

**THE INFLUENCE OF TRANSFORMATIONAL LEADERSHIP ON
ORGANISATIONAL CITIZENSHIP BEHAVIOURS**

by

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DECLARATION

I, the undersigned, hereby declare that the work contained in thesis is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

ABSTRACT

In order to achieve strategic and economic goals in a post 1994 South African economy, organisations have to apply their human resources to the full, leadership must be developed and companies should aim to benefit from organisational citizenship behaviours (OCBs). OCB refers to voluntary employee behaviour that is not prescribed by formal job description, it is beneficial to the effective functioning of the organisation and employees are not formally rewarded for these behaviours.

The aim of this study is to research the relationship between transformational leadership and OCBs. The main hypothesis is that transformational leadership has a positive relationship with OCBs. This positive relationship is (a) indirect through employee trust in their direct supervisor, or (b) indirect through firstly perceived fairness within the organisation (on both structural and interactional levels) and secondly trust in the leader. Procedural justice and trust act as mediators in these relationships.

An ex post-facto design was used and data (collected from the South African Banking Industry) was analysed using LISREL. The results indicate that transformational leadership has a positive, significant relationship with OCBs. The hypotheses were corroborated that transformational leadership has a positive relationship with procedural justice; justice has a positive relationship with trust in the leader and trust has a positive relationship with OCBs. However, transformational leadership does have a significantly, positive relationship with trust in the leader directly.

The conclusion can be drawn that organisations can foster OCBs by developing transformational leadership, increasing perceived procedural justice and fostering a trust relationship between employees and their direct supervisors. This will greatly benefit organisations, as OCBs are vital for productivity and organisational performance.

OPSOMMING

Ten einde strategiese en ekonomiese doelwitte te bereik in 'n post-1994 Suid-Afrikaanse ekonomie, moet organisasies hul menslike hulpbronne ten volle benut, leierskap ontwikkel en voordeel trek uit die verskynsel van organisatoriese gemeenskapsgedrag (OGG). Laasgenoemde is vrywillige werknemergedrag wat nie deel van formele posbeskrywings is nie; dit is voordelig vir die effektiewe funksionering van die organisasie en werknemers word nie formeel vir hierdie gedrag vergoed nie.

Die doel van hierdie studie is om die verband tussen transformasionele leierskap en OGG te ontleed. Die hoofhipotese is gestel dat transformasionele leierskap 'n positiewe invloed op OGG het. Hierdie positiewe verband is (a) indirek deur die vertroue wat werknemers in hul direkte toesighouers het, of (b) indirek deur eerstens waargenome billikheid in die organisasie (op strukturele en interaktiewe vlakke) en tweedens vertroue in die leier. Prosedurele geregtigheid en vertroue tree as mediators in hierdie verwantskappe op.

'n Ex post facto ontwerp is gebruik en die data (wat uit die Suid-Afrikaanse bank industrie versamel is) is deur middel van LISREL ontleed. Uit die resultate blyk dit dat transformasionele leierskap wel 'n beduidend positiewe verband met OGG toon. Die hipoteses is bevestig dat transformasionele leierskap 'n positiewe verwantskap het met proseduriële geregtigheid, geregtigheid 'n positiewe verwantskap het met vertroue in die direkte toesighouer en vertroue 'n positiewe verwantskap het met OGG. Transformasionele leierskap het egter nie 'n direkte positiewe verwantskap met vertroue in die toesighouer nie.

Die gevolgtrekking is dus dat organisasies die verskynsel van OGG kan bevorder deur te verseker dat transformasionele leiers ontwikkel word, geregtigheid in die organisasie waargeneem word en 'n vertrouensverhouding tussen werknemers en hul direkte toesighouers ontwikkel word. Organisasies sal groot voordeel hieruit trek, aangesien OCBs krities vir produktiwiteit sowel as die algehele funksionering van die organisasie is.

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CHAPTER 1

INTRODUCTION, BACKGROUND AND OBJECTIVES OF THE STUDY

1.1 Introduction

Proceeding along the connected paths of socio-political transformation and international competitiveness, South Africa knows better than most other countries the huge demands on and expectations of business. Since the re-entry of South Africa into the global economy in 1994, organisations were offered no alternative but to re-strategise and adapt to international influences and competition. These influences are not only felt by organisations dealing with the international market, but also those servicing the local, South African market. Never before has South African business faced such exciting opportunities and at the same time fierce conditions for organisations to not only survive, but strive for global competitiveness in local and international markets.

In addition, business has historically been seen as the partner and beneficiary of colonialism and, especially, of apartheid and now has to earn a social licence to operate. This adds additional complexity to the circumstances under which business leaders have to operate. Consequently, successful leadership in business requires far more than technocratic excellence. It demands that business leaders have the wherewithal to interpret and relate to the complex socio-political environments in which they operate, to engage with diverse stakeholders, to be a role model to create a vision for their subordinates and still run profitable organisations.

Operating within international markets, organisations are challenged to not only deal with the disadvantages and demands of functioning within a global economy, but also to utilise and capitalise on the benefits thereof. The South African government is embracing these changes and setting the tone for global interaction and competition. This is evident from their drive and efforts in relation to NEPAD. South Africa's economic strategy is geared towards international penetration and globalisation and visionary South African organisations are needed to take us there.

This results in a continuous pressure towards globalisation, which requires organisations to utilise their resources to the full in order to build and maintain a competitive edge. The most important of these resources, being their human capital. Modern organisations need a cadre of professionals who can deal with complexities and take advantage of global opportunities. Leaders within organisations are faced with the challenge of optimising the input from their human resources and to develop workforce strategies in order to be geared for any potential situation. Not only is the emphasis on scientific management techniques, (physical) production, operations and finance, but employees are also required to perform at increasing levels of efficiency. However, there is a growing awareness that in addition to in-role performance (as prescribed by job descriptions), extra-role performance is increasingly required for organisations to function optimally.

Organisations cannot anticipate the entire spectrum of subordinate behaviours needed for achieving objectives and dealing with organisational change. As early as 1988, Organ recognised the importance of organisational citizenship behaviours for productivity and organisational performance. These employee initiatives and pro-active spontaneous behaviours are essential for organisational effectiveness and peak productivity, as organisations cannot predict all possible subordinate activities needed to achieve this (George & Brief, 1992).

Organisational citizenship behaviours refer to those behaviours that are above and beyond the call of duty and is, therefore, discretionary and not rewarded in the context of an organisation's formal reward structure (Organ & Ryan, 1995). This relatively undiscovered and under-utilised group of behaviours have tremendous value for organisations, as it provides the flexibility to work through many unforeseen contingencies (Bolino, Turnley & Bloodgood, 2002; Smith, Organ & Near, 1983). It also permits the organisation to more effectively allocate its financial and human resources, thus enhancing its success (Organ & Ryan, 1995). Due to its obvious benefits, the leaders of today need to harness and encourage this approach.

It stands to reason that not any or every leader will be able to use the dynamic and volatile circumstances to the advantage of their organisation. Leaders who instil and model behaviours of self-transcendence, continuous development and shared decision-making and responsibility are critical for achieving this.

A study into leadership behaviours that encourage organisational citizenship behaviours will have great value for Industrial Psychology, as this has a generalised value and significance that cuts across different jobs and work organisations (Borman & Motowidlo, 1993). It also represents a class of behaviours that relate to many aspects of employees' work lives (Organ, 1990). By linking certain leadership behaviours to OCBs, we can better understand the motivational bases of OCBs and the avenues available to enhance and manage the discretionary OCBs of employees.

South Africa has the opportunity to pioneer approaches that bridge the developed and developing worlds.

1.2 Background

Given the dynamic circumstances under which organisational leaders have to perform and lead their followers, the identification of those behaviours that increase a leader's effectiveness has been of major concern for both organisational managers and academic researchers alike across the globe (Podsakoff, MacKenzie, Moorman & Fetter, 1990)

In the last two decades, the focus of leadership research has shifted from the more traditional models of leadership (transactional leadership) to a new line of interest, namely transformational leadership (Pillai, Schriesheim & Williams, 1999). Transformational leaders have been found to be more effective than purely transactional leaders, regardless of how "effectiveness" has been defined or measured (Bass & Avolio, 1994). In fact, various studies has supported the organisationally advantageous nature of transformational leadership. For example, transformational leadership appears to cultivate higher levels of subordinate in-role required performance (Bass, 1994; Greenberg & Baron, 1999; Yukl, 1998). However, the entire range of

subordinate behaviours needed to accomplish goals cannot be forecast in formally written in-role job descriptions (George & Brief, 1992). Therefore, the core benefit of transformational leadership could be the beneficial effects on subordinate non-required extra-role activity such as organisational citizenship behaviour (OCB) (MacKenzie, Podsakoff & Rich, 2001; Yukl, 1998), as these leaders promise extraordinary organisational as well as individual outcomes.

Many empirical studies have focussed on the influence of transformational leadership on job-related effectiveness, while few have focussed on the effect of transformational leadership on extra-role behaviour (Pillai et al., 1999). Moorman, Blakely and Niehoff (1998) found that interpersonal interaction may influence an individual's decision to perform citizenship behaviours. In addition, the latter has increasingly been a topic of research, as behaviours that can contribute to the effective functioning of an organisation, have long been of interest to researchers and practitioners (Hui, Law & Chen, 1999). Research indicates that OCBs are functional to the organisation and has motivated a number of such studies (Podsakoff, Ahearne & MacKenzie, 1997).

Research, however, also indicate that the effect of transformational leadership on OCBs, is indirect rather than direct, in that it is mediated by followers' trust in their leaders (MacKenzie et al., 2001; Podsakoff, MacKenzie & Bommer, 1996) as well as perceptions of fairness (Pillai et al., 1999).

In 1993, Greenberg expressed concern that very little research provides any insight into employees reactions to justice (or injustice) encountered in the workplace or behaviours such as organisational citizenship behaviours, that can flow from perceptions of fairness (Greenberg, 1993). Subsequently, a limited number of researchers have investigated the relationship between justice and OCB (Cohen-Charash & Spector, 2001; Konovsky & Pugh, 1994; Pillai et al., 1999; Tepper & Taylor, 2003), with findings in general support of this positive relationship. Research (Aryee, Budhwar & Chen, 2002; Konovsky & Pugh, 1994) did, however, indicate that the relationship between fairness and citizenship behaviours is not direct, but indeed mediated by trust.

Whereas the above-mentioned researchers studied only some of the relationships described, Pillai et al. (1999) developed a model incorporating all these concepts and tested the influence of transformational leadership as well as transactional leadership on OCBs, job satisfaction and organisational commitment, through distributive just, procedural justice and trust as mediators. Krafft (2001) validated some components of the Pillai et al. model within a South African context, focussing on the relationship between leadership (both transactional and transformational) and trust, through justice as moderator.

Accordingly, the domain of interest in this study is the relationship between transformational leadership and OCB, with procedural justice and trust as mediators (see Figure 2.2). This study will thus build on research conducted within an international as well as national context. Specifically, causal modelling was used to assess causal paths from transformational leadership to OCB, through procedural justice and trust as mediators.

1.3 Research Problem

Given the background provided above, this study aims to test a model containing causal relationships between transformational leadership, procedural justice, trust and organisational citizenship behaviours. The underlying research questions that drive this study, are as follows:

- What is the relationship between transformational leadership and organisational citizenship behaviours?
- What is the influence of trust on the relationship between transformational leadership and organisational citizenship behaviours?
- What is the relationship between transformational leadership and trust?
- What is the influence of procedural justice on the relationship between transformational leadership and trust?
- What is the influence of procedural justice on the relationship between transformational leadership and organisational citizenship behaviours?

- What is the influence of trust on the relationship between procedural justice and organisational citizenship behaviours?

In the model and above articulated questions, it is suggested that trust may mediate the relationship between transformational leadership and organisational citizenship behaviours. It is also suggested that the relationship between transformational leadership and trust is not direct only, but that it is possibly mediated by procedural justice. It is thus proposed that the relationship between transformational leadership and trust is mediated as well as unmediated. It is also proposed that in addition to trust, procedural justice possibly mediate the relationship between transformational leadership and organisational citizenship behaviours.

1.4 Objectives of this Study

Bass (in Pillai et al., 1999) stated that very little research has aimed to test the many networks of linkages proposed to explain how leadership, and specifically transformational leadership, works. Podsakoff et al. (1990) studied the relationship between transformational leadership and OCBs through trust as mediator, but did not include procedural justice as a second possible mediator in their model. On the other hand, Konovsky and Pugh (1994) examined the relationship between procedural justice and OCBs (with trust as mediator) but did not study the influence of transformational leadership on the same variables. It was only Pillai and colleagues (Pillai et al., 1999) that integrated all these constructs in their research. The aim of this study is to build on previously conducted research on transformational leadership and its relationship with OCBs, and in the process integrating the concepts of procedural justice and trust in explaining this relationship. Performing this study within the South African context, will also contribute to bridge the gap in OCB literature in Southern Africa and the body of knowledge that will be generalisable within this country.

The objectives of this study are as follows:

- To gain insight into, and advance the current understanding of the nature of the relationship between transformational leadership and organisational citizenship behaviours.
- To pursue a better understanding of transformational leadership and the development of models of this construct. Also to broaden insights in the influence it has on valuable organisational behaviours such as trust and organisational citizenship behaviours.
- To gain a better understanding of procedural justice by investigating the effect it has on other organisational behaviours such as trust and organisational citizenship behaviours.
- To investigate the notion that trust is an important precondition for the exhibiting of organisational citizenship behaviours and thus fulfils as mediating role in the current model.
- To provide a more complete picture of organisational citizenship behaviours as a construct, what leads to these behaviours as well as advocate the implications of organisational citizenship behaviours in the organisation.
- To contribute to the body of knowledge in the field of organisational psychology.
- To design a study in which the validity of the theory is explained by the patterns of correlations found in the empirical data and the fit of the theoretical model to the data will be indicated by a number of goodness-of-fit indices.
- To conduct a study that is of interest and value to people in both the academic and business environments, in South Africa and on international level. A study that will have both theoretical and practical implications and relevance.

1.5 Structure of the Thesis

The thesis consists of five chapters, of which chapter one provides an introduction, background, the research problem, objectives and the structure of the dissertation.

In chapter 2 an overview of research regarding the influence of transformational leadership on organisational citizenship behaviours is provided. The key concepts (including procedural justice and trust) are outlined, following which the possible relationships between the various constructs are described.

Research methodology is addressed in chapter 3. This includes the research design, sampling strategy, data collection procedure, measuring instruments as well as the statistical analysis.

Chapter 4 presents the results of the study and finally, in chapter 5, the results and theoretical and practical implications are addressed, limitations acknowledged and areas for future research in the field of organisational citizenship behaviours are suggested.

CHAPTER 2

OVERVIEW OF RESEARCH REGARDING THE INFLUENCE OF TRANSFORMATIONAL LEADERSHIP ON ORGANISATIONAL CITIZENSHIP BEHAVIOURS

2.1 Defining the key concepts

2.1.1 Transformational Leadership

The subject of transformational leadership and the development of leadership models have generated considerable theoretical and empirical work by researchers such as Bass and Avolio (1990, 1991, 1994), Bennis and Nanus (1985), Conger and Kanungo (1994), Kouzes and Posner (1990), Sashkin and Fulmer (1988), Shamir, House and Arthur (1993) and Tichy and Devanna (1990).

Several researchers have noted the intertwined nature of transformational and charismatic leadership. Many view transformational and charismatic leadership as identical concepts (Yukl, 1998). For Bass (1985), however, transformational leadership is a broader concept within which charisma is the primary descriptive characteristic. Charismatic leadership theory has gradually evolved into transformational leadership theory. All transformational leaders are considered to be charismatic, but not all charismatic leaders are transformational (Hughes, Ginnet & Curphy, 1996). Charisma is a necessary ingredient of transformational leadership, but by itself it is not sufficient to account for the transformational process (Lussier and Achue, 2001).

Conger and Kanungo (1994) hold that charisma continually emerges as the most important component of transformational leadership through its combination of charm, magnetism and inspiration. However, the aim and motivation of these two leadership types differ hugely. Transformational leaders seek to empower their followers and enhance their desires for achievement and self-development, while developing them as transformational leaders in their own right (Bass & Avolio, 1994). Charismatic leaders, on the other hand, seek to keep followers weak and dependent and

to instil personal loyalty rather than commitment to ideals, while, satisfying their own need for power and manipulation (Conger, 1989).

An overview of the various leadership models and thus development of transformational leadership theory is depicted in Table 2.1.

Table 2.1: Models of Transformational Leadership

Researcher	Influence on whom	Leader Behaviours	Other Characteristics	Facilitating Conditions
House (1977): Charismatic Leadership	Followers	<ol style="list-style-type: none"> 1. Innovative visioning 2. Impression management 3. Model behaviour to imitate 4. Show confidence in followers 	<ol style="list-style-type: none"> 1. Strong convictions 2. Enthusiasm 3. Dramatic, persuasive manner of speaking 	<ol style="list-style-type: none"> 1. Crisis or disenchantment 2. Complex, significant task
Burns (1978): Transforming Leadership	Peers, superiors as well as subordinates	It is a process and not a set of discrete acts. It is a process that appeals to positive moral values and higher order needs of followers.	<ol style="list-style-type: none"> 1. Understanding of followers' needs 2. Appeal to followers through moral obligation, liberty, justice and equality 	<ol style="list-style-type: none"> 1. It occurs in day-to-day acts
Bennis and Nanus (1985): Transformatic Leadership	Followers	<ol style="list-style-type: none"> 1. Develop a vision 2. Communication and shared decision-making 3. Develop commitment and trust 4. Facilitate organisational learning and self-development 	<ol style="list-style-type: none"> 1. Challenge of existing paradigms 2. Build confidence in followers 3. Model self-confidence through risk-taking 	<ol style="list-style-type: none"> 1. New problems and complexities

Researcher	Influence on whom	Leader Behaviours	Other Characteristics	Facilitating Conditions
Sashkin and Fulmer (1988): Charismatic Leadership	Followers	<ol style="list-style-type: none"> 1. Focus attention 2. Risk taking 3. Skilful communication 4. Demonstration of consistency and trustworthiness 5. Expression of active concern 	-	<ol style="list-style-type: none"> 1. New problems and complexities
Kouzes and Posner (1990): Transformational Leadership	Followers	<ol style="list-style-type: none"> 1. Challenging the process 2. Inspiring a shared vision 3. Enabling others to act 4. Modelling the way 5. Encouraging the heart 	<ol style="list-style-type: none"> 1. Address followers' values and desires 2. Followers and leaders will benefit psychologically 	<ol style="list-style-type: none"> 1. New problems and complexities

Researcher	Influence on whom	Leader Behaviours	Other Characteristics	Facilitating Conditions
Tichy and Devanna (1990): Transformational Leadership	Followers/ Subordinates	<ol style="list-style-type: none"> 1. Recognise the need for change 2. Manage the transition 3. Create a new vision 4. Institutionalise change 	<ol style="list-style-type: none"> 1. See self as a change-agent 2. Prudent risk taker 3. Believe in people and be sensitive to their needs 4. Articulate a set of core values to guide behaviour 5. Flexible and open to learning from experience 6. Cognitive skills, believe in disciplined thinking 7. Visionary and trust your intuition 	<ol style="list-style-type: none"> 1. Need for organisations to change and be innovative.
Shamir, House and Arthur (1993): Charismatic Leadership	Followers	<ol style="list-style-type: none"> 1. Personal identification 2. Social identification 3. Internalisation 4. Self-efficacy 	<ol style="list-style-type: none"> 1. Influence followers 2. Motivate transcendence of self-interest 	<ol style="list-style-type: none"> 1. Crisis or disenchantment
Conger and Kanungo (1994): Charismatic Leadership	Subordinates	<ol style="list-style-type: none"> 1. Innovative visioning 2. Unconventional behaviour 3. Impression management 4. Self-sacrifice and personal risk 	<ol style="list-style-type: none"> 1. Environmental assessment 	<ol style="list-style-type: none"> 1. Crisis or disenchantment

Researcher	Influence on whom	Leader Behaviours	Other Characteristics	Facilitating Conditions
		<ol style="list-style-type: none"> 5. Model behaviour to imitate 6. Show confidence in followers 		
Bass and Avolio (1994): Transformational Leadership	Followers/ Subordinates	<ol style="list-style-type: none"> 1. Idealised Influence 2. Inspirational Motivation 3. Intellectual Stimulation 4. Individualised Consideration 	<ol style="list-style-type: none"> 1. Leaders stimulate followers 2. Encourage/generate commitment, effort, greater performance 	<ol style="list-style-type: none"> 1. It occurs in day-to-day acts

All these researchers contributed to the development and evolution of leadership theories, as they all provided insight about the way leaders motivate individuals and influence change in an organisation. While each of these approaches differs somewhat in the specific behaviours they associate with transformational leadership, all of them share the common perspective that effective leaders transform or change the basic values, beliefs and attitudes of followers so that they are willing to perform beyond the minimum levels specified by the organisation (Podsakoff et al., 1990).

As is evident from Table 2.1, transformational leadership emerged as a major theory under Burns (1978). Based on his ideas and theory, Bass (1985) proposed a theory of transformational leadership. It is this widely accepted theory of transformational leadership that will be used in this study, as it has been the focus of numerous leadership related research over decades. The literature on transformational leadership is linked to the long-standing literature on virtue and moral character and is also related to the major themes of the modern Western ethical agenda: liberty, utility and justice (Bass & Steidlmeier, 1999).

Transformational leaders are those leaders that motivate and inspire their followers to perform beyond expectations by activating their higher order needs, fostering a climate of trust and inducing followers to transcend self-interest for the sake of the group or organisation (Bass, 1985). This form of leadership can also be defined in terms of the effects it has on employees, as followers feel trust, admiration, loyalty and respect toward the leader and they are motivated to do more than they were originally expected to do. There are certain perceptions about transformational leaders amongst followers, such as proactive behaviour, empathy and the need for achievement (Pillai, Williams, Lowe & Jung, 2003).

Transformational leaders develop their followers, raise their need levels, energise them and promote positive changes in individuals, teams, groups, and organisations (Avolio, Waldman & Yammarino, 1991). Bass (1985) stated that this form of leadership is based on social exchange whereas transactional leadership is based on economic exchange. The former is based on the premise that relationships providing more rewards than costs and will yield enduring mutual trust

and attraction. These relationships involve unspecified future obligations (Blau, 1964).

Exchanges that are social in nature are based on a trust that gestures of goodwill will be reciprocated at some point in the future and is particularly relevant for dyadic relationships between subordinates and their supervisors (Settoon, Bennett & Liden, 1996). When supervisors engage in helping behaviour toward the employee, the employee incurs obligations to repay the supervisor so that the exchange is mutually beneficial (Blau, 1964).

Transformational leadership is multidimensional in nature. Bass's (1985) original formulation of the theory included three types of transformational behaviour: idealised influence (also known as charisma), intellectual stimulation and individualised consideration. However, a revision of the theory added another dimension, inspirational motivation, to form the four I's of transformational leadership (Bass & Avolio, 1990; Bass & Avolio, 1994). These behaviours are highly intercorrelated and jointly interact to influence followers (Yukl, 1998). These four distinct characteristics can be described as follows:

Idealised Influence/Charisma: The leader provides an inspired, shared vision and a clear sense of mission, instils pride among his employees and gains their respect, confidence and trust. They also acquire strong individual identification from followers (Bass, 1990b; Bass & Avolio, 1990).

Inspirational Motivation: Transformational leaders communicate high expectations and emphasise the importance of the company's mission. They increase optimism and enthusiasm of what can be achieved, use symbols to focus subordinate efforts and express important purposes in simple ways. They also stimulate the energy to accomplish higher levels of performance and development (Bass, 1990b; Bass & Avolio, 1990). Role modelling also contributes to their potential to inspire others (Avolio et al., 1991) as individuals take a lead from the behaviour of their leaders (Griffin, Skivington, & Moorhead, 1987).

