item scale in both studies (Tangney et al., 2004).

3.5.4 Risk-Taking

Risk-Taking was measured by means of the Risk-Taking Index (RTI), which was developed by Nicholson et al. (2005). They developed the RTI as a risk propensity measure that assesses an individual's differences in risk-taking by asking respondents to report on their current as well as their past risk behaviour across different domains (Nicholson et al., 2005). The scale consists of 12 items, and six risk-taking domains: (a) recreation; (b) health; (c) career; (d) finance; (e) safety; and (f) social. The RTI can be viewed in Table 3.3.

Table 3.3: *The Risk-Taking Index*

THE RISK-TAKING INDEX

We are interested in everyday risk-taking. Please could you tell us if any of the following have ever applied to you, now or in your adult past?

Please use the scales as follows:

1 = Never; 2 = Rarely, 3 = Quite Often, 4 = Often, 5 = Very Often

	Now	*In the Past*
a) Recreational risks (*e.g. rock-climbing, scuba diving*)	1 2 3 4 5	1 2 3 4 5
b) Health risks (*e.g. smoking, poor diet, high alcohol consumption*)	1 2 3 4 5	1 2 3 4 5
c) Career risks (*e.g. quitting a job without another to go to*)	1 2 3 4 5	1 2 3 4 5
d) Financial risks (*e.g. gambling, risky investments*)	1 2 3 4 5	1 2 3 4 5
e) Safety risks (*e.g. fast driving, city cycling without a helmet*)	1 2 3 4 5	1 2 3 4 5
f) Social risks (*e.g. standing for election, publicly challenging a rule or decision*)	1 2 3 4 5	1 2 3 4 5

(Taken from Nicholson et al., 2005, p.174)

From the statistical analysis, the Cronbach's Alpha produced for each subscale of the RTI was found to be acceptable with values ranging between 0.80 to 0.88 (Nicholson et al., 2005). The CFA indicated that the model fits the data reasonable well with a RMSEA of 0.06; AGFI of 0.92; and NNFI of 0.91 (Nicholson et al., 2005).

3.5.5 Manipulation

The 6-item manipulativeness sub-scale of the Organisational Machiavellianism Scale (OMS) that was developed by Kessler, Bandelli, Spector, Borman, Nelson and Penney (2010) was used to measure manipulation. The OMS is a three-dimensional model with the following dimensions: (a) maintaining power; (b) management practices; and (c) manipulativeness (Kessler et al., 2010). Each dimension consists of six items that are rated on a 6-point Likert scale, where 1 is equal to 'strongly disagree' and 6 is equal to 'strongly agree' (Kessler et al., 2010). The items of the manipulativeness dimension can be seen in Table 3.4.

From the statistical analysis, it was found that the manipulativeness subscale produced satisfactory results in terms of the Cronbach's alpha with a value of 0.76 (Kessler et al., 2010). After conducting a confirmatory factor analysis, Kessler et al. (2010) established that the scale fit the data well (RMSEA of 0.05; CFI of 0.93; NFI of 0.89; NNFI of 0.92; and GFI of 0.93).

Table 3.4: *Manipulativeness Dimension of the OMS*

DIMENSION 3	ITEMS
Manipulativeness	1. Employees should be watched with an "eye of suspicion: because it is natural for people to desire to acquire power."
	2. Since most employees are ambitious, they will only do good deeds if it benefits them.
	3. When seeking revenge, an individual should completely defeat a competitor to ensure no retaliation.
	4. Since most people are weak, a rational individual should take advantage of the situation to maximize his/her own gains.
	5. It is important to be a good actor, but also capable of concealing this talent.
	6. The most effective means of getting people to behave in an ethical fashion is by making them fearful of behaving otherwise.

(Kessler et al., 2010, p. 1896)

3.6 Statistical Analyses of the Data

After all the required data was gathered, the statistical analysis of the data followed. The following statistical techniques were utilised in the analysis: (a) item analysis; (b) confirmatory factor analysis (CFA) to assess the fit of the measurement model; and (c) structural equation modelling (SEM) to assess the fit of the structural model.

3.6.1 Item Analysis

Item analysis was conducted on each of the measurement instruments with the SPSS Reliability Procedure (SPSS, 1990) to assess internal consistency. The results are discussed per measure in Chapter 4. Internal consistency describes the extent to which each item in a scale or subscale is inter-correlated with other items on that scale or subscale (Theron, 2013). Item analysis determines whether a measure is reliable and whether items exist within the measure that do not represent the latent variable it intends to measure (Theron, 2013). Items that fail to discriminate between different states of the latent variable that they are intended to reflect, are called poor items (Theron, 2013). When an item is deemed a poor item and does not contribute to the internal consistency of the sub-scales of the measurement instrument, that item is considered for elimination (Henning, Theron, & Spangenberg, 2004). When a poor item was identified within the study, it was considered to be deleted from the particular scale.

Within item analysis, one evaluates the coefficient of internal consistency (Cronbach's Alpha) to determine the reliability of the scales. The size of Cronbach's Alpha depends on the average correlation between the items (i.e. internal consistency) and the number of items (Nunnally, 1978). Cronbach's alphas range from 0 – 1. The closer the Cronbach's alpha is to 1, the greater is the internal consistency of the items in the scale (Nunnally, 1978). Within this study, the guidelines provided by Nunnally (1978) were followed in order to evaluate the reliability of the scales and subscales. The guidelines indicate that a Cronbach's alpha of (a) 0.90 and higher is deemed excellent; (b) 0.80 to 0.89 is good (c) 0.70 to 0.79 is adequate; and (d) below 0.70 may have limited applicability (Nunnally, 1978). Therefore, items with a Cronbach's alpha above 0.70 were deemed as satisfactory for this study.

The item-total correlations for each specific item can also be utilised to determine whether a measure is internally consistent. An item-total correlation that exceeds 0.20 is deemed satisfactory, while those below 0.20 qualify for elimination (Nunnally, 1978). After the coefficient of internal consistency was considered for each scale and subscale, the item-total correlations were evaluated.

After the item analysis was completed, confirmatory factor analysis was conducted. In the next section, confirmatory factor analysis is discussed.

3.6.2 Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) is a statistical technique that is used to test the proposed hypotheses or theories relating to the structure that underlies a set of variables (Pallant, 2007). A CFA was conducted on all the different measures by utilising LISREL 8.80. The results obtained from the CFA are discussed per measure in Chapter 4.

Within CFA, one considers a number of goodness-of-fit statistics. First, the fit index of the Root Mean Square Error of Approximation (RMSEA) is examined in order to determine the initial fit of the model. A RMSEA smaller than 0.08, with a p-value larger than 0.05, is deemed to be acceptable. If, however, the initial test of model fit is poor (RMSEA > 0.08), the modification indices of THETA-DELTA must be investigated to determine the probability of increasing the model fit (Diamantopoulos & Siguaw, 2000).

The objective of model modification indices is to determine whether any of the fixed parameters, when freed in a model, would significantly improve the parsimonious fit of the model (Theron, 2013). Modification indices (MI) point out the degree to which the chi-square fit statistic decreases when a fixed parameter in the model is freed and the model re-estimated (Jöreskog & Sörbom, 1996). If the values of the modification index values are large, the fit of the model will improve significantly ($p < 0.01$).

If a model has obtained an acceptable fit in the initial test, each item should be evaluated in terms of its completely standardised factor loadings (LAMDA-X). Items are deemed acceptable if the values of their factor loadings are greater than 0.5, indicating that the items successfully contribute to the coherency of the sub-scale. The confirmatory factor analysis procedure is completed once all the items load significantly on the latent variable and items that do not load significantly on the variable, are considered for deletion.

3.6.3 Structural Equation Modelling

Structural Equation Modelling (SEM) was also used in this study utilising LISREL 8.80 – the results of which are found in Chapter 4. Kelloway (1998) provides important reasons for the inclusion of this statistical technique. Measurement instruments are often used to investigate proposed constructs in social sciences. Through a CFA, the SEM can determine how the measure reflects the proposed constructs in social sciences (Kelloway, 1998). The SEM could also be utilised to assess the properties of the psychological measures. A factor analysis, as part

of an application of SEM, tests hypotheses by explicitly testing both the overall quality of the factor solution as well as the specific parameters of the model (Kelloway, 1998).

More complex path models can be specified as well as examined with SEM (Kelloway, 1998). In social science, researchers are mainly interested in prediction (Kelloway, 1998). Over the years, these predictive models have also increased in complexity, but the SEM still allows for the specification and testing of these more complex models and their components (Kelloway, 1998).

Lastly, SEM could both assess the quality of measurement as well as assess the predictive relationships among the constructs (Kelloway, 1998). The SEM is a flexible and powerful method of evaluating the quality of a measure when it is assessing the predictive relationships that exist amongst the underlying latent variables (Kelloway, 1998). This is done by performing a CFA and path analysis simultaneously (Kelloway, 1998).

In addition, SEM allows one to summarise the interrelationships between the variables (Weston & Gore, 2006). SEM captures the unreliability of measurement within the model. This allows the structural relationships among the variables to be estimated. Complex relationships could be developed and assessed by utilising SEM, if the sample data reflects these relationships. If one finds a weakness one can explore the weakness further by modifying the model and obtaining new data (Weston & Grove, 2006). There are five stages within SEM: (a) model specification; (b) identification; (c) estimation; (d) testing fit; and (e) re-specification.

In the first stage, the hypotheses of the study are presented in the form of a structural equation model. Model specification describes the number as well as the nature of parameters that should be estimated in the initial comprehensive model (Diamantopoulos & Siguaw, 2000). This needs to be done before one proceeds with any data analyses. The construction of a comprehensive path diagram, which depicts the substantive hypotheses and measurement system, should also be included in model specification (Theron, 2013).

Model identification is the process of examining the information provided by the data to determine whether it is sufficient for parameter estimation (Theron, 2013). Thus, determining whether the data provides unique values for the freed parameters of the specified model. Once it is possible for the computer to obtain a unique estimate of every parameter in the model, a model can be identified (Kline, 2011). The observed data should provide a single unique value for each of the parameters.

As soon as the model is comprehensively identified, one can continue with parameter estimation. In this stage, the LISREL program attempts to determine the implied covariance matrix (Diamantopoulos & Siguaw, 2000). This matrix will then be compared to the observed covariance matrix and thereafter adjusted to obtain an equivalent matrix to the actual covariance matrix (Diamantopoulos & Siguaw, 2000).

Once the parameter estimates are obtained, the model is tested in order to determine whether it is consistent with the data (Theron, 2013), signifying the implied covariance matrix is equivalent to the covariance matrix of the observed data.

Once the assessment of model fit is completed, it can be determined whether it is necessary to modify the model. According to Kelloway (1998), model re-specification is the omission of non-significant paths or inclusion of paths to the model based on empirical results. This is deemed necessary when the model is estimated to fit poorly. After the model is adapted, it is re-tested for model fit.

3.6.4 The Structural Model

A structural model comprises of a set of linear structural equations. These equations specify the causal relationships between latent variables (Jöreskog & Sörbom, 1996). It also describes the causal effects of the variables and allocate variance in terms of what is explained and what is unexplained (Jöreskog & Sörbom, 1996). The structural model developed in this study is based on the theoretical arguments conducted in Chapter 2 and is illustrated in Figure 2.2.

The structural model as a matrix equation:

$$
\begin{bmatrix} \eta_1 \\ \eta_2 \end{bmatrix} = \begin{bmatrix} 0 & 0 \\ \beta_{21} & 0 \end{bmatrix} \begin{bmatrix} \eta_1 \\ \eta_2 \end{bmatrix} + \begin{bmatrix} \Upsilon_{11} \\ \Upsilon_{12} \\ \Upsilon_{13} \\ \Upsilon_{21} \\ \Upsilon_{23} \end{bmatrix} \begin{bmatrix} \xi_1 \\ \xi_2 \\ \xi_3 \end{bmatrix} + \begin{bmatrix} \zeta_1 \\ \zeta_2 \end{bmatrix}
$$

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

When observing the exogenous and endogenous variables, one can develop the matrix equation. It should be noted that the gamma and beta variables should also be considered in the matrix equation.

3.6.5 Statistical Hypotheses

The formulation of statistical hypotheses depends on the underlying logic of the proposed research design and the nature of the envisaged statistical analysis. In this study, the overarching substantive research hypothesis is to investigate the influence of self-control, risk-taking and manipulation on integrity, as well as the influence of self-control, manipulation and integrity on organisational citizenship behaviour. A substantive basis was provided by existing research studies. The theoretical argument made in Chapter 2 brought about the identification of self-control, risk-taking, manipulation, integrity and organisational citizenship behaviour as latent variables in the structural model presented in the previous section.

