The influence of Transformational Leadership, Emotional Intelligence, Trust, Meaning and Intention to Quit on Organisational Citizenship Behaviour

By

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DECLARATION

I, the undersigned, hereby declare that the work contained in the dissertation 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.

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ABSTRACT

South African organisations have to survive in an increasingly competitive and globalised environment. Many believe that South African organisations are ill prepared for these challenges, based on the fact that many organisations are plagued by low productivity, low levels of trust between employees and employers, as well as low levels of organisational commitment, effectiveness and efficiency. Solutions must be found for these problems and the present study offers one such solution.

Organisational citizenship behaviour is essentially pro-social organisational behaviour that is characterised by going beyond what is expected in role requirements or role descriptions and is seen as a key driver of individual and organisational performance. Furthermore, an organisation's ability to elicit organisational citizenship behaviour is believed to be a vital asset that is difficult for competitors to imitate and which provides the organisation with a competitive advantage. Having completed a literature study concerning possible antecedents of organisational citizenship behaviour, and taking into account various suggested future directions for organisational citizenship behaviour research, it was decided that the present study would focus on five variables: three variables that are characteristic of employees, and two that are characteristic of the management or leadership in the organisation.

The primary goal of the present study was to design and conduct a scientific investigation that would attempt to determine the relationships between leader emotional intelligence, transformational leadership, trust, meaning intention to quit, and organisational citizenship behaviour, as well as to further determine the role that these five constructs play in influencing organisational citizenship behaviour. A study of the available literature was made to learn as much as possible about each of these six constructs and to determine what is known about the relationships that exist between them. The knowledge gained from the literature study was used to propose several hypotheses and a conceptual model explaining the relationships between these constructs. The relationships and the conceptual model were then empirically tested, using various (mostly confirmatory) statistical methods. This makes the present study confirmatory in nature.

Existing measuring instruments were used to measure each of the constructs in a South African sample (n=496). This sample represented a wide range of organisations. Each of the measuring instruments (excepting the *intention to quit* scale) was subjected to a double cross-validation Exploratory and Confirmatory Factor Analysis procedure to test its construct validity. Internal reliability was determined for all of the instruments and their subscales. The Confirmatory Factor Analysis and internal reliability results were then compared to those obtained when the original measurement model was studied, using these same methods (i.e. Confirmatory Factor Analysis and internal reliability) and the data from the present sample. It was found, in all cases, that the derived factorial configuration differed, in some to a lesser degree and in others radically, from that proposed by the original author/s. It was also found that the EFA-derived measurement models and configurations had a better fit to the data than the original measurement model and its configuration. Once the criteria for construct validity and internal reliability were satisfied, the rest of the statistical analyses could be conducted.

The next step was to test the hypotheses concerning the individual relationships that made up the conceptual model. Pearson correlations and Standard Multiple Regression was used to study these bivariate relationships. Several indirect or mediating relationships followed from these direct relationships and these were tested using Path Analysis. In a similar vein, four prediction hypotheses were formulated from the conceptual model and these were also tested, using Standard Multiple Regression. Lastly, Structural Equation Modelling (SEM) was used to see to what extent the conceptual model fitted the data obtained from the sample and to test the relationships between the constructs when taking the complete conceptual model into account.

Both trust and meaning were found to individually mediate the relationships between transformational leadership and organisational citizenship behaviour, and leader emotional intelligence and organisational citizenship behaviour. The relationship between leader emotional intelligence and organisational citizenship behaviour was further found to be mediated by transformational leadership and trust, while this relationship was also found to be mediated by transformational leadership and meaning. No significant direct relationships could be found between leader emotional intelligence and organisational citizenship behaviour, or between transformational leadership and both organisational citizenship behaviour and intention to quit. No significant

correlation was found between intention to quit and organisational citizenship behaviour either. This meant that several postulated mediating hypotheses could not be corroborated. The SEM result shows that the conceptual model did not fit the data very well, therefore an alternative model was recommended.

The results in essence show that effective leaders who are emotionally intelligent and make use of the transformational leadership style can positively influence trust and meaning among followers. This, in turn, will motivate followers to display organisational citizenship behaviour and reduce their intention to quit. These are believed to positively influence organisational effectiveness and performance.

Further conclusions were drawn from the obtained results and recommendations are made for future studies. New insights were gained through the results and it is believed that the present study has contributed to the field of organisational psychology and Industrial Psychology in general, on both the academic and the practioner level.

OPSOMMING

Suid-Afrikaanse organisasies moet oorleef in ʼn plaaslike en internasionale omgewing wat al hoe meer kompeterend word. Baie mense glo egter dat Suid-Afrikaanse organisasies nie goed toegerus is vir hierdie nuwe uitdagings nie. Hierdie oortuiging word gegrond op die feit dat baie organisasies gebuk gaan onder lae produktiwiteit, lae vlakke van vertroue tussen werknemers en werkgewers, asook lae vlakke van organisatoriese verbondenheid, effektiwiteit en doeltreffendheid. Oplossings moet dus gevind word vir hierdie situasie. Hierdie studie bied een so ʼn oplossing.

Organisatoriese gemeenskapsgedrag word beskryf as pro-sosiale organisatoriese gedrag wat verder gaan as wat deur rol- en posbeskrywings verwag word. Hierdie tipe gedrag word as sleuteldrywer vir individuele en organisatoriese prestasie gesien. Verder, word daar geglo dat ʼn organisasie se vermoë om organisatoriese gemeenskapsgedrag te ontlok, ʼn essensiële bate is wat moeilik deur mededingers nageboots kan word en dat dit dus die organisasie van ʼn kompeterende voordeel voorsien. Nadat ʼn literatuurstudie aangaande die moontlike determinante van organisatoriese gemeenskapsgedrag voltooi is en verskillende toekomstige navorsingsbehoeftes in ag geneem is, is daar besluit om die huidige studie op vyf veranderlikes te fokus: drie veranderlikes wat eienskappe van werknemers is en twee wat eienskappe van die bestuur of leierskap in die organisasie is.

Die primêre doel van hierdie studie was dus om ʼn wetenskaplike ondersoek te ontwerp en te loods om die verwantskappe tussen leier-emosionele intelligensie, transformasionele leierskap, vertroue, betekenisvolheid, intensie om te bedank, en organisatoriese gemeenskapsgedrag te ondersoek, en om verder te bepaal watter invloed hierdie vyf veranderlikes op organisatoriese gemeenskapsgedrag uitoefen. Die kennis wat uit die literatuurstudie verwerf is, is gebruik om ʼn aantal hipoteses te ontwikkel, asook ʼn konseptuele model wat die verwantskappe tussen hierdie veranderliks beskryf. Die verwantskappe en die konseptuele model is empiries getoets deur middel van verskeie (meestal bevestigende) statistiese metodes. Die huidige studie was dus ʼn bevestigende studie.

Bestaande meetinstrumente is gebruik om hierdie konstrukte in ʼn Suid-Afrikaanse steekproef te meet (n=496). Hierdie steekproef het ʼn wye reeks organisasies verteenwoordig. Al die meetinstrumente (behalwe die *intensie om te bedank*-skaal) is

eers aan ’n dubbele kruis-validering Eksploratiewe en Bevestigende Faktorontleding prosedure onderwerp om hul konstrukgeldigheid te toets. Interne betroubaarheid is verder vir elk van die instrumente en hul sub-skale vasgestel. Die resultate van die Bevestigende Faktorontleding en interne betroubaarheid binne die huidige studie is toe vergelyk met dié wat bekom is toe die oorspronklike meetinstrumente met dieselfde tegnieke aan die hand van die data wat vanaf die steekproef ingesamel is, bestudeer is. Die bevinding was dat, die afgeleide faktorkonfigurasie in al die gevalle van dié wat deur die outeurs voorgestel is, verskil het, party in mindere mate en ander redelik radikaal. ’n Verdere bevinding was dat die metingsmodelle en konfigurasies soos deur die Eksploratiewe Faktor ontleding bekom, die data beter gepas het as die oorspronklike metingsmodelle en konfigurasies. Nadat die kriteria vir konstrukgeldigheid en interne betroubaarheid getoets en tevredegestel is, kon verdere statistiese ontledings gedoen word.

Die volgende stap was om die hipoteses rakende die individuele verwantskappe van die konseptuele model, te toets. Pearson korrelasie koëffisiënte en Standaard Meervoudige Regressie was gedoen om die bivariate verhoudings te bestudeer. Gebaseer op hierdie direkte verwantskappe, is verskeie indirekte of tussenkomende verwantskappe geïdentifiseer wat ook deur middel van padanalise ondersoek is. Op dieselfde trant was daar vier voorspellingshipoteses wat met die hulp van Standaard Meervoudige Regressie bestudeer is. Die konseptuele model is toe met behulp van Strukturele Vergelyking Modellering (SVM) (*Structural Equation Modelling*) getoets om te bepaal tot hoe ’n mate die konseptuele model die data wat van die steekproef verkry is pas, en om verder te bepaal wat die verwantskappe tussen die latente veranderlikes is wanneer die hele model, in ag geneem word.

Beide vertroue en betekenisvolheid was, individueel, tussenkomende veranderlikes in die verwantskap tussen transformasionele leierskap en organisatoriese gemeenskapsgedrag, asook tussen leier-emosionele intelligensie en organisatoriese gemeenskapsgedrag. Die verwantskap tussen leier-emosionele intelligensie en organisatoriese gemeenskapsgedrag was ook gemedieer deur transformasionele leierskap en vertroue, asook deur transformasionele leierskap en betekenisvolheid. Geen beduidende direkte verwantskappe kon tussen leier-emosionele intelligensie en organisatoriese gemeenskapsgedrag gevind word nie, of tussen transformasionele

leierskap en beide organisatoriese gemeenskapsgedrag en intensie om te bedank nie. Verder was daar ook nie ’n beduidende korrelasie tussen intensie om te bedank en organisatoriese gemeenskapsgedrag nie. As gevolg hiervan kon ’n aantal gepostuleerde medieërende hipoteses nie bevestig word nie. Die SVM-resultaat het laastens daarop gewys dat die konseptuele model nie die data goed pas nie. ’n Alternatiewe model is voorgestel.

Die resultate van die studie dui daarop dat effektiewe leiers wat emosioneel intelligent is en wat die transformasionele leierskapstyl benut, ’n positiewe invloed op volgelinge se vertroue en ook op die vlak van betekenisvolheid wat hulle beleef, kan hê. Hierdie aspekte sal werknemers dan verder motiveer om organisatoriese gemeenskapsgedrag te toon en sal hul intensie om te bedank, verlaag. Beide van hierdie aspekte het ’n invloed op die doeltreffendheid en prestasie van ’n organisasie.

Verdere gevolgtrekkings is vanaf die resultate gemaak, sowel as voorstelle vir toekomstige navorsing. Nuwe insigte is deur die resultate bekom en daar word geglo dat die huidige studie ’n bydra tot die veld van Organisasiesielkunde en Bedryfsielkunde in die algemeen gelewer het, op ’n akademiese vlak, sowel as op die vlak van die praktyk.

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CHAPTER 1

INTRODUCTION, BACKGROUND AND OBJECTIVES OF THE STUDY

Organisational Citizenship Behaviour (OCB) is the construct that organisational researchers use to describe the voluntary efforts of employees that are "above and beyond their call of duty" (Bolino & Turnley, 2003; LePine, Erez & Johnson, 2002). Definitions of organisational citizenship behaviour include a variety of employee behaviours, such as: punctuality, volunteering, helping others without selfish intent, taking on extra tasks beyond normal role requirements, keeping up with developments in one's field or profession, following company rules even when no one else is looking, promoting and protecting the organisation, maintaining a positive attitude, avoiding unnecessary conflict, being innovative and gracefully tolerating impositions (Bateman & Organ, 1983; McShane & Travaglione, 2003; Organ, 1988; Podsakoff, MacKenzie, Paine & Bachrach, 2000). Definitions of organisational citizenship behaviour further imply the absence of undesirable employee behaviours, such as: complaining, arguing and finding fault with others (Organ, 1990; Podsakoff et al., 2000). As stated above, it is important to note that these pro-social behaviours are voluntary in nature and are thus performed by employees without the expectation of any reward in return from either the organisation or its leadership (Organ, 1988).

The organisational citizenship behaviour construct and the behaviours that it represents, continues to stimulate interest among organisational theorists, researchers and practitioners alike. The recent proliferation of studies on organisational citizenship behaviour bears testimony to this fact (e.g. Ackfeldt & Leonard, 2005; Bolino & Turnley, 2003; Bolino, Turnley & Bloodgood, 2002; Chen, Lam, Schaubroeck & Naumann, 2002; Chien, 2004; Diefendorff, Brown, Kamin & Lord, 2002; Lee & Allen, 2002; LePine et al., 2002; Murphy, Athanasou & King, 2002; Piercy, Lane & Cravens, 2002; Spector & Fox, 2002; Turnipseed, 2002; Williams, Pitre & Zainuba, 2002). This burgeoning interest is due to the belief and emerging evidence that organisational citizenship behaviour is associated with individual and organisational performance (Bolino et al., 2002; George & Brief, 1992; Latham, Millman & Karambayya, 1997; Netemeyer, Bowles, MacKee & McMurrian, 1997; Organ, 1988; Podsakoff et al., 2000). A key tenet of Organ's (1988) original definition of organisational citizenship

behaviour was that, when aggregated over time and people, such behaviour enhances organisational effectiveness and performance. Furthermore, an organisation's ability to elicit organisational citizenship behaviour is believed to be a key asset that is difficult for competitors to imitate and is one that provides the organisation with a competitive advantage (Bolino & Turnley, 2003). The importance of organisational citizenship behaviour within organisations and the impact that it has on organisational effectiveness will be discussed in greater detail in the next section.