Intellectual Stimulation: These leaders promote intelligence, rationality and careful problem solving. Followers are encouraged to practice a new look at old methods and problems by using their own unique and innovative perspectives, analysing

methods and strategies to resolve problems. Through this process the leader fosters creativity and stresses rethinking and re-examination of underlying assumptions (Bass, 1990b; Bass & Avolio, 1990). A transformational leader is unaccustomed to living with the status quo and continually questions it (Bass, 1985).

Individualised Consideration: A transformational leader concentrates on recognising variations in skills, abilities and desires for growth opportunities of followers. This enables him/her to give personal attention, treat each employee individually, delegate, counsel, guide, coach and advise employees according to their individual needs and provide accurate feedback. In doing this, they raise the needs and confidence levels of followers to take on greater levels of responsibility (Bass, 1990b; Bass & Avolio, 1990). The leader treats each follower differently but equitably, providing all with individual attention.

Transformational leaders strive for major increases in performance beyond that which is needed to reach immediate organisational goals (Champoux, 2000). Although transformational leaders attempt to minimise mistakes through proactive behaviour and diagnosis, they turn threats associated with mistakes or failure into opportunities to learn, rather than to criticise (Bass & Avolio, 1990).

Transformational leadership can be found at all levels of organisations, including supervisory and non-supervisory levels (Avolio et al., 1991). This is due to the fact that transformational leaders turn their subordinates into transformational leaders in their own right (Bass, 1990a; Bass, 1994). Such leaders can move a firm to reach much higher levels of achievement than is normally expected (DuBrin, 1994). It has been reported that organisations with transformational leaders do better financially than those with transactional leaders (Bass, 1990b).

Podsakoff et al. (1990) noted that even though the advantageous effects of transformational leadership on "in-role" performance are important, they might not be as important as the effects of transformational leadership on extra-role and/or citizenship behaviour. Although little empirical research has focused on this relationship, numerous researchers have recognised the importance thereof. Yukl (1998, p. 325) argues that followers of transformational leaders "...are motivated to

do more than they (are) originally expected to do”; Bass (1985) says that they motivate people to perform beyond the level of expectations; House, Woycke and Fodor (Podsakoff et al., 1996, p. 263) claim that these leaders motivate their subordinates to “...perform above and beyond the call of duty”; and Boal and Bryson (1988, p. 11) stated that the essence of transformational leadership is that they “...lift ordinary people to extraordinary heights.” Transformational leaders motivate followers to perform at a level “...over and above mechanical compliance with the routine directives of the organization” (Katz & Kahn, 1978, p. 528).

2.1.2 Procedural Justice

Organisational justice and its relationship to transformational leadership and trust, has been largely left unexamined in models studying the relationship between transformational leadership and OCBs (Pillai et al. 1999).

Organisational justice refers to the role of fairness as it directly relates to the workplace. It focuses on the ways in which employees determine if they have been treated fairly in their jobs and the ways in which those perceptions and beliefs influence other organisational outcomes (Folger & Konovsky, 1989; Greenberg & Baron, 1997; Moorman, 1991). It entails a comparative process in which individuals look at the balance between benefits and burdens that are distributed among members of a group, or that result from the application of laws, rules and policies (Champoux, 2000).

Distributive justice and procedural justice form the two sub-domains of organisational justice, as identified by research (Folger & Greenberg, 1985; Folger & Konovsky, 1989; Greenberg, 1993; Moorman, 1991). According to Folger and Greenberg (1985) distributive justice relates to the perceived fairness of the outcomes (for example the amounts of compensation) an employee receives, whereas procedural justice is concerned with the perceived fairness of formal decision-making policies and procedures used to determine and allocate those outcomes.

Procedural justice is multi-dimensional and consists firstly of formal procedures. This is also called the structural dimension and focuses on the degree to which procedures are fair. The second dimension is interactional justice (also called the

interpersonal dimension), which refers to the way in which the procedures are carried out, and how one is treated during the enactment of procedures (Moorman, 1991). Bies (1987) refers to the latter as the quality and content of interpersonal treatment during the enactment of organisational procedures.

A more recent study by Cohen-Charash and Spector (2001) investigated whether there is merit in separating distributive, procedural and interactional justice into three distinct constructs (as opposed to only two sub-domains, with procedural justice consisting of two dimensions). Their findings supported this notion, indicating that justice theory could evolve to state that organisational justice consists of three sub-domains, should more research findings support this theory. However, for the purpose of this study, the original conceptualisation (as described earlier) will be used as the basis for this study.

From this definition it is evident that a key determinant of procedural justice is how decisions are made and the consistency of treatment. This is largely a matter of perception (Pinder, 1998) and is closely related to the evaluation of organisational systems, institutional characteristics and authorities (Folger & Konovsky, 1989; Lind & Tyler, 1988). Recent findings by Tepper and Taylor (2003) contributed to the justice literature, by suggesting that individuals' justice perceptions are shaped, in part, by observations of the (fair or unfair) treatment others experience.

Although not many researchers have focused on procedural justice, it is very important in the work context as Lerner (Greenberg, 1993, p. 250) argued that "...the quest for justice is the pre-eminent concern of human beings." This has major implications for management as procedural justice has strong effects on attitudes about institutions and leadership (Lind & Tyler, 1988).

2.1.3 Interpersonal Trust

Recent models of trust have moved research away from definitions that examine trust for generalised others (e.g. Rotter, 1967), to a definition of trust as a characteristic of dyadic relationships (Hosmer, 1995; Mayer & Davis, 1999; Mayer, Davis & Schoorman, 1995). Butler (1991) stated that trust in a specific person is more relevant in terms of predicting outcomes than is the global attitude of trust in generalised others.

According to Mayer et al. (1995, p. 712) trust can be defined as "...the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party." The notion of risk is central to the definition of trust. It implies a willingness to choose to trust another person, even when there are calculated risks involved in the particular situation (IABC Research Foundation, 2000). Trust, therefore, is only necessary in those situations where it is possible for one party to take advantage of the other (Deutsch, 1973) or when the behaviour of others are beyond one's control (Zand, 1972).

It is important to note that, according to the definition put forward by Mayer et al. (1995), trust itself is not taking risk, but is instead a willingness to take risk in the relationship (Schoorman, Mayer & Davis, 1996).

Researchers have offered a variety of definitions of trust, with emphasis on different aspects of the concept. A widely used definition was proposed by Rotter (1967, p. 651) who defined trust as "...an expectancy held by an individual or a group that the word, promise, verbal or written statement of another individual or group can be relied upon". Coleman (1990) argued that trust is an incorporation of risk into the decision of whether or not to engage in the action, by basing the decision on estimates of the likely future behaviour of others. Trust also implies an expectation of helpful or generous behaviour on the part of the trusted person and is based on fair social rules (Hosmer, 1995). This is consistent with Luhmann's (1979) conceptualisation that trust represents the level of confidence that one individual has in another to act in a fair, ethical and predictable manner.

However, the editors of a special edition on trust in organisations reported that the definition by Mayer et al. (1995), where trust is defined as the "willingness to be vulnerable", is the most widely used across all the research articles in the volume (Rousseau, Sitkin, Burt & Camere, 1998) and will also be adopted by this study.

Mayer et al. (1995) proposed and tested a model of trust that identified propensity to trust and trustworthiness of the trustee as the determinants of a person's willingness to be vulnerable. They identified three factors of trustworthiness: ability, benevolence and integrity. Engelbrecht and Cloete (2000) validated this

model and found support for it in the South African business context. Butler (1991) proposed ten conditions of trust while Mishra and Morrissey (1990) suggested that four basic factors breed trust. Bews (2000) suggested six facilitators of trustworthiness. This study, however, will not focus on trustworthiness or conditions of trust, but on the degree of trust an employee has in his/her supervisor, i.e. the presence of trust in the dyadic relationship.

Over the last decade trust has been re-emerging as an important concept at work, with an increasing amount of research focusing on the phenomenon from a number of perspectives (Mayer & Davis, 1999). Trust has been and still is a sensitive issue and researchers have re-examined trusting behaviour as it becomes even more important in times of ongoing change and restructuring in organisations in an attempt to adapt to and take on new challenges (Howard, 1996). South Africa is currently experiencing economic, political and social changes. Hence trust in work relationships is becoming pivotal for business success (Martins, 2000).

The presence of trust has huge positive potential. The presence of trust may facilitate a host of activities and behaviours such as innovation, communication and learning (Hay, 1999). It promotes individual welfare and organisational effectiveness (Clark & Payne, 1997; Kreitner, Kinicki & Buelens, 1999). Trust in one's supervisor is seen as pivotal for leader effectiveness as well as work unit productivity (Kouzes & Posner, 1990). Butler (1991, p. 647) stated that "...the literature on trust has converged on the beliefs that (a) trust is an important aspect of interpersonal relationships, [and] (b) trust is essential to the development of managerial careers...". However, at the same time supervisor behaviour is fundamental in determining the level of interpersonal trust in a work unit (Likert & Willits, in Deluga, 1995).

Various researchers have suggested that a successful trust relationship can lead to increased productivity, greater honesty in communication, support of organisational goals and increased developmental potential of subordinates (Butler, 1991; Kreitner et al., 1999). Zand (1972) concluded that high levels of trust is the key factor in effective problem solving.

Trust does not promote only in-role behaviour. A number of researchers have found positive causal relationships between trust and organisational citizenship behaviours, a form of extra-role behaviours that contribute to the effective functioning of the organisation (Konovsky & Pugh, 1994; Pillai et al., 1999; Podsakoff et al., 1990).

It can be concluded that trust creates an environment that encourages co-operation and allows employees to concentrate their attention on the task at hand (Daley & Vasu, 1998).

2.1.4 Organisational Citizenship Behaviours

In recent years there has been an increasing amount of interest in the topic of organisational citizenship behaviours (OCBs). The growing body of research and theory on this topic (Cohen-Charash & Spector, 2001; Diefendorff, Brown, Kamin & Lord, 2002; Moorman, 1991; Organ & Konovsky, 1989; Pillai et al., 1999; Podsakoff & Mackenzie, 1994; Podsakoff et al., 1990; Smith et al., 1983; Tepper & Taylor, 2003; Turnley, Bolino, Lester & Bloodgood, 2003; Wech, 2002; Zellars, Tepper, & Dufy, 2002) bears testimony to this growing interest.

Derived from Katz's (1964) category of extra-role behaviour, Organ (1988, p. 4) defined OCBs as "...behaviours of a discretionary nature that are not part of the employee's formal role requirements, but nevertheless [in the aggregate] promote the effective functioning of the organisation". These spontaneous behaviours are not directly or explicitly recognised by the organisation's formal reward system and employees engage in them on their own volition, without the expectation or promise of being contractually rewarded. Individuals perform them for reasons other than the external rewards they hope to receive (Greenberg & Baron, 1997). Accordingly, these behaviours are not enforceable by supervision and employees cannot receive formal sanctions for failing to engage in them.

Schnake (1991) defined OCBs as functional, extra-role, prosocial behaviours that are directed at individuals, groups and/or an organisation. These behaviours thus support the interests of others even though they may not be directly beneficial to the individual (Moorman & Blakely, 1995).

According to Organ (1988), this readiness to contribute beyond the call of duty and literal contractual obligations includes five dimensions: altruism, courtesy, sportsmanship, civic virtue and conscientiousness. In short, these concepts can be described as follows:

Altruism is discretionary behaviour that has the effect of helping a specific other person with an organisationally relevant task or problem (e.g. assisting someone with a heavy workload, voluntarily assisting and orienting new employees and helping peers learn a new task).

Courtesy is discretionary behaviour aimed at preventing work-related problems with others from emerging (e.g. being polite and considerate towards others and giving others advance notice of decisions and changes that may affect their work).

Sportsmanship is a willingness on the part of the employee to tolerate less than ideal circumstances, which is an inevitable element of any employment condition, without complaining or raising petty grievances (e.g. when an employee refrains from complaining about disruption caused by office renovations).

Civic virtue is behaviour indicating that the employee responsibly participates in, or is concerned about the life of the company (e.g. attending voluntary meetings and company functions that are advantageous to the company, taking initiative to recommend how company operations or procedures can be improved and closely reading office correspondences).

Conscientiousness is discretionary behaviour that goes well beyond the minimum role requirements of the organisation, in the areas of attendance, obeying rules and regulations, taking breaks and so forth. The conscientious employee operates on an appropriate personal code of conduct (e.g. working extra long hours, never bending the rules and not abusing time allotted for breaks).

These behaviours are spontaneous, modest, mostly mundane (Organ, 1988) and applicable as well as comparable across job titles and settings (Cappelli & Rogovsky, 1998). Still it is characterised as constructive and co-operative extra-role gestures and the rendering or withholding of OCBs represents a deliberate,

controlled and instrumental act rather than a type of expressive and emotional act (Borman & Motowidlo, 1993; Organ, 1988, 1990; Organ & Konovsky, 1989).

It is important to note the difference between OCBs and prosocial organisational behaviour (POB). The latter describes a broad spectrum of helping behaviours that include many OCBs. However, POB also includes behaviours that might be helpful to an individual in the organisation, but would be dysfunctional to the organisation. For example, one employee may help another to cover up performance problems (Moorman & Blakely, 1995).

OCBs may, in some cases, contribute more to the performance of others than that of the individual employee as this behaviour may make one's work more difficult because the employee sacrifices some portion of his/her immediate individual output. Still it has a range of positive effects for the organisation (Tang & Ibrahim, 1998).

Quite recently Chen, Lam, Schaubroeck and Naumann (2002) conceptualised group OCB (GOCB) as a distinct group-level phenomenon concerning the extent to which the work group as a whole engages in OCBs. The primary function of GOCB is to foster group efficiency, facilitate co-ordination among group members and promote predictability of individual and group behaviours. The focus of this study is, however, on OCBs performed by individuals in the work environment.

The importance of OCBs within the work context reaches far beyond that of employees merely depending on extra help from each other to get things accomplished (Nelson & Quick, 1999). These behaviours are beneficial to co-workers, supervisors and the organisation (Kidwell & Mossholder, 1997). Individuals contribute to organisational effectiveness by doing things that are important (though relatively small) and therefore shape the organisational and social "context" that supports task activities (Borman & Motowidlo, 1993). The importance of OCBs will be discussed in full later in the thesis.

Models have been suggested linking OCBs to various constructs, such as job attitudes and job satisfaction (Bateman & Organ, 1983; Smith et al., 1983), organisational commitment (Becker, 1992), perceptions of fairness (Cohen-Charash & Spector, 2001; Diefendorff et al., 2002; Konovsky & Pugh, 1994;

LePine, Erez & Johnson, 2002; Moorman, 1991; Niehoff & Moorman, 1993; Organ & Konovsky, 1989; Tepper & Taylor, 2003; Williams, Pitre & Zainuba, 2002), transformational leadership (Pillai et al., 1999; Podsakoff et al., 1990), task characteristics (Farh, Podsakoff & Organ, 1990), interpersonal trust (Podsakoff et al., 1990), trust in and loyalty to the leader (Deluga, 1994, 1995; Pillai et al., 1999), work unit size, stability of unit membership and interpersonal interaction (Karambayya, 1991 in Moorman & Blakely, 1995).

OCBs also have strong and consistent effects on managerial evaluations in a wide variety of sales contexts (Mackenzie, Podsakoff & Fetter, 1991, 1993; Podsakoff & MacKenzie, 1994). They have a significant effect on how individuals are rated in overall performance. Evaluations of salespersons' performance are determined as much by OCBs as by objective productivity levels (MacKenzie et al., 1991, 1993; MacKenzie, Podsakoff & Paine, 1999; Podsakoff & MacKenzie, 1994).

A limitation of the OCBs literature is that theory and empirical evidence suggest that some employees define OCBs as part of their job (Tepper, Lockhart & Hoobler, 2001). It is therefore important to continuously clarify role definitions with relation to OCBs, as role definitions have been found to moderate several relationships between procedural justice and OCBs.

Nevertheless, more research is needed to fully understand the nature of subordinate OCBs, clarify the subordinate OCBs process in the workplace (Schnake, 1991) and realise its full potential (Pillai et al., 1999).

2.2 The Relationships Between Constructs

The proposed relationships that culminate in the proposed model will now be discussed.

2.2.1 Transformational Leadership and Procedural Justice

The relationship between transformational leadership and procedural justice has not received much attention by researchers (Pillai et al., 1999). Although Podsakoff et al. (1990) studied the relationship between transformational leadership and OCBs through trust as mediator, they did not include procedural justice as a second mediator in their model. On the other hand Konovsky and

Pugh (1994) examined the relationship between procedural justice and OCBs (with trust as mediator) but did not study the influence of transformational leadership on the same variables. However, Pillai et al. (1999) found this relationship to be significant ($\gamma = 0,74$; $p < 0,01$).

Transformational leaders empower their subordinates by encouraging them to think on their own, treating them equitably through individualised consideration and granting subordinates a voice in decision-making processes (Bass, 1985). These employees are empowered to influence the outcomes of decisions that are important to them and they stand in an equitable relationship with their leader. Their ability to take part in processes and decision-making should inevitably lead to enhanced perceptions of procedural justice.

Supportive supervisor behaviours, which is characteristic of transformational leadership, produce more favourable procedural justice perceptions than do non-supportive supervisor behaviours (Niehoff & Moorman, 1993, Pillai et al., 1999, Tepper & Taylor, 2003).

An important aspect of procedural justice is that it promotes group solidarity over the long term. It is the basis of the "group-value model" of procedural justice (Greenberg & Baron, 1997) and concern about the 'good of the group' is an important element in procedural justice (Lind & Tyler, 1988). By encouraging subordinates to transcend self-interest for the welfare of the group or organisation (Bass, 1985), transformational leaders in effect promote procedural justice.

Several studies provide evidence that people (in this case employees) consider the nature of their treatment by others (their supervisors) as a determinant of fairness (Greenberg & Baron, 1997). This, in turn, affects the amount of trust that subordinates have in their supervisors (Konovsky & Pugh, 1994; Pillai et al., 1999). Thus, for transformational leaders to gain the trust of their followers and inspire them to be committed to group goals, they must be perceived as procedurally fair. It should, however, be noted that contradicting results were reported in a study by Krafft (2001), where no significant relationship was found between transformational leadership and procedural justice.

Pillai et al. (1999) found strong evidence for the indirect influence of transformational leadership on OCBs through procedural justice and trust. Being the first researchers to examine the relationship between transformational leadership and procedural justice, they found that the first positively influenced the second. Pillai, Scandura and Williams (1999) examined the relationship of transformational leadership and organisational justice in five separate cultures, in an attempt to identify cultural differences. Although not all linkages were equally strong across cultures, their results indicate consistent support for their proposed linkages. Hence, the following hypothesis is formulated:

Hypothesis 1

A direct, significantly positive causal relationship exists between transformational leadership and procedural justice.

2.2.2 Procedural Justice and Trust in Leader

Over the past decade several researchers have found that procedural justice is significantly related to employees' trust in their supervisors (Aryee et al., 2002; Cohen-Charash & Spector, 2001; Folger & Konovsky, 1989; Konovsky & Pugh, 1994; Lind & Tyler, 1988; Organ, 1988; Pillai et al., 1999).

There are several possible explanations to be offered for this positive relationship. Some theorists, for example, argue that procedural justice has a symbolic function that helps to strengthen the individual's relationship with the leader (Korsgaard, Schweiger & Sapienza, 1995).

Another possibility is that leaders, who place emphasis on procedural fairness within the organisation, enhance trust from their subordinates, as they demonstrate that they follow principles of fairness (Cohen-Charash & Spector, 2001; Greenberg & Baron, 1997; Konovsky & Pugh, 1994) and the employees' individual rights are important to them (Pillai et al., 1999).

Followers of such a leader perceive that their supervisor makes decisions in a fair manner (Greenberg & Baron, 1999) and values each individual (Herriot, Hirsh & Reilly, 1998). Researchers who support the value of organisational justice, argue that if employees believe they are treated fairly, they will be more likely to hold

positive attitudes about their supervisors (Moorman, 1991). Pinder (1998) concluded that fair procedures might engender positive feelings of trust, which in turn may help to soften the impact of outcome decisions that would otherwise be seen as harmful or unfair.

Procedures that are structurally and interactionally fair will promote trust in the system as well as trust in the implementers of processes and decisions, i.e. the individual's direct supervisor (Aryee et al., 2002; Brockner & Siegel, 1996). Gilbert and Tang (1998) examined trust and found procedural justice to be an important antecedent thereof. Robinson and Morrison (1995) also confirmed this relationship by stating that a sense of unfair treatment leads to the erosion of trust, as did Kramer and Tyler (1996). Cohen-Charash and Spector (2001) found a direct relationship between both structural and interactional justice, and trust. However, Aryee et al. (2002) found that only interactional justice is related to trust in the supervisor.

Individuals may view the components of procedural justice in the organisation as indicators of how (fair) they will be treated in the future, thus influencing the degree of trust they have in the leader's interactions with them (Brockner & Siegel, 1996). This belief that they will be treated fairly, increases the trust they have in their supervisors (Greenberg & Baron, 1999).

As mentioned earlier, group solidarity is an important aspect of procedural justice. When a leader acts in a procedurally fair manner it may positively influence trust in the leader, as the individual perceives that the good of the group is important to the supervisor (Pillai et al., 1999).

Various empirical evidence suggest that employees' perceptions of procedural fairness is important for the development and building of trust between followers and their leaders (Aryee et al., 2002; Cohen-Charash & Spector 2001; Deluga, 1994; Folger & Konovsky, 1989; Konovsky & Organ, 1996; Konovsky & Pugh, 1994; Krafft, 2001; Lind & Tyler, 1988). In addition, Korsgaard et al. (1995) found that procedural justice plays an important mediating role in the relationship between leader consideration and trust and Pillai et al. (1999) found the same between transformational leadership and trust in the leader. They concluded that

transformational leadership seems to influence procedural justice, which in turn builds trust. It is therefore hypothesised that:

Hypothesis 2

A direct, significantly positive causal relationship exists between procedural justice and trust in the leader.

2.2.3 Trust and OCB

There is a growing body of evidence suggesting that trust leads to OCBs. Trust in the leader itself has many possible consequences, of which organisational citizenship behaviours is one. This positive relationship has been identified by researchers such as Deluga (1994, 1995), Greenberg (1993), Konovsky and Organ (1996), Konovsky and Pugh (1994), Pillai et al. (1999), Podsakoff et al. (1990), Settoon et al. (1996), Wagner and Rush (2000) and Wech (2002).

Researchers Konovsky and Pugh (1994) as well as Organ and Konovsky (1989) found that citizenship behaviours occurred mostly in contexts in which social exchange (and not economic exchange) characterised the quality of the relationship between the subordinate and the leader. As trust is a manifestation of social exchange, it is this trust by which participants enter into non-contractual exchange with the supervisor and/or organisation.

Robinson and Morrison (1995) studied the relationship between psychological contracts and OCBs. They reported that trust is an important mediator in this relationship and that the violation thereof leads to employees being less likely to engage in OCBs. Findings from a recent study by Turnley et al. (2003) suggested that the extent of psychological contract fulfilment, and thus the maintaining of trust in the relationship, is positively related to the performance of OCBs. This contributes to the notion that trust is a necessary precondition for employees to elicit OCBs.

It can also be reasoned that when an employee trusts his/her direct supervisor and believes that the leader will not take unfair advantage of him/her, the subordinate will be more willing to engage in voluntary extra-role behaviours such as OCBs (Pillai et al., 1999). Organ and Konovsky (1989, p. 162) argued that "so long as

the individual can sustain an attitude of trust in the long-term fairness of the organisation in the relationship, he or she need not worry about the recompense for this or that specific OCB gesture”.

Trust may also lead to an “...unspecified obligation that may be manifested in citizenship behaviour” (Pillai et al., 1999, p. 905). Deluga (1995, 1994) reported that supervisory behaviours that facilitate trust or subordinate-supervisor relationships that exhibit high levels of trust are related to OCBs. The more trust the employee has in his supervisor, the better the subordinate’s performance in terms of not only expected behaviour, but also voluntary citizenship behaviours (Settoon et al., 1996). When followers feel trust and respect toward the leader, they are motivated to do more than they are expected to do (Yukl, 1998). Similarly, when trust has been violated, people react in any number of ways, including withdrawing from the offender and being less likely to engage in OCBs (Rousseau, in Pinder, 1998).