If the interpretation of the overarching substantive research hypothesis indicates that the structural model proves to be a perfect explanation for the way in which the selected personality variables and integrity influence organisational citizenship behaviour, the hypothesis results in the following exact fit null hypothesis:

$$H_{01}: RMSEA = 0$$

$$H_{a1}: RMSEA > 0$$

However, when the overarching substantive research hypothesis is deemed only to indicate that the structural model is approximately accountable for the manner in which the selected personality variables and integrity influence organisational citizenship behaviour, the substantive research hypothesis can be described as the following close fit null hypothesis:

$$H_{02}: RMSEA \leq 0.05$$

$$H_{a2}: RMSEA > 0.05$$

The overarching substantive research hypothesis was allocated into more detailed, specific substantive research hypotheses in the previous chapter as

Hypothesis 3: Self-control has a significant positive influence on integrity.

Hypothesis 4: Risk-taking has a significant negative influence on integrity.

Hypothesis 5: Manipulation has a significant negative influence on integrity.

Hypothesis 6: Self-control has a significant positive influence on organisational citizenship behaviour.

Hypothesis 7: Manipulation has a significant negative influence on organisational citizenship behaviour.

Hypothesis 8: Integrity has a significant positive influence on organisational citizenship behaviour.

These hypotheses were then transformed into the path coefficient statistical hypotheses (see Table 3.5).

Table 3.5: *The Statistical Hypotheses*

Hypothesis 3	**Hypothesis 4**	**Hypothesis 5**
H_{03}: $\gamma_{11} = 0$	H_{04}: $\gamma_{12} = 0$	H_{05}: $\gamma_{13} = 0$
H_{a3}: $\gamma_{11} > 0$	H_{a4}: $\gamma_{12} < 0$	H_{a5}: $\gamma_{13} < 0$
Hypothesis 6	**Hypothesis 7**	**Hypothesis 8**
H_{06}: $\gamma_{21} = 0$	H_{07}: $\gamma_{23} = 0$	H_{08}: $\beta_{21} = 0$
H_{a6}: $\gamma_{21} > 0$	H_{a7}: $\gamma_{23} < 0$	H_{a8}: $\beta_{21} > 0$

In the next section, a discussion will follow on the model fit assessment.

3.7 Assessing Model Fit

A wide range of goodness-of-fit statistics exists in order to determine a model's overall fit. The goodness-of-fit indices assess a model's absolute and comparative fit.

A discussion will now follow regarding the indices that were used to assess the model's fit.

3.7.1 Absolute Fit

A test of absolute fit assesses the degree to which a model reproduces sample data. These indices are concerned with the model-to-data matrix correspondence (Kline, 2011). Firstly, the chi-square statistic traditionally measures the overall fit of the model. The chi-square provides a test of perfect fit. A statistically significant chi-square will lead to the rejection of the model. The chi-square tests the null hypothesis:

$$H_0: \Sigma = \Sigma(\theta)$$

The aim is to not reject the null hypothesis. The Satorra Bentler χ^2 is utilised to test the above-mentioned hypothesis. An insignificant χ^2 value is an indication that the model fits the data well and that the model can reproduce the population covariance matrix. An exact fit of the model is unrealistic and therefore it is more appropriate to test the close fit of the model. A p-value of the close fit that is greater than 0.05 is deemed acceptable (RMSEA < 0.05) (Kelloway, 1998).

Due to the fact that the chi-square is sensitive to sample size, the χ^2 is expressed in terms of the degrees of freedom (*df*). It is thus expressed as χ^2 divided by *df*. Usually a good fit is indicated when the value of χ^2 expressed in terms of degrees of freedom is between 2 and 5 (Kelloway, 1998). If a value is less than 2, it indicates that the model is overfitting (Kelloway, 1998).

A model's absolute fit is also evaluated by means of the Goodness-of-fit Index (GFI). The GFI assesses the degree to which the covariances that are predicted from the parameter estimates, reproduce the sample covariance (Kelloway, 1998). The GFI values range from 0 to 1, where 0 is poor and 1 is a perfect fit. Values that are above 0.9 will indicate a good model fit to the data (Kelloway, 1988).

The Root Mean Square Residual (RMR) is another method to assess a model's fit. According to Diamantopoulos and Siguaw (2000), the RMR is an assessment of the average difference

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between the sample covariance matrix and the fitted covariance matrix that is produced from the theoretical model in a study. It is established that the lower the RMR value, the better the model will fit the data. The standardised RMR (i.e. the fitted residuals divided by their estimated standard errors) indicates a good fit to the data if the value is less than 0.05 (Diamantopoulos & Siguaw, 2000).

Another informative fit index worthy of inclusion in assessing a model's absolute fit is the Root Mean Square Error of Approximation (RMSEA). With the RMSEA, smaller values are deemed to fit data better. A value less than 0.08 attests that a reasonable fit exists, while a value less than 0.05 indicates a good fit (Diamantopoulos & Siguaw, 2000). An outstanding fit to data is shown when the RMSEA value is below 0.01 (Diamantopoulos & Siguaw, 2000).

After these methods were used to assess the model's absolute fit, the model's comparative fit was assessed.

3.7.2 Comparative Fit

A model's comparative fit is the relative improvement of the fit of the model in comparison to the statistical baseline model (the independence/null model) (Kelloway, 1998). The null model indicates that there exists no relationship between the variables that compose the model (Kelloway, 1998). The comparative fit was assessed utilising the Normed-Fit Index (NFI); the Non-Normed Fit Index (NNFI); the Comparative Fit Index (CFI); the Incremental Fit Index (IFI) and the Relative Fit Index (RFI). The fit indices each range from 0 to 1. The closer a value is to 1, the better the fit of the model (Kelloway, 1998). Thus, values that are greater than 0.95 represent good model fit (Hooper, Coughlan & Mullen, 2008; Kelloway, 1998). A summary of the criteria of the goodness-of-fit indices which is used in this study, is provided in Table 3.6

Table 3.6: *Criteria of Goodness-of-Fit Indices*

Absolute Fit Measures	Criteria
Minimum fit function Chi-Square	A non-significant result indicates good model fit
χ^2/df	A value between 2 and 5 indicates good fit
Root Mean Square Error of Approximation (RMSEA)	A value of 0.08 or less indicates acceptable fit A value below 0.05 indicates good fit A value below 0.01 indicates outstanding fit
P-Value for Test of Close Fit (RMSEA < 0.05)	A value above 0.05 indicates 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 H_0: RMSEA < 0.05).
Root Mean Square Residual (RMR)	A value below 0.08 indicatives of good fit
Standardised RMR	A value less than 0.05 indicates good fit
Goodness of Fit Index (GFI)	A value closer to 1 and above 0.90 represents good fit

Comparative Fit Measures	Criteria
Normed Fit Index (NFI)	A value closer to 1 indicates better fit A value above 0.90 indicates acceptable fit A value above 0.95 indicates good fit
Non-Normed Fit Index (NNFI)	A value closer to 1 indicates better fit A value above 0.90 indicates acceptable fit A value above 0.95 indicates good fit
Comparative Fit Index (CFI)	A value closer to 1 indicates better fit A value above 0.90 indicates acceptable fit A value above 0.95 indicates good fit
Incremental Fit Index (IFI)	A value closer to 1 indicates better fit A value above 0.90 indicates acceptable fit A value above 0.95 indicates good fit
Relative Fit Index (RFI)	A value closer to 1 indicates better fit A value above 0.90 indicates acceptable fit A value above 0.95 indicates good fit

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

3.8 Ethical Considerations

As research in psychology requires the involvement of human beings, it is the responsibility of the researcher/s to ensure that any potential ethical risks or discomforts are considered, and safeguards must be set in place to protect the rights and well-being of participants. In this section the safeguards used within this study are discussed briefly.

Prior to its commencement, this research study was submitted to the Departmental Ethics Committee of the Department of Industrial Psychology of Stellenbosch University for ethical clearance. Ethical clearance was ascertained in order to protect the participants involved in the study and to ensure that their rights, dignity, safety and well-being were not harmed. The committee ensured that the study met the Ethical Rules of Conduct for Practitioners Registered under the Health Professions Act (Act no. 56 of 1974 of the Republic of South Africa).

Participants involved in this research study participated voluntarily and they had the choice to discontinue their participation at any time. To make an informed decision about their involvement in this study, participants were notified about the following: the study's objective and purpose; what participation involves; how the research would be utilised; who the researchers were; and where inquiries could be made about the study. Informed consent was obtained for all the individuals involved in this study. The data that was collected from participants was treated as confidential and only the researchers had access to the data. The results obtained from data were also presented in aggregate form alone. In addition, no personal information about participants were divulged.

It was the objective of the researcher to conduct this study in a fashion that is in accordance with the law as well as the ethical standards set by the Department of Industrial Psychology at Stellenbosch University.

3.9 Summary

In this chapter the hypotheses regarding this study and the methodology that was utilised to assess these hypotheses were presented. It also includes an overview of the research design, the sampling technique and sample, as well as the measurement instruments and statistical techniques that were used during this study. The results that were obtained from the methodology used in this chapter are presented in Chapter 4. Chapter 5 contains the interpretation and implications of the results.

CHAPTER 4

RESEARCH RESULTS

4.1   Introduction

In this chapter, the results that were obtained following the data analysis described in the previous chapter, are discussed. Item analysis was utilised to ascertain the reliability of each of the different measures used in this study to assess the five latent variables (self-control; risk-taking; manipulation; integrity and organisational citizenship behaviour). Furthermore, CFA was subjected to the measures in order to determine the fit of the measurement models. CFA was also conducted on the structural model to determine model fit. Lastly, the hypotheses mentioned in the previous chapter were tested in order to determine the relationships among the different constructs. These accounts are provided in detail in this chapter.

4.2   Item Analysis

Each of the measurement scales were subjected to an item and to a reliability analysis by method of the SPSS reliability procedure. The Cronbach's alpha of each scale and subscale as well as the corrected item-total correlation, was examined to determine the reliability of each of the scales and its items. A Cronbach's alpha that exceeds 0.70 indicates a scale that has adequate internal reliability (Nunnally, 1978). Furthermore, a corrected item-total correlation with a value exceeding 0.20 is satisfactory and indicate that an item is measuring the specific latent variable (Nunnally, 1978).

4.2.1   Reliability Analysis: OCB Scale

The adjusted OCBS used in this study, consists of five subscales: (a) altruism; (b) civic virtue; (c) conscientiousness; (d) courtesy; and (e) sportsmanship. Each of the subscales were subjected to item analysis and the results that were obtained from this analysis are discussed in the next sections.

4.2.1.1   Reliability Results: Altruism Scale

The altruism subscale of the OCBS contains five items. From the analysis, the subscale obtained a Cronbach's alpha equal to 0.85 (as shown in Table 4.1). This value falls between 0.80 and 0.89, and is thus considered good according to the guidelines set by Nunnally (1978).

The internal consistency is also supported by the item-total correlations (also presented in Table 4.1). Each of the five items obtained an item-total correlation between 0.62 and 0.72 which is satisfactory. As a result, no items were considered to be problematic or required to be deleted. From these results, one can conclude that the altruism subscale measures what it is intended to measure.

Table 4.1: *Reliability and Item Statistics of the Altruism Scale*

RELIABILITY STATISTICS		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.850	**0.851**	**5**

ITEM-TOTAL STATISTICS					
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OCB1	15.94	6.054	0.628	0.426	0.828
OCB10	15.80	5.989	0.697	0.511	0.811
OCB13	16.26	5.975	0.621	0.439	0.830
OCB15	16.10	5.837	0.717	0.538	0.805
OCB23	15.99	5.881	0.645	0.421	0.824

4.2.1.2   Reliability Results: Civic Virtue Scale

The reliability results obtained from the item analysis conducted on the civic virtue subscale are presented in Table 4.2. This subscale consists of four items and obtained a Cronbach's alpha of 0.699. This value is not sufficient according the guidelines set by Nunnally (1978). If, however, item OCB6 is deleted, a Cronbach's alpha of 0.748 is obtained. Because the subscale only consists of 4 items, it was decided that the item will not be deleted. Malhotra (2004) believes that a Cronbach's alpha above 0.60 indicates that a measure has acceptable internal

consistency. In addition, item OCB6, along with the other items, did obtain an item-total correlation above the 0.20 recommended cut-off value.

This subscale as well as its items was closely monitored during further analysis in order to determine whether elimination was in fact required.