Given the perceived value of organisational citizenship behaviour, it is important for managers and organisations to gain a better understanding of what it is, exactly why it is important and, probably the most important aspect, what organisations can do to cultivate a workforce of good organisational citizens. Managers and organisations need to know which factors motivate employees to voluntarily "go the extra mile". The present study will attempt to provide answers to these questions by studying some factors that are believed to be responsible for producing and influencing organisational citizenship behaviours. Based on the findings of the present study, organisations may be able to develop practices and procedures that foster and sustain organisational citizenship behaviours.

1.1 The Importance of Organisational Citizenship Behaviour in the Effective Functioning of Organisations

Although it has long been assumed that organisational citizenship behaviour facilitates organisational effectiveness, there has until recently been little empirical evidence of this relationship (Bolino & Turnley, 2003). On surveying the available literature, however, it is evident that this situation is changing rapidly.

In recent empirical studies, several researchers investigating organisational performance in a variety of industries have found that employee citizenship behaviour does indeed produce tangible benefits for co-workers, supervisors and organisations (Ackfeldt & Leonard, 2005; Barksdale & Werner, 2001; Bolino et al., 2002; Deluga, 1995; George & Brief, 1992; Katz & Kahn, 1978; Koys, 2001; Latham et al., 1997; Nelson & Quick, 1999; Podsakoff, 1997; Podsakoff et al., 2000; Walz & Niehoff, 1996). The findings of some of these empirical studies are outlined in the following paragraphs.

Podsakoff and MacKenzie (1994), in an empirical study, found that organisational citizenship behaviour could account for 17% of the variance in organisational performance. Koys (2001) reported on several studies regarding the relationship between organisational citizenship behaviour and various measures of organisational effectiveness. A investigation of 116 sales units of an insurance agency by Koys (2001) revealed a positive relationship between organisational citizenship behaviour and several indicators of organisational performance, amongst others: the amount of new business generated by the agents; the degree to which the agents surpassed earlier productivity levels; the average number of policies sold by the agents each week; and the total number of policies sold. In a second study of 40 machine crew working in a paper mill, organisational citizenship behaviour was found to be positively associated with indicators of both product quantity and product quality. More specifically, organisational citizenship behaviours were positively related to the amount of paper produced (as a percentage of machine capacity) and negatively related to the percentage of paper that was rejected due to poor quality (Koys, 2001). In a study of 306 sales teams working for a pharmaceutical company, Koys (2001) found that those teams that engaged in higher levels of organisational citizenship behaviours were significantly more likely to reach their sales quotas than those teams that exhibited fewer organisational citizenship behaviours. Koys (2001) also studied the relationship between organisational citizenship behaviours and organisational effectiveness in several fast food restaurant chains. In one such study, higher levels of employee citizenship behaviour resulted in higher levels of revenue, customer satisfaction, and quality of service. Furthermore, citizenship behaviours predicted such outcomes even after taking into account the employees' formally required job performance. In another study, also conducted within a chain of fast food restaurants, employee organisational citizenship behaviour was measured within specific restaurant units and then the profitability of these units was examined a year later. Those units that registered higher levels of organisational citizenship behaviour were significantly more profitable overall and had higher levels of profit as a percentage of sales than those units that registered lower levels of organisational citizenship behaviour (Koys, 2001). Koys (2001) was therefore able to empirically show that organisational citizenship behaviours do in fact increase organisational effectiveness and, furthermore that this increase in effectiveness is translated into an increase in organisational profitability.

Podsakoff et al. (2000) found that organisational citizenship behaviour benefits employees in many ways, one of which is making organisations more attractive places to work in. With organisations seeking to compete in turbulent markets, the so-called "war for talent" has highlighted the need for organisations to become more attractive and for them to be seen as the "employer of choice" so that they may attract the best intellectual capital available (Parker, Taylor & Bagby, 2001). In terms of retention, it was found that employees who engage in organisational citizenship behaviour are more committed and less likely to leave the organisation (Chen, Hui & Sego, 1998). Chen et al. (1998) found evidence of this negative relationship between organisational citizenship behaviour and the level of turnover and also showed that the resulting lower turnover was related to organisational performance and effectiveness.

Organisational citizenship behaviour is also related to many of the factors that are known to contribute to maximising efficiency and promoting the effective functioning of an organisation (George & Brief, 1992; Organ, 1988). For example, organisational citizenship behaviour has been positively correlated with such constructs as job satisfaction and organisational commitment (Podsakoff et al., 2000).

Although research into the relationship between organisational citizenship behaviour and organisational or work group performance could be seen to be in its infancy, it is evident from the findings of these research efforts that organisational citizenship behaviour is in fact beneficial and even vital to organisations. Many explanations have been offered for these direct and indirect relationships between organisational citizenship behaviour and organisational or workgroup performance and success, some of which are presented in the following paragraphs.

The recent shift away from the use of strict hierarchical structures and individualised jobs towards more autonomous team-based structures that has been observed in organisations has increased the importance of individual initiative and co-operation (Ilgen & Pulakos, 1999). As a result of this trend, pro-social organisational behaviours, like organisational citizenship behaviour, is becoming increasingly important because it contributes indirectly to the organisation through the maintenance of the organisation's social system (LePine et al., 2002).

Organ (1988) also argued that organisational citizenship behaviour is vital for productivity and organisational performance, because organisations cannot anticipate the entire spectrum of subordinate behaviours needed for achieving its objectives through the stated job descriptions. Thus, voluntary employee initiatives and pro-active spontaneous behaviours are necessary for organisational effectiveness, as they address those necessary behaviours that were not necessarily anticipated (George & Brief, 1992).

Podsakoff et al. (2000) provides several reasons that explain why organisational citizenship behaviour may contribute to organisational success. They state that such behaviours:

- lead to enhanced co-worker and managerial productivity;
- free up resources that can be used for more productive purposes;
- help to coordinate activities within and across groups;
- strengthen the organisation's ability to attract and retain the best employees;
- increase the stability of the organisation’s performance; and
- allow the organisation to adapt more effectively to organisational changes (Podsakoff et al., 2000).

Bolino and Turnley (2003) argued that citizenship behaviour contributes to organisational performance through the creation of *social capital*. The willingness to exceed formal job requirements, to help co-workers and to take a genuine interest in the organisation often results in the building of social capital and good relationships within the organisation (Bolino & Turnley, 2003). Organisations with relatively high levels of social capital are believed to be able to better elicit commitment of their employees, to attract and retain top employees, to be more flexible, to manage collective action and to develop higher levels of intellectual capital (Bolino & Turnley, 2003). Therefore, organisational citizenship behaviours and high quality relationships between employees (i.e. social capital) is thought to be valuable and to enhance organisational performance.

The present study is grounded in and motivated by the evidence and belief that organisational citizenship behaviour does in fact positively influence organisational effectiveness, and the assumption that it will do so even more as we go into the future. The question thus is: "Which factors produce it or can predict it?" In other words, "What are the antecedents of organisational citizenship behaviour?" It is important to understand how this construct is related to other organisational behaviour constructs and how these constructs in turn can motivate, influence and elicit such behaviour. The next section will therefore deal with the known antecedents of organisational citizenship behaviour.

1.2 The Antecedents of Organisational Citizenship Behaviour

Podsakoff et al. (2000) report in a meta-analytic study of the available organisational citizenship behaviour literature, that empirical research has focused on four major categories of antecedents. These four categories, as well as their respective known antecedents, are presented below.

1. **Individual (or Employee) Characteristics:**
    a. **Employee attitudes**: job satisfaction, fairness, organisational commitment, affective commitment, continuance commitment and trust in the leader
    b. **Dispositional variables**: conscientiousness, agreeableness, positive affectivity and negative affectivity
    c. **Employee role perceptions:** role ambiguity and role conflict
    d. **Demographic variables:** tenure and gender
    e. **Employee attitudes and individual differences:** ability, experience, training, knowledge, professional orientation, need for independence and indifference to rewards

2. **Task Characteristics:**
    Task feedback, task routinisation and the intrinsically satisfying nature of the task.

3. **Organisational Characteristics:**

   Organisation formalisation, organisational inflexibility, advisory/staff support, cohesive group, rewards outside the leader's control, spatial distance from leader, and perceived organisation support.

4. **Leadership Behaviours:**

   Transformational leadership, articulation of a vision, provision of an appropriate model, fostering of the acceptance of group goals, high performance expectations, intellectual stimulation, contingent reward behaviour, contingent punishment behaviour, non-contingent reward behaviour, non-contingent punishment behaviour, leader role clarification, leader specification of procedures, supportive leader behaviours and Leader-Member-Exchange (LMX)

Bolino and Turnley (2003) after surveying the literature, similarly summarise six factors that predict organisational citizenship behaviour. These six factors are described as follows:

1. **Job Satisfaction**

   The assumption is based on the notion that satisfied employees should be more productive than their dissatisfied counterparts (Bolino & Turnley, 2003). In research involving over 50 empirical studies, the relationship between job satisfaction and employee citizenship behaviour has been found to be more than twice as strong as the relationship between job satisfaction and employee productivity (Organ & Ryan, 1995).

2. **Transformational and Supportive Leadership**

   The findings from several studies indicate that transformational leadership is relevant in eliciting employee citizenship behaviours (Bycio, Hackett & Allen, 1995; Chen & Farh, 1999; Engelbrecht & Chamberlain, 2005; Ferres, Travaglione & Connell, 2002; Gerstner & Day, 1997; Koh, Steers & Terborg, 1995; MacKenzie, Podsakoff & Rich, 2001; Podsakoff, MacKenzie & Bommer, 1996; Podsakoff, MacKenzie, Moorman & Fetter, 1990). It is believed that employees who work for transformational leaders are

frequently motivated to go above and beyond the call of duty for the benefit of their organisation and the leadership (Podsakoff et al., 2000). As would be expected, it has been found that employees are more willing to engage in higher levels of citizenship when they work for managers with whom they have developed close and supportive relationships (Wayne, Shore & Liden, 1997).

3. **Interesting Work and Job Involvement**

   Organisations have been found to foster citizenship behaviour by providing employees with meaningful and interesting work (Bolino & Turnley, 2003). Individuals who are highly involved in their work are believed to be more likely to engage in organisational citizenship behaviour (Diefendorff et al., 2002; Podsakoff et al., 2000). Employees engage in higher levels of citizenship behaviour when they have the opportunity to work on intrinsically satisfying tasks and activities that give them some sense of how they are performing in their jobs (i.e. tasks that provide feedback). The opposite is also true; citizenship levels are noticeably lower when employees are given very repetitive, highly routinised tasks to complete (Diefendorff et al., 2002).

4. **Organisational Support**

   There is a significant relationship between employee citizenship behaviour and the extent to which employees believe that the organisation values their contributions and genuinely cares about their well being (Bolino & Turnley, 2003; Podsakoff et al., 2000). Employees are more likely to engage in citizenship behaviour when they feel that their organisation really considers their goals and values and cares about their opinions. Further, under such circumstances, employees have been found to be more willing to forgive honest mistakes and to help the organisation if a special favour is needed (Podsakoff et al., 2000).

5. **Trust, Organisational Justice and Psychological Contract Fulfilment**

   Trust and fairness is an important determinant of employee citizenship behaviour (Bolino & Turnley, 2003). Moorman (1991) showed that

employees are more willing to engage in organisational citizenship behaviour when they believe that: 1) important outcomes are fairly distributed by the organisation; 2) the procedures used to make critical organisational decisions are just and fair; and 3) their direct supervisors are truthful and trustworthy, consider employees' points of view and show concern for the rights of employees. Therefore, the degree to which employees display high levels of citizenship behaviour is often a function of their beliefs that the organisation is characterised by high levels of distributive, procedural and interactional justice, as well as trust (Bolino & Turnley, 2003; Moorman, 1991).

6. **Employee Characteristics**

   Research indicates that some individuals may be more predisposed to engage in citizenship behaviours than others (Borman, Penner, Allen & Motowidlo, 2001). It has been found that individuals who are highly conscientious, extroverted and optimistic, in particular, are generally more likely to exhibit organisational citizenship behaviour in the workplace. Furthermore, individuals who are collectivistic (rather than individualistic) tend to place the goals and concerns of the group or team above their own and also typically engage in more citizenship behaviours. Likewise, individuals who are empathetic and altruistic may also be more inclined to initiate citizenship behaviours at work. Finally, individuals that tend to define and conceptualise their jobs more broadly than others tend to engage in citizenship behaviour and they see these "extra tasks" as an integral aspect of their jobs (Borman et al., 2001; Deluga, 1994; Podsakoff et al., 2000).

It is evident from the above discussion that a wide range of employee, task, organisational and leader characteristics is found to predict organisational citizenship behaviour across a range of occupations. For the purpose of the present study, a choice had to be made as to which of these antecedents of organisational citizenship behaviour would be studied.