Research done by Podsakoff et al. (1996), Settoon et al. (1996) and Wagner and Rush (2000) all came to the conclusion and recommended that increased citizenship behaviour among employees can be accomplished if supervisors focus on increasing subordinates’ trust in the supervisor.

It can therefore be concluded that trust in the leader (supervisor) is a significant predictor of OCBs (Konovsky & Pugh, 1994). Recently Wech (2002) also reported that trust in the supervisor has a significant relationship with organisational citizenship behaviours. Pillai and colleagues (1999) also confirmed this notion in their findings and concluded that building employees’ trust in the leader may increase their tendency to engage in OCBs (also suggested by Van Yperen and van den Berg, 1999).

In the previous section of chapter two the hypothesis was made that procedural justice has a direct influence on trust. It is now also postulated that trust has a direct influence on OCB. The theoretical reasoning behind equity theory and exchange theory (Blau, 1964) suggests that justice perceptions influence OCBs (Williams et al., 2002). Organ and Ryan (1995) found fairness to be one of only a few correlates of OCB. A number of empirical studies have supported the

relationship between perceptions of fairness and OCBs (Alotaibi, 2001; Farh et al., 1990; Folger & Konovsky, 1989; Niehoff & Moorman, 1993).

Tepper and Taylor (2003) researched whether procedural justice perceptions lead to more frequent performance of OCB for two groups: supervisors as well as employees. The theoretical premise on which their study was based, is that the perception of procedural fairness means that an employer can be trusted to protect their interests. This, in turn, engenders an obligation to repay their employer in some fashion (Organ, 1988). Organ argued that employees are likely to reciprocate with citizenship behaviours, contributions that are less apt to be constrained by situational factors (such as technology and work flow processes). For both groups (supervisors and subordinates) results confirmed a positive relationship between procedural justice and the occurrence of OCBs (Tepper & Taylor, 2003).

A study by Williams et al. (2002) investigated whether perceived fair treatment by supervisors lead to subordinates' intentions to engage in OCBs. Their results confirmed that the former is a significant predictor of the latter. Alotaibi (2001) also found empirical support for the relationship between procedural justice and OCBs, reporting that procedural justice predicts OCB. Similar research by LePine et al. (2002) indicated that there is a strong relationship between OCB dimensions and organisational justice as a predictor.

An empirical study by Menguc (2000) reported that procedural justice is an indirect determinant of OCB, through trust in the leader, which emerged as a partial mediator. This is in contrast with research by Konovsky and Pugh (1994), where it was found that trust fully mediates the relationship between procedural justice and OCBs. In addition, findings by Aryee et al. (2002) state that the relationship between procedural justice (specifically interactional justice) and OCBs is fully mediated by trust in the supervisor. Given these hypotheses as well as findings by Pillai et al. (1999) stating that transformational leadership influences OCBs through procedural justice and trust, it would therefore be reasonable to hypothesise that trust fulfils a mediating role between procedural justice and OCB. Hence:

Hypothesis 3

A direct, significantly positive causal relationship exists between trust in the leader and organisational citizenship behaviours.

Hypothesis 4

Trust has a mediating effect on the relationship between procedural justice and organisational citizenship behaviours.

2.2.4 Transformational leadership and Trust in the Leader

Now, more than ever, leadership effectiveness depends on the ability to gain the trust of followers (Brockner, Siegel, Daly, Tyler & Martin, 1997) as organisations are less stable and predictable. Bonds of trust are likely to replace bureaucratic rules in defining expectations and relationships (Robbins, 2000). Supervisory behaviour has been found to be an important influence on the development of trust in relationships with subordinates (Wech, 2002). Such a direct relationship was suggested by numerous researchers, as effective transformational leaders, by definition, inspire and earn trust and loyalty from their followers by building strong emotional bonds with them (Avolio, Bass & Jung, 1999; Bass, 1985; Bass & Avolio, 1994; Bennis and Nanus, 1985; Yukl, 1998; Jung & Avolio, 2000). Trust is at its highest when there is an emotional connection between the parties (Robbins, 2000).

In addition, the persuasion and acceptance of an appealing, shared vision is pivotal, as commitment to the vision is closely related to followers' trust in the leader (Pillai et al, 1999; Shaw, 1997; Yukl, 1998). Specific characteristics of transformational leadership behaviour, such as participation in decision-making, open and clear communication (Butler, 1991), honesty (Kouzes & Posner, 1993), fairness (Butler, 1991), empathy, integrity (Butler, 1991), individualised support and considerateness, providing an appropriate model for employees to follow and fostering the acceptance of clearly articulated group goals (Shaw 1997) have been found to correlate positively with trust in the subordinate-supervisor relationship (Folger & Konovsky, 1989; Podsakoff et al, 1996; Podsakoff et al, 1990). According to Lewicki and Bunker (1996) a sense of identification with the leader's intentions and vision, the creation of joint products and goals and commitment to

commonly shared values are all characteristics of transformational leaders and build trust in the leader.

Transformational leaders intellectually stimulate their followers to rethink problems, question the status quo and take risks. In order to win the trust of their followers, transformational leaders not only have to express their care of their subordinates, but also set a personal example. This is vital as trust is an important antecedent to risk-taking behaviour (Mayer et al., 1995; Schoorman et al., 1996). Shaw (1997) also postulated that a shared vision enables groups to move beyond historical rivalries and be willing to take risks, through trust.

Podsakoff et al. (1990) found empirical evidence that trust, conceptualised as faith in and loyalty to the leader, is directly influenced by transformational leadership. A recent study by Avolio et al. (1999), re-examining the components of transformational leadership through 14 independent samples, concluded that the cumulative evidence supports the notion that transformational leadership is likely to result in higher levels of trust. Trust in and loyalty to the leader also fulfils a critical role in the transformational leadership model of Boal and Bryson (1988). More recently a study by Arnold, Barling and Kelloway (2001) concluded that the development of trust could be encouraged by focussing on transformational leadership in teams.

Jung and Avolio (2000) studied the causal effects of transformational leadership and the mediating role of trust. This study reported that a direct positive relationship exists between transformational leadership and trust in the leader. A study by Krafft (2001), however, did not support these results, as no significant relationship was found between transformational leadership and trust in the leader.

When considering the evidence presented that transformational leadership leads to procedural justice (because of the nature and behaviours of these leaders) and that procedural justice leads to trust in the leader (because leaders demonstrate the importance of the rights of the employees), it seems reasonable to argue that transformational leadership influences trust in two ways. Directly, as well as indirectly through procedural justice as mediator, with procedural justice thus partially mediating the relationship between transformational leadership and trust.

In support of this theory, Pillai et al. (1999) reported (with statistical evidence) that transformational leadership is related to trust directly, but also indirectly through procedural justice, thus finding support for the notion that transformational leaders facilitate perceptions of procedural fairness and build trust in the leader. Research by Korsgaard et al. (1995) also showed that procedural justice has a mediating role in the relationship between leader consideration and trust in the leader.

Thus, based on the review of past research, it is more plausible to argue that the total influence of transformational leadership on trust could therefore be the result of unmediated as well as mediated (through procedural justice) influences. The latter relationship has, however, received little empirical research.

Hypothesis 5

A direct, significantly positive relationship exists between transformational leadership and trust in the leader.

Hypothesis 6

Procedural justice fulfils a mediating role between transformational leadership and trust in the leader.

2.2.5 Transformational Leadership and OCBs

The positive relationship between transformational leadership behaviour and job performance have been demonstrated by numerous studies (Bass, 1985), but very few have researched the link between these leadership behaviours and extra-role behaviours such as OCBs (Podsakoff et al., 1990). As stated earlier, transformational leaders are capable of eliciting extraordinary levels of motivation and performance beyond normal expectations or the minimum levels specified by the organisation (Bass, 1985). It would thus seem that a transformational leader would motivate employees to perform OCBs, as Organ (1988, p. 4) defined the latter as "...behaviours of a discretionary nature that are not part of the employee's formal role requirements".

The existence of this positive relationship has also been suggested by the fact that abusive supervision has a strong negative relationship with subordinate OCBs (Zellars et al., 2002).

OCBs usually require the subordination of self-interest for the ultimate performance of the work unit, which is what transformational leaders encourage in their subordinates (Avolio et al., 1991). Koh, Steers and Terborg (1995) stated that transformational leaders often motivate followers to transcend their own self-interests and expend energy on behalf of the group or organisation. Transformational leadership, by definition, has a strong element of collectivism, as it fosters a climate of transcending self-interest for the sake of the group or organisation (Bass, 1985). A study by Moorman and Blakely (1995) indicated that individuals with collectivistic values and norms are more likely to perform citizenship behaviours. Therefore it would be expected that employees who have transformational leaders, would be likely to perform OCBs (MacKenzie et al., 2001; Koh et al., 1995; Podsakoff et al., 1990).

A recent study by Diefendorff et al. (2002), reported that job involvement is a significant predictor of OCBs. As transformational leadership involves the empowerment of employees, supporting them for thinking on their own and encourages employees to take responsibility (Bass & Avolio, 1994), job involvement could therefore also contribute towards employees' performance of OCBs.

According to the propositions of many transformational leadership approaches (Bass, 1985; Bennis & Nanus, 1985; Boal & Bryson, 1988; Burns, 1978; Conger & Kanungo, 1987; House, 1977; Tichy & Devanna, 1986), leaders who articulate a vision should have positive effects on, amongst other behavioural aspects, extra-role behaviours.

According to Wayne, Shore and Liden (1997), "...the exchange between an employee and his or her direct superior is the primary determinant of employee behaviour" (p. 103). In a study by Konovsky and Pugh (1994) it was found that citizenship behaviours occurred in a context in which social exchange characterised the quality of the leader and subordinate relationship. OCBs have been viewed as a social resource that may be exchanged by individuals who have been the recipient of social rewards (Moorman, 1991). As Bass (1985) clearly stated that transformational leadership is based on social exchange, it can be drawn that transformational leadership should lead to OCBs. Smith et al. (1983)

also suggested that leader supportiveness might lead to OCBs, as employees may choose OCBs as means of reciprocation in social exchange.

Many theories suggest that leader supportiveness is related to OCBs (Farh et al., 1990; Organ & Ryan, 1995; Wayne & Green, 1993). In fact, much of supervisor consideration is, in itself, citizenship behaviour (Smith et al., 1983). If taken into consideration that transformational leaders act as role models to their subordinates (Avolio et al., 1991; Bass & Avolio, 1990), they in effect model OCBs to their followers. Employees who observe leaders or co-workers modelling OCBs are more likely to exhibit such behaviours than employees who do not have leaders acting as such models (Tang & Ibrahim, 1998). This is due to the fact that subordinates tend to imitate supervisors with whom they identify (Conger, 1989). Bass and Avolio (1990) also supported this notion, by stating that leaders who practise transformational leadership will foster it being exhibited in followers at lower hierarchical levels.

It has also been found that the more employees feel that they participate in decision-making, the more they feel supported by their immediate supervisor, which subsequently leads to increased exhibiting of OCBs (Diefendorff et al., 2002; Van Yperen & Van den Berg, 1999). In support of this notion, research suggests that high-quality relationships with supervisors are related to extra-role behaviours, including OCBs (Deluga, 1995; Farh et al., 1990; Podsakoff et al., 1996; Schnake, 1991; Settoon et al., 1996; Wayne et al., 1997). Graham (1988) also proposed a conceptual linkage between transformational leadership and OCBs, which she attributes to member empowerment in the form of individualised consideration and intellectual stimulation.

Smith et al. (1983) studied the influence of leadership style on OCBs. They reported that a leader's individualised consideration, one of the transformational leader behaviours identified by Bass (1985), has a direct effect on some forms of employee citizenship behaviours. In addition, Avolio et al. (1991) stated that inspirational motivation often produce individual effort and performance beyond normal expectations. Studies by Podsakoff et al. (1996), Shore and Wayne (1993) and Tang and Ibrahim (1998) have found relationships between specific

transformational leader behaviours and specific OCBs dimensions. However, these studies did not include trust as a possible mediator in this relationship.

Bass (1990b) found that after training managers in transformational leadership, they were as good as, or better at improving OCBs among their subordinates, than those managers trained in transactional leadership. The study of Koh et al. (1995) also established an empirical link between OCBs and transformational leadership, finding that the latter has significant add-on effects to transactional leadership in the prediction of OCBs.

However, the majority of evidence indicates that transformational leadership influences OCBs only indirectly. Many theoretical conceptualisations suggested that trust, a primary attribute associated with leadership (Robbins, 2000), fills a mediating role between these two concepts (Boal & Bryson, 1988; Kouzes & Posner, 1990). Indeed, leadership effectiveness depends on the ability to gain the trust of followers (Bennis & Nanus, 1985; Brockner et al., 1997). It has been said that one of the key reasons why followers are motivated by transformational leaders to perform beyond expectations, is that followers trust and respect them (Kouzes & Posner, 1990; Yukl, 1998).

In a study conducted by Podsakoff et al. (1990) in which the direct and indirect effects of transformational leadership on OCBs were tested, it was found that the relationship is indirect only, in that it is mediated by followers' trust in their leaders. No direct relationship was found, but transformational leader behaviours influenced employee trust and trust influenced OCBs. Empirical findings by MacKenzie et al. (2001) also indicate that transformational leadership influences employees to perform "above and beyond the call of duty", and that this relationship is mediated by trust. In support of these findings, similar results were found by Pillai et al. (1999), who reported that transformational leadership has an indirect influence on OCBs, through trust in the supervisor. This research by Pillai et al. also postulated and confirmed a second path from transformational leadership to OCBs, namely that it is mediated by procedural justice firstly and then by trust.

The existing theoretical and empirical research suggest that there is good reason to believe that transformational leader behaviours influence extra-role

organisational citizenship behaviours. Podsakoff et al. (1990) found it surprising that not more attention has been given in empirical research to trust as a mediator of the effects of transformational leadership on other behaviours. Whereas other research focused on factors facilitating trust (Butler, 1991) together with trustworthiness (Bews, 2000; Engelbrecht & Cloete, 2000; Mayer et al., 1995), this study aims to look at the relationship between transformational leadership and OCBs, and the mediating role that trust fulfils between these two constructs.

Thus, in addition to the mediating role of procedural justice on the influence of transformational leadership on trust, the following hypotheses are also formulated:

Hypothesis 7

Trust in leader has a mediating effect on the relationship between transformational leadership and organisational citizenship behaviours.

Hypothesis 8

Transformational leadership has an indirect influence on organisational citizenship behaviours through procedural justice and trust as mediators.

In general the literature study supports the theoretical model as conceptualised by Pillai et al. (1999). Figure 2.1 illustrates this model.

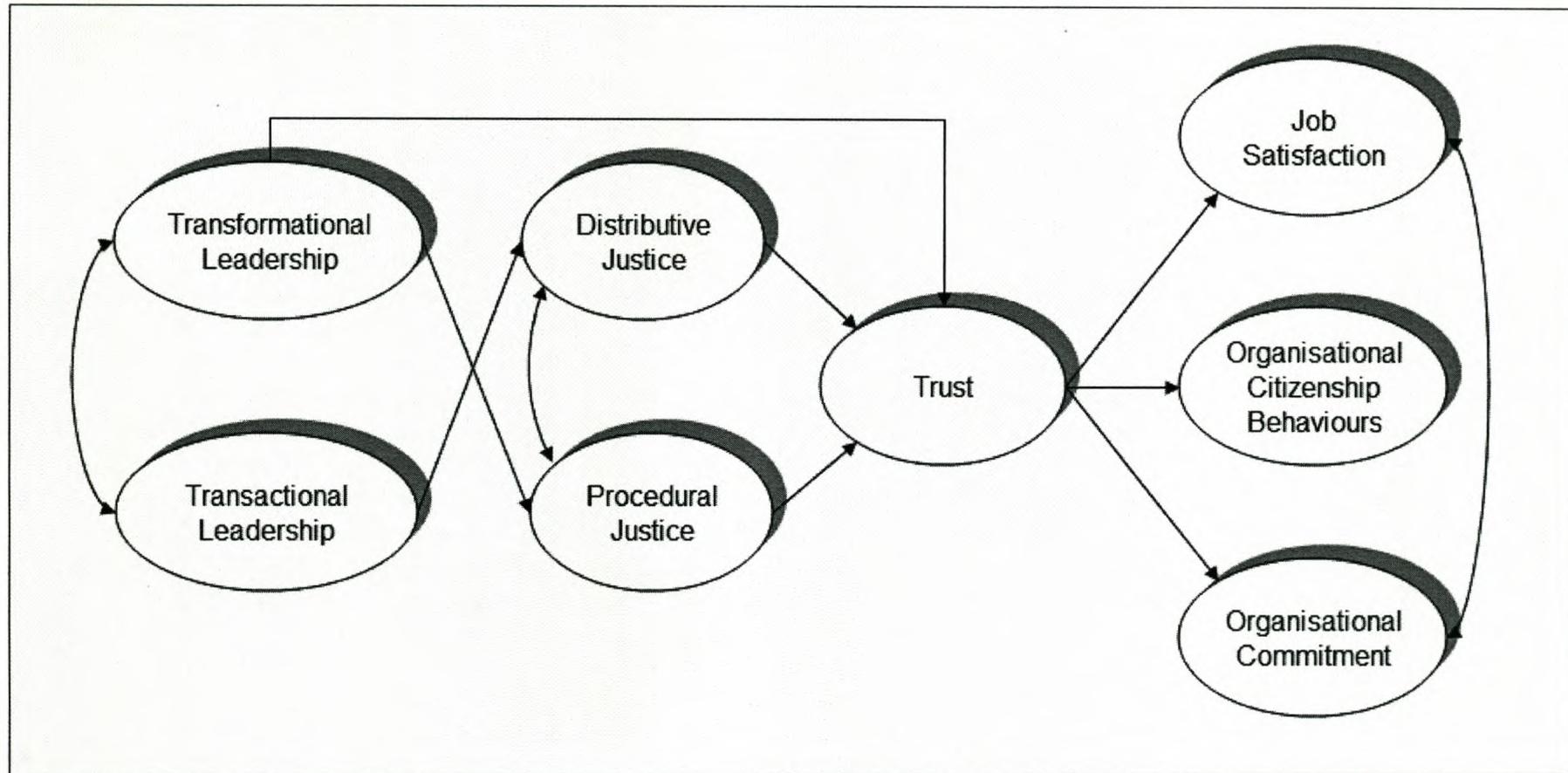


Figure 2.1: Theoretical Model of the Relationship between Leadership, Justice, Trust, Job Satisfaction OCB and Organisational Commitment.

(Pillai, Schriesheim & Williams, 1999, p. 900)

If the constructs of interest (based on the model of Pillai et al., 1999) for this study is isolated, the following figure illustrates the theoretical model of this research.

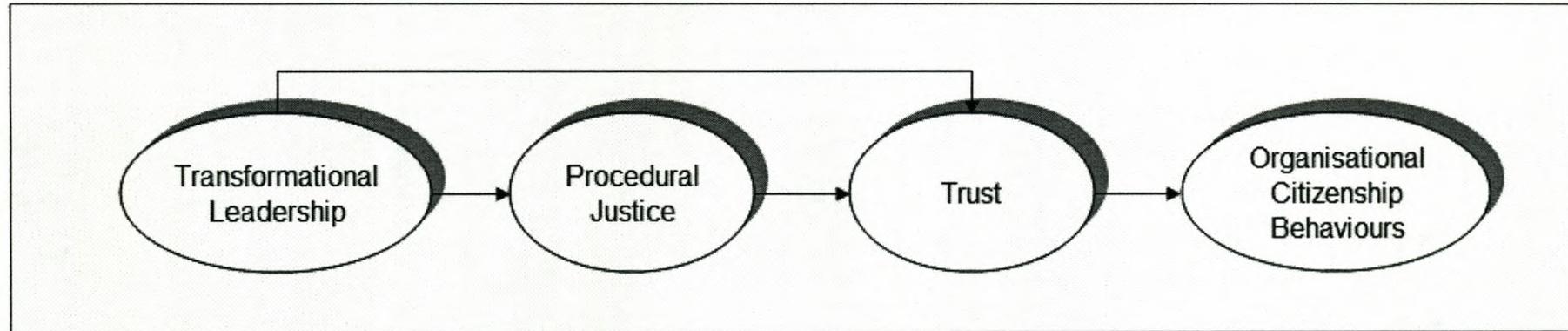


Figure 2.2: Theoretical Model for the Current Research.

2.3 The Importance of OCBs within Organisations

The theoretical and practical importance of OCBs in the workplace cannot be overstated and their potential benefits are endless (Latham, Millman & Karambayya, 1997). Organ (1988) deemed OCBs vital for productivity and organisational performance, as organisations cannot anticipate through stated job descriptions the entire spectrum of subordinate behaviours needed for achieving objectives. Consequently, these employee initiatives and pro-active spontaneous behaviours are necessary for organisational effectiveness and peak productivity (George & Brief, 1992).

Much of the interest in OCBs is because of its potential to lead to greater overall organisational effectiveness (Bolino et al., 2002; Deluga, 1994; George & Bettenhausen, 1990; George & Brief, 1992; MacKenzie et al., 1991; Organ, 1988, 1990; Podsakoff et al., 1997; Podsakoff & MacKenzie, 1994,) because they “lubricate” the machinery of the organisation and reduce friction (Smith et al., 1983). Katz and Kahn (1978) identified the willingness to “go above and beyond” formal specifications of prescribed roles as an essential condition of organisational effectiveness. This “effectiveness” can now be translated into monetary value, as recent research has provided empirical evidence that OCBs have an impact on the profitability of organisations (Koys, 2001).

Aggregated over time and individuals, OCBs facilitate the accomplishment of organisational goals and enhance organisational performance (Organ, 1988, 1990; Podsakoff et al., 1997), by promoting the general well being of the organisation (Pond, Nacoste, Mohr & Rodriguez, 1997). Workers exhibiting OCBs improve the ability of their co-workers to perform their jobs (Organ, 1988). This reduces the need for organisations to devote scarce resources to maintenance functions and allows managers to devote their time to more important and productive issues, thus freeing up valuable resources (Organ, 1988). Accordingly, reduced supervision and greater autonomy is possible in situations where behaviour cannot be easily observed, monitored or reinforced (Cappelli & Rogovsky, 1998).

Theories have postulated that OCBs may be positively related to overall job performance (MacKenzie et al., 1991) and that it also has a significant positive effect on performance quantity and quality of work groups (Podsakoff et al., 1997). Bolina et al. (2002) suggested that OCBs contribute to the creation of structural, relational as well as cognitive forms of social capital, which in turn enhances organisational functioning.

OCBs often involve tendencies by employees to make positive statements about their organisations. This can enhance an organisation's reputation, which, in turn, has been shown to have many beneficial effects on an organisation, such as the increased ease of hiring first-rate employees (Fombrun & Shanley, 1990). Another value is that OCBs is a valid predictor of employee turnover (Chen, Hui & Segó, 1998). Thus, a high level of OCBs indicates a low level of turnover, which in turn is related to organisational performance and effectiveness.

It is clear that OCBs have tremendous value for Industrial Psychology, as it has a generalised value and significance that cuts across different jobs and work organisations (Borman & Motowidlo, 1993). It also represents a class of behaviours that relate to many aspects of employees' work lives (Bateman & Organ, 1983). It provides the flexibility to work through many unforeseen contingencies (Smith et al., 1983) and permits the organisation to more effectively allocate its financial and human resources, thus enhancing its success (Organ, 1988). This is especially important in an era where organisational survival depends on gaining every competitive edge. It is important to understand the motivational bases of OCBs and study the avenues available to enhance and manage the discretionary OCBs of employees.

2.4 Conclusion

The influence that leadership has on OCBs and the importance and potential positive effects of the latter, have received growing attention among researchers over the last decade. Various relationships have been studied by researchers such as Konovsky and Pugh (1994), Moorman (1991), Podsakoff et al. (1990) and Podsakoff et al. (1996), but very little research has been

focused on integrating the concepts of leadership, justice, trust and OCBs (Pillai et al., 1999). The purpose of the present study, therefore, is to examine the effects of transformational leader behaviours on organisational citizenship behaviours, and the potential mediating roles of procedural justice and trust in that process.