Table 4.2: *Reliability and Item Statistics of the Civic Virtue Scale*

RELIABILITY STATISTICS		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.699	**0.688**	**4**

ITEM-TOTAL STATISTICS					
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OCB6	10.29	6.435	0.258	0.092	0.748
OCB9	10.48	4.451	0.572	0.369	0.574
OCB11	10.66	4.493	0.541	0.343	0.597
OCB12	10.33	4.707	0.577	0.334	0.575

4.2.1.3 Reliability Results: Conscientiousness Scale

Table 4.3 presents the reliability and item statistics of the conscientiousness subscale, which contains five items. From the analysis, the subscale obtained a Cronbach's alpha equal to 0.73. According to the guidelines set by Nunnally (1978), reliability values between 0.70 and 0.79 are regarded as adequate. The internal consistency is further supported by the item-total correlations. Each of the five items obtained an item-total correlation above 0.20, which is satisfactory. In addition, no significant increases will result in the alpha value if any of the items were deleted. As a result, no items were considered to be problematic and thus required

to be deleted. From these results, one can conclude that the conscientiousness subscale measures what it is intended to measure.

Table 4.3: *Reliability and Item Statistics of the Conscientiousness Scale*

RELIABILITY STATISTICS		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.730	**0.731**	**5**

ITEM-TOTAL STATISTICS					
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OCB3	16.21	6.235	0.351	0.164	0.732
OCB18	16.27	5.722	0.502	0.286	0.681
OCB21	16.66	4.977	0.508	0.335	0.681
OCB22	16.47	5.136	0.607	0.418	0.638
OCB24	16.56	5.457	0.502	0.306	0.680

4.2.1.4 Reliability Results: Courtesy Scale

The reliability results of the five-item courtesy subscale are presented in Table 4.4. From the analysis, the subscale obtained a Cronbach's alpha equal to 0.781. According to Nunnally (1978), this reliability value is regarded as adequate. When considering the item-total correlations, each of the five items obtained an item-total correlation between 0.535 and 0.603. This is satisfactory and indicates that no problematic items exist. In addition, the alpha values will not increase if an item is deleted, indicating that no item deletion is required. From these results, one can conclude that this subscale measures what it presumes to measure.

Table 4.4: *Reliability and Item Statistics of the Courtesy Scale*

RELIABILITY STATISTICS		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.781	**0.784**	**5**

ITEM-TOTAL STATISTICS					
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OCB4	15.61	6.125	0.542	0.319	0.746
OCB8	15.99	6.028	0.551	0.333	0.744
OCB14	15.60	6.746	0.535	0.316	0.748
OCB17	15.81	6.392	0.603	0.365	0.726
OCB20	15.93	6.323	0.563	0.336	0.738

4.2.1.5 Reliability Results: Sportsmanship Scale

The subscale sportsmanship of the OCBS comprises of five items. From the analysis, the subscale obtained a Cronbach's alpha equal to 0.77 (as presented in Table 4.5). This value ranges between 0.70 and 0.79, and is thus considered to be adequate according to the guidelines set by Nunnally (1978). The internal consistency is also supported by the item-total correlations (also presented in Table 4.5). Each of the five items obtained an item-total correlation between 0.47 and 0.63, which is deemed satisfactory. As a result, no items are problematic or required to be deleted. From these results, one can conclude that the subscale measures what it intends to measure.

Table 4.5: *Reliability and Item Statistics of the Sportsmanship Scale*

RELIABILITY STATISTICS		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.770	**0.769**	**5**

ITEM-TOTAL STATISTICS					
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OCBR2	14.52	10.346	0.471	0.234	0.751
OCBR5	14.45	9.640	0.574	0.359	0.716
OCBR7	14.60	9.165	0.633	0.421	0.694
OCBR16	15.00	9.638	0.530	0.293	0.732
OCBR19	14.58	10.387	0.496	0.257	0.742

4.2.2 Reliability Analysis: Integrity Scale

The Ethical Integrity Test used to assess the respondents' integrity within this study, comprises of 66 items that relate to five subscales: (a) consistency; (b) credibility; (c) frankness; (d) righteousness; and (e) fairness. The subscales were all subjected to item analysis and a discussion on the outcomes follows.

4.2.2.1 Reliability Results: Consistency Scale

Table 4.6 provides the reliability results obtained from the item analysis conducted on the consistency subscale, which contains ten items. This subscale obtained an adequate overall reliability coefficient to the value of 0.79. Of the ten items on the subscale, only one item (INT54) did not correlate well with the subscale score and did not exceed the 0.20 recommended cut-off value. This item obtained an item-total correlation of -0.016 and, if this item were to be removed, the Cronbach's alpha of the subscale would increase to 0.88. The

removal of this item would thus result in a substantial increase in the alpha values. Upon investigating the item, the respondents could perceive the item was asking two questions. The item states, "In the past, I have thought about taking money which did not belong to me, but decided not to take it". However, the intention of the item was "In the past, I was tempted to take money which did not belong to me". The question could as a result create confusion for the respondent. The item was therefore deleted from the subscale.

Table 4.6: *Reliability and Item Statistics of the Consistency Scale*

RELIABILITY STATISTICS		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.788	**0.848**	**10**

ITEM-TOTAL STATISTICS				
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
INT5	35.88	20.156	0.657	0.560	0.747
INT14	36.03	20.737	0.527	0.362	0.762
INT19	36.03	20.070	0.695	0.575	0.744
INT24	35.95	20.869	0.581	0.421	0.757
INT29	35.78	20.393	0.714	0.625	0.745
INT34	35.91	20.620	0.648	0.573	0.751
INT39	35.83	21.295	0.638	0.485	0.756
INT44	35.65	21.284	0.430	0.394	0.773
INT49	35.52	21.641	0.423	0.408	0.774
INT54	37.00	23.424	-0.016	0.077	0.876

The revised reliability and item statistics are presented in Table 4.7. With the deletion of INT54 the Cronbach's alpha increased to 0.876 as was suggested. The item-total correlations for the other items remained above the cut-off value.

Table 4.7: *Reliability and Item Statistics of the Revised Consistency Scale*

RELIABILITY STATISTICS		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.876	**0.881**	**9**

ITEM-TOTAL STATISTICS					
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
INT5	32.92	18.027	0.719	0.555	0.853
INT14	33.08	19.013	0.517	0.350	0.872
INT19	33.08	18.175	0.720	0.569	0.853
INT24	32.99	18.886	0.614	0.420	0.863
INT29	32.82	18.386	0.759	0.625	0.851
INT34	32.95	18.469	0.714	0.563	0.854
INT39	32.87	19.445	0.647	0.478	0.861
INT44	32.70	19.317	0.452	0.391	0.879
INT49	32.70	19.438	0.481	0.400	0.875

4.2.2.2 Reliability Results: Credibility Scale

Table 4.8 depicts the reliability and item statistics of the credibility subscale. This subscale obtained an excellent overall reliability coefficient with a value of 0.91. This subscale consists of 15 items and each of these items obtained an item-total correlation higher than the recommended cut-off value of 0.20. When one considers the Cronbach's Alpha, no significant

increases will result if an item is deleted. As no problematic items were indicated, no items were deleted.

Table 4.8: *Reliability and Item Statistics of the Credibility Scale*

RELIABILITY STATISTICS		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.911	**0.917**	**15**

ITEM-TOTAL STATISTICS					
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
INT3	59.03	56.385	0.397	0.257	0.912
INT8	59.32	52.484	0.607	0.563	0.905
INT12	59.15	52.139	0.707	0.644	0.902
INT17	59.31	51.824	0.710	0.664	0.902
INT22	59.18	52.847	0.764	0.658	0.901
INT27	59.45	55.782	0.271	0.118	0.920
INT32	59.20	53.144	0.690	0.568	0.903
INT37	59.25	51.265	0.779	0.679	0.899
INT42	59.34	51.445	0.766	0.687	0.900
INT47	59.17	54.780	0.614	0.463	0.906
INT52	59.25	51.996	0.785	0.705	0.899
INT57	59.44	53.009	0.624	0.458	0.905
INT61	59.03	53.418	0.681	0.539	0.903
INT64	59.48	56.022	0.289	0.238	0.918
INT66	59.37	52.758	0.661	0.551	0.903

4.2.2.3　　　Reliability Results: Frankness Scale

The reliability results of the frankness subscale are presented in Table 4.9. The subscale consists of 14 items. From the analysis, the subscale obtained a Cronbach's alpha of 0.91. This exceeds 0.90 and is thus considered to be excellent according to the guidelines set out by Nunnally (1978). The internal consistency is also supported by the item-total correlations as each item obtained an item-total correlation above 0.20, which is deemed satisfactory. As a result, no items are problematic or required to be deleted. From these results, one can conclude that the subscale measures what it is intended to measure.

Table 4.9: *Reliability and Item Statistics of the Frankness Scale*

RELIABILITY STATISTICS		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.909	**0.909**	**14**

ITEM-TOTAL STATISTICS					
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
INT2	55.30	39.820	0.669	0.548	0.901
INT7	55.05	39.864	0.730	0.636	0.898
INT11	54.95	40.716	0.711	0.604	0.899
INT16	54.89	40.177	0.757	0.680	0.897
INT21	54.92	39.766	0.797	0.762	0.896
INT26	54.73	41.096	0.732	0.650	0.899
INT31	54.85	40.259	0.760	0.683	0.897
INT36	54.79	42.509	0.567	0.381	0.905
INT41	54.52	44.975	0.285	0.218	0.914
INT46	54.74	45.003	0.231	0.256	0.917
INT51	55.07	41.104	0.672	0.511	0.901
INT56	55.07	41.310	0.690	0.528	0.900
INT60	55.20	42.582	0.509	0.372	0.907
INT65	55.14	42.199	0.510	0.372	0.907

4.2.2.4 Reliability Results: Righteousness Scale

With regard to the Righteousness subscale, the reliability coefficient was found to be 0.930. According to Nunnally (1978), this indicates that the reliability value is excellent. In addition, all the items obtained an item-total correlation above the recommended cut-off value of 0.20. No items were considered to be problematic. When one considers the Cronbach's alpha values if an item was to be deleted, one can establish that no significant increases will result from an item deletion. The reliability and item statistics are shown in Table 4.10. From these findings, one can assume that the subscale measures what it intends to measure.

Table 4.10: *Reliability and Item Statistics of the Righteousness Scale*

RELIABILITY STATISTICS		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.930	**0.932**	**14**

ITEM-TOTAL STATISTICS				
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
INT1	53.28	47.033	0.638	0.469	0.926
INT6	53.49	45.242	0.747	0.679	0.922
INT10	53.44	44.838	0.785	0.702	0.921
INT15	53.59	44.948	0.746	0.582	0.922
INT20	53.66	46.550	0.640	0.522	0.926
INT25	53.38	47.733	0.514	0.329	0.929
INT30	54.06	48.430	0.304	0.154	0.939
INT35	53.64	44.906	0.768	0.629	0.921
INT40	53.62	45.170	0.688	0.549	0.924
INT45	53.50	45.308	0.781	0.664	0.921
INT50	53.55	45.335	0.745	0.626	0.922
INT55	53.59	46.882	0.627	0.530	0.926
INT59	53.62	45.485	0.753	0.592	0.922
INT63	53.39	45.163	0.769	0.638	0.922

4.2.2.5   Reliability Results: Fairness Scale

The fairness subscale comprises of thirteen items and the reliability and item statistics of the subscale are presented in Table 4.11. This subscale obtained an overall Cronbach's alpha of 0.898, which is considered a good reliability coefficient (Nunnally, 1978). Taking the item-total correlation into consideration, one observes that no problematic items are evident as the values exceed the recommended cut-off value of 0.20. One can assume, based on these findings that the fairness subscale measures what it assumes to measure.

Table 4.11: *Reliability and Item Statistics of the Fairness Scale*

RELIABILITY STATISTICS		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.898	**0.904**	**13**

ITEM-TOTAL STATISTICS					
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
INT4	48.55	38.306	0.576	0.416	0.892
INT9	48.56	38.219	0.710	0.563	0.885
INT13	48.82	38.532	0.639	0.525	0.888
INT18	48.71	38.075	0.730	0.639	0.884
INT23	48.82	38.583	0.641	0.566	0.888
INT28	48.29	39.151	0.658	0.480	0.888
INT33	48.73	38.586	0.570	0.382	0.892
INT38	48.68	39.896	0.470	0.312	0.896
INT43	48.91	41.587	0.238	0.112	0.910
INT48	48.63	38.959	0.667	0.495	0.887
INT53	48.64	38.070	0.747	0.631	0.884
INT58	48.53	39.041	0.704	0.540	0.886
INT62	48.38	39.284	0.625	0.451	0.889

4.2.3 Reliability Results: Self-Control Scale

Table 4.12 provides the reliability results obtained from the item analysis conducted on the Brief Self-Control scale, which contains thirteen items. This scale obtained an adequate overall reliability coefficient with the value of 0.790. All thirteen items received an item-total correlation higher than 0.20, which is the recommended cut-off value. It could thus be concluded that none of the items within this subscale were considered to be problematic. Furthermore, when considering the value of the Cronbach's alphas if an item was deleted, no significant increase would result. No deletions were thus considered.