1.3 Defining the Research Domain

As seen in the discussion above, many different variables were found that predict and influence organisational citizenship behaviour (Bolino & Turnley, 2003; Podsakoff et al., 2000). A selection of factors was made from these for practical and theoretical reasons, as well as to limit the scope of the present study to a meaningful and manageable level. The purpose of the present study was to research a targeted selection of factors that could act as antecedents of organisational citizenship behaviour and that could possibly be used to predict such behaviour. It must therefore be noted that this study, by targeting only certain variables does not in any way ignore the myriad of equally relevant, constructs that have been studied in relation to organisational citizenship behaviour. Demarcation is a necessary part of the research process and various considerations were used in demarcating the study (Babbie, 1998). The first of these was to consider the known antecedents of organisational citizenship behaviour. The second was to examine the available organisational citizenship behaviour literature to find clear indications of the required future research direction.

Podsakoff et al. (2000) in their comprehensive and critical review of the available literature dealing with theoretical and empirical organisational citizenship behaviour, identified a number of future research directions that need to be addressed and also made several suggestions in this regard. These suggestions covered various aspects of the literature on organisational citizenship behaviour, including the need to find "other" or "new" antecedents of citizenship behaviour. Podsakoff et al. (2000) suggested that task variables, like those proposed by Hackman and Oldham (1980), may have important effects on the psychological states of employees and that these have not received adequate attention in the available literature. The role of experienced meaningfulness is cited as one such variable that has not been addressed in organisational citizenship behaviour research that would be worthwhile to explore (Podsakoff et al., 2000). Secondly, Podsakoff et al. (2000) states that leader behaviours play a key role in determining organisational citizenship behaviour. "Unfortunately, the mechanisms through which these leader behaviours influence citizenships behaviours are not always clear" (p. 552). Lastly, Podsakoff et al. (2000) suggest that future research should examine causal relationships among proposed antecedents of organisational citizenship behaviour, taking indirect relationships into account. "Most prior research in the organisational citizenship behaviour domain has treated attitudes,

dispositions, task variables and leadership behaviours as direct predictors of citizenship behaviour" (p. 552). Most of the current studies on organisational citizenship behaviour have investigated the underlying constructs in isolation or in smaller models.

Landy (2005) in a recent article was very critical of emotional intelligence research and application, particularly criticising the choices of some dependent variables being investigated in relation to emotional intelligence. He does however state that "It might be interesting to see how EI relates to measures of organisational citizenship or contextual behaviour." (Landy, 2005, p. 422).

Having completed the literature review of the possible antecedents of organisational citizenship behaviour and taking the above suggested future directions for organisational citizenship behaviour research into account, it was decided that the present study would focus on five variables: three variables that are characteristics of employees, and two that are characteristics of the management or leadership in the organisation. These five possible antecedents of organisational citizenship behaviour that were chosen are: 1) Intention to Quit, 2) Trust, 3) Meaning, 4) Leader Emotional Intelligence and 5) Transformational Leadership. These constructs were investigated in an integrated fashion within the framework of a model to determine their ability to predict and create the conditions that would lead to an increase in the prevalence of organisational citizenship behaviour within organisations.

To summarise the considerations that were used in the selection of these particular constructs, it could be said that they were related to the fact that:

- inconsistent and even contradictory results were found in previous studies that focused on them,
- none or not enough research has been done on some of these constructs within the domain and application of the present study, and
- these constructs have not been studied as a whole in this unique combination.

In making these choices, the present study aims to provide a unique contribution to the field of organisational psychology through improved understanding of organisational citizenship behaviour.

Furthermore, each of these constructs in its own right is important for organisational effectiveness. This was also used as a criterion when considering which predictors or antecedents of organisational citizenship behaviour should be utilised for the purposes of the present study. The importance of each of these constructs within organisations will receive further attention in the following section.

1.4 The Importance of the Selected Variables within Organisations

The five chosen constructs (i.e. 1) Intention to Quit, 2) Trust, 3) Meaning, 4) Leader Emotional Intelligence and 5) Transformational Leadership) are believed to be antecedents of organisational citizenship behaviour and are also all individually important for organisational effectiveness and performance. The following sections will describe the importance of each of these constructs within organisations. Please note that in Chapter 2 these constructs will be discussed further. The discussion in that chapter will consist of a review of their definitions, their development and conceptualisation, as well as their measurement.

1.4.1 Intention to Quit and the Effective Functioning of Organisations

Employee turnover has long been an important area of research in several disciplines, including psychology, sociology, economics, and organisational behaviour (Pearson, 1995). In spite of all the attempts that have been made to explain this phenomenon, the employee turnover process in organisations is still rather poorly understood (Pearson, 1995). Although researchers have identified a number of variables associated with employee turnover, it is generally accepted that satisfaction, commitment and intention to quit are the most important antecedents of employee turnover (Elangovan, 2001; Mobley, 1977; Tett & Meyer, 1993). Of these, it is believed that the single most important antecedent to the turnover decision is most probably that of intention to quit (Mobley, 1977). It is believed that the intention to quit leads to the turnover decision, which, in turn, results in actual turnover (Mobley, 1977).

Although some forms of employee turnover is desirable (e.g. losing poorly performing employees), most practitioners and researchers use the term to signify the loss of valued employees and, thus, as a negative index of organisational effectiveness (Staw, 1980). Excessive labour turnover can cause organisations to incur significant direct and

indirect costs. These costs are most often related to recruiting, selecting, placing, inducting, training and developing replacement staff (Pearson, 1995).

Intention to quit further has a negative effect on the morale and commitment of employees, which would also be detrimental to the efficient and effective running of the organisation. Once turnover intentions are formed, they affect the way the individual perceives the job and the organisation. According to Bem's (1972) self-perception theory, employees might perceive/modify their job attitudes based on the awareness of their intention to quit. It is suggested that an employee who becomes aware of his/her intention to quit, might attribute it to low satisfaction/commitment and subsequently reduce their satisfaction and commitment. Another proposed explanation of this linkage is that the employee might rationalise or justify his/her intention to quit by "discovering" more negative aspects of the job/organisation, thus experiencing lower satisfaction and commitment (Elangovan, 2001). In other words, attitudes initially affect intentions to quit, but these intentions, in turn, might causally affect subsequent job attitudes, while not precluding the continuous effect of job attitudes on turnover intentions. It is thus evident that intention to quit directly and indirectly has a negative or detrimental effect on employee attitudes and morale, and also on the organisation's performance and effectiveness (Chen et al., 1998; Pearson, 1995). The present study will investigate intention to quit from the follower's or subordinate's perspective.

1.4.2 Trust and the Effective Functioning of Organisations

The last two decades has seen a proliferation of articles in scientific journals, popular business publications, special issues of journals, and monographs that address the issue of trust in organisations. The central importance of interpersonal trust for sustaining individual, team and organisational effectiveness is increasingly being recognised (Dirks & Ferrin, 2001). This interest is based on the fact that economists, psychologists, sociologists and organisational behaviour scientists all agree on the importance of trust in good interpersonal and working relationships on the one hand, and on management and organisational effectiveness and efficiency on the other (Fairholm, 1994; Gomez & Rosen, 2001; Hosmer, 1995). "There is no single variable which so thoroughly influences interpersonal and group behaviour, as does trust" (Golembiewski & McConkie, 1975, p. 131).

Trust has been directly related to increased team performance, affective and continuance commitment, job satisfaction, organisational citizenship behaviours, organisational effectiveness and lower levels of intention to quit, as well as several other bottom line indicators of organisational performance, such as sales levels and net profits (Blake & Mouton, 1984; Cook & Wall, 1980; Cunningham & MacGregor, 2000; Davies, Stankov & Roberts, 1998; Dirks, 2000; Driscoll, 1978; Engelbrecht & Chamberlain, 2005; Gomez & Rosen, 2001; Konovsky & Cropanzano, 1991; Konovsky & Pugh, 1994; Lagace, 1988; Mishra & Morrisey, 1990; Morgan & Hunt, 1994; Pillai, Schriesheim & Williams, 1999; Rich, 1997; Robinson & Morrison, 1995; Tan & Tan, 2000). Cook and Wall (1980, p. 339) concluded that "…trust between individuals and groups is a highly important ingredient in the long-term stability of the organisation and the well being of its members." Trust is also a major contributor to organisational competitiveness, because it cannot easily be imitated or replicated (Jones & George, 1998). On the other hand, the absence of trust inevitably results in undesirable feelings of anxiety, suspicion, uncertainty, low morale, low commitment and low job satisfaction, to name a few only (Mishra & Morrisey, 1990). These feelings have a negative effect on organisational effectiveness, thus making trust a "double-edged sword".

Misztal (1996, p. 3) suspects that "…the recent increase in the visibility of the issue of trust can be attributed to the emergence of a widespread consciousness that existing bases for social co-operation, solidarity and consensus have been eroded and that there is a need to search for new alternatives". Employee relations between people have become looser and behaviours are less easy to monitor than before, due to such processes as globalisation, provision of greater flexibility in employee practices, continuous change, and the virtualisation of organisations (Bijlsma & Koopman, 2003). With the resulting diminishing power of reciprocal obligations (Kramer, 1996), hierarchical relations (Sheppard & Tuchinsky, 1996) and the ability of social institutions to rely on its hierarchy to punish deviant behaviour (De Swaan, 1990), other mechanisms or alternatives are needed to keep organisations intact, due to the fact that traditional command and control approaches to motivation are increasingly difficult to implement in these situations. Therefore, the continuing structural change in the workplace towards more participative management styles and the implementation of self-directed work teams have increased the importance, relevance and necessity of trust for organisational performance and the well being of organisational members in

organisations as control mechanisms are reduced and interactions increase (Engelbrecht & Cloete, 2000; Gilkey, 1991; Mishra, 1996).

Employees' trust in their leaders has been related to a range of productivity-related processes and outcomes, such as the quality of communication and problem solving, discretionary effort, organisational citizenship behaviour, organisational commitment and the rate of employee turnover (Dirks & Ferrin, 2002). Fairholm (1994, p. 98) summarises the importance of trust in leaders, stating "...no organisation can take place without interpersonal trust, and no organisational leader can ignore the powerful element of trust". Podsakoff et al. (1990) found that trust, its antecedents and consequences are likely to be especially important in the context of supervisor-subordinate relationships and that trust appears to be a primary attribute associated with effective leadership. Trust is believed to provide the basis for management legitimacy and as such serves as the mortar that binds leaders and followers (Nanus, 1989). Trust tempers all interactions and exchanges between the two parties and it is not surprising that mutual trust has been found to be essential for effective communication (Blackburn, 1992). Butler (1991) in an empirical study of the supervisor-subordinate trust relationship found that: a) trust is an important aspect of interpersonal relationships, b) trust is essential to successful managerial careers, and c) trust in a specific person is more relevant in terms of predicting organisational outcomes than is the global attitude of trust in generalised others.

In contrast to the more traditional hierarchical relationships that used to dominate work relations, lateral co-operative relationships and alliances are growing in importance within organisations (Sheppard & Tuchinsky, 1996). Co-operation has become increasingly important, as command and control styles of management are no longer relevant or effective. Trustful relations between organisational members can promote voluntary co-operation and extra-role behaviours (Tyler, 2003). Trust therefore is a key to organisational performance and success, as it enables voluntary co-operation. New linkages, furthermore, are being formed between organisations to achieve and maintain competitive advantage in the marketplace. These linkages require organisations to move towards networking and the establishment of alliances and joint ventures (Lewicki & Bunker, 1996). Organisational performance has become increasingly dependent on behaviours such as scanning the environment to explore opportunities, participation in

organisational learning processes and helping colleagues to improve their performance. For these reasons, co-operative behaviours have become more important and the hierarchy cannot simply be relied upon to bring about these behaviours (Kramer, 1996). Seligman (1997) similarly argues that "the rising concern with trust is a response to the fact that in the current situation we are more dependent on trust (and less on familiarity) to supplement those interstitial points where system confidence is not sufficient; this is occurring at the same time that these points become more numerous with the ever-increasing differentiation of roles" (p. 160).

In spite of the growing importance of trust in organisations, the reality is that a diminishing level of interpersonal trust is observed in many organisations, especially between managers and subordinates (Martins, Watkins, Von der Ohe & De Beer, 1997; Sitkin & Roth, 1993). Within the South African context, trust within organisations is of particular importance. The socio-political history of this country has created an environment that is characterised by extreme mistrust among people (Bews, 2000; Blackburn, 1992; Engelbrecht & Cloete, 2000). New ways to build trust in organisations therefore need to be found.

1.4.3 Meaning and the Effective Functioning of Organisations

Several studies have shown that meaning has a central place in any person's successful functioning (Harlow, Newcomb & Bentler, 1986; O'Connor & Chamberlain, 1996; Pearson & Sheffield, 1974; Phillips, 1980; Reker, 1977; Yarnell, 1972; Zika & Chamberlain, 1992). Research on meaning in life has been focused mainly on the relationships between meaning, meaninglessness and well being. The research on meaning has shown that a sense of meaning in life is an important correlate of: work motivation and positive work attitudes (Sargent, 1973); and goal orientation and commitment (Debats, 1999; Thompson & Janigian, 1988; Yalom, 1980).

In contrast, the lack of meaning has been found to be associated with a lack of well-being and with psychopathology in a roughly linear sense i.e. the less the sense of meaning, the greater the severity of psychopathology (Debats & Drost, 1995; Yalom, 1980). Lack of purpose or meaning implies a failure to perceive an integrated pattern of goals and values in life, with a consequent dissipation of energy that can be debilitating (Crumbaugh & Maholick, 1964). The lack of meaning in life is the cognitive component

of existential neurosis (Frankl, 1984). Without meaning, the individual loses ability to believe in the importance, usefulness or interest of any action (Chamberlain & Zika, 1988). Meaninglessness is a substantial human problem and particularly significant in present times (Wrzesniewski, 2003).