The aim of this chapter was to provide a brief description of the concepts involved in this study: transformational leadership, procedural justice, trust and OCBs. It also outlined and explained the nature of the proposed relationships that exist among these constructs. This overview serves as background to the study and supports the contents of the next chapter. Chapter three will provide a concise description of the research methodology employed in this research.

CHAPTER 3

RESEARCH METHODOLOGY

The aim of this study is to examine the influence of transformational leadership on organisational citizenship behaviours, through procedural justice and trust as mediators. The insight gained from literature, forms the basis of the hypotheses as they were depicted in the literature overview chapter.

This chapter outlines the methodology employed to conduct this research and is divided into sections that describe the research design (3.1), sampling strategy (3.2), data collection (3.3), measuring instruments (3.4.) and statistical analysis used in this study (3.5).

3.1 Research Design

The research design is correlative (which is one of the ex post facto designs), quantitative and cross-sectional.

The ex-post facto design, also known as a non-experimental approach, was necessary as conducting research of this nature within an organisation is a "...systematic empirical inquiry in which the scientist does not have direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulable" (Kerlinger, 1973, p. 379). This is true for transformational leadership in this specific research. Kerlinger (1973, p. 379) also stated that "Inferences about relations among variables are made, without direct intervention, from concomitant variation of independent and dependent variables." The purpose of an ex post facto design (as with an experimental design) is to test the empirical validity of the statement "if x then y". However, with an ex post facto design random assignment or experimental manipulation is not possible, whereas such manipulation or control of the independent variable(s) is possible in experimental designs.

In comparison to experimental designs, ex post facto research lack control and erroneous interpretations may originate from the possibility of many

explanations of complex events (Kerlinger, 1973). The major weakness of ex post facto designs can be summarised in three aspects: the inability to manipulate the independent variables, the lack of power to randomise and the risk of improper interpretations. The limitations of this design are particularly dangerous when there are no clearly formulated hypotheses. This is, however, not true for this study. Still Kerlinger (1986) suggests that results from an ex post facto research should be treated with caution.

There is, however, value to an ex post facto design, in that most research in the social science does not lend itself to experimentation. In such cases (like the current research undertaken), an ex post fact design is valuable (Kerlinger, 1986). The present research is also cross-sectional in which all data are collected at one point in time (Spector, 1994).

3.2 Sampling Strategy

The participants for this research were drawn from three organisations within the banking industry in South Africa. More than one organisation was included in the sample to strengthen the generalisability to the banking industry (Cook & Campbell, 1979).

A convenient sample was used for this study. An attempt was made to include organisations of which employees were located in different geographical regions, so that the sample would have a wider application to the population. Nearly 70% of South Africa's population live and work in the Gauteng area, which is dominated by the city of Johannesburg, the main manufacturing, commercial and administrative centre in the country (Bennell & Monyokolo, 1994). The sample was therefore drawn from the Gauteng area, mainly from Johannesburg, but also included subjects from the North West and Free State regions. It was expected that different levels of transformational leadership would be experienced across the different organisations and geographical regions, which would provide a more representative sample.

Questionnaires were distributed to 390 employees. Respondents comprised a range of positions across these organisations, such as senior managers,

departmental heads, personnel officers, supervisors, clerks, administrative staff and couriers. The total combined sample consisted of 241 returned questionnaires (response rate of 61,8%). However, 25 questionnaires were excluded due to incomplete data, resulting in 216 usable questionnaires.

The sample profile is summarised in Table 3.1.

Table 3.1: Sample Profile

Variable	Frequency	Percentage	
Gender			
Male	97	44,91	
Female	119	55,09	
Ethnic Group			
African	59	27,31	
Asian	4	1,85	
Coloured	33	15,28	
White	120	55,56	
Education			
Less than matric	22	10,18	
Matric	90	41,67	
Diploma/Degree	66	30,56	
Post Degree Qualification	38	17,59	
Managerial Level			
Non-managerial	133	61,57	
Lower Level Management	38	17,59	
Middle Level Management	36	16,67	
Upper Level Management	9	4,17	
Variable	Range	Mean	Standard Deviation
Age (years)	20 - 62	34,26	10,26
Length of service at this company	2 months – 40 years, 11 months	8,38	8,35
Period working under this supervisor	2 months – 19 years, 2 months	2,89	2,88
Total work experience	3 months – 45 years	12,67	10,53

3.3 Data Collection Procedure

Questionnaires were distributed to 390 employees at 3 different banks, either through senior line managers, human resource managers or the internal mail system. Employees were requested to return their completed questionnaires in sealed envelopes to specific appointed managers. All questionnaires were accompanied by a cover letter outlining the purpose of the research, stating that participation was voluntary and assuring all participants of absolute confidentiality and anonymity.

Participants were given between one and two weeks to complete the questionnaires and return it to the specific managers. The questionnaires were then collected from the managers at the various banks and in one instance they were mailed to the researcher.

3.4 Measuring Instruments

A self-administered questionnaire containing measures of transformational leadership, procedural justice, trust, OCBs and demographic variables was compiled from credible existing questionnaires. A six-point Likert scale response format replaced the original five-point scale for all the measures in the questionnaire, to counteract the central response rate tendency (Kerlinger, 1986). The scale ranged from “Strongly Disagree” (1) to “Strongly Agree” (6) and in the case of transformational leadership from “Almost Never” (1) to “Almost Always” (6).

The questionnaire is in English, as it is the language of business and the common language of daily parlance in the relevant companies.

3.4.1 Transformational Leadership

Transformational leadership was measured with a modified version of Form 5X (Rater) of the Multifactor Leadership Questionnaire (MLQ) developed by Bass and Avolio (1991). Respondents were asked to assess the leader characteristics and behaviours of their immediate supervisors, by indicating how frequently they elicit certain behaviours described in a series of statements.

As this research focuses on transformational leadership only, the items aimed at identifying and measuring transactional leadership behaviours were omitted for the purpose of this study. In total 47 items were included, measuring four subscales: idealised influence (charisma), inspirational motivation, intellectual stimulation and individualised consideration. These scales are consistent with the definition of transformational leadership of Bass and Avolio (1990) and scores were summed for each study participant.

According to Pillai et al. (1999) the MLQ is the most widely used measure of transformational leadership behaviours and has consistently yielded high reliabilities across different samples. The Form 5X was developed to address concerns with earlier versions of the MLQ survey (Avolio et al., 1999), which gives credit to Bass's (1994, p. 11) description of the MLQ as being "...a highly refined and validated instrument". Ackermann, Schepers, Lessing and Dannhauser (2000) investigated whether the factor structure of the MLQ, as a measure of transformational leadership, could be replicated within the South African context. They reported a Cronbach's alpha of 0,944 for transformational leadership.

3.4.2 Procedural Justice

A 13-item scale developed by Moorman (1991) was employed to assess procedural justice. This measure reflects the two factors of procedural justice, i.e. formal procedures and interactional justice, as presented in models by Bies (1987), Greenberg (1993) and Tyler and Bies (1990).

In this instrument seven items tap the presence of formal procedures and the degree to which fair procedures are used in the organisation. Six items measure the interpersonal dimension and determine the perceived fairness of the interactions involving those formal procedures, i.e. the fair use of procedures by an employee's supervisor (Moorman, 1991; Moorman et al., 1998). Respondents were asked to indicate their perceptions regarding procedures and the enactment thereof.

Moorman (1991) reported an internal consistency reliability (Cronbach's alpha) of 0,93 for this procedural justice scale.

3.4.3 Trust

An adapted version of the 11-item instrument devised by Bews (2000), was utilised to measure an employee's trust in his/her supervisor. The items reflect the bases of trust as identified by Mayer et al. (1995) and Bews (2000). This scale is particularly relevant to this study as it was developed and tested within a South African context. The language use and wording of the items are therefore appropriate for the context in which the instrument is used.

Study participants were asked to indicate how they view their supervisors by responding to statements regarding trust. Bews (2000) reported sound psychometric properties, with all the items loading on the intended factor and an internal consistency reliability (Cronbach's alpha) of 0,94.

In constructing the scale, Bews (2000) based some of the items on those used in the research conducted by Mayer and Davis (1999). However, Bews concluded that "...this instrument will need to be revisited and modified in the light of the experiences gained during the study". Accordingly, Bews's adapted version (12 items) was employed in this study.

3.4.4 Organisational Citizenship Behaviours

OCBs were measured utilising the Organisational Citizenship Behaviour Scale (OCBS) developed by Podsakoff and MacKenzie (1994). This survey used a modified version of the measure used and validated by Podsakoff et al. (1990). The 24 items were rewritten to allow the questionnaire to be self-reported and to ensure that the meaning is more accurate within the South African cultural context. Other than this modification, the scale was identical to the one used by Podsakoff et al. (1990). Five subscales measure the dimensions as conceptualised and defined by Organ (1988): altruism, conscientiousness, sportsmanship, courtesy and civic virtue. A global score for each employee was calculated.

Validation information supplied by Podsakoff et al. (1990) indicates reliabilities ranging from 0,70 for civic virtue (the only subscale below 0,80) to 0,85 for altruism. MacKenzie et al., (1991) reported similar reliabilities (0,70 to 0,84), as did Deluga (1994): 0,78 to 0,92.

A confirmatory factor analysis by Podsakoff and colleagues supported the hypothesised factor structure, with a Tucker-Lewis fit index of 0,94, indicating that all of the items used to assess the five OCB factors load significantly on their intended factors. Similar analyses by Hui et al. (1999), Moorman (1991) and Niehoff and Moorman (1993) also support the strong psychometric attributes of the Organisational Citizenship Behaviour Scale.

The OCBS is widely used in OCBs research (MacKenzie et al., 1991; Moorman, 1991, 1993; Podsakoff & Mackenzie, 1994; Podsakoff et al., 1996; Podsakoff et al., 1990), with encouraging results. In addition, Lam, Hui and Law (1999, p. 600) describes the OCBS as a measure "...that can be used across different nations". They found it to yield acceptable psychometric properties in terms of internal consistency and factor structure across the United States, Australia, Japan and Hong Kong.

Though it seems common convention in OCBs research (e.g. Moorman, 1991; Podsakoff et al., 1990) to administer the measure to each respondent's supervisor, this method was not employed in this study. Instead, participants were asked to indicate how characteristic each of the statements were of their own behaviour at work. Several reasons can be aired in support of this decision.

Because of its discretionary nature and the variety of behaviours it includes, direct supervisors may not have the ability to observe all the OCBs their subordinates engage in. They are not at all times in a position to make accurate assessments of the eliciting of these behaviours and only some may be within the purview of the supervisor. One could argue that many OCBs might escape the notice of supervisors (Organ & Ryan, 1995). Supervisor ratings may also be influenced by impression management behaviour (Van Dyne & Ang, 1998).

Secondly, Moorman et al. (1998) reported that the use of supervisor ratings reduces the independence of the citizenship behaviour ratings. When using this method, most supervisors rate more than one subordinate and this might introduce systematic variance into the citizenship behaviour ratings.

A third concern is that questionnaires completed by subordinates do not always parallel their supervisors' participation (Deluga, 1995). This could result in a very small sample of supervisor-subordinate dyads. Deluga concluded that a relatively small sample size limits the generalisability of the results and that researchers should assess larger populations.

Still Organ's (1988) suggestion that ratings by supervisors are preferred over self-evaluation of such behaviours by subordinates, cannot be ignored. Items may prompt responses that will present the person in a favourable light, which is generally referred to as the social desirability problem (Podsakoff & Organ, 1986). Self-ratings alone are not advised as they are inherently subjective (Organ & Ryan, 1995). OCBs should therefore be rated by a number of different sources (Moorman, 1991), ideally on a 360-degree basis with supervisors, peers and the respondents themselves giving OCBs ratings.

Organ and Ryan (1995, p. 779) have also proved that studies "...that use self-ratings of OCBs along with self-reports of dispositional and attitudinal variables invite spuriously high correlations confounded by common method variance".

However, due to the factors discussed above, as well as time and financial constraints that hindered 360 degree reporting, it was decided to administer only self-reports of OCBs.

In conclusion it is important to note that the study is based on reports of behaviour, a potentially very different aspect from actual behaviour (Greenberg, 1993).

3.4.5 Pre-testing of Questionnaire

Initially a sample in the motor vehicle manufacturing industry was secured for this study. The questionnaires were administered on groups of 30 employees at a time and the researcher was present with every sitting to give instructions, assist and answer any questions that arise. However, whilst collecting the data, it became evident that, for several reasons, the sample was not appropriate for the intended research.

Firstly, despite prior conversations with the various managers and their assurance that all the respondents (of which the majority was African first language speakers) had satisfactory levels of English vocabulary, this proved not to be the case. For the majority, English was a weak second or even third language. In an alarming number of cases the researcher was required to sit with individuals and explain the meaning of the majority of the 96 items, if not all. This has severe implications for the validity of the results. The trust scale, for example, has items phrased very subtly in order to test for consistency. This subtlety gets lost in explaining the questions.

Secondly, the respondents with English as first or strong second language, but with a relatively low schooling level (such as grade five or seven), struggled to comprehend a number of the phrases or specific words.

Thirdly, the nature of their work (i.e. their work context) made it hard for them to interpret some of the items correctly. The majority of the subjects (approximately 90%) were assembly or line workers. It is required of them to be highly critical and continuously look for defects or problems. Given their language problem, an item such as item 16 from the OCB scale, which is phrased: "I tend to focus on what's wrong with my situation rather than the positive side", was highly confusing and was often interpreted in a literal (i.e. product quality related) way.

Given the circumstances and implications for response validity, it was decided to treat this data collection as a pre-test of the instrument. Insights gained from this exercise lead to the formulation of clear criteria with regards to eligible respondents in the next sample. Respondents should have (i) a

minimum qualification level of matric (grade 12), (ii) a proven ability to write and read in English and (iii) should ideally be in a more corporate environment, rather than manufacturing.

3.5 Statistical Analysis

The present study uses a multivariate statistical package, LISREL (Jöreskog & Sörbom, 1993) to analyse the proposed model. An explanation of the LISREL theory and the programme is presented before the discussion of results.

3.5.1 Background to LISREL

There has been a growing interest among social scientists in testing multivariate theoretical models (Lavee, 1988). This is because social science research deals with psychological and social explanations of complex human and social phenomena. They, therefore, require both elaborate theories and complex methods of conceptualising and analysing data. To date, multivariate analyses seem to be the most promising way to accomplish these goals. However, with the theoretical and practical advances which accompany multivariate analyses, there are also methodological problems (Kerlinger, 1986). Broadly speaking there are two key problems in social science research. The first concerns the measurement of variables, and the second concerns causal relations (Jöreskog & Sörbom, 1993).

One of the most difficult problems in social science is working with immeasurable concepts. Many of the variables of interest are unobservable, complex constructs, which are difficult to capture validly and reliably with single indicators (Jöreskog, 1993). Using empirical or measured variables to represent such unobserved variables may yield unreliable results, since they are estimated on the basis of the variables containing measurement errors (Chen & Land, 1990).

Statistical approaches to the analysis of causal models, such as path analysis, have been met with criticism, since they are based on the assumptions of measures without error and uncorrelated residuals, which are rarely met in social studies where many measures are not perfectly reliable

and residuals are often correlated (Lavee, McCubbin & Patterson, 1985). As a result, it is difficult to infer complex causal relationships among variables that are not directly observable, but that are reflected as fallible variables (Jöreskog & Sörbom, 1993).

Such concerns about the reliability and validity of empirical measurements, and the need to formulate a strategy for studying structural relationships among variables that better represent theoretical constructs have led to the development of a new approach. This approach is known as latent variable structural equation modelling or as LISREL (Linear Structural RELationships) after the statistical computer programme developed by Jöreskog and Sörbom (1993) to analyse covariance structure models (Lavee, 1988). This programme has become so important in the social sciences that LISREL now stands for both a statistical package and an approach to data analysis (Stage, 1989).

LISREL is based on a general model which assumes that there are two basically different kinds of psychological variables: observed variables and latent variables or hypothetical constructs (Jöreskog & Sörbom, 1993; Vollmer, 1985). The relationship between observed variables and latent variables is assumed to be of a causal kind in that observed variables are effects of latent variables. Observed variables can for this reason be used as indicators of latent variables. The general aim of LISREL is to estimate the true, underlying causal relationships between latent variables on the basis of observed variables (Vollmer, 1985).

By assessing each latent variable through multiple observable indicator variables, LISREL recognises that observed variables are not perfect measures of the constructs they are supposed to measure, and further permits for measurement errors and correlated residuals (Lavee, 1988; Mason-Hawkes & Holm, 1989). Accordingly, LISREL is able to evaluate postulated causal relationships among latent variables which represent the 'true' substantive phenomena one intends to measure (Chen & Land, 1990).

LISREL is based upon factor analysis, regression analysis and analysis of variance, but is a far more complex and powerful method (Stage, 1989). The general LISREL model contains a wide range of more specific models, such as confirmatory factor analysis and simultaneous equation systems (Cadwallader, 1987). Factor models deal with the measurement properties of constructs by estimating the common and unique variance of sets of measured variables. Researchers seek the common factors that underlie a set of measured variables, whereby a common factor is a latent, unobserved entity, of which its meaning is inferred from the measured variables it underlies (Lavee, 1988).

Structural equation models are concerned with the structural or causal relationships among a set of variables some of which are independent or exogenous, and other dependent or endogenous variables (Stage, 1989). Simultaneous equations with many endogenous variables, measurement error, and multiple indicators of constructs are considered, thus allowing more general measurement models than traditional factor-analytic structures (Bollen & Long, 1993). The structural parameters represent relatively unmixed, invariant and autonomous features of the mechanism that generates the observed variables. To serve these purposes, the use of structural equation models require statistical tools that are based upon, but go well beyond conventional regression analysis and analysis of variance (Jöreskog & Sörbom, 1993).

3.5.2 LISREL Theory

The LISREL model consists of two distinct analyses that are performed consecutively: the measurement model and the structural equations model (Jöreskog & Sörbom, 1993).

The **measurement model** consists of the relationships between the observable indicators and the theoretical constructs (Jöreskog & Sörbom, 1993). It defines the latent variables a priori in terms of their specified measured indicators and evaluates the measurement properties (reliabilities and validities) of the observed variables (Jöreskog & Sörbom, 1989; Mason-Hawkes & Holm, 1989).

The **structural model** consists of the theoretical relationships between the constructs (Jöreskog & Sörbom, 1993). It specifies the causal relationships among the latent variables, describes the causal effects and makes provision for residual error (Jöreskog & Sörbom, 1989).

The measurement model and the structural model are often estimated simultaneously by using a full-information maximum-likelihood confirmatory factor analysis. This means that the loadings of the measured variables on their respective factors, the error terms of the measured variables, the relationships between the exogenous and endogenous variables, the relationships among the endogenous variables and the disturbances (errors in equation) of the latent endogenous variables are all estimated simultaneously (Lavee, 1988). This simultaneous analysis provides optimal weighting of the measured variables which results in maximum explained variance in the endogenous variables (Stage, 1989). However, in practice, one should test the fit of the measurement model before the latent variable or structural model is examined. This is because the testing of the structural model, that is the testing of the initially specified theory, may be meaningless unless it is first established that the measurement model holds. If the chosen indicators for a construct do not measure that construct, the specified theory must be modified before it can be tested (Jöreskog & Sörbom, 1993).

Parameters are estimated in such a way that a matrix of variances and covariances reproduced from the structural model correspond to the relationships among the measured variables as closely as possible. A number of goodness of fit tests are provided to estimate how well the model fits the data, and the statistical significance of each of the estimated parameters are assessed. If the fit is poor, the model is rejected and various alternatives may be considered in order to modify and improve the fit of the model to the data (Cadwallader, 1987; Lavee, 1988).

3.5.3 Assumptions in LISREL

The utility of LISREL for any research depends upon the researcher's thoughtful use of theory at every phase of the investigation. It is assumed that theoretical reasoning should guide the researcher prior to the analysis, in specifying the hypothesised model, as well as after the estimation, in evaluating the results and introducing any modifications to the model (Lavee, 1988). Additional assumptions include that the dependent and independent variable measurement errors should be uncorrelated, the coefficient matrix of the dependent variables should be non-singular and the equation error residuals should be uncorrelated (Mason-Hawkes & Holm, 1989). Furthermore, the structural relationships should be linear, additive and causal (Bentler, 1980; Jöreskog, 1993; Stage, 1989). The strictest assumption is that all parameters are invariant, but not the specific values of the parameters. It is, therefore, acceptable to assume invariance in the structure or pattern of the latent variables, whereas the values of the latent variables may vary (Brenner, Sörbom & Wallius, 1985). These assumptions need not necessarily be checked before computing LISREL, as if certain assumptions are not met and they present a problem, the LISREL programme will announce the problems (Kerlinger, 1986).

LISREL does not assume a recursive flow in a model or that all relevant variables are included in the model (Mason-Hawkes & Holm, 1989), nor is it assumed that relationships in the model are exact deterministic relationships (Jöreskog, 1993). Generally, the independent constructs in the model account for only a fraction of the variation and covariation in the dependent

constructs, as there are many other variables that are associated with the dependent constructs, and that are not included in the model for various reasons. LISREL accounts for this as the aggregation of all such omitted variables is represented in the model by a set of stochastic error terms, one for each dependent construct. By definition these error terms represent the variation and covariation in the dependent constructs left unaccounted for by the independent constructs (Jöreskog, 1993; Jöreskog & Sörbom, 1993). Furthermore, causality is an assumption of LISREL. However, covariance structural modelling does not prove causation, rather the researcher infers causality from making predictions about the expected patterns to be formed in the data (Brannick, 1995).

3.5.4 The LISREL Programme

LISREL involves a series of steps that researchers are advised to follow sequentially. These steps may be summarised along the phases of model specification, identification, estimation, assessing goodness-of-fit, respecification and hypothesis testing (Bollen & Long, 1993; Lavee, 1988). These steps were followed during analyses in this research, but will not be discussed in detail in this chapter.

3.5.5 Structural Model of Present Study

As stated earlier, Structural Equation Modelling (SEM) allows for the specification and testing of complex models, where mediational relationships and casual processes are of interest (Kelloway, 1998). Hence, SEM will be used in this study, as a set of correlations are implied. Kelloway (1998, p. 6) also states that "...if the theory is valid, then the theory should be able to explain or reproduce the patterns of correlations found in the empirical data".

The structural model that forms the basis of this study, is illustrated in Figure 3.1.