Table 4.12: *Reliability and Item Statistics of the Self-Control Scale*

RELIABILITY STATISTICS		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.790	**0.795**	**13**

ITEM-TOTAL STATISTICS					
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
SCON1	43.19	56.014	0.344	0.325	0.783
SCON6	43.40	56.470	0.243	0.208	0.794
SCON8	43.58	56.464	0.270	0.268	0.790
SCON11	42.82	56.904	0.243	0.210	0.793
SCONR2	43.04	56.322	0.316	0.215	0.785
SCONR3	42.08	55.532	0.419	0.318	0.776
SCONR4	42.43	55.075	0.478	0.365	0.772
SCONR5	42.60	52.317	0.581	0.564	0.761
SCONR7	43.19	53.795	0.416	0.274	0.776
SCONR9	42.25	53.284	0.522	0.452	0.767
SCONR10	42.35	53.837	0.511	0.396	0.768
SCONR12	42.50	51.023	0.608	0.523	0.757
SCONR13	42.72	52.052	0.573	0.490	0.762

4.2.4 Reliability Results: Risk-Taking Scale

Table 4.13 presents the reliability results of the Risk-Taking scale that was used in this study. The scale consists of 12 items. From the item analysis, the scale obtained a Cronbach's alpha equal to 0.87 which is deemed a good reliability by Nunnally (1978). In addition, the internal consistency of the scale is supported by the item-total correlations. Each item obtained an item-total correlation higher than 0.20, which is the recommended cut-off value. No items were thus considered to be poor that required deletion. From these results it can be concluded that the scale measures what it is intended to measure.

Table 4.13: *Reliability and Item Statistics of the Risk-Taking Scale*

RELIABILITY STATISTICS		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.872	**0.875**	**12**

ITEM-TOTAL STATISTICS					
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
RISK1	19.95	50.535	0.575	0.611	0.860
RISK2	19.38	51.085	0.465	0.758	0.869
RISK3	20.47	54.793	0.444	0.623	0.868
RISK4	20.25	51.779	0.609	0.790	0.859
RISK5	20.06	50.778	0.643	0.736	0.856
RISK6	20.32	53.999	0.486	0.615	0.866
RISK7	19.81	50.129	0.575	0.610	0.861
RISK8	19.29	49.930	0.543	0.776	0.863
RISK9	20.45	54.201	0.519	0.661	0.864
RISK10	20.21	51.207	0.626	0.799	0.858
RISK11	19.85	48.135	0.703	0.783	0.851
RISK12	20.19	51.738	0.574	0.677	0.861

4.2.5   Reliability Results: Manipulation Scale

With regard to the six-item manipulation scale, a Cronbach's alpha equal to 0.84 was found. This indicates that the scale has a good reliability value as deemed by the guidelines of Nunnally (1978). All the items within the scale obtained an item-total correlation above 0.20 (the recommended cut-off value) and no significant increase would result if an item was deleted. No items were thus considered for deletion. The reliability and item statistics of the scale are provided in Table 4.14. From the results, one can conclude that the manipulation scale measures what it intends to measure.

Table 4.14: *Reliability and Item Statistics of the Manipulation Scale*

RELIABILITY STATISTICS		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.840	**0.840**	**6**

ITEM-TOTAL STATISTICS					
Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MAN1	13.59	30.739	0.612	0.439	0.815
MAN2	13.09	32.553	0.536	0.371	0.829
MAN3	13.96	29.412	0.671	0.481	0.803
MAN4	14.26	30.765	0.648	0.458	0.809
MAN5	13.35	29.246	0.648	0.453	0.808
MAN6	13.98	30.133	0.590	0.368	0.820

4.3   Summary of the Item Analysis Results

Table 4.15 contains a comprehensive summary of each of the item analysis results for the different scales, and where relevant their subscales. These results indicate that adequate internal consistency was obtained for the scales and subscales. One can thus conclude that all the scales

used in this study are internally consistent and reliable. It should be noted that one poor item was deleted from the consistency subscale of the Ethical Integrity Test.

Table 4.15: *Summary of the Item Analysis Results*

Scale	Mean	Standard Deviation	Cronbach's Alpha	No of Items Deleted	No of Items Retained
OCBS: Altruism	20.02	2.993	0.850	0	5
OCBS: Civic Virtue	13.92	2.848	0.699	0	4
OCBS: Conscientiousness	20.55	2.839	0.730	0	5
OCBS: Courtesy	19.73	3.061	0.781	0	5
OCBS: Sportsmanship	18.29	3.812	0.770	0	5
Total OCBS	92.51	11.765	0.899	0	24
EIT: Consistency	37.00	4.840	0.876	1	9
EIT: Credibility	63.50	7.796	0.911	0	15
EIT: Frankness	59.17	6.916	0.909	0	14
EIT: Righteous	57.68	7.279	0.930	0	14
EIT: Fairness	52.69	6.732	0.898	0	13
Total EIT	270.03	31.608	0.978	1	65
BSCS	46.35	7.932	0.790	0	13
RTI	21.84	7.785	0.872	0	12
M-OMS	16.45	6.521	0.840	0	6

4.4   Evaluating the Measurement Models

As mentioned in the previous chapter, LISREL 8.80 was utilised in order to perform a Confirmatory Factor Analysis (CFA) on all the scales and subscales used in this study. By conducting a CFA, the goodness-of-fit between the measurement models and the obtained data was investigated by testing the hypotheses of exact fit (H_{01}: RMSEA = 0) and close fit (H_{02}: RMSEA $\leq$ 0.05).

In this section, the results that were obtained from the analyses are discussed per scale. The focus is mainly on one fit index initially – the Root Mean Square Error of Approximation (RMSEA). A RMSEA value smaller than 0.08 indicates an acceptable model fit, a value

smaller than 0.05 indicates a good model fit, and a value below 0.01 indicates an outstanding model fit (Diamantopoulos & Siguaw, 2000; Hooper et al., 2008). The initial fit index thus indicates whether the measurement model achieved good fit or fitted poorly. After acceptable fit indices were achieved, the factor loadings were investigated by method of the Completely Standardised LAMBDA-X matrices. Items with a value above 0.30 are construed as loading sufficiently on the corresponding latent variable. A discussion will follow on each measurement model fit.

4.4.1　　　Evaluating the Measurement Model Fit of the OCB Scale

The OCBS comprises of five subscales, all of which were included in the CFA simultaneously to evaluate the measurement model fit of the OCBS. The fit indices are provided in Table 4.21. The initial fit inspection indicated that the measurement model fits the data reasonably well, with a RMSEA value of 0.0553. Therefore, the H_0 for close fit cannot be rejected. This indicates that the measurement model obtained close fit.

A variety of values, including the χ^2/df, Root Mean Residual (RMR), Standardised RMR and Goodness of Fit (GFI), were calculated in order to assess the absolute fit. The χ^2/df ratio was calculated by dividing the Satorra-Bentler Scaled Chi-Square with the Degrees of Freedom. A χ^2/df value of 1.6417 was obtained which ranges below the good fit of 2 – 5 and may indicate that the model is overfitting. In addition, the GFI with the value of 0.836, marginally missed the requirement (> 0.90) for good fit. The RMR, however, with the value of 0.0488 fell within the range for good fit (< 0.08), while the standardised RMR value of 0.0616 missed the required cut-off value for good fit (< 0.05). It can thus be concluded that the measurement model for the OCBS only presents reasonable absolute fit. The results of the NFI and RFI incremental fit indices, on the other hand, were above 0.90 indicating that a reasonable fit was obtained. The values for the NNFI, CFI and IFI were above 0.95, indicating good fit. It could therefore be said that the model provides a credible explanation of the observed covariance matrix.

After the fit indices were assessed, the factor loadings were investigated by method of the Completely Standardised LAMBDA-X matrices. Items with a value above 0.30 are construed as loading sufficiently on the corresponding latent variable. The completely standardised LAMBDA-X matrix for the OCBS is presented in Table 4.16. All 24 items were above the 0.30 cut-off value. Also, all the items of the OCBS significantly (t values $\geq |1.64|$) represent the subscales they were designed to measure by showing reasonably acceptable loadings (> 0.30).

Table 4.16: *Completely Standardised LAMBDA-X for the OCBS*

	Sportsmanship	Courtesy	Altruism	Civic Virtue	Conscientiousness
OCBR2	0.538	- -	- -	- -	- -
OCBR5	0.672	- -	- -	- -	- -
OCBR7	0.701	- -	- -	- -	- -
OCBR16	0.623	- -	- -	- -	- -
OCBR19	0.629	- -	- -	- -	- -
OCB1	- -	- -	0.601	- -	- -
OCB3	- -	- -	- -	- -	0.490
OCB4	- -	0.657	- -	- -	- -
OCB6	- -	- -	- -	0.353	- -
OCB8	- -	0.560	- -	- -	- -
OCB9	- -	- -	- -	0.750	- -
OCB10	- -	- -	0.715	- -	- -
OCB11	- -	- -	- -	0.663	- -
OCB12	- -	- -	- -	0.682	- -
OCB13	- -	- -	0.696	- -	- -
OCB14	- -	0.781	- -	- -	- -
OCB15	- -	- -	0.762	- -	- -
OCB17	- -	0.596	- -	- -	- -
OCB18	- -	- -	- -	- -	0.543
OCB20	- -	0.583	- -	- -	- -
OCB21	- -	- -	- -	- -	0.636
OCB22	- -	- -	- -	- -	0.802
OCB23	- -	- -	0.719	- -	- -
OCB24	- -	- -	- -	- -	0.590

4.4.2   Evaluating the Measurement Model Fit of the Integrity Scale

The 65-item EIT (after reliability analysis) with its five subscales was used to assess the personal integrity of the respondents and thus the five subscales were simultaneously submitted for a CFA in order to evaluate the measurement model fit of the EIT. The fit indices are shown in Table 4.21. A RMSEA value of 0.0616 was obtained, which is smaller than the recommended 0.08 value. This indicates an acceptable model fit.

Table 4.17: *Completely Standardised LAMBDA-X for the EIT*

	Righteous	Frankness	Credibility	Fairness	Consistency
INT1	0.646	- -	- -	- -	- -
INT2	- -	0.685	- -	- -	- -
INT3	- -	- -	0.421	- -	- -
INT4	- -	- -	- -	0.598	- -
INT5	- -	- -	- -	- -	0.780
INT6	0.748	- -	- -	- -	- -
INT7	- -	0.743	- -	- -	- -
INT8	- -	- -	0.584	- -	- -
INT9	- -	- -	- -	0.675	- -
INT10	0.785	- -	- -	- -	- -
INT11	- -	0.767	- -	- -	- -
INT12	- -	- -	0.676	- -	- -
INT13	- -	- -	- -	0.602	- -
INT14	- -	- -	- -	- -	0.623
INT15	0.764	- -	- -	- -	- -
INT16	- -	0.794	- -	- -	- -
INT17	- -	- -	0.705	- -	- -
INT18	- -	- -	- -	0.707	- -
INT19	- -	- -	- -	- -	0.741
INT20	0.703	- -	- -	- -	- -
INT21	- -	0.840	- -	- -	- -
INT22	- -	- -	0.769	- -	- -
INT23	- -	- -	- -	0.604	- -
INT24	- -	- -	- -	- -	0.661
INT25	0.541	- -	- -	- -	- -
INT26	- -	0.759	- -	- -	- -
INT27	- -	- -	0.370	- -	- -
INT28	- -	- -	- -	0.668	- -
INT29	- -	- -	- -	- -	0.824
INT30	0.342	- -	- -	- -	- -
INT31	- -	0.787	- -	- -	- -
INT32	- -	- -	0.735	- -	- -
INT33	- -	- -	- -	0.565	- -

A poor P-value of close fit (< 0.05) was obtained and indicates that a close fit was not achieved. A χ^2/df value of 1.796 was obtained which falls below the good fit range of $2 - 5$ and may indicate that the model is overfitting. In addition, the GFI value of 0.608 missed the requirement (> 0.90) for good fit. The RMR, however, with the value of 0.0361 fell within the range for good fit (< 0.08), while the standardised RMR value of 0.0593 marginally missed the required cut-off for good fit (< 0.05). Thus, the indices for the absolute fit were deemed to be reasonable. The results that were obtained on the incremental fit indices were all above 0.95.