When examining the findings of studies by authors who have investigated the effects of meaning for the individual, work group and organisation, it becomes evident that meaning has profound effects in a work context. For the individual, meaning was found to have behavioural, attitudinal, and emotional effects that differ from those experienced by people who do not have a sense of meaning. Evidence from research has shown that there is a strong correlation between meaning and job satisfaction (Wrzesniewski, 2003) and that job satisfaction is correlated with organisational performance (Judge, Thoresen, Bono & Patton, 2001). It is therefore proposed that meaning is linked to high job satisfaction and high job satisfaction is linked to organisational performance. It has also been found that people with a sense of meaning tend to put more time into their work (Wrzesniewski, McCauley, Rozin & Schwartz, 1997), whether or not this time was compensated for. Wrzesniewski et al. (1997) further found that those individuals who experienced meaning reported higher levels of job and life satisfaction than their counterparts who did not experience the same sense of meaning. As stated above, individuals are more likely to engage in organisational citizenship behaviour when they are highly involved in their work and when they have the opportunity to work on intrinsically satisfying tasks and activities that provide them with feedback on how they are performing (Diefendorff et al., 2002; Podsakoff et al., 2000).

Wrzesniewski (2003), in a study that focused on the role of meaning in work groups and organisations, found that those work groups in which the proportion of members who had a sense of meaning was high, reported a stronger overall identification with the team; less team conflict; more faith and trust in management; more commitment to the team itself; and healthier group processes. In addition to meaning playing a positive role in group-level outcomes, individual members of those groups further reported greater satisfaction with their co-workers.

1.4.4 Emotional Intelligence of the Leader and the Effective Functioning of Organisations

The concept of emotional intelligence has lately received much attention in both the scientific literature (BarOn, 2005; Ciarrochi, Chan & Caputi, 2000; Davies et al., 1998; Dulewicz, Higgs & Slaski, 2003; Dulewicz, 2000; Gardner & Stough, 2002; Higgs, 2001; Mathews, Zeidner & Roberts, 2002; Mayer & Salovey, 1997; Mehrabian, 2000; Miller, 1999; Moitra, 1998; Newsone, Day & Canto, 2000; Parker et al., 2001; Petrides & Furnham, 2000; Salovey & Mayer, 1990; Sosik & Megerian, 1999; Warwick & Nettelbeck, 2004) and more popular literature (Cooper & Sawaf, 1997; Goleman, 1995, 1998a; Goleman, 1998b; Goleman, Boyatzis & McKee, 2002; Hein, 1997; Steiner, 1997; Wessinger, 1998). Goleman (1998a) observed that emotional intelligence is related to job performance and organisational success. This growing interest in emotional intelligence has been stimulated by the belief that it has the potential to bring about various desirable organisational outcomes (Goleman, 1995).

Boyatzis (1982) studied more than 2000 supervisors, middle managers and executives in 12 organisations and found that all but two of the 10 competencies that set star performers apart from the average involved emotional competencies. More recently, Spencer and Spencer (1993) found in an analysis of job competencies in 286 organisations worldwide, that 18 of the 21 competencies in their generic model for distinguishing superior from average performers were emotionally based.

Emotional intelligence is found to be positively related to such desirable variables as *individual workplace performance* (Goleman, 1995, 1998a; Goleman, 1998b; Higgs, 2001), *individual workplace performance in a call centre environment* (Nel & De Villiers, 2004), *successful change management* (Dulewicz, 2000; Goleman, 1995, 1998a; Goleman, 1998b; Moitra, 1998; Vakola, Tsaousis & Nikolaou, 2004), *effective leadership* (Ashforth & Humphrey, 1995; Barling, Slater & Kelloway, 2000; Carmeli, 2003; Duckett & Macfarlane, 2003; Gardner & Stough, 2002; Goleman, 1995, 1998a; Goleman, 1998b; Higgs, 2001; Higgs, 2003; Higgs & Aitken, 2003; Johnson & Indvik, 1999; Langley, 2000; Leban & Zulauf, 2004; Lewis, 2000; Miller, 1999; Palmer, Walls, Burgess & Stough, 2001; Sivanathan & Fekken, 2002; Williams & Sternberg, 1988; Wong & Law, 2002), and *group and team performance* (Moriarty & Buckley, 2003; Welch; Williams & Sternberg, 1988).

Proponents of the emotional intelligence concept argue that emotional intelligence affects one's physical and mental health, as well as one's career achievements (Goleman, 1995). A positive emotional state (within an employee) is believed to also lead to positive affection towards the work environment and the organisation. As a result, the positive experience of the job and positive affective emotions should make employees more committed to the organisation and less likely to leave their jobs (Goleman, 1998a). Organisations are settings that require interpersonal interaction and most of these interactions are related to the performance of job duties. Ashkanasy and Hooper (1999a) utilised the proposition that affective commitment towards other people is a necessary component of social interaction and argued that the showing of positive emotions is associated with a high likelihood of success at work.

Some emerging leadership theories also imply that emotional and social intelligence is especially important for leaders and managers, because cognitive and behavioural complexity and flexibility are important characteristics of competent leaders (Boal & Whitehead, 1992). Leaders with high levels of emotional intelligence are those who can make use of the antecedent- and response-focused emotional regulation effectively, and master their interactions with others in a more effective manner (Gross, 1998). The ability to apply antecedent- and response-focused emotion regulation should enable leaders to have better relationships with subordinates, co-workers and supervisors, as well as greater satisfaction in their jobs. Emotional intelligence, thus, provides the foundation for many interpersonal competencies that are critical for effective leadership. Emotionally intelligent leaders furthermore, are thought to be happier and more committed to their organisation (Abraham, 1999); achieve greater success (Miller, 1999); perform better in the workplace (Goleman, 1998a, 1998b; Watkin, 2000); take advantage of and use positive emotions to envision major improvements in organisational functioning (George, 2000); and use emotions to improve their decision making and instil a sense of enthusiasm, trust and co-operation in other employees through better interpersonal relationships (George, 2000). In this document the term *leader emotional intelligence* will be used throughout to refer specifically to the emotional intelligence of a leader. This is to distinguish it from emotional intelligence in general.

1.4.5 Transformational Leadership and the Effective Functioning of Organisations

More than 20 years of accumulated research effort on the subject of transformational leadership and the development of several leadership models has generated considerable theoretical and empirical results within a wide diversity of contexts. These results have left little doubt that transformational leadership behaviour can encourage employees to perform beyond expectation and that it is related to a wide variety of positive individual and organisational outcomes (Avolio & Bass, 1988; Avolio, Waldman & Einstein, 1988; Bass, 1985, 1990; Bass, Avolio & Goodheim, 1987; Lowe, Kroeck & Sivasubramaniam, 1996), including being empirically linked to increased organisational performance (Avolio et al., 1988; Bass et al., 1987; Howell & Avolio, 1993; Lowe et al., 1996; Seltzer & Bass, 1990; Yammarino, Spangler & Bass, 1993).

Transformational leadership has been empirically linked to a variety of organisational success and performance variables, such as:

- *employee satisfaction* (Avolio et al., 1988; Bass, 1998; Bass et al., 1987; Bennis & Nanus, 1985; Conger & Kanungo, 1987; House & Aditya, 1997; Howell & Avolio, 1993; Lowe et al., 1996; Pillai et al., 1999; Podsakoff et al., 1990; Seltzer & Bass, 1990; Yammarino et al., 1993),
- *organisational commitment* (Bass, 1998; Bycio et al., 1995; Lowe et al., 1996; Pillai et al., 1999),
- *satisfaction with supervision* (Podsakoff et al., 1990),
- *extra effort* (Avolio et al., 1988; Bass & Avolio, 1995; Bennis & Nanus, 1985; Bryman, 1992; Howell & Avolio, 1993; Seltzer & Bass, 1990; Yammarino & Dubinsky, 1994; Yammarino et al., 1993),
- *lower turnover intention* (Bycio et al., 1995),
- *organisational citizenship behaviour* (Engelbrecht & Chamberlain, 2005; MacKenzie et al., 2001; Pillai et al., 1999; Podsakoff et al., 2000),
- *overall employee performance* (Yammarino et al., 1993),
- *effective leadership* (Avolio et al., 1988; Bass & Avolio, 1995; Bass et al., 1987; Den Hartog, Muijen & Koopman, 1997; Howell & Avolio, 1993; Judge et al., 2001; Lowe et al., 1996; Seltzer & Bass, 1990; Yammarino et al., 1993),

- *employee effectiveness* (Bass & Avolio, 1995; Bryman, 1992; Yammarino & Dubinsky, 1994; Yammarino et al., 1993),
- *trust* (Bennis & Nanus, 1985; Butler & Cantrell, 1984; Butler, Cantrell & Flick, 1999; Engelbrecht & Chamberlain, 2005; Krafft, Engelbrecht & Theron, 2004; Pillai et al., 1999; Podsakoff et al., 1996; Podsakoff et al., 1990) and
- *ethical climate* (Engelbrecht, van Aswegen & Theron, 2005).

Moreover, the effects of transformational leadership appear to be potent across management levels (Howell & Avolio, 1993), work environments (Bass, 1985) and national cultures (Bass, 1997).

Successful and effective leadership include, together with the usual (transactional) abilities of management, appropriate transformational abilities like those proposed in transformational leadership (i.e. idealized influence, inspirational motivation, intellectual stimulation, individualized consideration) (Bass & Avolio, 1994). Transformational leaders are individuals who, with their own knowledge, imagination and the abilities attributed to them, are able to influence the behaviour of people and create conditions for transforming the so-called *soft* variables (e.g. trust, fairness) in organisations. These *soft-variables* include the *inner*, qualitative or mental changing of an organisation - those variables in which change is more complicated and difficult compared to the transformation of the so-called *hard* variables (e.g. profitability, return on investment). Transformational leadership is therefore considered to be crucial in the transformation of individuals, groups and organisations, as well as the successful functioning of these entities. Thus, transformational leadership is regarded as the essence of strategic management and the key to successful management of organisational change.

1.5 The Research Objective and Aim of the Study

Management scientists and organisational behaviourists are on a continuous quest to improve their insight into and ability to predict and influence the behaviour of people in organisational settings (McShane & Travaglione, 2003). This drives researchers in organisational psychology to achieve greater understanding of organisational phenomena and to develop new insights into this field of study. The knowledge that is

gained can then be used to harness and unleash the potential that is locked within an organisation.

Writers on management have known for many years that organisations depend on employees who perform beyond their job description and thus beyond what is normally expected of them (Katz, 1964; McShane & Travaglione, 2003). Therefore, there is sufficient evidence in the available literature to be sure that the outcome variable that is the focus of this study, i.e. organisational citizenship behaviour, is a construct that can have an effect on the success and performance of the organisation. This justifies further study of this construct and the constructs that are related to it. The question that drives the present study, is:

> *What do you need to do in organisations to create the conditions that are conducive to employees displaying organisational citizenship behaviour?*

The purpose of the present study, as derived from the above question, was to improve our understanding of and insight into the organisational citizenship behaviour construct. It was attempted to achieve this aim by studying the roles and relationships between this variable and some "old" (i.e. previously investigated) and some "new" (as far as could be established, not previously investigated) variables that might be able to contribute to and influence organisational citizenship behaviour. In a sense, the study therefore aimed to re-discover some of the pertinent antecedents of organisational citizenship behaviour, but also to do a degree of exploratory research on the role of some "newer" antecedents of organisational citizenship behaviour that have not previously been investigated. This, furthermore was done in an integrated fashion, by studying these variables within the framework of a conceptual model. The present study thus aims to provide a more complete picture of these constructs and contribute to the body of knowledge in the field of organisational psychology.

Insight into existing and new relationships between these constructs could contribute to the development of best management practices in this regard. Leaders and managers in organisations should be able to use the information obtained from the present study to develop new approaches that will lead to the creation and sustainability of this desirable organisational outcome.

The description of the research problem, the aim and the objectives of the present study, as well as the demarcation thereof as discussed above, created a particular frame of reference that led to the principal aim being stated as follows:

> ***To, in South African organisations, design and conduct a scientific investigation that will attempt to determine the relationship between leader emotional intelligence, transformational leadership, trust, meaning and intention to quit, and organisational citizenship behaviour, as well as to determine the role that these five constructs play in influencing organisational citizenship behaviour.***

The background, aim and objectives of the study activated the research process, which is schematically presented in Figure 1.1.

Figure 1.1: A Schema of the Research Process

THE CURRENT SITUATION
Organisational citizenship behaviour is known to have an impact on organisational performance, effectiveness and success. Studies have been conducted on the relationship between organisational citizenship behaviour and some of the selected constructs believed to be related to it. The five selected constructs are: 1) intention to quit, 2) meaning, 3) trust, 4) leader emotional intelligence, and 5) transformational leadership. There are individual studies that have examined some of the relationships between these constructs, while other relationships still need to be studied. These constructs as a whole have not been studied in one research project in a coherent and integrated fashion within the South African context.

↓

THE QUESTIONS IN THE MIND OF THE RESEARCHER
What is the relationship between meaning, trust, leader emotional intelligence, transformational leadership, intention to quit and organisational citizenship behaviour? Can these five constructs be used to predict or influence organisational citizenship behaviour?

↓

THE PROBLEM TO BE INVESTIGATED
To determine the influence of meaning, trust, leader emotional intelligence, transformational leadership, and intention to quit on the prevalence of organisational citizenship behaviour. Also, to further examine the interrelationships between these constructs.