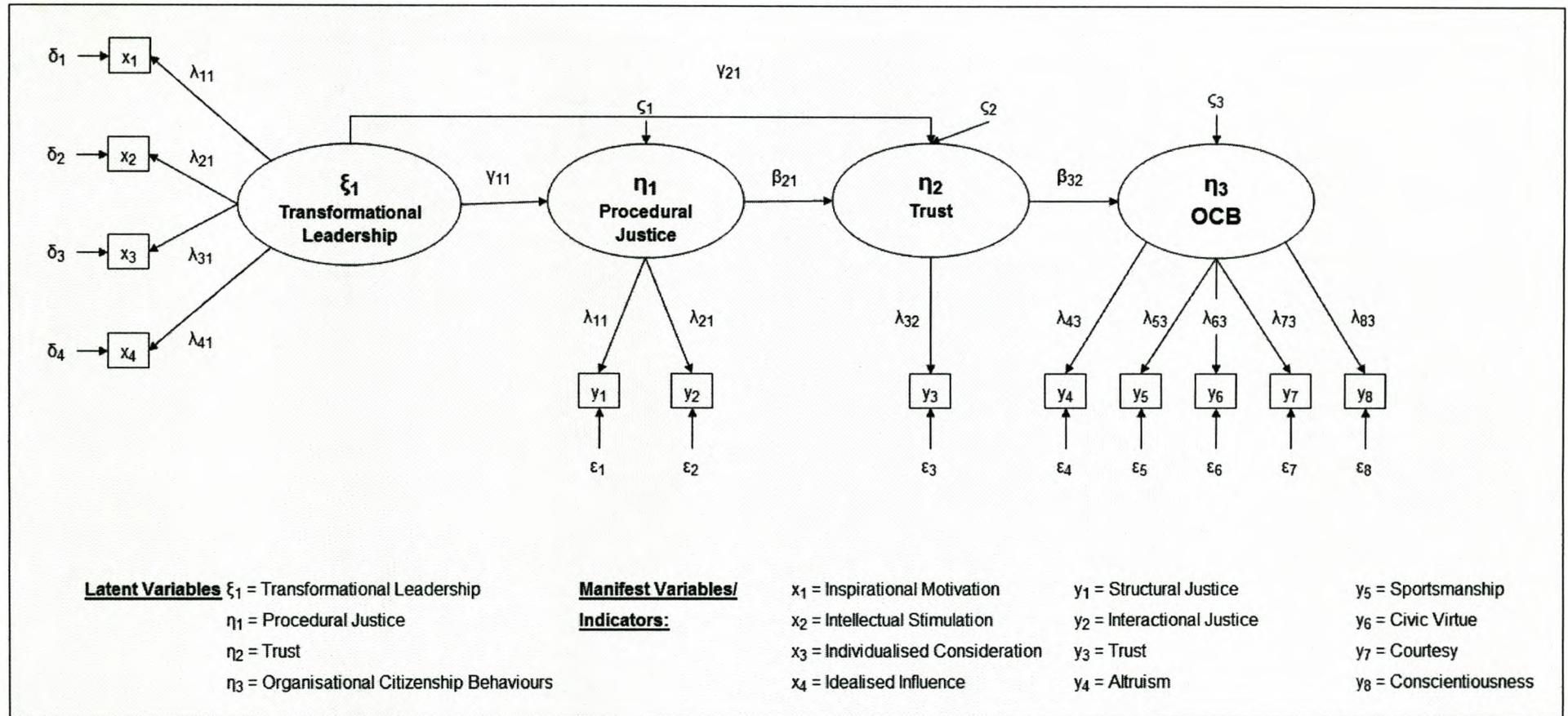


Figure 3.1: Structural Model

The researcher makes use of four matrices to specify measurement and causation within the model: LAMBDA-X, LAMBDA-Y, BETA and GAMMA. The LAMBDA-X matrix specifies the measurement of the exogenous variables. The LAMBDA-Y matrix specifies the measurement of the endogenous variables. The GAMMA matrix specifies the theoretical or structural relationships between the exogenous and endogenous variables. The BETA matrix is used to specify theoretical relationships among the endogenous variables.

The full LISREL model is defined by three equations:

- a) The measurement model for X
- b) The measurement model for Y
- c) The structural equation model

(Jöreskog & Sörbom, 1993).

The equations and matrices derived from the conceptualised structural model/path diagram in Figure 3.1, are depicted in Tables 3.2, 3.3 and 3.4.

Table 3.2: Measurement Model for X-Variables

$$\begin{aligned}
 \underline{X} &= \Lambda_X \xi + \delta \\
 X_1 &= \lambda_{11} \xi_1 + \delta_1 \\
 X_2 &= \lambda_{21} \xi_1 + \delta_2 \\
 X_3 &= \lambda_{31} \xi_1 + \delta_3 \\
 X_4 &= \lambda_{41} \xi_1 + \delta_4
 \end{aligned}$$

$$\begin{pmatrix} X_1 \\ X_2 \\ X_3 \\ X_4 \end{pmatrix} = \begin{pmatrix} \lambda_{11} \\ \lambda_{21} \\ \lambda_{31} \\ \lambda_{41} \end{pmatrix} \begin{pmatrix} \xi_1 \end{pmatrix} + \begin{pmatrix} \delta_1 \\ \delta_2 \\ \delta_3 \\ \delta_4 \end{pmatrix}$$

Table 3.3: Measurement Model for Y-Variables

$$\begin{aligned}
 & \underline{Y} = \Lambda_y \eta + \varepsilon \\
 & Y_1 = \lambda_{11} \eta_1 + \varepsilon_1 \\
 & Y_2 = \lambda_{21} \eta_1 + \varepsilon_2 \\
 & Y_3 = \lambda_{32} \eta_2 + \varepsilon_3 \\
 & Y_4 = \lambda_{43} \eta_3 + \varepsilon_4 \\
 & Y_5 = \lambda_{53} \eta_3 + \varepsilon_5 \\
 & Y_6 = \lambda_{63} \eta_3 + \varepsilon_6 \\
 & Y_7 = \lambda_{73} \eta_3 + \varepsilon_7 \\
 & Y_8 = \lambda_{83} \eta_3 + \varepsilon_8
 \end{aligned}$$

$$\begin{pmatrix} Y_1 \\ Y_2 \\ Y_3 \\ Y_4 \\ Y_5 \\ Y_6 \\ Y_7 \\ Y_8 \end{pmatrix} = \begin{pmatrix} \lambda_{11} & 0 & 0 \\ \lambda_{21} & 0 & 0 \\ 0 & \lambda_{32} & 0 \\ 0 & 0 & \lambda_{43} \\ 0 & 0 & \lambda_{53} \\ 0 & 0 & \lambda_{63} \\ 0 & 0 & \lambda_{73} \\ 0 & 0 & \lambda_{83} \end{pmatrix} \begin{pmatrix} \eta_1 \\ \eta_2 \\ \eta_3 \end{pmatrix} + \begin{pmatrix} \varepsilon_1 \\ \varepsilon_2 \\ \varepsilon_3 \\ \varepsilon_4 \\ \varepsilon_5 \\ \varepsilon_6 \\ \varepsilon_7 \\ \varepsilon_8 \end{pmatrix}$$

Table 3.4: Structural Equations

$$\begin{aligned} \eta &= B\eta + \Gamma \xi + \zeta \\ \eta_1 &= \gamma_{11} \xi_1 + \zeta_1 \\ \eta_2 &= \beta_{21} \eta_1 + \gamma_{21} \xi_1 + \zeta_2 \\ \eta_3 &= \beta_{32} \eta_2 + \zeta_3 \end{aligned}$$

$$\begin{pmatrix} \eta_1 \\ \eta_2 \\ \eta_3 \end{pmatrix} = \begin{pmatrix} 0 & 0 & 0 \\ \beta_{21} & 0 & 0 \\ 0 & \beta_{32} & 0 \end{pmatrix} \begin{pmatrix} \eta_1 \\ \eta_2 \\ \eta_3 \end{pmatrix} + \begin{pmatrix} \gamma_{11} \\ \gamma_{21} \\ 0 \end{pmatrix} \begin{pmatrix} \xi_1 \end{pmatrix} + \begin{pmatrix} \zeta_1 \\ \zeta_2 \\ \zeta_3 \end{pmatrix}$$

In terms of the **measurement model** x_1, x_2, x_3 and x_4 are observed indicators of the latent variable transformational leadership (ξ_1). In the same manner y_1 and y_2 are observed indicators of the latent variable procedural justice (η_1), y_3 is the observed variable for the latent variable trust (η_2) and y_4, y_5, y_6, y_7 and y_8 are observed indicators of the latent variable OCBs (η_3).

The coefficients or parameter estimates (λ) indicate the accuracy with which an indicator measures a latent variable, and the strength of this relationship is termed the validity of the indicator. Most often, the observed variables are not completely determined by the latent variables, thus each indicator has an error term associated with it. The terms Delta (δ) represent the measurement errors in the x-variables and Epsilon (ϵ) represent the measurement errors in the y-variables, and are uncorrelated with ξ_1, η_1, η_2 and η_3 (Jöreskog & Sörbom, 1993).

The **structural model** indicates a causal relationship between the latent variable ξ_1 , η_1 , η_2 and η_3 . A change in ξ_1 is expected to produce a change in η_1 and η_2 , and a change in η_1 is expected to produce a change in η_2 . Also, a change in η_2 is expected to lead to a change in η_3 . The paths between exogenous and endogenous variables have been described with the sign gamma (γ) and the paths between endogenous variables have been described by the sign beta (β). Therefore, the extent of the change in η_1 (caused by ξ_1) is represented by

the coefficient gamma (γ_{11}). The extent of the change in η_2 (caused by ξ_1) is represented by gamma (γ_{21}) and (caused by η_1) represented by beta (β_{21}). The extent of the change in η_3 (which is caused by η_2) is represented by beta (β_{32}).

Zeta (ζ) indicates errors in structural equations in the model. ζ_1 , ζ_2 and ζ_3 describes the error terms on η_1 , η_2 and η_3 and therefore represents residual error in the latent endogenous variables. Zeta reflects all other latent variables not included in the model that explains variance in a specific endogenous variable, but it is assumed to be uncorrelated with ξ_1 .

In conclusion, the aim of this study is to measure the indirect relationship between transformational leadership and OCBs, and whether procedural justice and trust mediates this relationship. In addition it will be tested whether transformational leadership has a direct influence as well as indirect influence (through procedural justice) on trust. This model will therefore assess mediated and non-mediated relationships.

3.6 Conclusion

This chapter served to outline the research methodology employed in the current research, in order to test the hypotheses that were developed based on the literature overview. An overview of the research design, sampling strategy, data collection procedure and a description of the instruments were provided. Furthermore, a description of the statistical analyses was provided, with specific focus on the background to LISREL, LISREL theory, the underlying assumptions, the sequential components of the LISREL programme and the conceptualised full structural model of the current study. The following chapter describes the results obtained from the statistical analyses.

CHAPTER 4

RESULTS

4.1 Introduction

In this chapter the results of the statistical analyses will be reported and described. Focus will be on missing values, reliabilities, confirmatory factor analyses and LISREL outputs. Test results from the measurement as well as structural model will be described and concluded with the test results of the formulated hypotheses. These results will be followed by a discussion thereof in Chapter 5.

4.2 Missing Values and Reversed Scores

As indicated earlier, a total of 241 questionnaires were returned to the researcher. Of these, 25 were rejected, as large parts or entire sections (scales) of these questionnaires were incomplete. The remaining questionnaires (N=216) were included in the study. In this sample, 26 out of a possible 20 736 values (216 questionnaires x 96 items) were missing.

The manner of treatment of these missing values was specified in SAS, prior to any calculations or analyses. Pair wise deletion was implemented, with the exception of the calculation of Cronbach Alphas and the performing of factor analysis, where list-wise deletion was specified. Following the correction of missing values, the reverse scored items were changed so that the data set was uniform.

4.3 Reliability Testing and Item Analyses

The first analysis performed on the data was a reliability test combined with an item analyses on all the subscales, using SAS. The purpose of this analysis was to determine the Cronbach Alphas for the four different scales (including their sub-scales) and to identify items that are not contributing to an internally consistent description of the sub-scales in question, in order to possibly eliminate these items. The reliabilities obtained from this analysis are depicted in Table 4.1 below. In general the Cronbach Alpha values are satisfactorily high, with only the sub-scales of OCB lying below the generally accepted value of 0,70 (Nunnally, 1978).

Table 4.1: Reliabilities of the Respective Scales and Sub-scales

Scale/Sub-scale	Number of Items	Cronbach Alpha	Scale Mean	Standard Deviation
Transformational Leadership	47	0,9795	194,6308	52,2712
Inspirational Motivation	10	0,9231	42,8523	11,2672
Intellectual Stimulation	10	0,9203	40,4644	11,8762
Individualised Consideration	9	0,9201	35,8516	11,8948
Idealised Influence	18	0,9441	74,9923	19,7886
Procedural Justice	13	0,9173	56,9167	13,021
Structural Justice	7	0,9061	29,6157	7,9572
Interactional Justice	6	0,9124	27,3009	7,0326
Trust	12	0,9581	57,8333	13,925
OCBs	24	0,7807	118,0352	12,5299
Conscientiousness	5	0,6610	25,9583	3,7594
Sportsmanship	5	0,4866	23,1571	4,2329
Civic Virtue	4	0,6077	17,3546	3,9131
Courtesy	5	0,5848	25,9819	3,6559
Altruism	5	0,6607	25,5833	3,7095

This reliability test in SAS contains a process that can be described as mini-item analyses, which is inherently part of the process. These results were reviewed and only items in the OCB measure were problematic and caused reasons for concern. Since the deletion of any OCB items would not increase the alpha coefficients above 0,70 and the sub-scales consist of a limited number of items, it was decided not to delete any of the items.

Therefore no items were deleted for any of the analyses that followed in this study. The results of the item analysis on all the scales are contained in Tables 4.2 to 4.5 in Appendix B.

4.4 Dimensionality Analysis

A series of dimensionality analyses was conducted using SAS. Principal component analysis was performed on each of the factors/dimensions. This was done to confirm the uni-dimensionality of each of the factors/dimensions (which are theoretically plausible dimensions of each of the latent variables). The results of this analysis are contained in Tables 4.6 – 4.9. The results of the initial factor analysis are reported in Appendix C (Tables 4.10 – 4.21). Some scales indicate that uni-dimensionality may be questionable.

Table 4.6: Principal Component Loadings for Transformational Leadership Dimensions

Inspirational Motivation		Intellectual Stimulation		Individualised Consideration		Idealised Influence	
Item	Factor Loading (λ)	Item	Factor Loading (λ)	Item	Factor Loading (λ)	Item	Factor Loading (λ)
QU3	0,63431	QU4	0,71675	QU5	0,48501	QU1	0,65545
QU8	0,79253	QU9	0,78944	QU10	0,77259	QU2	0,62360
QU13	0,73393	QU14	0,83180	QU15	0,85188	QU6	0,48278
QU18	0,77904	QU19	0,68330	QU20	0,82068	QU7	0,75642
QU23	0,81574	QU24	0,77377	QU25	0,77487	QU11	0,77235
QU28	0,76648	QU29	0,74424	QU30	0,77375	QU12	0,79044
QU33	0,86048	QU34	0,77803	QU35	0,79924	QU16	0,79869
QU38	0,79074	QU41	0,80216	QU42	0,77393	QU17	0,71406
QU40	0,83737	QU45	0,74390	QU46	0,81837	QU21	0,81587
QU44	0,67365	QU47	0,76615			QU22	0,70434
						QU26	0,71177
						QU27	0,73034
						QU31	0,80201
						QU32	0,82234
						QU36	0,67462
						QU37	0,71994
						QU39	0,70662
						QU43	0,64310

Table 4.7: Principal Component Loadings for Procedural Justice Dimensions

Structural Justice		Interactional Justice	
Item	Factor Loading (λ)	Item	Factor Loading (λ)
QUE1	0,73259	QUE8	0,82016
QUE2	0,76400	QUE9	0,78031
QUE3	0,76079	QUE10	0,76143
QUE4	0,84143	QUE11	0,86929
QUE5	0,85128	QUE12	0,89155
QUE6	0,84152	QUE13	0,88318
QUE7	0,80680		

Table 4.8: Principal Component Loadings for Trust Dimension

Trust in the Leader			
Item	Factor Loading (λ)	Item	Factor Loading (λ)
QUES1	0,75620	QUES7	0,86992
QUES2	0,84324	QUES8	0,83744
QUES3	0,76340	QUES9	0,85641
QUES4	0,87106	QUES10	0,80489
QUES5	0,85402	QUES11	0,80858
QUES6	0,81918	QUES12	0,86484

Table 4.9: Principal Component Loadings for Organisational Citizenship Behaviours Dimensions

Conscientiousness		Civic Virtue		Courtesy		Altruism		Sportsmanship	
Item	Factor Loading (λ)	Item	Factor Loading (λ)	Item	Factor Loading (λ)	Item	Factor Loading (λ)	Item	Factor Loading (λ)
Q3	0,62123	Q6	0,67690	Q4	0,67344	Q1	0,52544	Q2	0,62071
Q18	0,56676	Q9	0,70239	Q8	0,55053	Q10	0,69228	Q5	0,64504
Q21	0,68883	Q11	0,72968	Q14	0,45209	Q13	0,67398	Q7	0,64918
Q22	0,71192	Q12	0,60611	Q17	0,66041	Q15	0,75490	Q16	0,48733
Q24	0,68689			Q20	0,71588	Q23	0,66125	Q19	0,45370

4.5 Correlations, Means and Standard Deviations

Prior to the LISREL analysis, the correlations, means and standard deviations of the manifest variables were calculated and are presented in Table 4.22 and 4.23.

Examination of the correlation matrix indicate that all four the transformational leadership manifest variables, namely Inspirational Motivation, Intellectual Stimulation, Individualised Consideration and Idealised Influence were significantly positively related to Structural Justice. All four these indicator variables were also significantly positively related to Interactional Justice. It was also found that both Structural Justice and Interactional Justice were significantly positively related to Trust, although the correlation between Interactional Justice and Trust is stronger than between Structural Justice and Trust.

When looking at the direct relationship between Transformational Leadership and Trust, high significantly ($p < 0,0001$) positive correlations exist between all the leadership manifest variables (Inspirational Motivation, Intellectual Stimulation, Individualised Consideration and Idealised Influence) and Trust. It can be concluded that correspondence of the correlations with the theoretical model was well demonstrated.

Less consistent findings that emerged were the non-significant relationship between Trust and three of the OCB indicator variables. Trust had very low positive and non-significant relations with Conscientiousness, Sportsmanship and Courtesy. This could be linked to the low reliability found for these indicator variables, specifically sportsmanship (0,4866) and courtesy (0,5848). Only Civic Virtue and Altruism had a significant relationship ($p < 0,05$) with Trust, but this positive correlation was very low at 0,13 and 0,14 respectively.

Correlations do not, however, provide evidence for a complete set of structural relationships. Therefore, LISREL is utilised to evaluate the causal model (Jöreskog & Sörbom, 1993).

Table 4.22: Pearson Correlation Coefficients between Manifest Variables

	1	2	3	4	5	6	7	8	9	10	11	12
1. Inspirational Motivation	1,00											
2. Intellectual Stimulation	0,89****	1,00										
3. Individualised Consideration	0,87****	0,90****	1,00									
4. Idealised Influence	0,92****	0,91****	0,89****	1,00								
5. Structural Justice	0,52****	0,49****	0,46****	0,51****	1,00							
6. Interactional Justice	0,70****	0,72****	0,74****	0,75****	0,51****	1,00						
7. Trust	0,71****	0,73****	0,74****	0,82****	0,47****	0,78****	1,00					
8. Conscientiousness	0,10	0,06	0,02	0,10	0,25***	0,02	0,05	1,00				
9. Sportsmanship	0,08	0,10	0,08	0,07	0,17**	0,16**	0,07	0,14*	1,00			
10. Civic Virtue	0,14*	0,10	0,12*	0,14	0,24****	0,14*	0,13*	0,29****	0,03	1,00		
11. Courtesy	0,23****	0,17**	0,17**	0,21***	0,31****	0,15	0,16	0,52****	0,15	0,39****	1,00	
12. Altruism	0,26***	0,23****	0,22****	0,24****	0,27****	0,14*	0,14*	0,45****	0,17	0,21**	0,54****	1,00

N = 216

* p<0,05

** p<0,01

*** p<0,001

**** p<0,0001

Table 4.23: Means and Standard Deviations of the Manifest Variables

Variable	Mean	Standard Deviation
Inspirational Motivation	42,8523	11,2671
Intellectual Stimulation	40,4644	11,8762
Individualised Consideration	35,8516	11,8948
Idealised Influence	74,9923	19,7886
Structural Justice	29,6157	7,9572
Interactional Justice	27,3009	7,0326
Trust	57,8333	13,9250
Conscientiousness	25,9583	3,7594
Sportsmanship	23,1571	4,2329
Civic Virtue	17,3546	3,9131
Courtesy	25,9819	3,6559
Altruism	25,5833	3,7095

The analysis (testing of the measurement and structural model) was executed with the use of an unstandardised variance-covariance matrix computed by SAS (Version V) from the raw data. The covariance matrix was used as an input to several structural analyses with LISREL. Two models were tested through SEM, the measurement model (on both the exogenous and endogenous variables) and the structural model (Jöreskog & Sörbom, 1993). The covariance matrix of the manifest variables is depicted in Table 4.24.

Table 4.24: Covariance Matrix of the Manifest Variables

	1	2	3	4	5	6	7	8	9	10	11	12
1. Inspirational Motivation	126,9489											
2. Intellectual Stimulation	119,6025	141,0441										
3. Individualised Consideration	116,4113	126,4505	141,4864									
4. Idealised Influence	205,2662	214,1307	208,8864	391,5881								
5. Structural Justice	46,7788	46,4285	43,1584	79,8342	63,3168							
6. Interactional Justice	55,2127	59,8679	62,1046	104,5713	28,3859	49,4579						
7. Trust	112,1076	120,8679	122,3029	226,5677	51,8891	76,6411	193,9070					
8. Conscientiousness	4,3593	2,6309	0,9704	7,5129	7,5374	0,6079	2,5837	14,1331				
9. Sportsmanship	3,7555	5,2162	3,8097	6,1756	5,6028	4,7598	4,1683	2,2025	17,9173			
10. Civic Virtue	6,0593	4,7120	5,4564	10,8814	7,3627	3,7524	7,2289	4,3029	0,5313	15,3125		
11. Courtesy	9,5635	7,3174	7,3023	15,3122	8,9012	3,7422	8,0057	7,0780	2,3546	5,5259	13,3655	
12. Altruism	10,7667	10,0563	9,8736	17,8076	7,9880	3,5771	7,1349	6,2942	2,5910	3,0117	7,3629	13,7605

4.6 Testing the Measurement Model

The measurement model was analysed separately from the structural model to assess whether the chosen indicators for each construct did measure the given construct (Jöreskog & Sörbom, 1993).

Model fit is indicated by a chi-square as well as a number of descriptive fit indices. A brief description of each of these will be given before the results of the current analyses are reported and evaluated.

4.6.1 Model Fit

The most frequently used measure is the likelihood-ratio **chi square** statistic. A statistically significant chi-square indicates that the discrepancy between the data (variance-covariance matrix) and the model (variance-covariance matrix implied from the maximum-likelihood parameter estimates) is greater than expected by chance. Conversely, a chi-square measure that is statistically insignificant indicates a good fit of the model to the data (Brannick, 1995). Chi-square is calculated as $N-1$ times the minimum value of the fit function, where N is the sample size (Jöreskog, 1993; Jöreskog & Sörbom, 1993).

The degrees of freedom are equal to the number of over-identifying restrictions in the model, and a comparison is made between the constraints imposed by the model and the unrestricted moments matrix (Cadwallader, 1987). If the chi-square is large compared to the degrees of freedom, one concludes the model does not fit the data. If, however, the statistic is small compared to the degrees of freedom, one concludes that the model does fit the data. Whereas, a zero chi-square corresponds to a perfect fit (Jöreskog, 1993).

There is general consensus that the chi-square statistic should not be the sole criterion for determining model fit due to several reasons (Chen & Land, 1990). Firstly, the null hypothesis underlying chi-square is overly rigid in most cases in that it assumes that the hypothesised model leads to an implied covariance matrix that exactly reproduces the covariance matrix of the observed variables in the parameter. Thus, no allowance is made for the approximate nature of virtually all social science models (Bollen & Long, 1993). Secondly, the likelihood-ratio test of

the model fit is sensitive to sample size and requires a fairly large sample to be a valid test statistic (Jöreskog & Sörbom, 1989). If the sample is too small, the chi-square test may indicate that the model fits the data even if the model is theoretically meaningless. On the other hand, the probability of rejecting a model increases as sample size increases, even when the residual matrix contains trivial discrepancies between the observed values and values predicted by the model. Thus in very large samples virtually all models could be rejected (Everitt, 1984). In addition, a general guideline is that a sample of not less than 200 should be used to reduce the risk of drawing erroneous conclusions (Lavee, 1988). Thirdly, the chi-square statistic is a test of statistical significance that does not provide information regarding the degree of fit (Gerbing & Anderson, 1993). Finally, failure of the variables to satisfy the distributional assumptions of the test statistic, can lead to rejection of correct models or the failure to reject incorrect models (Bollen & Long, 1993).

Due to the problems associated with the chi-square statistic, a large number of alternative descriptive fit indices have been developed and examined (Brannick, 1995). Yet, even though these multiple indices exist, no index has been endorsed as the “best index” (Gerbing & Anderson, 1993). Hence, no single measure of overall fit should be relied upon exclusively (Bollen & Long, 1993).