This represents a good fit. It can thus be said that the overall fit indices proved that the measurement model achieved reasonable fit with the data. As a result, the EIT measurement model is said to provide an acceptable explanation for the observed covariance matrix.

Table 4.17 *(Continued): Completely Standardised LAMBDA-X for the EIT*

	Righteous	**Frankness**	**Credibility**	**Fairness**	**Consistency**
INT34	- -	- -	- -	- -	0.773
INT35	0.747	- -	- -	- -	- -
INT36	- -	0.601	- -	- -	- -
INT37	- -	- -	0.762	- -	- -
INT38	- -	- -	- -	0.510	- -
INT39	- -	- -	- -	- -	0.730
INT40	0.713	- -	- -	- -	- -
INT41	- -	0.357	- -	- -	- -
INT42	- -	- -	0.793	- -	- -
INT43	- -	- -	- -	0.303	- -
INT44	- -	- -	- -	- -	0.445
INT45	0.765	- -	- -	- -	- -
INT46	- -	0.236	- -	- -	- -
INT47	- -	- -	0.679	- -	- -
INT48	- -	- -	- -	0.745	- -
INT49	- -	- -	- -	- -	0.454
INT50	0.791	- -	- -	- -	- -
INT51	- -	0.685	- -	- -	- -
INT52	- -	- -	0.827	- -	- -
INT53	- -	- -	- -	0.845	- -
INT55	0.690	- -	- -	- -	- -
INT56	- -	0.713	- -	- -	- -
INT57	- -	- -	0.655	- -	- -
INT58	- -	- -	- -	0.715	- -
INT59	0.756	- -	- -	- -	- -
INT60	- -	0.547	- -	- -	- -
INT61	- -	- -	0.665	- -	- -
INT62	- -	- -	- -	0.673	- -
INT63	0.759	- -	- -	- -	- -
INT64	- -	- -	0.311	- -	- -
INT65	- -	0.548	- -	- -	- -
INT66	- -	- -	0.656	- -	- -

The completely standardised LAMBDA-X matrix for the EIT is represented in Table 4.17. When assessing the output, 1 out of the 65 items loaded below the recommended value of 0.30 (INT46, 0.24). It was, however, established that the items significantly (t values $\geq |1.64|$) represent the subscales they were designed to measure by showing acceptable loadings.

4.4.3   Evaluating the Measurement Model Fit of the Self-Control Scale

The 13-item Brief Self-Control Scale (BSCS) was designed with one dimension, self-control. The CFA therefore, was conducted with all the items loading onto the one factor. An initial RMSEA value of 0.100 was obtained, which was larger than the recommended 0.08 value. This indicates a poor model fit. Based on the completely standardised LAMBDA-X matrix for the BSCS, five items with too low factor loadings were identified as poor items and thus deleted (SCON1, SCON6, SCON8, SCON10, SCON11).

The revised fit statistics (provided in Table 4.21) indicated that the measurement model showed an acceptable fit with a RMSEA of 0.0749. A close fit P-value of > 0.05 was obtained that indicates a close fit. The RMR value of 0.0681 was smaller than the 0.08 cut-off value and thus indicates good fit. While the standardised RMR missed the 0.05 cut-off with a value of 0.0563. The χ^2/df value of 2.177 falls within the 2 to 5 range for good fit, and the GFI also indicated a good fit with a value of 0.940 (> 0.90). In addition, the results of the incremental fit measures indicated values above 0.90 (NFI and RFI) (indicating acceptable fit), with the NNFI, CFI and IFI above 0.95 (indicating good fit). It could thus be concluded that the measurement model of this scale presents a reasonable fit.

The completely standardised LAMBDA-X matrix for the revised BSCS is represented in Table 4.18. When assessing the output of the revised scale, 8 items satisfactorily represent the dimension it was designed to reflect (> 0.30).

Table 4.18: *Completely Standardised LAMBDA-X for the revised Brief Self-Control Scale*

	Self-Control
SCON2	0.358
SCON3	0.501
SCON4	0.602
SCON5	0.783
SCON7	0.455
SCON9	0.569
SCON12	0.744
SCON13	0.718

4.4.4 Evaluating the Measurement Model Fit of the Risk-Taking Scale

The 12-item Risk-Taking Index was designed to examine the present as well as the past risky behaviour of the respondents. The CFA therefore was conducted with all the items loading onto the one factor. An initial RMSEA value of 0.215 was obtained, which was greater than the recommended 0.08 value. This indicated a poor model fit.

An examination of the modification indices for Theta-Delta indicated high cross-loadings (> 6.64) between the items that were measuring risk-taking behaviour currently in comparison to risk-taking behaviour in the past. Consequently, the six items measuring risk-taking behaviour in the past were deleted. A RMSEA value of 0.0973 was obtained for the revised 6-item Risk-Taking Index, which still indicated a poor model fit (> 0.08).

It was then decided to delete Item 3 because of its high modification index for Theta-Delta (> 6.64). The fit statistics for the revised 5-item Risk-Taking Index (provided in Table 4.21) indicated that the measurement model showed a reasonable fit with a RMSEA value of 0.0668. A good p-value of close fit (> 0.05) was obtained and indicates that a close model fit was achieved. An exact model fit was also achieved (p > 0.05) for the revised Risk-Taking Index.

The RMR value of 0.0409, along with the Standardised RMR value of 0.0415 exhibited good fit. In addition, the χ^2/df value of 1.937 marginally missed the required values for good fit (2–5). However, the GFI did indicated a good fit (> 0.90) with a value of 0.979.

In addition, the results obtained for the incremental fit indices (except for the RFI) were above 0.95, which indicates a good model fit. The RFI obtained a score of 0.925, which indicates an acceptable fit (> 0.90). The measurement model could as a result be viewed as a credible explanation of the observed covariance matrix.

Table 4.19: *Completely Standardised LAMBDA-X for the Risk-Taking Index*

	Risk-Taking
RISK1	0.570
RISK2	0.450
RISK4	0.559
RISK5	0.790
RISK6	0.556

When examining the completely standardised LAMBDA-X matrix (provided in Table 4.19), all of the factor loadings were deemed acceptable (> 0.30).

4.4.5   Evaluating the Measurement Model Fit of the Manipulation Scale

In this study, the 6-item manipulativeness subscale of the OMS was used to assess the variable manipulation. This scale, as a result, was perceived as unidimensional and the CFA was completed on all the items loading onto the one factor. Table 4.21 presents the fit statistics of the manipulation scale. A RMSEA of 0.0755 was obtained, which indicates an acceptable fit.

When observing the fit statistics (presented in Table 4.21), an RMR value of 0.106 and a standardised RMR of 0.0530 were obtained, which missed the cut-off values for good fit. However, the GFI and the χ^2/df indicated good fit with a value of 0.945 and 2.197, respectively. Moreover, a good p-value of close fit (> 0.05) was obtained that indicated a close model fit.

In addition, results obtained in the incremental fit measures were all above 0.95, which is indicative of a good fit. From these results, it can be held that the measurement model provides a credible explanation of the observed covariance matrix.

Table 4.20 comprises of the completely standardised LAMBDA-X matrix for the manipulation scale. All six items loaded substantially onto the latent variable, Manipulation, with values larger than 0.50. This indicates that the items significantly (t values ≥ |1.64|) and substantially represent the dimension they were designed to reflect.

Table 4.20: *Completely Standardised LAMBDA-X for the Manipulation Scale*

	Manipulation
MAN1	0.651
MAN2	0.573
MAN3	0.754
MAN4	0.729
MAN5	0.727
MAN6	0.637

Table 4.21: *Fit Indices for the Measurement Models for the Measurement Scales*

Indices	OCBS	EIT	BSCS	RTI	MS
Absolute Fit Measures					
Satorra-Bentler Scaled Chi-Square	397.281 (P=0.00)	3600.216 (P=0.00)	43.541 (P=0.00173)	9.685 (P=0.0847)	19.772 (P=0.0194)
Degrees of Freedom (*df*)	242	2005	20	5	9
χ^2/df	1.6417	1.796	2.177	1.937	2.197
Root Mean Square Error of Approximation (RMSEA)	0.0553	0.0616	0.0749	0.0668	0.0755
P-Value for Test of Close Fit (RMSEA < 0.05)	0.184	0.000	0.0850	0.273	0.155
Root Mean Square Residual (RMR)	0.0488	0.0349	0.0681	0.0409	0.106
Standardised RMR	0.0616	0.0593	0.0563	0.0415	0.0530
Goodness-of-Fit Index (GFI)	0.836	0.608	0.940	0.979	0.945
Incremental Fit Measures					
Normed Fit Index (NFI)	0.930	0.956	0.946	0.963	0.971
Non-Normed Fit Index (NNFI)	0.967	0.979	0.958	0.962	0.973
Comparative Fit Index (CFI)	0.971	0.980	0.970	0.981	0.984
Incremental Fit Index (IFI)	0.972	0.980	0.970	0.982	0.984
Relative Fit Index (RFI)	0.921	0.954	0.925	0.925	0.952

4.5   Reliabilities for the Refined Measurement Scales after CFA

After the CFA, the reliabilities of the refined measurement scales were analysed. It was found to be satisfactory with values ranging between 0.70 and 0.98 (provided in Table 4.22).

Table 4.22: *Reliabilities of the Refined Scales after CFA*

Scale	Mean	Standard Deviation	Cronbach's Alpha	No of Items Deleted	No of Items Retained
OCBS: Altruism	20.02	2.993	0.850	0	5
OCBS: Civic Virtue	13.92	2.848	0.699	0	4
OCBS: Conscientiousness	20.55	2.839	0.730	0	5
OCBS: Courtesy	19.73	3.061	0.781	0	5
OCBS: Sportsmanship	18.29	3.812	0.770	0	5
Total OCBS	92.51	11.765	0.899	0	24
EIT: Consistency	37.00	4.840	0.876	1	9
EIT: Credibility	63.50	7.796	0.911	0	15
EIT: Frankness	59.17	6.916	0.909	0	14
EIT: Righteous	57.68	7.279	0.930	0	14
EIT: Fairness	52.69	6.732	0.898	0	13
Total EIT	270.03	31.608	0.978	1	65
BSCS	29.95	5.867	0.810	5	8
RTI	9.24	3.410	0.700	7	5
M-OMS	16.45	6.521	0.840	0	6

4.6   Fitting the Overall Measurement Model

The overall measurement model was fitted using robust maximum likelihood estimation and item parcelling. The subscales of the EIT and the OCBS were used as parcels, while random parcelling was used for the BSCS, RTI and M-OMS.

The fit indices for the overall measurement model, which are presented in Table 4.23, indicated that the measurement model obtained reasonable fit. The measurement model appeared to fit the data reasonably well with a RMSEA value of 0.0738 (< 0.08).

The Satorra-Bentler Scaled Chi-Square, with a value of 201.506 ($p < 0.01$), indicated that the null hypothesis of exact fit should be rejected. The χ^2/df ratio, obtained by dividing the Satorra-Bentler Scaled Chi-Square with the degrees of freedom (94), fell within the range of $2 - 5$ with a value of 2.144. This indicates a good fit.

The fit statistics also indicated that the measurement model obtained an RMR value of 0.0419, which indicates a good fit (< 0.08). The Standardised RMR, however, did not fall within the range of good fit (< 0.05) with a value of 0.0653. The GFI narrowly missed the suggested 0.90 value, which indicates good fit, with a value of 0.885.

The results of the incremental fit indices indicated that the measurement model achieved an NFI of 0.953, NNFI of 0.967, CFI of 0.974, and IFI of 0.974. These fit indices were above 0.95, which indicates a good comparative fit. The RFI of 0.940 still demonstrates a reasonable fit. When examined, the overall measurement model revealed a reasonable fit, and therefore it was concluded that the goodness-of-fit indices provided a credible explanation of the observed covariance matrix.

Table 4.23: *Fit Indices for the Overall Measurement Model*

Indices	
Absolute Fit Measures	
Satorra-Bentler Scaled Chi-Square	201.506
	(P=0.00)
Degrees of Freedom (*df*)	94
χ^2/df	2.144
Root Mean Square Error of Approximation (RMSEA)	0.0738
P-Value for Test of Close Fit (RMSEA < 0.05)	0.00350
Root Mean Square Residual (RMR)	0.0419
Standardised RMR	0.0653
Goodness-of-Fit Index (GFI)	0.885
Incremental Fit Measures	
Normed Fit Index (NFI)	0.953
Non-Normed Fit Index (NNFI)	0.967
Comparative Fit Index (CFI)	0.974
Incremental Fit Index (IFI)	0.974
Relative Fit Index (RFI)	0.940

4.7 Evaluating the Structural Model Fit

The main purpose of a structural model is to determine whether a connection exists between the examined endogenous and exogenous variables. The main goal within this study was to establish whether the conceptualised relationships specified in Chapter 2 were supported by the statistical data. The goodness-of-fit statistics of the structural model is given in Table 4.24.