↓ ↓

Secondary Data	***Primary Data***
LITERATURE SURVEY	***FIELD RESEARCH***
Review of literature on the six constructs.	Research alternatives.
Review of literature on the relationships between the constructs.	Experimental design.
Obtain data-gathering instruments.	Selection of respondents (Sample).
	Statistical methods used.

↓ ↓

FINDINGS, INTERPRETATIONS, CONCLUSION AND RECOMMENDATIONS.

FURTHER RESEARCH REQUIRED

1.6 The Research Questions

Dewey (cited in Kerlinger & Lee, 2000) pointed out that research starts with a problem or a set of research questions. He states that there is first an intermediate situation in which ideas are vague, doubts are raised and the thinker perplexed. Hypotheses are defined as "conjectural statements of the relation between two or more variables. Hypotheses are always in declarative sentence form, and they relate – either generally or specifically – variables with variables" (Kerlinger & Lee, 2000, p. 28). Problems and hypotheses have at least two important uses: 1) they direct investigation (the relations proposed and expressed by the researcher tell him or her what to do); 2) problems and hypotheses, due to the fact that they are relational statements, enable the researcher to deduce specific empirical manifestations implied by the problems and hypotheses (Kerlinger & Lee, 2000). The important difference between hypotheses and problems is that the relations stated by hypotheses can be tested. "And a problem cannot be solved scientifically unless it is reduced to its hypotheses form because a problem is a question, usually broad in nature, and not directly testable. One does not test questions… one tests one or more hypotheses implied by these questions" (Kerlinger & Lee, 2000, p. 28).

Given the background, aim and demarcation of the study that is provided above, the present study aimed to propose an integrated model comprising causal relationships between leader emotional intelligence, transformational leadership, trust, meaning, intention to quit and organisational citizenship behaviour and to empirically test this model against obtained data. To be able to achieve the aim and objectives of the present study, the following research questions were formulated.

Research Question 1:

Does the original measurement models as proposed by the authors thereof more closely fit the data and are they more internally reliable than the measurement models derived from the responses of the present sample?

This first research question was motivated by the fact that the reliability and validity of each of the instruments had to be ensured within the South African organisational context, as none of them have been developed or standardised in South Africa. Therefore, the factorial configuration or dimensional nature and factorial validity/stability of each of the instruments would be assessed first. The factorial

validity of the instrument has potential implications for theory development (Nunnally, 1978). Only once each instrument had proven its factorial validity and internal reliability and the assurance was obtained that it was able to 'capture' as much of the construct and its variance as possible in this particular cultural context, could it be used with confidence to study the various relationships between the constructs and to further test the proposed integrated model. Specific hypotheses were formulated for what was expected to be the outcome of this process for each of the six measurement instruments. These were developed and stated and will be discussed in Chapter 2.

Research Question 2:

What direct relationships exist between the six organisational behaviour constructs and their underlying dimensions?

A review of the literature was undertaken to determine what is presently known about the various direct relationships between the six constructs. Various hypotheses were formulated regarding what is, on the basis of the literature review, believed to be the interrelationships that exist between them. These will also be discussed in detail in Chapter 2.

Research Question 3:

What indirect relationships exist between the six organisational behaviour constructs and their underlying dimensions?

Due to the fact that there are six constructs with many possible relationships among them, it was to be expected that a number of mediating relationships would also exist. These also had to be based on the discussion of the available literature regarding the relationships between the constructs. Several hypotheses were formulated to reflect these notions and will be provided in the next chapter.

Research Question 4:

Can any combination of the constructs be used as independent variables to predict dependent constructs or variables?

A further objective of the study was to determine whether there were any of the chosen

constructs that could be used as independent variables to predict dependent variables.

Research Question 5:

Can a conceptual model that integrates all of these constructs and their interrelationships, be tested and be found to be valid?

After reviewing the literature and formulating the above research questions, as well as those that underlie them, a theoretical model that could be tested empirically by studying the patterns of correlations found in the empirical data was to be proposed. The fit of the theoretical model to the data would be indicated by a number of goodness-of-fit indices that would be obtained using Structural Equation Modelling. This research question thus concerned the validity of the proposed integrated model.

1.7 The Importance and Need for this Research

To date, one construct in particular, namely meaning, has, to the knowledge of the author, not received any research attention within the organisational citizenship behaviour literature. Meaning also has not received much attention in the general literature dealing with organisational behaviour, even though it is believed to have a significant impact on people and organisations (De Klerk, 2001). The inclusion of the meaning construct in the currant study was partly stimulated by the present emergence of the *Positive Organisational Scholarship* (POS) field of study within organisational behaviour research. The inclusion of this construct should provide new insights into predicting organisational citizenship behaviour and helps to place the present study at the cutting edge of current research into organisational behaviour.

A number of researchers and internationally known authors are currently exploring *Positive Organisational Scholarship* (POS) as a new field of study within the organisational behaviour sciences. This emerging field is rooted in the *Positive Psychology* movement originally initiated by Martin Seligman in 1998 (Seligman & Csikszentmihalyi, 2000; Snyder & Lopez, 2002). The principal aim of positive psychology, as proposed by Seligman and Csikszentmihalyi (2000) and a core group of other well known research-oriented proponents of positive psychology (Diener, 2000; Peterson, 2000; Snyder, 2000; Snyder & Lopez, 2002) is for psychology to shift the emphasis away from what is wrong with people, to what is right with people. The focus

of this group of researchers is on strengths as opposed to weaknesses; resilience as opposed to vulnerability; a concern with enhancing and developing wellness; and prosperity and the good life as opposed to the remediation of pathology. Therefore, the concept of positive organisational scholarship encompasses the examination of typical and even dysfunctional patterns of organisational behaviour, while emphasising positive deviance from expected patterns, and examines enablers, motivators and effects associated with positive phenomena. It rigorously seeks to understand what represents the best of the human condition (Cameron, Dutton & Quinn, 2003). Unlike much of the popular "feel good" positive approaches adopted by certain authors, positive psychology follows the more traditional scientific and empirical methodology of psychology, insisting on sound theory and research before moving on to application and practice. In this regard Seligman and Csikszentmihalyi (2000) summarised three levels of analysis for positive psychology: 1) the *Subjective level*, i.e. positive subjective experience such as well being and contentment with the past, flow and happiness in the present, and hope and optimism into the future; 2) the *Micro Individual level,* i.e., positive traits such as the capacity for love, courage, aesthetic sensibility, perseverance, forgiveness, spirituality, high talent, and wisdom; and 3) the *Macro Group and Institutional level,* i.e., positive civic virtues and the institutions that move individuals toward better citizenship such as the existence of responsibility, altruism, civility, moderation, tolerance, and a work ethic.

Most human systems desire to experience that which is good. Individuals are inherently attracted to that which is inspiring, positive and uplifting. The aspiration for fulfilment is ambiguous, yet it has gone largely unnoticed in organisational behaviour studies and has seldom been studied scientifically (Cameron et al., 2003). The discipline of positive organisational scholarship is an invitation to investigate, in rigorous, systematic and enlivening ways, the phenomena that are associated with flourishing, vitality, virtue, meaning, and life-giving dynamics (Cameron et al., 2003). One integrative theme within POS that a variety of authors have alluded to points out that, rather than being neutral entities, organisational conditions can, enable or disable positive dynamics primarily through a sense of meaningfulness. This has led to a desire to further explore and understand the role of meaning in a work context, particularly in relation to the organisational citizenship behaviour construct and some of its antecedents.

The need for the present study and its importance is further reflected in the research problem, the aim and the objectives addressed by the present study, as defined in the previous section. As stated above, the most important reasons for conducting this research are:

- to improve our understanding and insight into the organisational citizenship behaviour construct;
- to address the need that exists for research to examine mediating relationships among the antecedents of organisational citizenship behaviour;
- to gain greater clarity about the mechanisms through which leader behaviours influence citizenship behaviours in followers;
- to find empirical evidence for the proposed relationships, some of which will be studied for the first time;
- to find clarity on inconsistent and even contradictory results found in previous studies;
- to address the fact that not enough research has been done on these constructs within this domain and application;
- to study these constructs in a unique combination (i.e. in the framework of a model) that has not been tested before;
- to contribute to the development of best management practices that will lead to the creation and maintenance of organisational citizenship behaviour; and
- to provide a unique and functional contribution to the field of organisational psychology and its application.

South African organisations have consistently performed poorly on global competitiveness rankings and are internationally infamous for their low productivity levels, high absenteeism and shortage of effective leadership. The South African context has further been characterised by tremendous change and uncertainty, a situation that has resulted in high levels of mistrust and poor relationships in organisations. Much still needs to be done to develop the potential of South African employees and leaders and the seriousness of the situation necessitates a search for any new avenue that may promote citizenship behaviours in this context. This study hopes to make a significant contribution in this regard.

1.8 Preview and Outline of the Dissertation

The methodology followed in this research project consisted of four distinct phases, each of which is briefly outlined below:

Phase 1: Literature study

During this first phase of the study, organisational citizenship behaviour was placed in the broader organisational context and its importance in organisational effectiveness and performance was discussed. This was followed by a discussion of the various antecedents of organisational citizenship behaviour (Chapter 1). For the purposes of the present study, a choice of five antecedents was made that would be studied further. The rationale underlying this choice was motivated and discussed in Chapter 1. A discussion of the development and conceptualisation of these six constructs, as well as their measurement follows in Chapter 2.

Phase 2: Definition of a theoretical model

This phase represented the cornerstone of the present study. During this phase a theoretical model was defined and constructed, based on the available literature of the various relationships between the constructs (Chapter 2).

Phase 3: Planning and designing the research process

During the third phase, the theoretical model was operationalised by defining the relevant variables in the model in operational (i.e. practically measurable) terms. This phase also included the research design, which allowed for the empirical testing of the proposed model. It further consisted of a description of the measuring instruments, the sample and the procedures that were followed to test the model (Chapter 3).

Phase 4: Empirical testing of the model and consideration of the results

During the last phase of the research, the results of the empirical procedure and its analysis were reported (Chapter 4). The results were discussed and conclusions were drawn. Finally, recommendations for further research and concluding remarks were made (Chapter 5).

Based on the methodology followed, as described above, the dissertation will consist of the following sequence of chapters:

Chapter one provides an introduction and background to the present study. The research problem to be addressed, research objectives, definition of the research domain, need for this research and the structure for the dissertation are provided. The importance of organisational citizenship behaviour, as well as that of the five constructs that will be used to predict it, is discussed.

Chapter two will discuss the six constructs in terms of their conceptualisation and measurement, followed by a description of the relationships between them. The theoretical model that will be examined is provided here.

Chapter three discusses the research methodology. This includes the research design, sampling strategy, procedure for data collection, measuring instruments and the statistical analysis.

Chapter four constitutes the presentation of the results. The data is reported and presented in meaningful tables and the hypotheses are also tested.

Chapter five deals with the discussion of the results. The theoretical and practical managerial implications are addressed in this chapter. This is followed by a brief review of the shortcomings of the study, followed by recommendations for future studies in this field. This chapter will end with concluding remarks regarding the application and relevance of the findings to practioners, managers and leaders in organisations.

1.9 Chapter Summary

Organisational Citizenship Behaviour (OCB) is the construct that organisational researchers use to describe the voluntary efforts of employees that are "above and beyond their call of duty" and which are performed without expecting any reward in return from the organisation (Bolino & Turnley, 2003). The interest in this construct is based on the belief and evidence that organisational citizenship behaviour is associated with various individual and organisational performance variables (Bolino et al., 2002; George & Brief, 1992; Latham et al., 1997; Netemeyer et al., 1997; Organ, 1988; Podsakoff et al., 2000). Furthermore, an organisation's ability to elicit organisational citizenship behaviour is believed to provide an organisation with a competitive advantage, one that is hard to imitate (Bolino & Turnley, 2003).

Given the perceived value of organisational citizenship behaviour, it is thus important for managers and organisations to gain a better understanding of what organisations can do to cultivate a workforce of good organisational citizens. Managers and organisations need to know which factors motivate employees to voluntarily "go the extra mile". Although it has long been assumed that organisational citizenship behaviour indeed facilitates organisational effectiveness, there has until recently been limited empirical evidence of this linkage (Bolino & Turnley, 2003). More research is needed in this area, particularly research that takes an integrated approach (Podsakoff et al., 2000). There is a need, furthermore to study "new" antecedents of organisational citizenship behaviour that have not received research attention before, but which may provide new insights in this field (Podsakoff et al., 2000). The present study will attempt to provide answers to these questions by studying some factors that are believed to be responsible for producing and influencing organisational citizenship behaviours.

It was decided that the present study would specifically focus on the following five factors believed to be antecedents of organisational citizenship behaviour: 1) Intention to Quit, 2) Trust, 3) Meaning, 4) Leader Emotional Intelligence and 5) Transformational Leadership. These particular constructs were chosen for various reasons (which are outlined above). In the search for "new" constructs to study within this context, it was decided to study the role of meaning on organisational citizenship behaviour. Meaning, even though it is believed to have an impact on organisational citizenship behaviour, has not been studied within this context before. This makes this study unique. The choice of studying these particular constructs within the framework of a model, i.e. in an integrated fashion, to determine their ability to predict and create the conditions that will lead to an increase in the prevalence of organisational citizenship behaviour within organisations, is also unique and would hopefully provide new insights to this field of organisational psychology. Based on the findings of the present study, it is hoped that organisations may be able to develop practices and procedures that foster and sustain organisational citizenship behaviours so that they may reap the benefits thereof.