Measures such as the Goodness of Fit Index (GFI), the Adjusted Goodness of Fit Index (AGFI), the Root Mean Squared Residual (RMSR), Root Mean Squared Error of Approximation (RMSEA) and the Comparative Fit Index (CFI) are often used (Bentler, 1980; Jöreskog & Sörbom, 1993; Lavee, 1988; Netemeyer, Johnston & Burton, 1990). Such indices have been proposed to eliminate or reduce dependence on sample size. However, this has not always been successful, as even though a measure does not depend on sample size explicitly in its calculation, its sampling distribution will depend on N (Jöreskog, 1993). A brief description of these indices will now be provided.

The **GFI** directly assesses how well the covariances predicted from the parameter estimates reproduce the sample covariance (Gerbing & Anderson, 1993) and is “based on a ratio of the sum of the squared discrepancies to the observed variance” (Kelloway, 1998, p. 27). The **AGFI** is relatively robust after adjusting for

degrees of freedom. The GFI and AGFI ranges in values from 0 to 1 where values close to 1 are indicative of a good fit, with values above 0,9 indicating a good fit to the data (Kelloway, 1998; Lavee, 1988; Netemeyer et al., 1990). A small difference between the GFI and the AGFI may also indicate that the model fits well (Lavee, 1988). The GFI and the AGFI do not depend on sample size explicitly and measure how much *better* the model fits compared with no model at all (Jöreskog, 1993; Jöreskog & Sörbom, 1993).

The **RMSR** is a measure of the mean absolute value of the difference between the covariance matrix of the data and the covariance matrix reproduced by the theoretical model (Netemeyer et al., 1990). The RMSR must be interpreted in relation to the size of the observed variances and covariances (Netemeyer et al., 1990). Zero is the lower bound of the index and generally the lower the index, the better the fit of the model to the data. However, the RMSR is a valuable index only when the mean data variance-covariance is known, as it is harder to evaluate with an unstandardised variance-covariance matrix (Lavee, 1988). The standardised RMSR provided by LISREL has a lower bound of 0 and upper bound of 1. Values less than 0,05 indicate a good fit to the data (Kelloway, 1998).

The **RMSEA** is based on the analysis of residuals, with smaller values indicating a better fit to the data. According to Steiger (1990), values lower than 0,10 indicates good fit, while a value lower than 0,05 indicates a very good fit. Values below 0,01 indicate outstanding fit to the data. The advantage of RMSEA is that it goes beyond RMSEA point estimates to the provision of 90% confidence intervals for the point estimate (Kelloway, 1998).

Comparative fit indices normally provide more positive results. Comparative fit is based on a comparison of the structural model with the independent model that provides the poorest fit possible to the data. Indices such as the Comparative Fit Index (CFI), the Normed Fit Index (NFI), Non-normed Fit Index (NNFI), the Incremental Fit Index (IFI) and the Relative Fit Index (RFI) are of importance. The CFI, for example, estimates a population measure of model fit, assesses practical differences in model fit and is less influenced by sample size than is the chi-square statistic (Bentler, 1980; Dunham, Grube & Castaneda, 1994). All these indices

range in values from 0 to 1 where values close to 1 (above 0,90) are indicative of a good fit (Bentler, 1980).

The parsimonious fit indices obtained from LISREL, imply that a better fitting model can be obtained by estimating more parameters (Kelloway, 1998). This fit relates to the benefit that accrues in terms of improved fit in relation to degrees of freedom lost to achieve the improvement in fit (Jöreskog & Sörbom, 1993). It should therefore be decided whether the increased fit justifies the loss in degrees of freedom. The Parsimonious Normed Fit Index (PNFI) and the Parsimonious Goodness-of-Fit Index (PGFI) are of importance here. The PNFI adjusts the NFI for model parsimony, while the PGFI adjusts the GFI for the degrees of freedom in the model. Both these indices range from 0 to 1, with higher values indicating better fit.

In addition to the PNFI and PGFI, the Akaike Information Criterion (AIC) and Consistent Akaike Information Criterion (CAIC) are also measures of parsimonious fit. These two indices consider the fit of the model and the number of estimated parameters in the model (Kelloway, 1998). For both these indices, small values indicate a more parsimonious model. However, no convention exists to indicate what value implies good fit. The expected Cross-Validation Index (ECVI) estimates the difference between the reproduced covariance matrix for the specific sample and the expected reproduced matrix over all possible validation samples (Jöreskog & Sörbom, 1993). Smaller ECVI values indicate a better fitting model.

4.6.2 Confirmatory Factor Analysis on the Measurement Model

During the confirmatory factor analysis, both the x-measurement model and y-measurement model were treated as exogenous models (for programming purposes only). The completely standardised lambdas vary from 0,925 to 0,967 for the X-measurement model. The completely standardised lambdas for the Y-measurement model vary from 0,205 to 0,898. For both these measurement models all the t-values are significant at $t > 2$.

The goodness-of-fit statistics are depicted in Table 4.25 and Table 4.26 respectively. The previously described indices will be used to evaluate how well

the model fits the data. A report and brief discussion of the overall fit of both measurement models will now be provided.

The results show that the chi-square for both measurement models is statistically significant as their p-values are 0,0069 (for the exogenous variables) and 0,0035 (for the endogenous variables). This means that the discrepancy between the data and the model is greater than expected by chance and that, in this case, the model is unable to reproduce the population covariance matrix (Bollen & Long, 1993; Kelloway, 1998).

Chi-square expressed in terms of its degrees of freedom, indicate that both measurement models fit the data well. The χ^2/df ratio is 4,945 (9,89/2) for the exogenous variable and 2,229 (40,13/18) for the endogenous variables, which falls within the generally accepted standard that good fit is indicated when values are between 2 and 5 (Kelloway, 1998).

When analysing the GFI and AGFI for the X-measurement model, the first obtained a value of 0,98, which indicates very good fit to the data. The AGFI value is slightly lower at 0,89. This is still close to 0,9 which is considered good fit to the data. The Y-measurement model showed good fit to the data for both these indices, with GFI at a value of 0,96 and AGFI at a value of 0,91.

In the case of the X-measurement model, the standardised RMSR obtained a value of 0,0076, which is very good fit. The Y-measurement model, however, has less good fit, with a standardised RMSR of 0,074. In contrast to the above findings, the Y-measurement model has a RMSEA value of 0,073, indicating good fit. In this case the fit of the X-measurement model was less good, with a value of 0,14, which is higher than 0,10. Values below 0,10 normally indicate acceptable fit to the data.

When analysing the comparative fit indices, it is evident that the values of all the indices of the exogenous variable is higher than 0,90, which indicates good fit in all the cases. The values obtained are 0,99 (NFI), 0,98 (NNFI), 0,99 (CFI), 0,99 (IFI) and 0,98 (RFI). In comparison, the indices for the endogenous variables also indicated good fit in all cases except one. These values are 0,92 (NFI), 0,93 (NNFI), 0,95 (CFI), 0,96 (IFI) and 0,88 (RFI).

The PGFI and PNFI for the exogenous variable, do not indicated good fit (0,20 and 0,33). Slightly better values were obtained for the endogenous variables, with the PGFI at 0,48 and PNFI at 0,59.

In the case of the X-measurement model, the AIC and ECVI indicate that the saturated model is favoured, while the CAIC indicate that the fitted model is favoured. Similar results were obtained with the Y-measurement model, where the AIC and ECVI indicate favour for the saturated model and the CAIC indicate favour for the fitted model.

When all the descriptive fit indices are taken into account, it seems reasonable to conclude that acceptable fit has been obtained for both the endogenous and exogenous measurement models.

Table 4.25: Goodness-of-fit of the X-Measurement Model (Transformation Leadership)**Goodness of Fit Statistics**

Degrees of Freedom = 2

Minimum Fit Function Chi-Square = 9,89 (P = 0,0071)

Normal Theory Weighted Least Squares Chi-Square = 9,95 (P = 0,0069)

Estimated Non-centrality Parameter (NCP) = 7,95

90 Percent Confidence Interval for NCP = (1,58 ; 21,79)

Minimum Fit Function Value = 0,046

Population Discrepancy Function Value (F0) = 0,037

90 Percent Confidence Interval for F0 = (0,0074 ; 0,10)

Root Mean Square Error of Approximation (RMSEA) = 0,14

90 Percent Confidence Interval for RMSEA = (0,061 ; 0,23)

P-Value for Test of Close Fit (RMSEA < 0,05) = 0,033

Expected Cross-Validation Index (ECVI) = 0,12

90 Percent Confidence Interval for ECVI = (0,091 ; 0,19)

ECVI for Saturated Model = 0,093

ECVI for Independence Model = 5,63

Chi-Square for Independence Model with 6 Degrees of Freedom = 1196,81

Independence AIC = 1204,81

Model AIC = 25,95

Saturated AIC = 20,00

Independence CAIC = 1222,29

Model CAIC = 60,92

Saturated CAIC = 63,71

Root Mean Square Residual (RMR) = 1,16

Standardised RMR = 0,0076

Goodness of Fit Index (GFI) = 0,98

Adjusted Goodness of Fit Index (AGFI) = 0,89

Parsimony Goodness of Fit Index (PGFI) = 0,20

Normed Fit Index (NFI) = 0,99

Non-Normed Fit Index (NNFI) = 0,98

Parsimony Normed Fit Index (PNFI) = 0,33

Comparative Fit Index (CFI) = 0,99

Incremental Fit Index (IFI) = 0,99

Relative Fit Index (RFI) = 0,98

Critical N (CN) = 200,40

Table 4.26: Goodness-of-fit of the Y-Measurement Model (Procedural Justice, Trust and OCB)

<u>Goodness of Fit Statistics</u>	
Degrees of Freedom = 18	
Minimum Fit Function Chi-Square = 40,13 (P = 0,0020)	
Normal Theory Weighted Least Squares Chi-Square = 38,35 (P = 0,0035)	
Estimated Non-centrality Parameter (NCP) = 20,35	
90 Percent Confidence Interval for NCP = (6,27 ; 42,17)	
Minimum Fit Function Value = 0,19	
Population Discrepancy Function Value (F0) = 0,095	
90 Percent Confidence Interval for F0 = (0,029 ; 0,20)	
Root Mean Square Error of Approximation (RMSEA) = 0,073	
90 Percent Confidence Interval for RMSEA = (0,040 ; 0,10)	
P-Value for Test of Close Fit (RMSEA < 0,05) = 0,11	
Expected Cross-Validation Index (ECVI) = 0,35	
90 Percent Confidence Interval for ECVI = (0,28 ; 0,45)	
ECVI for Saturated Model = 0,34	
ECVI for Independence Model = 2,47	
Chi-Square for Independence Model with 28 Degrees of Freedom = 511,82	
Independence AIC = 527,82	
Model AIC = 74,35	
Saturated AIC = 72,00	
Independence CAIC = 562,79	
Model CAIC = 153,02	
Saturated CAIC = 229,34	
Root Mean Square Residual (RMR) = 2,32	
Standardised RMR = 0,074	
Goodness of Fit Index (GFI) = 0,96	
Adjusted Goodness of Fit Index (AGFI) = 0,91	
Parsimony Goodness of Fit Index (PGFI) = 0,48	
Normed Fit Index (NFI) = 0,92	
Non-Normed Fit Index (NNFI) = 0,93	
Parsimony Normed Fit Index (PNFI) = 0,59	
Comparative Fit Index (CFI) = 0,95	
Incremental Fit Index (IFI) = 0,96	
Relative Fit Index (RFI) = 0,88	
Critical N (CN) = 186,61	

4.7 Testing and Revising the Structural Model

There are two components to be examined when testing whether the model is consistent with the data: firstly, model fit and secondly, the specific parameter coefficients (Lavee, 1988). The structural model that served as basis for this study is depicted in Figure 3.1. As stated earlier, an unstandardised variance-covariance matrix (as illustrated in Table 4.24) was used as input for the LISREL analyses. In this study Maximum Likelihood (ML) was used as the method of parameter estimation. ML is a full information technique, as one is able to estimate all parameters (i.e. path values) simultaneously. An additional advantage is that maximum likelihood estimators are known to be consistent and asymptotically efficient in large samples (Kelloway, 1998).

4.7.1 Assessing Overall Goodness-of-fit of the Current Structural Model

During the first round of testing the model converged. As with the measurement models, the previously described indices will be used to evaluate how well the model fits the data. The goodness-of-fit statistics are depicted in Table 4.27.

From the results it can be seen that the chi-square is statistically significant. The model is unable to reproduce the population covariance matrix and there is a bad fit (Bollen & Long, 1993; Kelloway, 1998).

When model fit for the structural model is evaluated on the basis of χ^2/df (127,25/51), good fit is indicated as a value of 2,4951 was achieved. This is based on the standard that good fit is indicated when values are between 2 and 5 (Kelloway, 1998).

When analysing the GFI and AGFI, the first obtained a value that indicates good fit to the model (0,91), whereas the second, more robust index is slightly lower at 0,86. The standardised RMSR obtained a value of 0,069, indicating good fit. The RMSEA also indicates good fit, as the value of 0,084 is smaller than 0,10, thus constituting acceptable fit.

The values of the comparative fit indices are all higher than 0,90, indicating good fit in all the cases. The values obtained for each index respectively, is an NFI of 0,94, NNFI of 0,95, CFI of 0,96, IFI of 0,96 and RFI of 0,92. When looking at the

parsimonious fit, the PGFI and PNFI indicate marginal to satisfactory fit. Both the AIC and ECVI indicate that the saturated model is favoured, whereas in the case of the CAIC, the fitted model is favoured.

Given the above findings, it can be concluded that the model fits the data reasonably satisfactorily.

Table 4.27: Goodness-of-fit of the Structural Model

<u>Goodness of Fit Statistics</u>	
Degrees of Freedom = 51	
Minimum Fit Function Chi-Square = 127,25 (P = 0,00)	
Normal Theory Weighted Least Squares Chi-Square = 129,16 (P = 0,00)	
Estimated Non-centrality Parameter (NCP) = 78,16	
90 Percent Confidence Interval for NCP = (48,44 ; 115,57)	
Minimum Fit Function Value = 0,59	
Population Discrepancy Function Value (F0) = 0,36	
90 Percent Confidence Interval for F0 = (0,23 ; 0,54)	
Root Mean Square Error of Approximation (RMSEA) = 0,084	
90 Percent Confidence Interval for RMSEA = (0,066 ; 0,10)	
P-Value for Test of Close Fit (RMSEA < 0,05) = 0,0013	
Expected Cross-Validation Index (ECVI) = 0,85	
90 Percent Confidence Interval for ECVI = (0,71 ; 1,03)	
ECVI for Saturated Model = 0,73	
ECVI for Independence Model = 9,60	
Chi-Square for Independence Model with 66 Degrees of Freedom = 2040,96	
Independence AIC = 2064,96	
Model AIC = 183,16	
Saturated AIC = 156,00	
Independence CAIC = 2117,46	
Model CAIC = 301,30	
Saturated CAIC = 497,27	
Root Mean Square Residual (RMR) = 3,32	
Standardised RMR = 0,069	
Goodness of Fit Index (GFI) = 0,91	
Adjusted Goodness of Fit Index (AGFI) = 0,86	
Parsimony Goodness of Fit Index (PGFI) = 0,59	
Normed Fit Index (NFI) = 0,94	
Non-Normed Fit Index (NNFI) = 0,95	
Parsimony Normed Fit Index (PNFI) = 0,72	
Comparative Fit Index (CFI) = 0,96	
Incremental Fit Index (IFI) = 0,96	
Relative Fit Index (RFI) = 0,92	
Critical N (CN) = 131,76	

The next step in the analysis was to examine the paths to determine if the model's predictions were correct, to answer the research questions and to identify each path's contribution to the overall fit of the model. It will therefore be concluded whether the hypotheses can be confirmed. The components of the model, such as the R squares of equations, the magnitude of coefficient estimates, whether the estimates are of the correct sign, and the presence of improper solutions, should be examined. This is paramount, as even a model with excellent overall fit indices can be unacceptable because of the components of the model (Bollen & Long, 1993).

If the model is testable, but does not fit the data sufficiently well, the **modification indices** provide a means for assessing what changes in the model specification would improve its fit to the data. A modification index larger than 5,0, in either the measurement or the structural model, indicates that the model's fit to the data will improve significantly if the respective path is allowed, that is if the constraint of the fixed parameter is relaxed (Lavee, 1988). This modification index (of larger than 5,0) is, however, only a rough approximation of improved fit.

The standard error for each parameter estimate can be used to provide an indication of the importance of the parameter to the model as a whole. The statistical significance of each parameter is determined by a *t* statistic, which is equal to the ratio of the coefficient and its standard error. If the critical ratio formed by dividing the estimate by its standard error is large, the parameter is essential to the model (Bentler, 1980). Coefficients that are twice as large as their respective standard errors (i.e. $t > 2$) are considered statistically significant (Lavee, 1988).

4.7.2 Assessing the Structural Relationships of the Structural Model

Before the path coefficient are examined, a summary of the statistical hypotheses for this study, developed based on the research hypotheses from the literature study of previous research (as described in chapter 2), is provided in Table 4.28.

Table 4.28: Statistical Hypotheses

Hypothesis 1	$H_0: \gamma_{11} = 0$
	$H_a: \gamma_{11} > 0$
Hypothesis 2	$H_0: \beta_{21} = 0$
	$H_a: \beta_{21} > 0$
Hypothesis 3	$H_0: \beta_{32} = 0$
	$H_a: \beta_{32} > 0$
Hypothesis 4	$H_0: \beta_{21}\beta_{32} = 0$
	$H_a: \beta_{21}\beta_{32} > 0$
Hypothesis 5	$H_0: \gamma_{21} = 0$
	$H_a: \gamma_{21} > 0$
Hypothesis 6	$H_0: \gamma_{11}\beta_{21} = 0$
	$H_a: \gamma_{11}\beta_{21} > 0$
Hypothesis 7	$H_0: \gamma_{21}\beta_{32} = 0$
	$H_a: \gamma_{21}\beta_{32} > 0$
Hypothesis 8	$H_0: \gamma_{11}\beta_{21}\beta_{32} = 0$
	$H_a: \gamma_{11}\beta_{21}\beta_{32} > 0$

The results of the structural equation modelling are reported in tables 4.29 – 4.33 in Appendix D.

The structural model with its maximum likelihood parameter estimates is presented in Figure 4.1. The t-statistics for each of the structural coefficients were examined to determine whether they differed significantly from zero. The t-values are presented in brackets and $t \geq |1,96|$ implies a significant parameter estimate ($p < 0,05$).

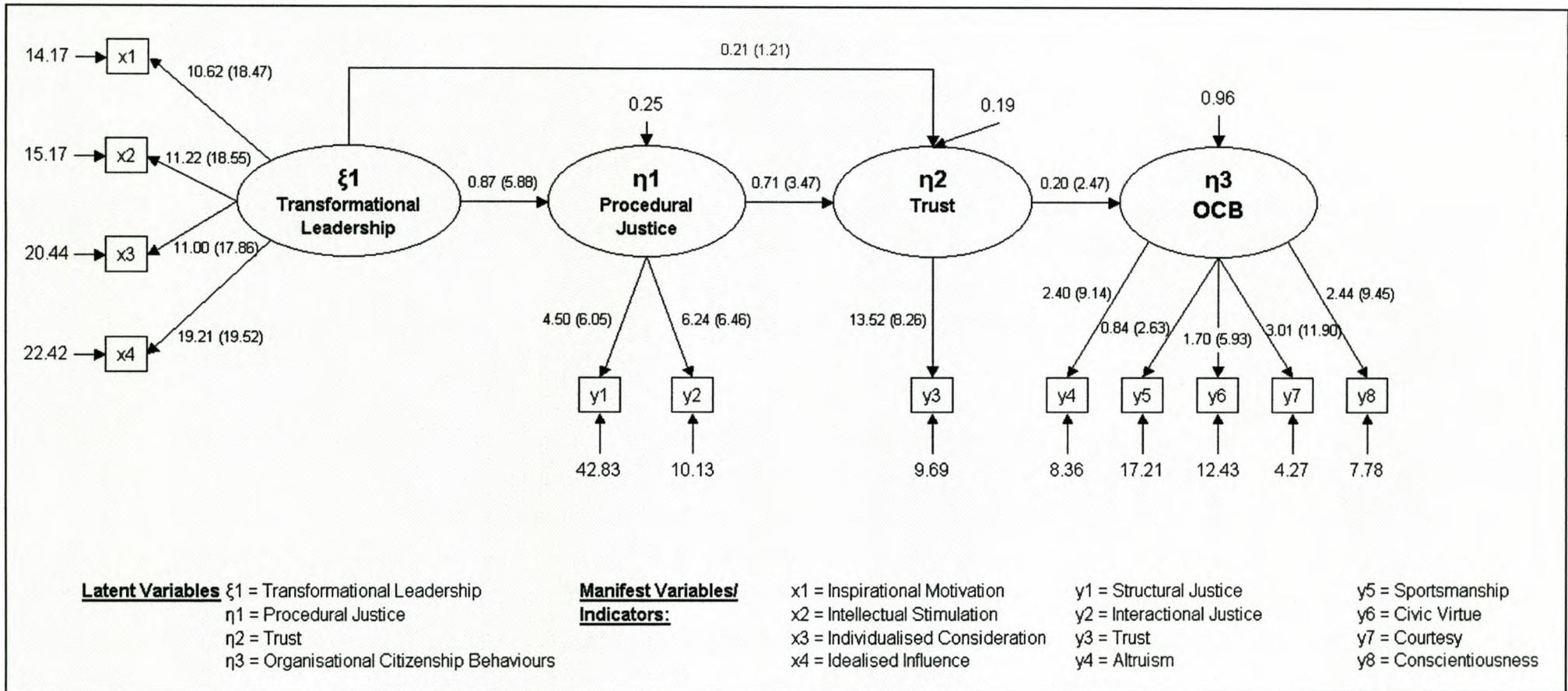


Figure 4.1: Structural Model with Maximum Likelihood Parameter Estimates

The gamma (Γ) and beta (B) matrices, illustrating the direct effects between the constructs, are depicted in Tables 4.34 and 4.35 respectively.

Table 4.34: Gamma (Γ) Matrix

	Transformational Leadership
Procedural Justice	0,87 (0,15) 5,88*
Trust	0,21 (0,17) 1,21

* $p < 0,05$

From the t-values in the above matrix, it is evident that a positive, significant relationship ($t > 2$ at $t = 5,88$) exists between transformational leadership and procedural justice. This relationship is significant at $p < 0,05$. For the statistical hypothesis 1, the H_0 can thus be rejected in favour of H_a .

However, in the case of the hypothesised relationship between transformational leadership and trust, no significant relationship was found. A weak positive, but non-significant ($p > 0,05$) relationship is reported between these two latent variables. As a result, hypothesis 5 is not corroborated and H_0 cannot be rejected.

The beta (B) matrix provides information to determine whether the other hypotheses (H_{02} and H_{03}) should be rejected or accepted.

Table 4.35: Beta (B) Matrix

	Procedural Justice	Trust
Trust	0,71 (0,21) 3,47*	-
OCB	-	0,20 (0,082) 2,47*

* $p < 0,05$

From the above matrix, it can be derived that a positive, significant ($t > 2$ at $t = 3,47$) relationship exists between procedural justice and trust. Ho for the statistical hypotheses 2 can therefore be rejected in favour of Ha. Consequently hypothesis 6, stating that transformational leadership has an indirect effect on trust, with procedural justice acting as mediator, can also be confirmed (as γ_{11} and β_{21} are both positive and significant). Ho of statistical hypotheses 6 can thus be rejected in favour of Ha.

The beta matrix also indicates that trust has a significantly ($t > 2$ with $t = 2,47$) positive (though relatively weak) relationship with OCBs. Thus, for the statistical hypothesis 3, the Ho can be rejected in favour of Ha, as the relationship is significant ($p < 0,05$). The acceptance of this Ha hypothesis, leads to the rejection of Ho for both hypotheses 8 and 4. Hypothesis 8 states that transformational leadership has an indirect influence on OCBs through procedural justice and trust as mediators. Seeing that γ_{11} , β_{21} and β_{32} are all confirmed to be positive and significant ($p < 0,05$), Ho for the statistical hypothesis 8 can be rejected in favour of Ha. Similarly, hypothesis 4 stated that trust has a mediating effect on the relationship between procedural justice and organisational citizenship behaviours. As it is confirmed that both β_{21} and β_{32} are positive and significant ($p < 0,05$), the Ho of the statistical hypothesis 4 can be rejected in favour of Ha.