A Satorra-Bentler Scaled Chi-Square value of 201.285 was obtained, which suggests that the null hypothesis of exact fit could not be accepted ($p < 0.01$). The RMSEA obtained a value of 0.0730. The RMSEA value for this structural model indicates an acceptable fit (< 0.08) (Diamantopoulos & Siguaw, 2000).

The χ^2/df ratio, calculated by dividing the value of the Satorra-Bentler Scaled Chi-Square (201.285) with the degrees of freedom (95), obtained a value of 2.119. This is indicative of a good model fit as the χ^2/df falls within the range of 2–5. The RMR value of the structural model was found to be 0.0419, which indicates a good model fit (< 0.08). The standardised RMR, however, missed the cut-off value for good model fit (< 0.05) with a value of 0.0654.

The goodness-of-fit index ranges from 0 to 1 and values above 0.90 indicate a good model fit. The structural model obtained a GFI of 0.885, which marginally missed the recommended good fit value. The results of the incremental fit measures, except the RFI, indicated that the structural model attained good model fit as all the values were above 0.95. The following values were attained: an NFI of 0.953; an NNFI of 0.968; a CFI of 0.975; an IFI of 0.975; and an RFI of 0.941. The RFI value indicated acceptable fit as it was above 0.90. Overall, it can be concluded that the structural model fits the data reasonably well.

Table 4.24: *Fit Statistics for the Structural Model*

Goodness of Fit Statistics

Degrees of Freedom = 95
Minimum Fit Function Chi-Square = 229.164 (P = 0.00)
Normal Theory Weighted Least Squares Chi-Square = 218.282 (P = 0.00)
Satorra-Bentler Scaled Chi-Square = 201.285 (P = 0.00)
Chi-Square Corrected for Non-Normality = 289.169 (P = 0.0)
Estimated Non-Centrality Parameter (NCP) = 106.285
90 Percent Confidence Interval for NCP = (69.312; 151.014)
Minimum Fit Function Value = 1.091
Population Discrepancy Function Value (F0) = 0.506
90 Percent Confidence Interval for F0 = (0.330; 0.719)
Root Mean Square Error of Approximation (RMSEA) = 0.0730
90 Percent Confidence Interval for RMSEA = (0.0589; 0.0870)
P-Value for Test of Close Fit (RMSEA < 0.05) = 0.00449
Expected Cross-Validation Index (ECVI) = 1.349
90 Percent Confidence Interval for ECVI = (1.173; 1.562)
ECVI for Saturated Model = 1.295
ECVI for Independence Model = 20.584
Chi-Square for Independence Model with 120 Degrees of Freedom = 4290.734
Independence AIC = 4322.734
Model AIC = 283.285
Saturated AIC = 272.000
Independence CAIC = 4392.364
Model CAIC = 461.711
Saturated CAIC = 863.853
Normed Fit Index (NFI) = 0.953
Non-Normed Fit Index (NNFI) = 0.968
Parsimony Normed Fit Index (PNFI) = 0.755
Comparative Fit Index (CFI) = 0.975
Incremental Fit Index (IFI) = 0.975
Relative Fit Index (RFI) = 0.941
Critical N (CN) = 136.603
Root Mean Square Residual (RMR) = 0.0419
Standardized RMR = 0.0654
Goodness of Fit Index (GFI) = 0.885
Adjusted Goodness of Fit Index (AGFI) = 0.835
Parsimony Goodness of Fit Index (PGFI) = 0.618

4.8   Relationships between Latent Variables

After it was established that the structural model fitted the data reasonably well, as discussed in the previous section, the next phase was to test the relationships between the endogenous and exogenous latent variables. This phase is necessary in order to determine whether the relations specified in the conceptualisation phase (Chapter 2), in fact support the data (Diamantopoulos & Siguaw, 2000).

There are three matters of concern when one assesses the validity of postulated relationships in a structural model. First, one must examine the signs of the parameters representing the paths between the latent variables to establish whether the direction of the hypothesised relationships is the same as the direction of those theorised (Diamantopoulos & Siguaw, 2000). Second, one must investigate the magnitudes of the estimated parameters as they provide essential information regarding the strength of these relationships (Diamantopoulos & Siguaw, 2000). Finally, one must consider the squared multiple correlations (R^2) as they indicate the degree of variance in the endogenous variables that is explained by the related latent variables (Diamantopoulos & Siguaw, 2000).

The parameters that were assessed in this regard are the freed elements of the gamma (γ) and beta (β) matrices. To evaluate the strength of the estimated path coefficients, the unstandardized gamma matrix was evaluated. The estimated path coefficients γ_i express the significance of the influence of ξ_j on η_i and are significant if $t > |1.64|$ (Diamantopoulos & Siguaw, 2000). A significant γ estimate would require that the related H_0-hypothesis be rejected in favour of the relevant H_a-hypothesis.

Table 4.25 depicts the unstandardized gamma matrix. Within this study, there are three exogenous latent variables: self-control, risk-taking, and manipulation. The hypotheses relevant to the gamma matrix are Hypothesis 3, 4, 5, 6, and 7.

Table 4.25: *Unstandardized GAMMA Matrix*

	Self-Control	Risk-Taking	Manipulation
OCB	0.205	- -	-0.171
	(0.085)		(0.069)
	2.408		**-2.464**
Integrity	0.069	-0.124	-0.297
	(0.097)	(0.089)	(0.080)
	0.712	**-1.390**	**-3.713**

Table 4.26 represents the unstandardized beta matrix. A beta matrix describes the hypothesised relationships among the endogenous variables in a structural model and reflects the slope of the regression in η_i and η_j (Diamantopoulos & Siguaw, 2000). As there is only one proposed relationship between two endogenous variables in this study, there is only one hypothesis (Hypothesis 8) relevant to the beta matrix. As with the unstandardized gamma estimates, the unstandardized beta estimates are significant ($p < 0.05$) if $t > |1.64|$ (Diamantopoulos & Siguaw,

2000). A significant β estimates would result in the rejection of the relevant H_0-hypothesis in favour of the relevant H_a-hypothesis.

Table 4.26: *Unstandardized Beta Matrix*

	OCB	Integrity
OCB	- -	0.610
		(0.081)
		7.568
Integrity	- -	- -

4.8.1   Relationship between Self-Control and Integrity

As shown in Table 4.25, a non-significant relationship existed between self-control (ξ_1) and integrity (η_1) as a t-value of 0.712 was obtained. As a result, no support was found for a direct effect of self-control on integrity as postulated by Hypothesis 3.

4.8.2   Relationship between Risk-Taking and Integrity

Table 4.25, further, indicates that a non-significant relationship, with a t-value of -1.390, exists between risk-taking (ξ_2) and integrity (η_1). Thus, there was no support for a direct effect of risk-taking on integrity as assumed by Hypothesis 4.

4.8.3   Relationship between Manipulation and Integrity

From Table 4.25, it can be derived that a significant negative relationship existed between manipulation (ξ_3) and integrity (η_1) as the t-value is equal to -3.713 (< 1.64). Therefore, null Hypothesis 5 ($H_{05:}\ \gamma_{13} = 0$) could be rejected in favour of alternative Hypothesis 5 (H_{a5}: $\gamma_{13}<0$), which suggests that the proposed negative relationship between the two latent variables was supported.

4.8.4   Relationship between Self-Control and OCB

Based on the t-value (2.408) seen in Table 4.25, a significant positive relationship exists between self-control (ξ_1) and OCB (η_2). Hence, null Hypothesis 6 (H_{06}) could be rejected in favour of H_{a6}: $\gamma_{21} > 0$, which suggests that the proposed relationship between self-control and OCB was supported.

4.8.5　　Relationship between Manipulation and OCB

The values in the Gamma matrix (Table 4.25) also indicate that a negative significant relationship exists between manipulation (ξ_3) and OCB (η_2) as the t-value (-2.464) is below -1.64. Consequently, the null Hypothesis 7 (H_{07}: $\gamma_{23} = 0$) can be rejected in favour of alternative Hypothesis 7 (H_{a7}: $\gamma_{23} < 0$). This indicates that support was found for the proposed relationship between the two variables.

4.8.6　　Relationship between Integrity and OCB

As presented in the Beta matrix (given in Table 4.26), the t-value of 7.568 was above 1.64. Thus, it is indicated that a significant positive relationship exists between integrity (η_1) and OCB (η_2). The null Hypothesis 8 (H_{08}: $\beta_{21} = 0$) was rejected in favour of the alternative Hypothesis 8 (H_{a8}: $\beta_{21} > 0$), which suggests that the proposed relationship between these two latent variables was supported.

4.8.7　　Pearson's Correlations

To further assess the validity of postulated relationships in a structural model, Hypothesis 3 to 8 were tested by calculating a matrix of zero-order Pearson correlation coefficients, and the corresponding conditional probabilities. While this analysis may be perceived as arbitrary, it is nonetheless consistent in its interpretation. The criterion proposed by Guilford (cited in Tredoux & Durrheim, 2002, p. 184) was used to interpret the magnitude of the obtained sample correlation coefficients. This criterion is specified in Table 4.27.

Table 4.27: *Guilford's Interpretation of the Magnitude of Significant r*

Absolute Value of r	Interpretation
< 0.19	Slight; almost no relationship
0.20 - 0.39	Low correlation; definite but small relationship
0.40 - 0.69	Moderate correlation; substantial relationship
0.70 - 0.89	High correlation; strong relationship
0.90 - 1.0	Very high correlation; very dependable relationship

(Tredoux & Durrheim, 2002)

From the correlation matrix (provided in Table 4.28), it is indicated that self-control, manipulation and integrity correlate moderately and significantly ($p < 0.001$) with OCB. This shows that a substantial relationship exists between the three constructs and OCB, indicating

that Hypothesis 6, 7, and 8 were further supported. In addition, self-control and manipulation were found to correlate low but statistically significant ($p < 0.05$) with integrity (see Table 4.28). It is thus likely that a small but positive relationship exists between self-control and integrity as well as a negative relationship between manipulation and integrity. Pearson's coefficient matrix is also indicating a slight, but significant relationship between risk-taking and integrity. This negative relationship agrees with the results obtained from the SEM results. Thus, the Pearson correlations provide partial support for Hypothesis 3 and 4 as well as further support for Hypothesis 5.

Table 4.28: *Pearson Correlation Matrix*

		BSCS	RTI	OCBS	M-OMS	EIT
BSCS	Pearson Correlation	1	-0.395**	0.479**	-0.316**	0.219**
	Sig. (2-tailed)		0.000	0.000	0.000	0.000
	N	211	211	211	211	211
RTI	Pearson Correlation	-0.395**	1	-0.250**	0.229**	-0.187**
	Sig. (2-tailed)	0.000		0.000	0.001	0.007
	N	211	211	211	211	211
OCBS	Pearson Correlation	0.479**	-0.250**	1	-0.451**	0.669**
	Sig. (2-tailed)	0.000	0.000		0.000	0.000
	N	211	211	211	211	211
M-OMS	Pearson Correlation	-0.316**	0.229**	-0.451**	1	-0.337**
	Sig. (2-tailed)	0.000	0.001	0.000		0.000
	N	211	211	211	211	211
EIT	Pearson Correlation	0.291**	-0.187**	0.669**	-0.337**	1
	Sig. (2-tailed)	0.000	0.007	0.000	0.000	
	N	211	211	211	211	211

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

In the next section, the structural model modification indices are discussed.

4.9   Structural Model Modification Indices

The structural model modification indices are similarly inspected to determine the degree to which the model was successful in its explanation of the observed covariances amongst the apparent variables. A modification index (MI), according to Jöreskog and Sörbom (1996), describes the minimum decrease in a model's chi-square value, if a previously fixed parameter is set free and the model is re-estimated based on this modification. Thus, a modification index refers to a specific parameter that was set to zero in a model and reveals ways in which the proposed model might be modified. This allows the researcher the opportunity to consider ways in which the model may be revised.

The size of the modification index is used to suggest the potential benefit that may result if the parameter is revised. Parameters with large modification indices are characterised by values above 6.64. A large modification index would suggest that the freeing of a specific parameter would potentially improve the fit of the model ($p < 0.01$). Researchers should take care when adjusting a model based on this method and consider if the modification makes theoretical sense and that it does not deviate from the initial theoretical model (Schreiber, Nora, Stage, Barlow, & King, 2006).