The following chapter provides an overview of the available literature on the six constructs. The interrelationships between them will also be discussed in such a way that a (testable) conceptual model may be build.

CHAPTER 2

OVERVIEW OF THE LITERATURE ON LEADER EMOTIONAL INTELLIGENCE, TRANSFORMATIONAL LEADERSHIP, TRUST, MEANING, INTENTION TO QUIT AND ORGANISATIONAL CITIZENSHIP BEHAVIOUR AND THE RELATIONSHIP BETWEEN THEM

This chapter provides a review of the literature that deals with the six constructs that are the focus of the present study. These constructs are: 1) Organisational Citizenship Behaviour, 2) Intention to Quit, 3) Trust, 4) Meaning, 5) Emotional Intelligence and 6) Transformational Leadership. This discussion will build on that of the importance and/or significance of each of these constructs within the organisational performance and effectiveness context, which was provided in Chapter 1.

In this chapter, each of the six constructs will be discussed in terms of their definition, conceptual development and measurement. The measurement model that was used in the present study to measure each construct will be introduced. This will be followed by a discussion of the relationships between the various constructs and hypotheses will be proposed for each of these. Hypotheses regarding the ability of the chosen constructs to predict organisational citizenship behaviour will also be formulated. Lastly, the theoretical model will be described and proposed in a manner that makes it possible to test it empirically.

2.1 The Organisational Citizenship Behaviour Construct

In discussing the organisational citizenship behaviour construct, the present study draws on the available literature to gain a better understanding of what it is, why it is important, how to measure it and what organisations can do to cultivate a workforce of good organisational citizens. The discussion in Chapter 1 has indicated that there seems to be sufficient evidence to accept the fact that organisational citizenship behaviour is associated with individual and organisational performance (Netemeyer et al., 1997; Organ, 1988; Podsakoff et al., 2000) and that organisational citizenship behaviour provides organisations with a competitive advantage that is hard to imitate (Bolino & Turnley, 2003). See Chapter 1 for a more detailed discussion of the importance of organisational citizenship behaviour for organisational performance and success.

2.1.1 The Development of the Organisational Citizenship Behaviour Construct and its Definition

Katz and Kahn (1978) presented three types of behaviour that are critical to organisational effectiveness: 1) joining and staying in the organisation; 2) meeting or exceeding standards of performance; and 3) innovatively and spontaneously going beyond prescribed roles to perform such actions as cooperating with and protecting other organisation members, undertaking self-development, and representing the organisation favourably to outsiders. Over time, this distinction began to develop into what is now known as *in-role behaviour* (as described in role requirements or role descriptions) and *extra-role behaviour* (i.e. going beyond prescribed role requirements) (Katz & Kahn, 1978; Turnipseed, 2002). This distinction has become entrenched within management literature.

Organisational citizenship behaviour is essentially pro-social organisational behaviour that is characterised by going beyond what is expected in role requirements or role descriptions. The term organisational citizenship behaviour was popularised about two decades ago and has also been referred to as *the good soldier syndrome* (Bateman & Organ, 1983; Organ, 1988; Smith, Organ & Near, 1983). Organisational citizenship behaviour is based on the concepts of *willingness to cooperate* (Barnard, 1938) and on the distinction that was made between *dependable role performance* and *innovative and spontaneous behaviours* (Katz, 1964). Even though this term may be relatively new within the field of organisational performance analysis, it does represent a very old facet of human conduct, that of voluntary action and mutual aid with no request for pay or formal reward in return (Chien, 2004).

Derived from Katz's (1964) description of extra-role behaviour, Organ (1988, p. 4) defined organisational citizenship behaviour as:

> …individual behaviour that is discretionary, not directly or explicitly recognised by the formal reward system, and that in the aggregate promotes the effective functioning of the organisation. By discretionary, we mean that the behaviour is not an enforceable requirement of the role or the job description, that is, the clearly specifiable terms of the person's employment contract with the

> organisation; the behaviour is rather a matter of personal choice, such that its omission is not generally understood as punishable.

This definition comprises three major components, like most of the widely accepted definitions of organisational citizenship behaviour (Organ, 1988). Firstly, such behaviour exceeds the role requirements or formal job description of the employee. Secondly, it is discretionary in nature and individuals decide to perform it voluntarily. These behaviours are therefore not enforceable by the organisation and employees cannot receive formal sanctions for failing to engage in them. Thirdly, such behaviour is not generally recognised by the formal reward system or structure of the organisation and employees engage in it by their own volition, therefore without the expectation or promise of being contractually rewarded for their extra effort (Organ, 1988).

Organisational citizenship behaviour is intended and perceived to be positive (or pro-social) and executed to benefit someone or something (the organisation in this case) other than the actor (Van Dyne, Cummings & Parks, 1995). This kind of behaviour thus supports the interests of others, even though they may not be directly beneficial to the individual (Moorman & Blackley, 1995).

Over the years there has been little consensus among researchers with respect to the different types of behaviours that are believed to comprise or make up organisational citizenship behaviour. As mentioned before, behaviour consistent with most definitions of organisational citizenship behaviour include: punctuality, voluntarily helping others without selfish intent, being actively involved in organisational activities, avoiding unnecessary conflicts, performing tasks beyond the normal role requirements, gracefully tolerating impositions, being innovative without expecting any reward, volunteering, taking on extra tasks, keeping up with developments in one's field or profession, following company rules even when no one else is looking, promoting and protecting the organisation, and maintaining a positive attitude (Bateman & Organ, 1983; McShane & Travaglione, 2003; Organ, 1988; Podsakoff et al., 2000). It further implies the absence of undesirable behaviour like complaining, arguing and finding fault with others (Organ, 1990). Podsakoff et al. (2000) examined the various types of citizenship-like behaviours that have been identified in the literature and report seven themes that are common to them: 1) helping behaviour, 2) sportsmanship, 3) organisational loyalty,

4) organisational compliance, 5) individual intuitiveness, 6) civic virtue, and 7) self-development.

Smith et al. (1983) conducted structured interviews with managers asking them to rate how characteristic it was for their employees to be helpful when they were not required to be. Based on a Factor Analysis of the ratings obtained, they suggested that organisational citizenship behaviour comprises two distinct categories: 1) *altruism*, or helpful behaviours aimed at specific individuals in the organisations, and 2) *generalised compliance*, which is related to conscientiousness and reliability that is directed at the organisation. McNeely and Meglino (1994) also divided organisational citizenship behaviour into two categories according to the intended beneficiary of the action. The first is designed to help other individuals in the organisation, and the second is designed to help the organisation itself.

Van Dyne and LePine (1998) developed a taxonomy of what they called extra-role behaviour. Based on their findings, they distinguished between behaviour that is *promotive* (causing things to happen) versus *prohibitive* behaviour (attempting to prevent things from happening) and that is a*ffiliative* (interpersonal) versus *challenging* (involving ideas and issues).

Organ (1988) identified five categories of organisational citizenship behaviour that are defined as follows:

1. *Altruism* includes all discretionary behaviours that have the effect of helping a specific other person with an organisationally relevant task or preventing the occurrence of work-related problems.

2. *Conscientiousness* captures the various instances in which members of an organisation carry out certain role behaviours that are well beyond the minimum required levels of the organisation. These are in the areas of attendance, obeying rules and regulations, taking breaks and so forth. The conscientious employee operates according to an appropriate personal code of conduct.

3. *Sportsmanship* implies a willingness to tolerate less than ideal organisational circumstances. "Good sports" are people who do not complain or raise petty grievances when others inconvenience them. They maintain a positive attitude even when things do not go their way, are not offended when others do not follow their suggestions, are willing to sacrifice their personal interests for the good of the group, and do not take rejection of their ideas personally.

4. *Courtesy* describes helping someone prevent a problem from occurring or taking steps in advance to mitigate the problem.

5. *Civic virtue* has to do with the responsible participation in the political life of the organisation.

These behaviours are described by Organ (1988) as spontaneous, modest and mostly mundane. Even so, they are still characterised as constructive and co-operative extra-role gestures and the rendering or withholding of organisational citizenship behaviour represents a deliberate, controlled and instrumental act rather than a type of expressive and emotional act (Borman & Motowidlo, 1993; Organ, 1988, 1990). They, furthermore, are applicable, as well as comparable across job titles and settings (Cappelli & Rogovsky, 1998).

Since Organ's (1988) proposal of the above five categories of organisational citizenship behaviour, several other taxonomies have been proposed (Borman & Motowidlo, 1993; Morrison, 1994; Van Dyne, Graham & Dienesch, 1994). It is believed, though, that their behavioural domains largely overlap one another and that proposed by Organ (1988). Organ's (1988) five-dimensional framework for organisational citizenship behaviour has been investigated far more thoroughly than any of the other taxonomies and LePine et al. (2002) provides at least three reasons for this. Firstly, Organ's (1988) five dimensions has a longer history and is the most widely published. Secondly, Podsakoff et al. (2000) provided a sound measure of Organ's five dimensions that is widely accepted. Finally, scholars of organisational citizenship behaviour generally assume that these behavioural dimensions are in the long run beneficial across situations and organisations (LePine et al., 2002).

Chen, Lam, Schaubroeck and Naumann (2002) proposed the notion of group organisational citizenship behaviour (GOCB) as a distinct group level phenomenon concerning the extent to which the work group as a whole engages in organisational citizenship behaviour. The primary function of GOCB is to foster group efficiency, facilitate co-ordination among group members and promote predictability of individuals and group behaviours. The focus of the present study is, however, on organisational citizenship behaviour as performed by individuals in the work environment.

2.1.2 Organisational Citizenship Behaviour: In-Role or Extra-Role?

Organ's (1988) original definition of organisational citizenship behaviour, which stresses that it should be extra-role, brought forth the criticism that organisational citizenship behaviour measures actually measure in-role behaviours (Organ, 1994b). Morrison (1994) challenged the assumption that there was a clear and agreed on distinction between extra-role and in-role behaviours.

To test this notion, Morrison (1994) asked participants to sort 30 items from popular organisational citizenship behaviour measures into in-role and extra-role categories. Morrison's (1994) participants categorised many organisational citizenship behaviours, previously assumed to be extra-role in nature, as in-role. In a similar study, Lam et al. (1999) asked supervisors and subordinates to rate the in-role nature of organisational citizenship behaviour items and found that supervisors perceived organisational citizenship behaviours to be more in-role than subordinates did. Morrison (1994) reported correlations between employee and supervisor perceptions of only certain organisational citizenship behaviours. In their study, Vey and Campbell (2004) focused on whether individuals perceive organisational citizenship behaviour items as in-role or extra-role in nature and whether or not individual differences were likely to influence that perception. They found that, with the exception of several altruism and civic virtue items, the majority of behaviours in Organ's (1994a) organisational citizenship behaviour scale are considered to be required or in-role by younger workers (Vey & Campbell, 2004). On the aggregate level, the altruism and civic virtue items were considered more extra-role than the other organisational citizenship behaviour dimensions (Vey & Campbell, 2004). This suggests that traditional organisational citizenship behaviour measures, based on the Smith et al. (1983) or the Organ (1988, 1994b) models of organisational citizenship behaviour, might not be measuring extra-

role performance only. These measures certainly seem to capture helpful employee behaviours, which may aid organisational effectiveness.

Organ (1997) responded to this criticism by changing the definition of organisational citizenship and cited Morrison (1994) as evidence for the need to redefine organisational citizenship behaviour. Morrison's (1994) findings suggest that many organisational citizenship behaviour items may actually be tapping behaviour considered as in-role by employees and supervisors. Consequently, Organ proposed that no reference to extra-role behaviour should be made in the future when describing or defining organisational citizenship behaviour (Organ, 1997).

One major problem concerning Organ's redefinition of the organisational citizenship behaviour construct is that not all researchers who utilise previously developed organisational citizenship behaviour scales are aware of the redefinition (Motowidlo, 2000). In fact, Motowidlo (2000) suggests that two distinct definitions of organisational citizenship behaviours now exist in the literature, one with an extra-role requirement and one without. Several recent publications on organisational citizenship behaviour have not recognised Organ's redefinition and still define organisational citizenship behaviour as extra-role i.e. as un-required and un-enforceable behaviour (Allen, Barnard, Rush & Russel, 2000; Donaldson, Ensher & Grant-Vallone, 2000; Lambert, 2000; MacKenzie et al., 2001; Turnipseed & Murkison, 2000; Wagner & Rush, 2000). The resulting situation in the literature shows researchers using the same organisational citizenship behaviour scales to measure two different organisational citizenship behaviour constructs.

While eliminating some criticism, Organ's (1997) redefinition raised new concerns about studying organisational citizenship behaviour. The concept of organisational citizenship behaviour was first explored (by Organ) as a means of explaining the paucity of scientific support for a causal link between job satisfaction and job performance (Organ, 1988). Drawing heavily from social psychological literature concerning social exchange theory and determinants of altruism, Organ and his colleagues hypothesised that job satisfaction would account for greater variance in the performance of extra-role work behaviours than in traditional task performance criteria (Bateman & Organ, 1983). Employees were hypothesised to perform these extra-role

behaviours as a way of rewarding their managers for good working conditions. Thus, redefining organisational citizenship behaviour to exclude the extra-role characteristic might weaken the theoretical underpinnings of the construct. Some researchers on the other hand, have sought specifically to explore extra-role behaviour of employees. MacKenzie et al. (2001, p. 115) sought to examine whether transformational leaders inspired their subordinates "…to perform above and beyond the call of duty". Similarly, Donaldson et al. (2000) and Turnipseed and Murkison (2000) explored the impact of mentoring and organisational climate on extra-role behaviour of employees.