Finally hypothesis 7, stating that transformational leadership has an indirect influence on organisational citizenship behaviours through trust as mediator, was not confirmed. Even though the path between trust and OCBs (β_{32}) is positive and significant ($p < 0,05$), the path between transformational leadership and trust (γ_{21}) was not significant. The Ho for statistical hypothesis 7 can therefore not be rejected.

Following the parameter estimates, the LISREL programme provides suggestions in terms of modifications that can be made to the model, that can be considered by the researcher in order to achieve better model fit to the data (Jöreskog, 1993). Respecification of the model is normally done when it is concluded that the fit of the model is inadequate (Bollen & Long, 1993). A very brief report will be given of the modification indices that arose from this LISREL analysis.

4.7.3 Suggested Modifications to the Structural Model

LISREL suggested a path from OCBs to procedural justice. The modification index indicates that chi-square is expected to decrease with 19,4 (with an unstandardised estimate of 2,31) should this parameter be set free and the model be re-estimated.

It was also suggested that Error Covariances should be added between a number of manifest variables. The error covariances suggested, are between:

- Inspirational Motivation and Trust (Chi-square decrease of 13,0 and new estimate of $-7,96$);
- Individualised Consideration and Intellectual Stimulation (Chi-square decrease of 11,6 and new estimate of 5,54);
- Idealised Influence and Trust (Chi-square decrease of 34,0 and new estimate of 19,03; and
- Idealised Influence and Individualised Consideration (Chi-square decrease of 9,2 and new estimate of $-7,86$).

It is important to note that respecification and improved model fit should not be done in order to simply achieve better fit to data, but to guide the researcher in the process of specification during future research. Modifications (such as added or deleted paths) should always be theoretically plausible (Stage, 1989). In these cases, the paths do not seem to be theoretically valid when looking at the theoretical study that preceded this analysis.

4.8 Overview of Results

The aim of the model in the present study was to investigate whether:

(1) transformational leadership has a direct causal relationship with procedural justice, (2) procedural justice has a direct causal relationship with trust, (3) trust has a direct causal relationship with organisational citizenship behaviours (OCBs), (4) procedural justice has an indirect, positive influence on OCBs through trust as mediator, (5) transformational leadership has a direct causal relationship with trust, (6) transformational leadership has an indirect, positive influence on trust through procedural justice as mediator, (7) transformational leadership has an indirect positive influence on OCBs through trust as mediator and (8) transformational leadership has an indirect positive influence on OCBs through procedural justice and trust as mediators.

LISREL confirmed the model, demonstrating satisfactory to good fit to the data. It was found that all except two of the relationships described above was confirmed. Transformational leadership did not have a significant direct casual relationship with trust and transformational leadership did not influence OCBs indirectly through trust as mediator.

4.9 Conclusion

The purpose of this chapter was to report the results obtained in this study. Even though not all the hypotheses were supported by the results, the objectives of this study, i.e. to determine whether the hypothesised causal relationships exist, have been met satisfactorily.

In chapter 5 the results will be discussed in terms of the research questions that governed this study. Theoretical as well as practical implications, limitations of the study as well as recommendations for future research will be discussed.

CHAPTER 5

DISCUSSION OF RESULTS, GENERAL CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The purpose of the current study was to develop and evaluate a model linking transformational leadership, procedural justice, trust and OCBs in causal relationships. Based on previous research and theory, a theoretical model was developed and then tested. The majority of the hypothesised causal relationships were confirmed, but unfortunately not all the hypotheses could be corroborated in this study.

This chapter will discuss the results in terms of the research questions governing the study, after which the limitations of the study, theoretical and practical implications, as well as recommendations for future research will be discussed.

5.2 Discussion of Results

The results obtained for the various hypothesised relationships will now be discussed.

5.2.1 The Influence of Transformational Leadership on Procedural Justice

Findings confirmed the linkage between transformational leadership and procedural justice. This supports the view that transformational leaders influence employees' perceptions of justice, based on social exchange relationships. According to Konovsky and Pugh (1994), social exchange emerges from individuals trusting that the parties to the exchange will fairly discharge their obligations over the long term.

Pillai et al. (1999) were the first to empirically research this relationship, with similar results. Krafft (2001) analysed Structural Justice and Interactional Justice separately and found results contrasting with those of this study as well as the findings of Pillai et al. Krafft (2001) found no significant relationship between transformational leadership and the structural sub-dimension of procedural justice. Her study did, however, find significant relationships

between some of the transformational leadership dimensions and Interactional Justice.

The current study thus supports findings by Pillai et al. (1999) as well as Pillai, Scandura and Williams (1999). It also provides credit to the theory that transformational leaders foster perceptions of fairness (procedural justice) by, for instance, treating subordinates equitably, supporting employees and by allowing them to participate in decision-making processes.

5.2.2 The Influence of Procedural Justice on Trust

As the results indicate, procedural justice has a significant positive influence on trust.

This finding is consistent with empirical findings by several research conducted over the last decade (Aryee et al., 2002; Cohen-Charash & Spector, 2001; Folger & Konovsky, 1989; Konovsky & Pugh, 1994; Lind & Tyler, 1988; Organ, 1988; Pillai et al., 1999). Within the Southern African context though, Krafft (2001) found no significant relationship between Structural Justice and trust, but the relationship between Interactional Justice and trust was significant.

Based on the results obtained in this study, it stands to reason that trust in the supervisor is enhanced when leaders place emphasis on procedural fairness within the organisation, as they demonstrate that they follow principles of fairness. When procedures are perceived to be fair in a structural as well as interactional manner, trust in the implementers of those processes will be promoted.

This also supports the theory of Robinson and Morrison (1995), which states that when employees experience a sense of unfair treatment, trust in the leader breaks down.

5.2.3 The Influence of Trust on OCBs

This study found support for the positive relationship between trust and OCBs.

In achieving these results, findings by Konovsky and Pugh (1994), Wech (2002), Pillai et al. (1999), Podsakoff et al. (1996), Settoon et al. (1996) and Wagner and Rush (2000) are supported.

From these results (in conjunction with theoretical models) it can be argued that when trust in the leader exists, that employee will have an increased tendency to engage in OCBs

This positive causal relationship could possibly be explained by the fact that trust may also lead to an "...unspecified obligation that may be manifested in citizenship behaviour" (Pillai et al., 1999, p. 905). When employees respect and trust their leaders, they are motivated to do more than what is expected of them. They feel comfortable with exhibiting citizenship behaviour, as they believe that the leader will not take unfair advantage of them.

5.2.4 The Influence of Transformational Leadership on Trust

The only causal relationship that was not confirmed in this study, is that transformational leadership leads to trust in the leader directly. This relationship was found to be positive, but insignificant ($p > 0,05$).

This is inconsistent with findings by Arnold et al. (2001), Avolio et al. (1999), Jung and Avolio (2000), Podsakoff et al. (1990), Pillai et al. (1999) and Shaw (1997). These researchers found that transformational leadership has a direct positive relationship with trust in the leader.

A large number of researchers argue leadership effectiveness depends on the ability to gain the trust of followers (Bennis & Nanus, 1985; Brockner et al., 1997) and that followers are motivated by transformational leaders to perform beyond expectations, because followers trust and respect them (Kouzes & Posner, 1990; Yukl, 1998). The question, therefore, arises why the current study found this relationship to be non-significant.

It is interesting to note that another study conducted in Namibia, studying the same relationship (Krafft, 2001) also found no significant relationship between transformational leadership and trust.

A possible reason for this phenomenon within the South African context, could be the context from which the sample was drawn. The participants of this study were from large, bureaucratic organisations within the banking industry. These organisations have tall structures and individuals are often not lead by leaders

or supervisors, but by processes, structures and procedures that have been put in place.

It is also possible that, because of the large number of employees in these institutions, the interaction between employees and their supervisors are minimal. The leader may not have enough opportunity to foster trust through his/her leadership qualities.

A second possible explanation is that South African citizens are currently facing fierce competition in the labour market. A great number of people are climbing the proverbial "corporate ladder" and are competing for a limited number of positions. It is often the case that an employee and his/her direct supervisor are competing for the same position. In such cases employees could perceive their leaders as possible obstacles in their career development, rather than facilitators of their growth. Trust in the leader could suffer, as an employee doubts whether his/her supervisor is acting in the interest of the employee or himself.

Thirdly, South African organisations are actively implementing affirmative action policies. This inevitably creates a situation where supervisory positions are filled by people who did not necessarily spend years in the organisation and climbed the ranks to achieve leadership positions. It is possible that employees could, therefore, not be convinced that those leaders will look out for their (the subordinates') best interest and development.

It would thus seem that in this South African context, trust is earned in very specific ways. The presence of transformational leadership behaviours alone is not sufficient for a subordinate to trust the leader. Procedural justice (in the form of structural and interactional justice) must also be perceived by the subordinate.

5.2.5 The Influence of Transformational Leadership on OCBs

Through structural equation modeling, evidence was found for the indirect influence of transformational leadership on OCBs, through procedural justice and trust. As motivated by the initial literature study, transformational leadership can influence fairness, fairness can influence trust and trust can influence the occurrence of OCBs. This supports the statement of Organ and

Konovsky (1989, p. 162) that “so long as the individual can sustain an attitude of trust in the long-term fairness of the organization in the relationship, he or she need not worry about the recompense for this or that specific OCB gesture”.

Transformational leaders are those who develop their followers, raise their need levels, foster a climate of trust and model behaviours such as optimism, enthusiasm and transcendence of own interest. These leaders are capable of eliciting extraordinary levels of motivation and performance beyond normal expectations or the minimum levels specified by the organisation (Bass, 1985). This study confirms the notion that transformational leaders motivate employees to perform OCBs, as Organ (1988, p. 4) defined the latter as “...behaviours of a discretionary nature that are not part of the employee’s formal role requirements”.

Many managers face conditions that may constrain their ability to reward employees equitably. Budgets and other monetary restrictions are often outside managerial control. Similarly, the formal procedures within a company may be beyond a manager’s influence. However, the sensitivity with which a manager treats his or her subordinates and the ability to demonstrate fair intentions is relatively controllable by supervisors.

A key antecedent to performance of OCB appears to be organisational members’ perceptions of fair treatment, an aspect of employee interaction completely under the control of most managers. Findings in this study support this notion as well as findings of other researchers (Konovsky & Pugh, 1994; Moorman, 1991; Podsakoff et al., 1990; Williams et al., 2002), who suggested that the treatment of employees is important in the manifestation of organisationally desirable actions.

As the direct relationship between transformational leadership and trust was not confirmed in this study, the indirect relationship with OCB could only be confirmed through both procedural justice and trust as mediators.

Similar empirical results were obtained by Pillai et al. (1999), who reported that transformational leadership has an indirect influence on OCBs through justice and trust as mediators. The current study confirms their results and contributes to the body of evidence that support the theoretical rationale.

5.3 Limitations

A brief discussion of a number of limitations to this study should place the results in proper perspective. Even though there is confidence in the results, several limitations deserve discussion.

In this study the nature of the relationship between transformational leadership and OCBs were studied, with a focus on the mediatory role of procedural justice and trust. It is possible that many other organisational factors can influence OCBs (Pillai et al., 1999).

It has been proven that supervisors take OCBs into account when doing evaluation of performance (Mackenzie et al., 1993), which poses a limitation for the honest reporting of OCBs by employees. Pond et al. (1997) found that employees believe that their supervisors formally evaluate most behaviours on a typical measure of OCBs. These behaviours are thus not truly OCBs in the eyes of many participants, but behaviours that are required of them. Employees who know that their supervisors take these behaviours into account will perform them in expectance of reward and will rate themselves high on OCBs (Allen & Rush, 1998).

Even though trust is not the main focus of this study, it is important to note that the trust relationship in this study refers to the trust that employees have in their direct supervisor and not vice versa. Neither does it refer to any other trust relationships that might exist in or outside the organisation.

The cross-sectional (correlational) nature of the data represents a threat to internal validity in that it prohibits causal direction inferences, even though invalid hypotheses can be ruled out (Cook, Campbell & Peracchio, in Allen & Rush, 1998). Even though the data is cross-sectional, causal inferences about the observed relationships are made. As an analytic technique, LISREL allows for an assessment of directionality in cross-sectional data and is perhaps the most sophisticated method for making causal inferences in this context. However, one must always note that causal inferences made from cross-sectional designs are never more than inferences (Moorman, 1991). However, other models may also explain the data equally as well. Longitudinal designs, which can better test for causality, are still needed (Moorman & Blakely, 1995).

Furthermore, the study was non-experimental. Statements of causality based on the results of even the most sophisticated statistical techniques for making causal inferences, including structural equation modeling, must be treated with caution when using non-experimental designs. Although the results are consistent with the proposed causal model, it must be noted that causal inferences are unwarranted (Settoon et al., 1996).

As discussed earlier, only self reported ratings of OCBs were used. The conceptual advantages and disadvantages of supervisor ratings and self-ratings of OCBs have been described well in Organ (1988) and Schnake (1991). It would have been advantageous to gather multi-source OCBs ratings, as OCBs may be perceived and assessed differently by members of the work group (Kidwell & Mossholder, 1997).

It is suggested that the results be interpreted in the light of the potential for the common method variance problem, as the source of data for the predictors were not separated from the source for their outcomes (Podsakoff & Organ, 1986). All variables were measured from only one source (the employee) at one time, so any relationship that existed could be attributed to a response bias on the part of the respondent (Moorman, 1991). However, research by Moorman and Blakely (1995) indicate that the relationships between self reported OCBs and other variables in their study were robust to the impact of possible common method variance.

In order to limit the effect of self-reporting and common method variance, items of the questionnaire were reordered so that the dependent or criterion variable follows, rather than proceeds, the independent variable as suggested by Podsakoff and Organ (1986).

There were indications that some of the subscales (Individualised Consideration, Idealised Influence, Courtesy and Sportsmanship) may not be uni-dimensional. Further factor analysis should be conducted on these subscales as the factor structure is not pure and therefore questionable.

It is possible that the subjects that volunteered to participate in this study differ from those who did not volunteer to participate, on the variables included in this study. Employees who elicit OCBs have more positive attitudes (such as those

typically part of civic virtue and sportsmanship) towards the organisation and may be more willing to participate in such an activity that may benefit the organisation (Organ, 1988). It cannot be said with certainty whether the respondents differed in systematic ways from non-respondents (Scminke, Ambrose & Cropanzano, 2000). Therefore it is possible that respondents are not characteristic of all employees and primarily represent those who engage in OCBs (Van Dyne et al., 2000).

Another potential concern with the current study is that the Cronbach's alpha estimate of reliability of the OCBs measure was lower than that found in previous research. Podsakoff et al. (1990) reported reliabilities ranging from 0,70 for civic virtue to 0,85 for altruism. All the reliabilities obtained in this study are lower than 0,70, ranging from 0,48 to 0,66.

5.4 Recommendations

The South African manager/leader increasingly has to work with diverse groups of people, who have attitudes, values and beliefs that may differ tremendously from those of the leader. It is thus very important to have leaders who can foster the right relationships in order to maintain organisational health and effectiveness despite of the differences among employees. As organisations move toward flatter structures and thus eliminating many middle-level management positions, the need for more leadership in those organisations (at all levels) becomes evident (House, 1995).

Even with the limitations in mind, it is believed that the purpose for this study has been achieved. Research results offered one possible explanation for how transformational leadership influences organisational citizenship behaviours. In so doing, theories of equity and social exchange were integrated. The results also support the theory and model suggested by Pillai et al. (1999).

If, in the aggregate, OCBs do influence organisational performance, then identifying their antecedents should prove useful to both practicing managers and researchers alike. The following theoretical and practical recommendations are made.

5.4.1 Theoretical Recommendations

Within the framework of leadership, social exchange and equity theories, the results synthesize and contribute to research literature in several ways.

The findings of this study demonstrate that transformational leadership influences organisational citizenship behaviours through perceived procedural justice and trust in their leader. These findings validate the basic notion that transformational leader behaviours influence followers to perform above and beyond the call of duty.

Subordinates may internalise the supervisor's attitudes and beliefs. Then inspired subordinates identify with and emulate the transformational leader's extra effort in the form of organisationally advantageous OCBs.

Several interesting aspects of the relationship between transformational leadership and OCBs have been noted and several critical questions have been identified that promise to extend the linkage between these constructs (and of course the influence of procedural justice and trust) in the field of organisational behaviour.

Trust in the supervisor demonstrated to fulfill an important mediating role. Research directed at the potential causes and consequences of employees' trust (such as Bews, 2000; Engelbrecht & Cloete, 2000) in their leader would make a substantial contribution to the organisational behaviour literature.

The measurement of OCBs is an important issue that clearly deserves further attention. As discussed in the limitations, supervisors, coworkers and employees may have different perspectives on the OCBs that employees perform. Van Yperen and Van den Berg (1999) found that supervisors did not easily notice subordinate OCBs and the halo effect influenced their ratings. They noted that there is no guarantee that supervisors' judgements of OCBs are valid indicators of OCBs. Therefore it is suggested that this data should be collected from all three sources, ensuring a 360-degree measure. Greenberg (1993) also suggested that a combination of in-depth open-ended interviews and laboratory experiments should be done to investigate the link between fairness and OCBs.

It is suggested that all research involving OCBs, should firstly determine whether the subjects (employees) consider OCBs as part of their job, as role definitions were found to moderate several relationships between procedural justice and OCB, providing support for the role discretion effect (Tepper et al., 2001; Tepper & Taylor, 2003).

It should be noted that a key assumption in the rationale for studying OCBs is the notion that ultimately, aggregated across time and individuals, OCBs contribute to organisational effectiveness. This relationship should, however, be researched more, as only George and Bettenhausen (1990) and Podsakoff and MacKenzie (1994) has done work to support this assumption.

As we learn more about the personal characteristics that followers attribute to transformational leaders and about the conditions that facilitate their emergence, we should be better able to predict when followers will exhibit extraordinary commitment and OCBs in response to how they are treated by their leaders. The two most obvious objectives for future research would be to empirically examine the effects of transformational leader behaviours on a wider range of criterion variables. Examining the differential effects of leader versus organisational practices on OCBs, should further contribute to our understanding of the exchange process between the organisation and the individual.

Future research may benefit from identifying both promoters and inhibitors of OCB and studying how the two work together to affect OCBs. There are many dispositional factors that may have an influence on the eliciting of OCBs. One potential connection that needs examining is that of the Protestant Work Ethic on OCBs.

Future research may expand the variables used in this model and investigate the salient motives, long-term consequences and monetary benefits of organisational citizenship behaviours in organisations. If OCBs are so advantageous to organisational effectiveness as claimed, it is important to understand the motivational bases and the avenues available to enhance and manage the discretionary citizenship behaviours of organisational members.

Patterns of relationships identified in one culture cannot be assumed to be invariant across cultures. Examining theories or hypotheses across cultural boundaries, thus, is important. Future research would benefit from similar studies using samples from various cultures and nationalities. In addition, an exploratory study similar to which was conducted by Turnipseed and Murkison (2000), would hugely contribute to the understanding of how and why South Africans perform OCBs and interpret results in respect to the country's stage of development, history and economy. Results could be compared to studies conducted in the US and Romania (Turnipseed & Murkison, 2000).

5.4.2 Practical Recommendations

The strongest practical implication of this study is that supervisors (specifically transformational leadership) can influence employees' citizenship behaviours. The results indicate that fairness perceptions and trust are both instrumental in predicting the occurrence of citizenship behaviours. Therefore, managers should be aware of the benefits of fostering these two aspects in their dealings with employees, as perceptions of treatment and the building of trust could affect the occurrence of OCBs. Managers, who want to increase citizenship behaviour by their employees, should work to increase the fairness of their interactions with employees.

It is also suggested that organisations develop lucid fairness criteria, as the data indicate that an atmosphere of trust towards leaders as well as organisationally beneficial behaviours of OCBs could follow.

It has repeatedly been demonstrated that, even though behaviours have strong dispositional elements that develop in early years (Bass, 1985), the overall amount of transformational leadership in an organisation can be increased substantially in leaders at all levels of the organisation, and all sectors, men or women, black or white, old or young (Bass, 1994). The huge positive effect that transformational leadership has on organisational effectiveness and the health of organisations through OCBs, suggests that South African organisations should enhance this leadership style in their employees through training (Bass, 1994) or by following Yukl's (1998) suggestions for the development of transformational leadership behaviours. It should form part of management training and development early in their careers, as it is a potential generator of

subordinate OCBs. Transformational leadership should also be enhanced by suitable organisational and human resources policies, recruitment, selection and promotion.

Given the positive effect of OCBs on the smooth functioning of the organisation, managers should expand and diversify their view of desired job performance. They need to move beyond traditional conceptualisations of job performance and start to incorporate the spontaneous and innovative behaviours (Schappe, 1998) that are often critical to the effective functioning of organisations (Organ, 1988).

5.5 Conclusion

As we learn more about the personal characteristics that followers attribute to transformational leaders and about the conditions that facilitate their emergence, we should be better able to predict when followers will exhibit extraordinary commitment and OCBs in response to how they are treated by their leaders.

Findings of this study suggest that leaders need to have a better understanding of those contextual variables that influence subordinate attitudes, role perceptions and performance, and how to influence these contextual variables.

It is believed that this study contributed to the field of Industrial Psychology, for both academic researchers as well as practicing Industrial Psychologists and human resource managers alike. The positive relationships found between transformational leadership, procedural justice, trust and OCBs, urges leaders on all levels and in all environments foster fairness and trust. Above all, organisations will excel if all their leaders share the sentiments of Ralph Nader, who said: "I start with the premise that the function of leadership is to produce more leaders, not more followers".

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APPENDIX A: COVER LETTER AND QUESTIONNAIRE

INSTRUCTIONS

This questionnaire forms part of a Masters study done by Lourensia Chamberlain at the University of Stellenbosch. The aim thereof is to determine the influence of transformational leadership on organisational citizenship behaviours. The management of this company has kindly agreed that its employees may take part in this research. However, participation remains voluntary.

Questionnaires are to be completed anonymously. The information will be kept confidential as the returned questionnaires will be handled and used by the researcher only.

For the research to yield valid results, it is very important that you respond honestly, reflecting your own opinions and perceptions only. Once again, confidentiality is assured as some of the questions/statements are regarding sensitive issues. Please do not omit ANY statements as incomplete questionnaires cannot be used and the effort would have been wasted.

Thank you kindly for your participation and contribution to this study. Please complete the demographic information below before continuing with Sections A to D.

SECTION A

This section contains statements regarding behaviour or actions that are normally not required by your formal job description. These behaviours are also not formally rewarded by the company. By marking one block opposite each statement with a cross (X), indicate to what extent you behave in the way stated in each item.

It is very important that you do not answer what your company or supervisor expects from you or what you are supposed to do, but what you actually do.

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1.	I help others who have heavy workloads.	1	2	3	4	5	6
2.	I can be described as the classic "squeaky wheel" that always needs greasing.	1	2	3	4	5	6
3.	I believe in giving an honest day's work for an honest day's pay.	1	2	3	4	5	6
4.	I try to avoid creating problems for co-workers.	1	2	3	4	5	6
5.	I consume a lot of time complaining about trivial matters.	1	2	3	4	5	6
6.	I keep abreast of developments in the organisation.	1	2	3	4	5	6
7.	I tend to make problems bigger than they are.	1	2	3	4	5	6
8.	I consider the impact of my actions on co-workers.	1	2	3	4	5	6
9.	I attend meetings that are not mandatory, but are considered important.	1	2	3	4	5	6

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
10.	I am always ready to lend a helping hand to those around me.	1	2	3	4	5	6
11.	I attend functions that are not required, but help the company image.	1	2	3	4	5	6
12.	I read and keep up with organisation announcements, memos, etc.	1	2	3	4	5	6
13.	I help others who have been absent.	1	2	3	4	5	6
14.	I do not abuse the rights of others.	1	2	3	4	5	6
15.	I willingly give my time to help others who have work related problems.	1	2	3	4	5	6
16.	I tend to focus on what's wrong with my situation rather than the positive side.	1	2	3	4	5	6
17.	I take steps to try to prevent problems with other workers.	1	2	3	4	5	6
18.	My attendance at work is above the norm.	1	2	3	4	5	6
19.	I always find fault with what the organisation is doing.	1	2	3	4	5	6
20.	I am mindful of how my behaviour affects other people's jobs.	1	2	3	4	5	6
21.	I do not take extra breaks.	1	2	3	4	5	6
22.	I obey company rules and regulations even when no one is watching.	1	2	3	4	5	6
23.	I help orient new people even though it is not required.	1	2	3	4	5	6
24.	I am one of the most conscientious employees.	1	2	3	4	5	6

SECTION B

The aim of this section is to describe the leadership style of your direct supervisor (manager). Throughout the whole questionnaire all your answers should refer to the same person, i.e. the person you report to.