From the inspection of the LISREL output, the modification indices for the gamma or beta matrices did not suggest any modification that might improve the fit of the model. This indicates that there are no additional paths between any latent variables that would significantly improve the fit of the proposed structural model.

4.10 Summary

The purpose of this chapter was to report on the results that were obtained during the statistical analysis in this study. In this chapter, the construct validity of the measurement instruments that were used during the study was investigated and the statistical outcomes of the hypothesised relationships were determined. In Chapter 5 a discussion will follow on the general conclusions that can be drawn from the results. Recommendations for future research and possible managerial implications will also be given.

CHAPTER 5

DISCUSSION OF RESULTS, CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

5.1   Introduction

In this study, a detailed discussion took place on the constructs self-control, risk-taking, manipulation, integrity and organisational citizenship behaviour (Chapter 2). After this discussion, relationships were theorised among these constructs and a structural model was suggested, based on the hypothesised paths. In Chapter 3, the methodology that was followed during this study was explained, which stipulates the techniques that were used to analyse the data and produce the results. After the procedures were explained, the results that were obtained during the process, were presented in Chapter 4. In this chapter, a discussion will follow on the findings and conclusions that were drawn, based on these findings. Furthermore, the limitations that were encountered during the study are mentioned, as well as the impact that these findings may have on future research, or for managers, are discussed.

5.2   Purpose of the Study

The original purpose of this study was to answer the question: "Why is there variance in organisational citizenship behaviour amongst employees?" Organisations attempt to compete in turbulent markets by improving the productivity of their employees. One method is to attain and retain employees who are 'good citizens', and who also exhibit prosocial behaviour at work which may not be traditionally required of them. Thus, organisations require employees who exhibit organisational citizenship behaviour.

As was proven in Chapter 1, OCB increases the competitiveness of an organisation by enhancing employee productivity and by strengthening an organisation's ability to attract and retain the best employees. Further, OCB enables an organisation to adapt to changing environments, as innovative, pro-active employee behaviours are required to address situations that are not necessarily anticipated. These outcomes are but a few of the benefits that may result from employees who exhibit OCB.

As it was discovered that individuals with certain characteristics are more likely to exhibit OCB, focus was placed on identifying the influence that certain individual characteristics have

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on OCB. The focus was specifically to identify the influence that self-control, risk-taking and manipulation have on integrity, as well as the influence that self-control, manipulation and integrity have on organisational citizenship behaviour.

To empirically evaluate this objective, six substantive hypotheses were formulated (discussed in Chapter 2). The results attained, based on the data analysis for these hypotheses, are discussed in this chapter.

5.3   Summary of the Findings

The first aim of this study was to ensure that the measurement instruments that were utilised to assess the relationships among the different constructs, in fact measure what they intend to measure. Therefore, item analysis was conducted on the five measurement instruments to ensure that each instrument is internally reliable and that it reflected what it intended to measure. In addition, it was necessary to establish whether the measurement models as well as the structural model displayed acceptable fit with the data. The complete statistical analysis process is described in Chapter 3 and the results of the process is given in Chapter 4. This section will discuss the findings of the process.

5.3.1   Conclusions regarding Reliability Analysis

During reliability analysis, the reliability coefficients were determined for each instrument to corroborate whether each item in the instrument contributed to the internal consistency of the specific instrument in question. In this study, the guidelines provided by Nunnally (1978) was followed to evaluate the reliability of the scales and subscales. The guidelines indicate that a Cronbach's alpha: (a) of 0.90 and higher is deemed excellent; (b) of 0.80 to 0.89 is good (c) of 0.70 to 0.79 is adequate; and (d) below 0.70 may have limited applicability (Nunnally, 1978). That said, items with a Cronbach's alpha above 0.70 were deemed as satisfactory for this study.

After the coefficient of internal consistency was considered for each scale and subscale, the item-total correlations were evaluated. The item-total correlations for each specific item was utilised to determine whether a measure is internally consistent. An item-total correlation that exceeds 0.20 is deemed satisfactory, while those below 0.20 qualify for elimination (Nunnally, 1978).

Following these guidelines, the results indicated that satisfactory internal consistency was obtained for the scales and the subscales. All the subscales received a reliability coefficient above 0.70, except for one. The Civic Virtue subscale of the OCBS marginally missed the 0.70 recommended value (0.699). After further investigation, it was revealed that the reliability coefficient would improve above the recommended cut-off value if an item is deleted. It was, however, decided not to delete the item as the scale consisted of only a few items and the reliability coefficient only marginally missed the cut-off value. Furthermore, only one item did not meet the 0.20 requirement for the item-total correlations and was removed from the scale (INT54).

5.3.2   Conclusions regarding Measurement Model Fit

Each of the measurement scales used in this study was subjected to confirmatory factory analysis to determine the degree to which the measurement model fit the data. The next section provides a summary of results that were obtained during the CFA on the goodness of fit indices of each of the measurement scales. The fit indices for each of the measurement models are provided in Table 4.21.

5.3.2.1   Absolute and Incremental Fit Measures

By conducting a CFA, the goodness of fit between the measurement models and the obtained data was investigated, by testing the hypotheses of exact fit (H_{01}: RMSEA = 0) and close fit (H_{02}: RMSEA ≤ 0.05). The initial fit index of the RMSEA was first examined to determine whether the measurement model achieved good or poor fit. A RMSEA value smaller than 0.08 indicates an acceptable model fit, a value smaller than 0.05 indicates a good model fit, and a value below 0.01 indicates an outstanding model fit (Diamantopoulos & Siguaw, 2000; Hooper et al., 2008). The following RMSEA fit indices were obtained: a value of 0.0553 for the OCBS; a value of 0.0616 for the revised EIT, a value of 0.0749 for the revised BSCS; a RMSEA value of 0.0668 for the revised RTI; and a value of 0.0755 for the manipulation scale. These results thus indicate that the measurement models achieved acceptable fit. The goodness of fit indexes were found to achieve reasonable comparative fit.

The completely standardised LAMBDA-X matrices for the measurement models indicated that all the items, accept one (INT46), achieved satisfactory factor loadings (>0.30). Furthermore, it was established that all the items (t values ≥ |1.64|) significantly represent the subscales they were designed to measure.

In conclusion, the results attained for each measurement model indicated a reasonable good model fit. The measurement models could also reproduce the observed sample covariance matrices and provide a credible explanation for the observed covariance matrices. It was therefore deemed that the measurement models were reliable for testing the stated hypotheses.

5.3.2.2   The Goodness of Fit results for the Overall Measurement Model

After each scale was subjected to a CFA, the overall measurement model fit was investigated by simultaneously subjecting the measurement scales to a CFA. The fit indices for the overall measurement model, which is presented in Table 4.23, indicated that the overall measurement model obtained reasonable fit. The measurement model appeared to fit the data reasonably well with an RMSEA value of 0.0738 (<0 .08). The P-value for Test of Close fit, however, showed that no close fit was achieved (< 0.05). Further investigation of fit statistics indicated a χ^2/df ratio of 2.144 was obtained, which falls within the range of $2 - 5$, indicating good fit. An RMR value of 0.0419 was attained, which indicates good fit (< 0.08). The Standardised RMR (0.0653), however, did not fall within the range of good fit (< 0.05). The GFI (0.885) also narrowly missed the suggested 0.90 value, which indicates good fit. The results of the incremental fit indices indicated that the overall measurement model achieved an NFI, NNFI, CFI, IFI, and RFI above 0.90, which indicates a reasonable comparative fit.

In conclusion, the overall measurement model fitted the data reasonably well, as it could reproduce and provide a credible explanation of the observed covariance matrices.

5.3.3   Conclusions regarding Structural Model Fit

Once it was determined that the five measurement instruments used in this study were construct valid and internally reliable, the fit of the structural model was tested. A thorough investigation of the goodness of fit indices (provided in Table 4.24) resulted in the conclusion that the structural model fitted the data reasonably well.

From the results, a RMSEA value of 0.0730 was obtained for the structural model, indicating an acceptable fit (Diamantopoulos & Siguaw, 2006). However, the P-value for Test of Close fit (0.00449) indicated that the null hypothesis for close fit should be rejected. The χ^2/df ratio obtained a value of 2.119, which indicates that the model fits the data well, as it falls within the range of 2 to 5. Furthermore, the RMR value of the model was 0.0419, which indicates a good model fit (< 0.08). The standardised RMR, however, missed the cut-off value for good

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model fit (< 0.05) with a value of 0.0654. The structural model obtained a GFI of 0.885, which marginally missed the recommended fit value (> 0.90). The results of the incremental fit measures indicated that the structural model attained acceptable model fit as all the values were above 0.90.

The structural **model modification indices** were also inspected to determine to what degree the model successfully explained the observed covariances amongst the latent variables. The modification indices for the gamma or beta matrices did not suggest any modification that may significantly improve the fit of the proposed structural model. This indicates that there are no additional paths among any latent variables that would significantly improve the fit of the proposed structural model.

5.3.4   Conclusions regarding Hypothesised Relationships

After it was established that the structural model fit the data reasonably well, the next step was to test the relationships among the latent variables. To determine the significance of the theorised relationships, the gamma and beta matrices were evaluated. The gamma matrix describes the relationship between the exogenous and endogenous variables, while the beta matrix describes the hypothesised relationships between the endogenous variables. Tables 4.25 and 4.26 depict the unstandardized gamma matrix and the unstandardized beta matrix, respectively. The findings for each proposed relationship is discussed in the next section.

5.3.4.1   Relationship between Self-Control and Integrity

Within this study, it was suggested that a positive relationship exists between self-control (ξ_1) and integrity (η_1). Through the SEM statistical analysis, it was obtained that a non-significant path exists between the two constructs. However, a significant positive Pearson correlation was found (see Table 4.28). Partial support was thus found for the hypothesised positive relationship between self-control and integrity.

This finding indicates some support for the notion that an individual who exhibits self-control, will supress his/her self-serving need in favour of living according to his/her moral principles and values, to act with integrity. To a degree, this corroborates the theory of Riggio et al. (2010) that temperance, the act of restraining oneself from making self-serving decisions and exhibiting self-indulgent behaviour, is a cardinal virtue of a moral person. Mastering oneself and one's desires, may assist a person in remaining moral (Duska, 2013).

This finding adds to the limited empirical research on the relationship between the two constructs and, it also indicates that there is reasonable support for including self-control as an antecedent of integrity (Wanek et al., 2003).

5.3.4.2   Relationship between Risk-Taking and Integrity

A negative relationship was theorised between risk-taking (ξ_2) and integrity (η_1). The SEM analysis, however, showed that a non-significant relationship exists between the two constructs. However, a significant negative Pearson correlation was found to exist between the two constructs (see Table 4.28). Partial support was therefore attained for the hypothesised relationship.

This may indicate that there is some rationality in the theory that individuals who are willing to take high risks, are more likely to breach ethical norms and standards, and as such exhibit less integrity. Utilising Rettig and Rawson's (1963) ethical risk hypothesis in this notion, an individual who is more comfortable accepting the related risk of his/her unethical behaviour, will be more comfortable exhibiting unethical behaviour. Gino and Margolis (2011) also assert that individuals prone to risk-taking would demonstrate lower levels of integrity.

This finding somewhat corroborates the theory that risk-taking negatively affects integrity as partial support was found for a negative relationship between risk-taking and integrity. As such, it may be postulated that risk-taking or thrill-seeking would negatively affect integrity behaviour (Wanek et al., 2003).

5.3.4.3   Relationship between Manipulation and Integrity

It was hypothesised that a negative relationship exists between manipulation (ξ_3) and integrity (η_1), which was confirmed in this study. The SEM results showed that a significantly negative path exists between these two constructs. In addition, a significant negative Pearson correlation was also found between the constructs (see Table 4.28). Subsequently, the null hypothesis was rejected and a significant negative relationship between manipulation and integrity was established. Support was thus found for the notion that manipulation will negatively influence integrity.

In literature a strong focus is placed on characteristics that are related to integrity, such as honesty, fairness, compassion and trustworthiness (Palanski & Yammarino, 2009; Trevino et

al., 2000). These are complete contrasts to the characteristics of manipulation (i.e. deceit, dishonesty, selfishness) (Overbeek et al., 2006). Personal gain, dishonesty and deceptiveness are central elements within manipulation, but oppose integrity and the virtues that are related to it. In fact, according to Ackermann (1995), an act is only classified as manipulative once it is deemed to be unethical and immoral.

The above finding provides support for the research of Connelly et al. (2006), Hollon and Ulrich (1979), Veselka et al. (2011) and Richmond (2001), as manipulation is a core element of Machiavellianism (Veselka et al., 2011). Also, this study supports the findings of Kish-Gephart et al. (2010) and adds to the limited empirical research between manipulation and integrity. The findings thus indicate that there is validity in the premise that an individual who would deceive and manipulate another for personal gain, is more likely to behave unethically and without integrity.