Since the difficulties with clearly distinguishing in-role from extra-role behaviour are considerable, it has been claimed that organisational citizenship behaviour should include both extra- and in-role behaviours (Graham, 1991; Van Dyne et al., 1994). This approach overcomes the problem by not distinguishing in-role from extra-role behaviour, but classifying all positive and organisationally relevant types of behaviour shown by employees, as organisational citizenship behaviour (Van Dyne et al., 1994). Instead of making an effort to distinguish between in-role and extra-role behaviour, this approach is aimed at identifying employee behaviour that positively contributes to the organisation. This approach is regarded as the most promising solution to the dilemma and is also the stance adopted in the present study.

2.1.3 Organisational Citizenship Behaviour: Untangling the Related Constructs

The organisational citizenship behaviour construct is closely related to constructs such as *extra-role behaviours* (Van Dyne et al., 1995), *pro-social organisational behaviours* (Borman & Motowidlo, 1993; Borman & Motowidlo, 1997; Brief & Motowidlo, 1986; George, 1990, 1991; George & Bettenhausen, 1990; Motowidlo & Van Scotter, 1994; O'Reilley & Chatman, 1986), *organisational spontaneity* (George & Brief, 1992; George & Jones, 1997), and *contextual performance* (Borman & Motowidlo, 1993; Borman & Motowidlo, 1997; Borman, White & Dorsey, 1995; Motowidlo & Van Scotter, 1994). Over the last number of years there has been a proliferation of studies on these constructs and it has become necessary to untangle them due to the fact that they are so closely related.

The *pro-social organisational behaviour* notion seems to be closely related to organisational citizenship behaviour. Brief and Motowidlo (1986) define pro-social

organisational behaviour as behaviour that is: 1) performed by a member of an organisation; 2) directed toward an individual, group, or organisation with whom he/she interacts while carrying out his/her own organisational role; and 3) performed with the intention of promoting the welfare of the individual, group, or organisation toward which it is directed (Brief & Motowidlo, 1986). Therefore, pro-social behaviour is intended to benefit other individuals, groups, or organisations. However, organisational citizenship behaviour is defined as extra-role and organisationally functional; pro-social behaviours may be either role prescribed (in-role) or extra-role and may either be organisationally functional or dysfunctional (Brief & Motowidlo, 1986).

Organisational spontaneity, like organisational citizenship behaviour, is defined as extra-role behaviour that contributes to organisational effectiveness (George & Brief, 1992). However, unlike organisational citizenship behaviour, organisational spontaneity can be directly and explicitly recognised by the formal reward system.

Another closely related framework is that of contextual performance (Borman & Motowidlo, 1993; Borman & Motowidlo, 1997; Motowidlo & Van Scotter, 1994). Borman and Motowidlo (1993) proposed the distinction between *contextual performance* and *task performance.* Traditionally, research efforts have been directed toward task performance, rather than to contextual performance. Borman and Motowidlo (1993, p. 99) defined task performance as "…the proficiency with which job incumbents perform activities that are formally recognised as part of their job". Task activities are thought to be role-prescribed, tied to the knowledge, skills and abilities of the person and to vary greatly across jobs. This is different to contextual performance as contextual activities are similar across jobs, are tied to the personality of the person and are generally not explicitly stated as part of an employee's formal organisational obligation. Contextual performance includes such activities as volunteering for extra tasks, helping, following rules and endorsing organisational objectives. Task and contextual performance thus make independent and distinctly different contributions to job performance. Contextual performance has been found to explain between twelve and thirty-four percent of the total variance in overall job performance (Motowidlo & Van Scotter, 1994).

Van Scotter and Motowidlo (1996) described two dimensions of contextual performance: 1) interpersonal facilitation (i.e. helpful acts that assist co-workers' performance) and 2) job dedication (i.e. self-discipline, motivated acts, taking initiative, following rules). They, however, found that job dedication showed considerable overlap with job performance and facilitation and they questioned whether it was indeed a viable and distinct dimension. The two dimensions described by Van Scotter and Motowidlo (1996) appear to be quite similar to the dimensions identified by Smith et al. (1983). Borman and Motowidlo (1997) later described the dimensions of contextual performance as: 1) persisting with enthusiasm and extra effort as necessary to complete own task activities successfully; 2) volunteering to carry out task activities that are not formally part of own job; 3) helping and cooperating with others; (4) following organisational rules and procedures; and 5) endorsing, supporting, and defending organisational objectives.

Motowidlo (2000) indicated that even, though the behavioural domains of organisational citizenship behaviour and contextual performance overlapped a great deal, there were some important differences in their definitions. Organ (1988) originally suggested that organisational citizenship behaviour must be discretionary and un-rewarded, which is not so in the case of contextual performance. Organ (1997), almost a decade later, recognised the conceptual difficulties associated with these requirements and therefore a result redefined organisational citizenship behaviour as behaviour that contributes "to the maintenance and enhancement of the social and psychological context that supports task performance" (Organ, 1997, p. 91). This definition is very similar to the definition of contextual performance proposed by Borman and Motowidlo (1993, 1997).

It is evident that many examples of behaviour that represents organisational citizenship behaviour, prosocial organisational behaviour, and contextual performance domains have been identified. Such efforts by researchers have, however, not produced consistent representations of the latent structure. The acts or behaviours represented in these analyses also did not exhaust the domain reflected in all of the constructs proposed in the various frameworks. Overall disagreement concerning what constitutes the latent structure of this domain, at the very least, suggests the need for further construct clarification (Schanke, 1991; Van Dyne et al., 1995). Schanke (1991)

conducted a comprehensive review of the available organisational citizenship literature and observed an overlap in the use of the terms prosocial organisational behaviour, extra-role behaviour, and organisational citizenship behaviour to describe similar behaviours.

Van Dyne et al. (1995) conducted a review of the literature associated with the construct definition and domains of four specific extra role behaviours: 1) organisational citizenship behaviour, 2) prosocial organisational behaviour, 3) whistle-blowing, and 4) principled organisational dissent. Van Dyne et al. (1995) outlined that some of the challenges of doing research on extra-role behaviour include: 1) the absence of a nomological network; 2) the occasional use of first-degree constructs that do not have precise definitions and that are not supported by scientific evidence; and 3) the preponderance of research on substantive issues and the relative absence of construct validation studies. They suggested that the current emphasis in the literature on substantive research is premature because most research is done without construct or definitional clarity (Van Dyne et al., 1995). More therefore needs to be done to address these issues.

The Organ (1988) delineation of the construct that states that organisational citizenship behaviour: 1) exceeds the role requirements of the employee, i.e. is extra-role; 2) is discretionary and voluntary in nature; 3) is not recognised by the formal reward system of the organisation, i.e. is unrewarded; and 4) is organisationally functional; seems to be the most widely accepted (Van Dyne & LePine, 1998). The present study makes use of this definition and conceptualisation of the organisational citizenship behaviour construct to delineate it from the related constructs described above.

2.1.4 The Potential Cost of Organisational Citizenship Behaviour

It should be noted that some authors argue that organisational citizenship behaviour may be potentially detrimental to the organisation in some cases (Bolino, Turnley & Niehoff, 2004; Tang & Ibrahim, 1998). It is suggested that citizenship behaviours may result from self-serving motives; may be unrelated, or even be negatively related to organisational functioning; and may have negative consequences for employees (Bolino et al., 2004). Bolino et al. (2004), however, have warned that these arguments still have to be studied empirically. Puffer (1987) has made a distinction between positive and

negative organisational citizenship behaviour and described negative organisational citizenship behaviour as discretionary behaviour that is dysfunctional to the organisation, labelling this kind of behaviour as *non-compliant behaviour*. It is important to note that this aspect represents another difference between organisational citizenship behaviour and pro-social organisational behaviour. The latter describes a broad spectrum of helping behaviours that might be helpful to an individual in the organisation, but could be dysfunctional to the organisation. For example, one employee may help another to cover up performance problems (Moorman & Blackley, 1995).

Schanke (1991) suggested a purposeful exclusion of voluntary behaviours that are harmful to the organisation in the conceptualisation of organisational citizenship behaviour, due to the fact that a clearer domain is provided when these are not included. The present study supports the original positive conceptualisation of organisational citizenship behaviour provided by Organ (1988) and others, which states that organisational citizenship behaviour is positive and leads to organisational performance and success. It is also suggested that organisations should encourage those types of citizenship behaviours that are helpful and beneficial, and to actively discourage behaviours that are likely to be harmful to the organisation.

2.1.5 Measuring the Organisational Citizenship Behaviour Construct

Researchers have used several different instruments to measure the presence of organisational citizenship behaviour in the workplace. Most of these are based on Organ's (1988) five-dimensional model of organisational citizenship behaviour, thus being designed to assess the following dimensions: 1) courtesy, 2) civic virtue, 3) conscientiousness, 4) altruism and 5) sportsmanship.

One of the earliest measures of organisational citizenship behaviour, based on the five-factor conceptualisation, was a 30-item scale developed by Bateman and Organ (1983). This scale consists of 30 global statements that apply to organisations in general about which respondents were directed to think of a fellow co-worker and indicate the degree to which each of the statements characterised that one individual. This was done to counter the effect of social desirably. Turnipseed (1996) made use of this instrument in a study that examined the relationship between organisation citizenship behaviour and the environment in which such citizenship behaviour is manifested. In addition to the 30

organisational citizenship behaviour questions, Turnipseed (1996) included the statement "…produces more work output than most others…" as an index variable to identify any relationships between organisation citizenship behaviour factors and in-role behaviour in question.

Podsakoff and Mackenzie (1994) developed a 24-item measure, also based on the five-dimensional model of organisational citizenship behaviour, called the Organisational Citizenship Behaviour Scale (OCBS). This is a widely used measure of organisational citizenship behaviour (Engelbrecht & Chamberlain, 2005; Konovsky & Organ, 1996; Lam, Hui & Law, 1999; MacKenzie, Podsakoff & Ahearne, 1998; Moorman & Blackley, 1995; Moorman, Niehoff & Organ, 1993; Podsakoff & Mackenzie, 1994; Podsakoff et al., 1996; Podsakoff et al., 1990). Podsakoff et al. (1990) indicated reliabilities ranging from .70 for civic virtue to .85 for altruism. MacKenzie et al. (1991) and Deluga (1995) reported similar Cronbach Alpha coefficients ranging from .70 to .84 and .78 to .92 respectively.

Netemeyer, Bowles, Mckee and McMurrian (1997) used a 12-item scale to measure four of the Organ (1988) dimensions and included subscales for the following dimensions: 1) sportsmanship, 2) civic virtue, 3) conscientiousness and 4) altruism (Castro, Armario & Ruiz, 2004).

Van Dyne et al. (1994) developed a 34-item organisational citizenship behaviour scale that contains descriptions of various positive and negative work and interpersonal behaviours. Van Dyne et al.'s (1994) solution contained five factors, named 1) obedience, 2) loyalty, 3) social participation, 4) advocacy participation and 5) functional participation.

The latest version of the Organ scale was developed by Konovsky and Organ (1996) and consists of items that were taken largely from the scales developed by Podsakoff et al. (1994) and MacKenzie et al. (1991). Various studies have made use of this measure of organisation citizenship behaviour, such as Niehoff and Moorman (1993), Moorman et al. (1993) and Moorman (1991). It was decided to make use of this scale for the purposes of the present study. The decision to make use of this scale, i.e. that developed by Konovsy and Organ (1996), for the purpose of measuring organisational citizenship

behaviour in the present study, led to the following hypothesis being formulated based on the first research question described in Chapter 1:

Hypothesis 1:

H_1 The original measurement model of organisational citizenship behaviour proposed by Konovsy and Organ (1996) more closely fits the obtained data and is more internally reliable than the measurement model of the organisational citizenship behaviour construct derived from the responses of the present sample.

2.2 The Intention to Quit Construct

Excessive labour turnover can cause organisations to incur significant direct and indirect costs. These costs most often are related to recruiting, selecting, placing, inducting, training and developing replacement staff (Pearson, 1995). Intention to quit also has a negative effect on the morale and commitment of employees. It is therefore important to identify the variables that are related to the employee's intention to leave or to remain with an organisation, as an employee's intention to quit has a significant direct and indirect impact on the profitability of the organisation. It is believed that the single most important antecedent to the turnover decision is that of intention to quit (Elangovan, 2001; Mobley, 1977; Tett & Meyer, 1993). The importance of Intention to Quit within the organisational context is discussed in greater detail in Chapter 1.

2.2.1 The intention to quit construct and its definition

Intention to quit received a great deal of attention in the management literature of the 1980s and 1990s (e.g. Brown, 1996; Steele & Ovalle, 1984; Tett & Meyer, 1993). Dalton, Johnson and Daily (1999) cite at least a further 12 studies on the antecedents of the intention to quit that were conducted during the 1990s. Intention to quit represents an attitudinal orientation or a cognitive manifestation of the behavioural decision to quit (Elangovan, 2001) and is usually seen as a dependent variable that is used to indicate the probability of an employee leaving the organisation in the foreseeable future (Brown, 1996).

Employee turnover is understood to be the termination of an individual's employment with a given company. The turnover intention on the other hand is conceived to be a conscious and deliberate wilfulness to leave the organisation (Tett & Meyer, 1993).