Please indicate how frequently your supervisor (manager) displays the behaviour described. Read each statement carefully and mark **one** of the boxes next to each statement. Please do **not omit** any statements.

My supervisor/Manager:

		Almost Never	Once in a while	Sometimes	Fairly often	Frequently	Almost Always
1.	Makes personal sacrifices for the benefit of others.	1	2	3	4	5	6
2.	Talks to us about his/her most important values and beliefs.	1	2	3	4	5	6
3.	Sets high standards.	1	2	3	4	5	6
4.	Emphasizes the value of questioning assumptions.	1	2	3	4	5	6
5.	Treats me as an individual rather than just a member of a group.	1	2	3	4	5	6
6.	Remains calm during crisis situations.	1	2	3	4	5	6
7.	Emphasizes the importance of being committed to our beliefs.	1	2	3	4	5	6
8.	Envisions exciting new possibilities.	1	2	3	4	5	6
9.	Re-examines critical assumptions to question whether they are appropriate.	1	2	3	4	5	6

		Almost Never	Once in a while	Sometimes	Fairly often	Frequently	Almost Always
10.	Listens attentively to my concerns.	1	2	3	4	5	6
11.	Instills pride in being associated with him/her.	1	2	3	4	5	6
12.	Specifies the importance of having a strong sense of purpose.	1	2	3	4	5	6
13.	Talks optimistically about the future.	1	2	3	4	5	6
14.	Encourages us to rethink ideas which had never been questioned before.	1	2	3	4	5	6
15.	Provides useful advice for my development.	1	2	3	4	5	6
16.	Goes beyond his/her own self-interest for the good of our group.	1	2	3	4	5	6
17.	Considers the moral and ethical consequences of his/her decisions.	1	2	3	4	5	6
18.	Expresses his/her confidence that we will achieve our goals.	1	2	3	4	5	6
19.	Questions the traditional ways of doing things.	1	2	3	4	5	6
20.	Focuses me on developing my strengths.	1	2	3	4	5	6
21.	Provides reassurance that we will overcome obstacles.	1	2	3	4	5	6
22.	Displays conviction in his/her ideals, beliefs, and values.	1	2	3	4	5	6
23.	Provides continuous encouragement.	1	2	3	4	5	6

		Almost Never	Once in a while	Sometimes	Fairly often	Frequently	Almost Always
24.	Seeks differing perspectives when solving problems.	1	2	3	4	5	6
25.	Spends time teaching and coaching me.	1	2	3	4	5	6
26.	Displays extraordinary talent and competence in whatever he/she undertakes.	1	2	3	4	5	6
27.	Takes a stand on difficult issues.	1	2	3	4	5	6
28.	Focuses my attention on "what it takes" to be successful.	1	2	3	4	5	6
29.	Suggests new ways of looking at how we do our jobs.	1	2	3	4	5	6
30.	Treats each of us as individuals with different needs, abilities, and aspirations.	1	2	3	4	5	6
31.	His/her actions build my respect for him/her.	1	2	3	4	5	6
32.	Clarifies the central purpose underlying our actions.	1	2	3	4	5	6
33.	Talks enthusiastically about what needs to be accomplished.	1	2	3	4	5	6
34.	Encourages me to express my ideas and opinions.	1	2	3	4	5	6
35.	Teaches me how to identify the needs and capabilities of others.	1	2	3	4	5	6
36.	Displays a sense of power and confidence.	1	2	3	4	5	6

		Almost Never	Once in a while	Sometimes	Fairly often	Frequently	Almost Always
37.	Talks about how trusting each other can help us to overcome our difficulties.	1	2	3	4	5	6
38.	Arouses awareness on what is essential to consider.	1	2	3	4	5	6
39.	Emphasizes the importance of having a collective sense of mission.	1	2	3	4	5	6
40.	Articulates a compelling vision of the future.	1	2	3	4	5	6
41.	Gets me to look at problems from many different angles.	1	2	3	4	5	6
42.	Promotes self-development.	1	2	3	4	5	6
43.	Behaves in ways that are consistent with his/her expressed values.	1	2	3	4	5	6
44.	Shows determination to accomplish what he/she sets out to do.	1	2	3	4	5	6
45.	Encourages non-traditional thinking to deal with traditional problems.	1	2	3	4	5	6
46.	Gives personal attention to members who seem neglected.	1	2	3	4	5	6
47.	Encourages addressing problems by using reasoning and evidence, rather than unsupported opinion.	1	2	3	4	5	6

SECTION C

Every company has formal procedures (e.g. selection, training and development, job analysis, career planning, performance management, disciplinary procedures) according to which decisions are made and employees are treated. Items 1 – 7 are statements regarding such procedures, while items 8 – 13 refer to the manner in which your direct supervisor enacts company procedures.

Please react to each statement in an honest way that will reflect your perceptions regarding that which is stated.

For items 1 – 7, every statement begins with: **“In this company, procedures are designed to...”**. For items 8 - 13, every statement begins with: **“During decision making concerning formal procedures...”**.

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1.	Collect accurate information necessary for making decisions.	1	2	3	4	5	6
2.	Provide opportunities to appeal or challenge the decision.	1	2	3	4	5	6
3.	Have all sides affected by the decision represented.	1	2	3	4	5	6
4.	Generate standards so that decisions could be made with consistency.	1	2	3	4	5	6
5.	Hear the concerns of all those affected by the decision.	1	2	3	4	5	6
6.	Provide useful feedback regarding the decision and its implementation.	1	2	3	4	5	6

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
7.	Allow for requests for clarification or additional information about the decision.	1	2	3	4	5	6
8.	My supervisor considers my viewpoint.	1	2	3	4	5	6
9.	My supervisor is able to suppress personal biases.	1	2	3	4	5	6
10.	My supervisor provides me with timely feedback about a decision and its implications.	1	2	3	4	5	6
11.	My supervisor treats me with kindness and consideration.	1	2	3	4	5	6
12.	My supervisor shows concern for my rights as an employee.	1	2	3	4	5	6
13.	My supervisor takes steps to deal with me in a truthful manner.	1	2	3	4	5	6

SECTION D

In section D we aim to determine how you view the person you report to. Please respond honestly to each statement and as before, think only of the person whom you report to (i.e. your direct supervisor).

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1.	I am comfortable allowing the person to whom I report control of issues that are important to our team.	1	2	3	4	5	6
2.	I can depend on the person to whom I report.	1	2	3	4	5	6
3.	I believe that the person to whom I report does not need to be carefully watched.	1	2	3	4	5	6
4.	The person to whom I report is trustworthy.	1	2	3	4	5	6
5.	In a situation of risk one can rely on the person to whom I report to act in the interest of others.	1	2	3	4	5	6
6.	The person to whom we report supports our team, even in our absence.	1	2	3	4	5	6
7.	If one requests assistance with a problem, even if one cannot monitor her or him, the person to whom I report will act in one's interest.	1	2	3	4	5	6
8.	In a situation of risk one can rely on the person to whom I report not to take advantage of one's vulnerability.	1	2	3	4	5	6

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
9.	If one requests the person to whom I report to do something for one, I know that it will generally be done.	1	2	3	4	5	6
10.	I can believe what the person to whom I report says.	1	2	3	4	5	6
11.	Even in my absence, the person to whom I report will support me.	1	2	3	4	5	6
12.	I can confide in the person to whom I report.	1	2	3	4	5	6

End of questionnaire

THANK YOU FOR YOUR KIND CO-OPERATION

APPENDIX B: RESULTS OF ITEM ANALYSIS

Table 4.2: Results of Item Analysis for Transformational Leadership (N=216)

Variable	Raw Variables		Standardised Variables	
	Correlation with Total	Alpha if Item Deleted	Correlation with Total	Alpha if Item Deleted
Inspirational Motivation				
QU3	0,560665	0,922545	0,566444	0,922820
QU8	0,732262	0,913901	0,732662	0,913840
QU13	0,668187	0,917594	0,665145	0,917532
QU18	0,719604	0,914703	0,713343	0,914903
QU23	0,762128	0,912207	0,758517	0,912409
QU28	0,705001	0,915692	0,699814	0,915644
QU33	0,813079	0,909786	0,814294	0,909292
QU38	0,728720	0,914287	0,729111	0,914036
QU40	0,785680	0,910755	0,785184	0,910924
QU44	0,604171	0,920521	0,608764	0,920569
Intellectual Stimulation				
QU4	0,647015	0,915115	0,647617	0,915068
QU9	0,729739	0,910630	0,728910	0,910526
QU14	0,777801	0,907608	0,778186	0,907728
QU19	0,615011	0,916819	0,614047	0,916917
QU24	0,710981	0,911639	0,710758	0,911548
QU29	0,677260	0,913470	0,676976	0,913438
QU34	0,715597	0,911338	0,715303	0,911293
QU41	0,742073	0,909889	0,741674	0,909805
QU45	0,679253	0,913481	0,678987	0,913326
QU47	0,701083	0,912150	0,701652	0,912059
Individualised Consideration				
QU5	0,411939	0,920090	0,413026	0,920084
QU10	0,705116	0,899492	0,705626	0,900156
QU15	0,788746	0,893305	0,788914	0,894179
QU20	0,750640	0,896017	0,750888	0,896925
QU25	0,695851	0,900037	0,696169	0,900826

Variable	Raw Variables		Standardised Variables	
	Correlation with Total	Alpha if Item Deleted	Correlation with Total	Alpha if Item Deleted
QU30	0,720280	0,898299	0,720262	0,899115
QU35	0,721074	0,898284	0,721244	0,899045
QU42	0,698686	0,899823	0,698377	0,900669
QU46	0,753312	0,895999	0,754235	0,896685
Idealised Influence				
QU1	0,618398	0,942037	0,614729	0,942971
QU2	0,585428	0,942952	0,583783	0,943543
QU6	0,445508	0,945609	0,444910	0,946076
QU7	0,725835	0,940005	0,722835	0,940953
QU11	0,734314	0,939838	0,733812	0,940746
QU12	0,748692	0,939672	0,749889	0,940442
QU16	0,760683	0,939313	0,761454	0,940224
QU17	0,673120	0,941038	0,673728	0,941874
QU21	0,779009	0,939123	0,780614	0,939860
QU22	0,667091	0,941145	0,667184	0,941996
QU26	0,666387	0,941164	0,668916	0,941964
QU27	0,685178	0,940819	0,686858	0,941628
QU31	0,765749	0,939204	0,766768	0,940123
QU32	0,787144	0,939112	0,787885	0,939722
QU36	0,622133	0,941957	0,626083	0,942761
QU37	0,673142	0,941141	0,673803	0,941872
QU39	0,663064	0,941220	0,663056	0,942073
QU43	0,602545	0,942293	0,602345	0,943200

Table 4.3: Results of Item Analysis for Procedural Justice (N=216)

Variable	Raw Variables		Standardised Variables	
	Correlation with Total	Alpha	Correlation with Total	Alpha
Structural Justice				
QUE1	0,640613	0,900463	0,642625	0,900631
QUE2	0,677814	0,896831	0,679077	0,896672
QUE3	0,675202	0,897000	0,673050	0,897330
QUE4	0,769893	0,886747	0,769637	0,886623
QUE5	0,784115	0,884729	0,780754	0,885368
QUE6	0,769296	0,886464	0,767767	0,886833
QUE7	0,727051	0,891572	0,725593	0,891548
Interactional Justice				
QUE8	0,740919	0,898637	0,740175	0,899307
QUE9	0,689740	0,906004	0,689691	0,906377
QUE10	0,667780	0,909035	0,667689	0,909416
QUE11	0,796077	0,891044	0,796399	0,891276
QUE12	0,826435	0,886391	0,827368	0,886780
QUE13	0,813340	0,888165	0,814861	0,888602

Table 4.4: Results of Item Analysis for Trust in the Supervisor (N=216)

Variable	Raw Variables		Standardised Variables	
	Correlation with Total	Alpha if Item Deleted	Correlation with Total	Alpha if Item Deleted
Trust in the Supervisor				
QUES1	0,711081	0,956745	0,712150	0,957435
QUES2	0,808616	0,953996	0,810038	0,954596
QUES3	0,720815	0,956822	0,720493	0,957195
QUES4	0,841750	0,953189	0,842538	0,953641
QUES5	0,822657	0,953575	0,821358	0,954264
QUES6	0,782245	0,954773	0,781911	0,955417
QUES7	0,838790	0,953257	0,840417	0,953704
QUES8	0,802794	0,954170	0,802049	0,954829
QUES9	0,823434	0,953691	0,823497	0,954201
QUES10	0,763882	0,955305	0,764513	0,955923
QUES11	0,770388	0,955230	0,769584	0,955776
QUES12	0,834590	0,953235	0,834286	0,953884

Table 4.5: Results of Item Analysis for OCBs (N=216)

Variable	Raw Variables		Standardised Variables	
	Correlation with Total	Alpha if Item Deleted	Correlation with Total	Alpha if Item Deleted
Conscientiousness				
Q3	0,400805	0,618014	0,391777	0,631265
Q18	0,332131	0,644274	0,346891	0,651020
Q21	0,442996	0,607700	0,446426	0,606489
Q22	0,484441	0,579211	0,472961	0,594168
Q24	0,451230	0,593596	0,453998	0,602993
Sportsmanship				
Q2	0,296817	0,410134	0,299426	0,416842
Q5	0,281798	0,419289	0,295338	0,419601
Q7	0,303899	0,405021	0,309575	0,409957
Q16	0,230572	0,456935	0,227868	0,464018
Q19	0,213084	0,465595	0,208289	0,476516
Civic Virtue				
Q6	0,385414	0,547637	0,397189	0,536451
Q9	0,419322	0,513551	0,399733	0,534533
Q11	0,456065	0,482131	0,436452	0,506454
Q12	0,315192	0,586825	0,332369	0,584149
Courtesy				
Q4	0,387483	0,513699	0,390207	0,503645
Q8	0,302200	0,553618	0,277752	0,565177
Q14	0,220283	0,588448	0,228259	0,590863
Q17	0,364010	0,516886	0,381566	0,508533
Q20	0,452696	0,459557	0,443200	0,473076

Variable	Raw Variables		Standardised Variables	
	Correlation with Total	Alpha if Item Deleted	Correlation with Total	Alpha if Item Deleted
Altruism				
Q1	0,327410	0,655410	0,324984	0,678286
Q10	0,456106	0,606251	0,465571	0,617860
Q13	0,458249	0,589013	0,454787	0,622674
Q15	0,500536	0,578451	0,517252	0,594370
Q23	0,402189	0,615238	0,419757	0,638103

APPENDIX C: RESULTS OF INITIAL FACTOR ANALYSIS

Table 4.10: Results of Initial Factor Analysis of Inspirational Motivation

Eigenvalues of the Correlation Matrix: Total = 10 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
1	5,94964002	5,04351432	0,5950	0,5950
2	0,90612570	0,34389382	0,0906	0,6856
3	0,56223189	0,04927293	0,0562	0,7418
4	0,51295896	0,01403050	0,0513	0,7931
5	0,49892845	0,06893206	0,0499	0,8430
6	0,42999639	0,04926682	0,0430	0,8860
7	0,38072957	0,09909848	0,0381	0,9241
8	0,28163109	0,02594680	0,0282	0,9522
9	0,25568429	0,03361065	0,0256	0,9778
10	0,22207364		0,0222	1,0000

Table 4.11: Results of Initial Factor Analysis of Intellectual Stimulation

Eigenvalues of the Correlation Matrix: Total = 10 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
1	5,83749050	5,08864770	0,5837	0,5837
2	0,74884280	0,07892789	0,0749	0,6586
3	0,66991491	0,15011512	0,0670	0,7256
4	0,51979979	0,01955955	0,0520	0,7776
5	0,50024024	0,05114628	0,0500	0,8276
6	0,44909396	0,05229782	0,0449	0,8725
7	0,39679613	0,07960738	0,0397	0,9122
8	0,31718875	0,01398765	0,0317	0,9439
9	0,30320110	0,04576930	0,0303	0,9743
10	0,25743180		0,0257	1,0000

Table 4.12: Results of Initial Factor Analysis of Individualised Consideration

Eigenvalues of the Correlation Matrix: Total = 9 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
1	5,33793474	4,27665421	0,5931	0,5931
2	1,06128053	0,51947272	0,1179	0,7110
3	0,54180781	0,06064952	0,0602	0,7712
4	0,48115830	0,11539313	0,0535	0,8247
5	0,36576517	0,01815288	0,0406	0,8653
6	0,34761229	0,01468695	0,0386	0,9040
7	0,33292533	0,05259237	0,0370	0,9409
8	0,28033296	0,02915009	0,0311	0,9721
9	0,25118287		0,0279	1,0000

Table 4.13: Results of Initial Factor Analysis of Idealised Influence

Eigenvalues of the Correlation Matrix: Total = 18 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
1	9,40036821	8,18760544	0,5222	0,5222
2	1,21276277	0,32321430	0,0674	0,5896
3	0,88954847	0,10370431	0,0494	0,6390
4	0,78584416	0,11885839	0,0437	0,6827
5	0,66698577	0,05228097	0,0371	0,7198
6	0,61470480	0,03330805	0,0342	0,7539
7	0,58139675	0,06189050	0,0323	0,7862
8	0,51950625	0,03795458	0,0289	0,8151
9	0,48155167	0,02405064	0,0268	0,8418
10	0,45750104	0,04496536	0,0254	0,8672
11	0,41253567	0,04936173	0,0229	0,8902
12	0,36317395	0,03261855	0,0202	0,9103
13	0,33055540	0,02578384	0,0184	0,9287
14	0,30477155	0,01553441	0,0169	0,9456
15	0,28923714	0,03193354	0,0161	0,9617
16	0,25730360	0,03216342	0,0143	0,9760

Eigenvalues of the Correlation Matrix: Total = 18 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
17	0,22514018	0,01802758	0,0125	0,9885
18	0,20711261		0,0115	1,0000

Table 4.14: Results of Initial Factor Analysis of Structural Justice

Eigenvalues of the Correlation Matrix: Total = 7 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
1	4,49093989	3,90125949	0,6416	0,6416
2	0,58968039	0,02283771	0,0842	0,7258
3	0,56684269	0,10345800	0,0810	0,8068
4	0,46338468	0,10300409	0,0662	0,8730
5	0,36038059	0,05886006	0,0515	0,9245
6	0,30152053	0,07426931	0,0431	0,9675
7	0,22725123		0,0325	1,0000

Table 4.15: Results of Initial Factor Analysis of Interactional Justice

Eigenvalues of the Correlation Matrix: Total = 6 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
1	4,19186331	3,61518303	0,6986	0,6986
2	0,57668029	0,10480588	0,0961	0,7948
3	0,47187441	0,11677213	0,0786	0,8734
4	0,35510227	0,13735894	0,0592	0,9326
5	0,21774333	0,03100695	0,0363	0,9689
6	0,18673638		0,0311	1,0000

Table 4.16: Results of Initial Factor Analysis of Total Trust

Eigenvalues of the Correlation Matrix: Total = 12 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
1	8,26593292	7,62482372	0,6888	0,6888
2	0,64110920	0,11990630	0,0534	0,7423
3	0,52120289	0,06420604	0,0434	0,7857
4	0,45699685	0,08025065	0,0381	0,8238
5	0,37674620	0,02745026	0,0314	0,8552
6	0,34929594	0,06374330	0,0291	0,8843
7	0,28555264	0,00399795	0,0238	0,9081
8	0,28155470	0,04329392	0,0235	0,9315
9	0,23826078	0,01382687	0,0199	0,9514
10	0,22443391	0,01948794	0,0187	0,9701
11	0,20494597	0,05097795	0,0171	0,9872
12	0,15396801		0,0128	1,0000

Table 4.17: Results of Initial Factor Analysis of Conscientiousness

Eigenvalues of the Correlation Matrix: Total = 5 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
1	2,16027402	1,26905407	0,4321	0,4321
2	0,89121995	0,11836415	0,1782	0,6103
3	0,77285581	0,14576008	0,1546	0,7649
4	0,62709573	0,07854125	0,1254	0,8903
5	0,54855448		0,1097	1,0000

Table 4.18: Results of Initial Factor Analysis of Civic Virtue

Eigenvalues of the Correlation Matrix: Total = 4 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
1	1,85135284	0,91126832	0,4628	0,4628
2	0,94008452	0,22953641	0,2350	0,6979
3	0,71054811	0,21253357	0,1776	0,8755
4	0,49801454		0,1245	1,0000

Table 4.19: Results of Initial Factor Analysis of Courtesy

Eigenvalues of the Correlation Matrix: Total = 5 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
1	1,90963062	0,78923753	0,3819	0,3819
2	1,12039309	0,28328352	0,2241	0,6060
3	0,83710958	0,20235903	0,1674	0,7734
4	0,63475055	0,13663439	0,1270	0,9004
5	0,49811616		0,0996	1,0000

Table 4.20: Results of Initial Factor Analysis of Altruism

Eigenvalues of the Correlation Matrix: Total = 5 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
1	2,21671350	1,22764136	0,4433	0,4433
2	0,98907213	0,26773719	0,1978	0,6412
3	0,72133494	0,08564003	0,1443	0,7854
4	0,63569491	0,19851039	0,1271	0,9126
5	0,43718452		0,0874	1,0000

Table 4.21: Results of Initial Factor Analysis of Sportsmanship

Eigenvalues of the Correlation Matrix: Total = 5 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
1	1,66612139	0,61588981	0,3332	0,3332
2	1,05023158	0,20658399	0,2100	0,5433
3	0,84364759	0,03405219	0,1687	0,7120
4	0,80959540	0,17919136	0,1619	0,8739
5	0,63040404		0,1261	1,0000

APPENDIX D: RESULTS OF STRUCTURAL EQUATION MODEL

Table 4.29: Phi Matrix of Transformational Leadership

	Transformational Leadership
Transformational Leadership	1,00

Table 4.30: Psi Matrix of Procedural Justice, Trust and OCBs

	Procedural Justice	Trust	OCBs
Procedural Justice	1,00		
Trust	0,90	1,00	
OCBs	0,18	0,20	1,00

Table 4.31: Theta-delta for Transformational Leadership

Observed Variable	Theta-delta
Inspirational Motivation	14,17
Intellectual Stimulation	15,17
Individualised Consideration	20,44
Idealised Influence	22,42

Table 4.32: Theta-epsilon for Procedural Justice, Trust and OCBs

Observed Variable	Theta-epsilon
Procedural Justice	
Structural Justice	42,83
Interactional Justice	10,13
Trust	
Trust	9,69
OCBs	
Conscientiousness	8,36
Sportsmanship	17,21
Civic Virtue	12,43
Courtesy	4,27
Altruism	7,78

Table 4.33: Squared Multiple Correlation Coefficients

Observed Variable	Squared Multiple Correlation Coefficient
Transformational Leadership	
Inspirational Motivation	0,89
Intellectual Stimulation	0,89
Individualised Consideration	0,86
Idealised Influence	0,94
Procedural Justice	
Structural Justice	0,32
Interactional Justice	0,80
Trust	
Trust	0,95
OCBs	
Conscientiousness	0,41
Sportsmanship	0,04
Civic Virtue	0,19
Courtesy	0,68
Altruism	0,43