5.3.4.4 Relationship between Self-Control and OCB

A significant positive relationship was postulated between self-control (ξ_1) and OCB (η_2). The results, obtained through the SEM statistical analysis, indicated that a significant path exists between the two constructs. A significant positive Pearson correlation was also found (see Table 4.28). This led to the rejection of the null hypothesis. In conclusion self-control positively influences OCB and supports the notion that increased self-control will result in an increase of OCB.

This finding supports the theory and findings of related studies (O'Gorman & Baxter, 2002; Olson, 2005; Tangney et al., 2004; Zettler, 2011). It reinforces the concept that a person who contemplates the long-term consequences of their behaviour, will promote desirable, prosocial behaviour which will result in beneficial consequences for the organisation, as well as for its members (Zettler, 2011).

5.3.4.5 Relationship between Manipulation and OCB

It was hypothesised that a negative relationship exists between manipulation (ξ_3) and OCB (η_2), and this was confirmed. The SEM results showed that a significant path exists between the two latent variables. Correspondingly, a significantly negative Pearson correlation was found (see Table 4.28). This indicates that manipulation negatively influences OCB. Support was thus found for the assumption that increased manipulation will result in decreased OCBs.

The fact that a negative relationship exists between Machiavellianism and OCB (also described as contextual performance) has been proven by many studies (Becker & O'Hair, 2007; Borman & Motowidlo, 1997; Wolfson 1981; Zagenczyk et al., 2014). Each of these studies theorised that individuals who scored higher on Machiavellianism would tend to exhibit less citizenship behaviour or prosocial behaviour than those employees who scored lower on Machiavellianism. It is widely accepted that manipulation is a core element within Machiavellianism (Cohen, 2018).

Becker and O'Hair (2007) define Machiavellianism as an individual's tendency to behave manipulatively. A logical step is then to believe that manipulation will also have a negative relationship with OCB. The findings in this study provide some support for the above-mentioned findings. It corroborates the theory that manipulation which opposes the interests of others to benefit oneself, will negatively impact positive, pro-social behaviours such as OCB.

5.3.4.6 Relationship between Integrity and OCB

The last relationship that was hypothesised is the positive relationship between integrity (η_1) and OCB (η_2). This relationship was confirmed through the SEM statistical analysis and a significant positive Pearson correlation (see Table 4.28). As a result, it was concluded that a significant positive relationship exists between these two constructs. Support was thus found for the notion that integrity will lead to increased OCBs.

This result substantiates the theory that a set of values and principles, such as one's moral principles, forms part of the forces that drive one's behaviour. As human behaviour is explained by a person's internal processes and external factors, a person's actions and behaviours are driven by his/her thinking, feeling, beliefs, and personal values, as well as by external events, behavioural consequences and environmental forces (Quick & Nelson, 2013). This finding corroborates the concept that a person's integrity, which (according to the definition of this study) is acting in accordance with one's moral principles, influences one's OCB (Walumbwa & Schaubroeck, 2009).

This finding agrees with research in which a significant positive relationship was found between integrity and OCB (Eisenberg, 2000; Tomlinson et al., 2014; Turnipseed, 2002).

5.4   Limitations of this Study and Future Research

Though this study provides insight into the effect of self-control, risk-taking, manipulation, and integrity on OCB, there are limitations that need to be considered, which may assist future research. This section briefly discusses the limitations that were identified in this study and it provides researchers with recommendations for future research.

The first and second limitations are the fact that the study only attained information from a single source - the respondents' perceptions of themselves. First, the study relies solely on the perceptions that the respondents have of themselves, and no other sources were utilised. Second, self-rated reports may not illustrate a true reflection of a person. A respondent's perception about him/herself may be skewed. Due to social desirability, a respondent may consciously or unconsciously answer the questionnaire in a way that places him/her in a favourable light. Future studies can consider using additional sources of information, such as peer reviews or subordinate reviews, to mitigate the effects of self-rater bias as well as single source bias.

It should, however, be noted that preventative measures were put in place to minimise the occurrence of self-rater bias. First, participants in the study were ensured that the results as well as their participation will remain confidential. Furthermore, the purpose of the study was diligently explained prior to their participation. Also, questions in the questionnaire had no right or wrong answers.

The third limitation of the study relates to the assessment instruments used in this study. All the measures, except the EIT, are international measures that were not specifically created with a South African population in mind. It is possible that a respondent did not properly understand the meaning of a statement about a measure and therefore incorrectly answered that statement. This phenomenon is referred to as respondent error. Within South African studies, future researchers should ensure that these measurement instruments are utilised with the full knowledge of the possible cultural diversity that may impact their study.

The fourth limitation worth mentioning concerns the sampling method. A non-probability sampling method, such as convenience sampling, may inhibit a researcher's ability to draw general conclusions. In this study, the demographic profile of the sample is not representative of the South African population, as 86 % of the respondents were female and 77 % of the respondents were white. Future researchers are advised to make use of probability sampling as

it can assist in obtaining a sample that is representative of the population and it improves the researcher's ability to draw general conclusions.

The fifth limitation of the study pertains to the sample pool. This study obtained data from only one private hospital in the Southern Cape. The organisation itself may have a specific organisational culture and value system that attracts and retains employees with specific values and beliefs. This culture may not reflect other institutions. Future research could gain more insight by attaining data from various hospitals in South Africa. This may also assist in increasing the diversity and generalisability of the sample.

The sixth limitation of concern in this study relates to the structural model. In the process of the study, there may have been other significant constructs that were excluded from the study. Within this study, a focus was placed on certain core variables, i.e. self-control, risk-taking, manipulation, integrity and OCB, which were not specifically studied previously. By placing a focus solely on these variables, one forgoes other variables, which may influence OCB significantly. Future research can investigate this matter and identify other integrity-related variables that may significantly impact OCB (See Chapter 1).

5.5   Managerial Implications

The key to achieving organisational success is to hold a competitive workforce. It is a vital asset to an organisation which requires great effort regarding time and money to achieve and maintain. To compete globally in competitive environments, organisations have shown a growing interest in attaining and retaining workers who not only possess the required knowledge and expertise, but also certain characteristics that would elevate an organisation's performance.

One such characteristic is integrity. According to Becker (1998, p. 158), a person with integrity has "a code of morally justifiable rational principles." It is an essential trait in effective leaders (Engelbrecht, Heine, & Mahembe, 2017; McCann, Sparks, & Kohntopp, 2017). It is also essential in creating highly trustworthy relationships within an organisation (Becker, 1998), and it is described as an essential component of productive work relationships (Cascio, 2018). Furthermore, integrity, was found to be related to positive psychology (Cameron, 2003), and a component of employee wellness (Schabracq, 2003). It enables an individual to resist opposing desires and social pressures (Kish-Gephart, Detert, Treviño, Baker, & Martin, 2014). It is

reported to be significantly correlated with performance (Ones & Viswesvaran, 2007; Van Iddekinge, Roth, Raymark, & Odle-Dusseau, 2012).

Another important characteristic is organisational citizenship behaviour. OCB improves an organisation's performance as it increases the effective functioning of that organisation (Rahmawati et al., 2017). Discretionary, pro-social behaviours are crucial for organisational effectiveness, since organisations cannot exactly anticipate to what degree activities will reach organisational objectives (Deluga, 1995). Outcomes that are not anticipated may be obtained, and an organisation should be able to react to it. Discretionary behaviour provides an organisation with the flexibility to deal with these contingencies that one cannot plan for (Borman & Motowidlo, 2014).

OCB also enhances productivity by utilising resources more efficiently, assists in coordinating activities more effectively, and enables organisations to adapt to changing environments (Azmi et al., 2016; Bolino & Turnley, 2003). In addition, it strengthens an organisation's ability to attract and retain the best employees (Dekas et al., 2013). Furthermore, it is related to well-known factors that positively impact organisational performance, such as job satisfaction and organisational commitment (Podsakoff et al., 2000). Employees who engage in OCB are more committed and are less likely to leave their organisation (Chen et al., 1998; Bolino, 1999). OCB enhances the social as well as the psychological work environment of organisations (Podsakoff & MacKenzie, 1994), which assists in creating a positive work environment for employees.

One aspect that was proposed to enhance integrity, was self-control. One's ability to overcome or alter one's inner responses leads one to withhold from acting on them and maintaining one's desired ethical or moral behaviour (Riggio et al., 2010). Selecting and training employees who display self-control, will result in a workforce that can control their responses in order to pursue their goals and live up to their standards. They would likely forego their short-term satisfaction to pursue long-term goals and desires. This may assist in suppressing self-serving needs in favour of living up to moral principles and values.

It is believed, and partially shown in this study, that the willingness to partake in risky behaviour could result in unethical behaviour (Gino & Margolis, 2011). A risk-taker would likely chance a negative consequence to achieve a goal or attain want or need, despite the resulting negative consequences. A moral person, on the other hand, who is risk-averse may be less likely to risk a negative consequence to attain a personal goal, especially if that

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consequence may negatively impact others. Recruiting and retaining employees who are not willing to take high risks and are uncomfortable pushing extreme limits, would less likely breach ethical norms and standards, and exhibit behaviour that are without integrity.

An individual who would deceive and manipulate another for personal gain, is more likely to behave unethically and without integrity (Kish-Gephart et al., 2010). An individual with low levels of manipulation, would less likely promote end results that are unsuitable for other parties involved, through deceptive and manipulative means. An employee who uses manipulative tactics to achieve personal gains, would probably not treat others equally and with respect. They would probably not make impartial and objective decisions, but rather elect to make decisions that may benefit themselves, discarding the consequences they may have on the team or the organisation. Selection, training and retaining employees with higher self-control, optimal risk-taking, and lower manipulation, would therefore increase integrity behaviour.

It was postulated and proven that self-control will result in increased citizenship behaviour. Self-control facilitates the promotion of desirable behaviour, as well as the inhibition of undesirable behaviours (De Ridder et al., 2012). Employees with higher levels of self-control will likely regulate and control their responses to pursue their goals and live up to their standards. Attaining a self-controlled workforce will probably result in a workforce that remains in control of their impulses, who would contemplate long-term consequences of their behaviour, and who would when necessary, restrain behaviour that could result in undesirable consequences (Zettler, 2011). An employee with high levels of self-control, may reason that exhibiting ideal work behaviours may create current discomforts, but in the long-term they will benefit themselves as well as the organisation.

Another personality characteristic that was proposed to hinder OCB is manipulation. OCBs are voluntary behaviours that benefit the organisation and its members, while manipulation is the intentional act of altering, influencing or exploiting a person, to attain a personal benefit but contradicts the other person's interests. The recruitment and selection of employees with high levels of manipulation will probably result in a workforce that uses manipulative tactics for personal gain. They would likely exploit the organisation and its members for that personal gain, rather than exhibit prosocial, altruistic behaviours.

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The results of this study indicate that employees who have higher levels of integrity, will display more citizenship behaviours. Attaining and maintaining a workforce with integrity, will result in more ethical and moral behaviour at work, including being honest, trustworthy, just and fair, as well as being caring. A workforce that is deemed to act according to their moral principles, will likely exhibit concern for others through their actions and they would treat others right. They would probably take responsibility for their actions and consider the impact that it may have on others. Such a workforce would probably prevent problems from occurring by being mindful of the repercussions of their actions.

5.6   Summary

In this chapter conclusions were presented regarding the results that were obtained during the statistical analysis. This chapter also discussed the limitations of this study and provided recommendations that may combat these limitations. The implications for managers were also stipulated.

Significant positive relationships were found to exist between self-control and organisational citizenship behaviour, as well as integrity and organisational citizenship behaviour. Significant negative relationships were confirmed between manipulation and integrity, as well as manipulation and organisational citizenship behaviour. Only partial support, however, was found for the relationships between self-control and integrity, and between risk-taking and integrity (through Pearson correlations).

Organisations increasingly realize how important it is not only to recruit and select a person with the necessary competencies and expertise, but also the right personality traits. Certain individuals are more predisposed than others to exhibit prosocial behaviours that exceed prescribed job tasks (Bolino & Turnley, 2003). To benefit from this knowledge, one must first gain a better understanding of the concept of organisational citizenship behaviour and its determinants.

Knowing why employees exhibit OCBs, assist in identifying the desired personality characteristics, as well as the motivating citizenship behaviour. In current research on OCB, a strong focus is placed on the organisation and its leaders. Few studies, however, focus on the individual employee who exhibits this behaviour. Similar studies to this one may assist in providing organisations with a means to identify individuals with the personality traits to probably exhibit OCB within an organisation.

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