Intention to quit has been defined as the strength of an individual's conviction that he or she will stay with or leave the organisation in which she/he is currently employed (Boshoff, Van Wyk, Hoole & Owen, 2002; Elangovan, 2001). It is often measured with reference to a time period (e.g. within the next six months) and has been described as the last in a sequence of withdrawal cognitions that an employee may have before he/she leaves an organisation.

It has long been realised that the intention to quit is most probably influenced by a variety of factors (Steers & Mowday, 1981). At an early stage of the interest in this topic, Mobley (1977) and Steers and Mowday (1981) developed models to explain how an employee takes the decision to leave the organisation in which he/she is currently employed. These authors indicated that the intention to quit or to stay with an employer starts with evaluation by the individual of his/her current situation, followed by several stages that lead to a firm intention to quit. The final outcome of this process may be a decision to leave the organisation.

2.2.2 Measuring the intention to quit construct

Several measures of intention to quit are available. Arnold and Feldman's (1982) measure of intention to quit makes use of five items on a seven-point Likert type scale ranging from 1 (very low) to 7 (very high). Analyses have yielded a Cronbach Alpha coefficient of .72 for the scale (Arnold & Feldman, 1982). This scale measures both the subject's intention to change organisations, as well as to search for alternatives.

Farh et al. (1990) proposed a four-item scale that yielded a Cronbach Alpha coefficient of .81. These four items were measured on a seven-point Likert type scale.

Mowday, Koberg & McArthur (1984) measured intention to quit a job by five items based on a three-item *Withdrawal Cognitions Scale (WCS)*, which measures three types of turnover cognition: 1) thinking of quitting, 2) searching for a job, and 3) intention to quit). This original three-item scale was expanded to six items to measure two different instances of nurses' intention to quit (Takase, Maude & Manias, In Press). Three items were used to measure nurses' intention to leave the current organisation to look for a new nursing job and the other three items to measure nurses' intention to leave the nursing profession itself. Only one factor emerged in the factor analysis and an item

concerning searching for a new nursing job was excluded due to the low loading. The remaining five items were rated on a 6-point Likert scale, with a high score indicating a high intention to quit their jobs. Reliability of the modified scale was .79 (Takase et al., In Press).

Cohen (1993) proposed a three-item scale that measures a subject's intention to leave the organisation, which has been used in a South African study by Boshoff et al. (2002). The present study made use of this measurement instrument as it has demonstrated its utility in a South African organisational setting (Boshoff et al., 2002). This decision is reflected in the following hypothesis:

Hypothesis 2:

H_2 The Intention to Quit scale of Cohen (1993) is an internally reliable measure of the intention to quit construct in the present sample.

2.3 The Trust Construct

Trust is indispensable in good working relationships and effective organisational environments (Fairholm, 1994; Gomez & Rosen, 2001; Hosmer, 1995). Trust has been directly related to increased team performance, organisational commitment, job satisfaction, organisational citizenship behaviour, organisational effectiveness and lower levels of intention to quit, as well as several other bottom line indicators of organisational performance, such as sales levels and net profits (Blake & Mouton, 1984; Cook & Wall, 1980; Cunningham & MacGregor, 2000; Davies et al., 1998; Dirks, 2000; Driscoll, 1978; Engelbrecht & Chamberlain, 2005; Gomez & Rosen, 2001; Konovsky & Cropanzano, 1991; Konovsky & Pugh, 1994; Lagace, 1988; Mishra & Morrisey, 1990; Morgan & Hunt, 1994; Pillai et al., 1999; Rich, 1997; Robinson & Morrison, 1995; Tan & Tan, 2000). Trust is also believed to be a major contributor to organisational competitiveness as it is not easy to imitate or replicate (Jones & George, 1998). The importance of trust in organisational performance and effectiveness is discussed more fully in Chapter 1.

2.3.1 Defining the Trust Construct

Despite its importance, there is no ubiquitous definition of the trust construct and "…confusion continues with an increased mixture of approaches and perspectives."

(Mistzal, 1996, p. 13). This confusion is evident in the variety of definitions of trust and in the variety of ways it has been conceptualised (Gillespie & Mann, 2000; Rousseau, Sitkin, Burt & Camerer, 1998).

Gulbert and McDonough (1986, p. 175) contend that "…trust pertains to whether or not one individual is able to value what another is up to and demonstrate respect for him or her particularly when the individual's need and those of the person taking the action momentarily compete". Carnevale and Weschler (1992, p. 473) find that trust is the expectation of "…ethical, fair, and non-threatening behaviour, and concerns for the rights of others", while Cook and Wall (1980, p. 39) suggest that trust is "…the extent to which one is willing to ascribe good intentions to and have confidence in the words and actions of other people". Luhmann (1988) in a similar fashion, conceptualised trust as the level of confidence that an individual has in another to act in a fair, ethical and predictable manner.

Rousseau et al. (1998, p. 395) define trust as "…a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another". To trust means to be vulnerable to the actions of another person (Engelbrecht & Cloete, 2000; Mayer, Davis & Schoorman, 1995). Mishra (1996, p. 265) argued that trust is "…one party's willingness to be vulnerable to another party based on the belief that the latter party is: a) competent, b) open, c) concerned, and d) reliable". McAllistar (1995, p. 25) offered a combination of these ideas and produce a definition of interpersonal trust as "the extent to which a person is confident in, and willing to act on the basis of the words, actions, and decisions of another". Definitions offered by Albrecht and Travaglione (2003), Currall and Judge (1995) and Mayer and Davis (1999) also propose that trust involves a *willingness to act* under conditions of uncertainty, as a defining feature of trust.

Yet another definition of trust is that it represents a positive expectation that another person will not, through words, actions, or decisions, act opportunistically or unethically towards you (Boon & Holmes, 1991; Engelbrecht & Cloete, 2000; McAllister, 1995; Rousseau et al., 1998). This definition implies *familiarity* and *risk* as two key elements. The positive expectation phrase assumes knowledge and familiarity about the other party and thus trust is also a history-dependent process based on relevant, but limited

samples of experience. It therefore takes time to build up trust in another person and this proceeds incrementally. This is the reason why a person does not trust another immediately without knowing anything about that person. In a situation of total ignorance, one can at most gamble, but not trust. Most authors agree that the notion of risk is central to the concept of trust. According to Luhmann (1988), trust is a solution for specific problems of risk in relations between actors, because it is an attitude that allows for risk taking. If actors choose one course of action in preference to alternatives, in spite of the possibility of being disappointed by the actions of others, they define the situation as one of trust (Luhmann, 1988). The term *opportunistically* in the definition also refers to the inherent risk and vulnerability that is part of any trusting relationship. Trust is not taking risk per se, though, but rather a willingness to take risk. Trust is based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor and control the other party (Mayer et al., 1995).

A review of these definitions suggests several communalities. Trust involves confidence in the intentions and actions of an individual, group or institution and the expectation of ethical treatment (Carnevale & Weschler, 1992). Trust further signifies an exchange relationship where the trustor is willing to engage in trust behaviours and in doing so will risk vulnerability based on the belief that he/she will most likely not be exploited (Cook & Wall, 1980; Mishra, 1996). It should be noted that trust involves more than the formation of another's trustworthiness, there must also be a willingness to act, based on those judgements (Ferres & Travaglione, 2003).

2.3.2 Different Types of Trust and the Dimensionality of the Trust Construct

Various types of trust and a variety of dimensions have been proposed to describe trust in the available organisational behaviour literature. As a result, there has been emerging agreement that trust should be viewed as a complex multidimensional construct (Gillespie & Mann, 2000; Rousseau et al., 1998).

Three types of trust have been outlined in the literature, namely 1) calculus-based trust, 2) knowledge-based trust and 3) identification-based trust (Bews, 2000; Lewicki & Bunker, 1996; Robbins, Odendaal & Roodt, 2003). Lewicki and Bunker (1996) suggested that these three kinds of trust have a direct bearing on the trust experience,

suggesting that cognitive processes involved in each of them directly impact on the development of trust. In calculus-based trust, decisions are principally based on rationally derived costs and benefits, while knowledge-based trust is grounded in the other's predictability or knowing the other sufficiently well so that the other's behaviour is anticipatable. Finally, identification-based trust denotes a significant degree of attachment to another individual or his/her group representatives. Each of these trust types does not necessarily have a purely cognitive basis, though. For instance, identification-based trust has a crucial affective component, as it involves the development of emotions as feelings of personal attachment towards another increases (Lewicki & Bunker, 1996). It is furthermore suggested that these types of trust are sequentially linked in such a way that the achievement of trust at one level enables trust at the next level. Bews (2000) adds that there may be times when trust will progress from one stage to the next, but that trust, at other times, will be fixed at one level, depending on the nature of the relationship.

Levin (1999) suggested that three dimensions could be used to structure an integrative trust perspective: 1) cognitive trust, 2) affective trust and 3) cognitive-affective trust. More recent theoretical and empirical work has extended this and suggested that trust has cognitive, affective and behavioural bases (Albrecht & Stevastos, 1999; Clark & Payne, 1997; Cummings & Bromiley, 1996; McAllister, 1995). Cognitive trust refers to beliefs about another's trustworthiness, whilst affective trust refers to the important role of emotions in the trust process. Recent research identifies two common forms of behavioural trust in teams, namely: 1) relying on another and 2) disclosing sensitive information to another (Gillespie, 2003).

Albrecht and Sevastos (2000) found support for the convergent and discriminant validity of five dimensions of trust in senior managers in their research. These five dimensions are: 1) dispositional-based, 2) cognitive-based, 3) affective-based, 4) normative-based, and 5) behavioural-based trust. Each of these is briefly described below.

1) Dispositional-Based Trust

Dispositional trust is a personality trait related to a person's propensity to trust people generally, as well as in organisational environments. Few organisational researchers

have shown interest in exploring the effect of dispositional trust on trust attitudes (Kramer, 1999). Even so, some evidence does exist to suggest that individuals vary greatly in their inclination to trust others (Gurtman, 1992). Ferres and Travaglione (2003) believed it would be constructive to measure propensity to trust as an individual difference variable when exploring trust within the organisational context and therefore explored this notion.

2) Cognitive-Based Trust

Trust involves a state of perceived vulnerability or risk that is derived from individuals' expectations regarding the motives, intentions, and prospective actions of others on whom they depend (Kramer, 1999). Lewis and Weigert (1985) described trust as the "undertaking of a risky course of action on the confident expectation that all persons involved in the action will act competently and dutifully" (p. 971). Purely cognitive-based descriptions of trust generally focus on expectations, weighing options and rational decision-making processes, thus functioning in terms of several interconnected cognitive processes and orientations (Levin, 1999).

Ferres and Travaglione (2003) did however raise concerns about these definitions based on the following arguments. Kramer (1999) observed that there is substantial evidence to suggest that many assumptions of the rational choice models are empirically invalid. Specifically questionable, is the extent to which decisions about trust are products of conscious summation and personal value systems (Kramer, 1999). Other researchers have argued that trust needs to be conceptualised as a state that includes affective and behavioural components, not just cognition (Cummings & Bromiley, 1996; Friedman, 1991; Kramer, 1996; Lewis & Weigert, 1985; Tyler & Degoey, 1996). In support of their argument, it can be seen that some of the above “cognitive” definitions do include behavioural and affective trust components: e.g., Lewis & Weigert (1985) state that trust involves *undertaking action* and *feelings* of confidence in another. In conclusion then, cognitive models of trust may be necessary, but they do not provide a satisfactory account of trust phenomena (Fine & Holyfield, 1996).

3) Affect-Based Trust

Expanding on the cognitive view, Fine and Holyfield (1996, p. 25) suggested that, "…one not only thinks trust, but feels trust". This has led some researchers on trust to

incorporate affective elements in their research and writing (Albrecht & Sevastos, 2000; Clark & Payne, 1997; Cummings & Bromiley, 1996; Gillespie & Mann, 2000; Mayer & Davis, 1999; Tan & Tan, 2000).

4) Normative-Based Trust

Other influential definitions of trust describe it as a *normative* expectancy about others that is influenced by the social systems in which people are embedded (Luhmann, 1988). Barber (1983, p. 164-165) characterised trust as a set of "socially learned and socially confirmed expectations that people have of each other, of the organisations and institutions in which they live, and of the natural and moral social orders that set the fundamental understandings for their lives". Albrecht and Sevastos (2000) showed that social norms are an important determinant of trusting intentions. In their study on trust in senior managers these researchers demonstrated that beliefs about how *others* perceived upper management may have an appreciable influence on an individual's decision to either engage in trusting behaviour or not to do so (Albrecht & Sevastos, 1999). Subsequently, Ferres and Travaglione (2003) argued that the extent to which an individual perceives significant others in their work environment as being trustworthy may impact on the individual's planned behaviours.

5) Behavioural-Based Approach

Behavioural intention also consistently appears in the literature as a central part of the conceptualisation of trust (Albrecht & Sevastos, 2000; Cummings & Bromiley, 1996; Currall & Judge, 1995; Gillespie & Mann, 2000). In the case of organisational trust, an employee may be more willing to disclose information to a manager if he/she felt satisfied that the manager would keep it confidential and if the employee thought that it was standard behaviour amongst his/her colleagues (Ferres & Travaglione, 2003).

Conceptual models positing trust as an intended action (Albrecht & Sevastos, 2000; Clark & Payne, 1997) highlight a distinction between trust as a state of mind or feeling, and as "overt behaviour" (Clark & Payne, 1997, p.206). The importance of viewing trust as a behavioural intention is in line with arguments presented by Currall and Judge (1995) and Albrecht and Sevastos (2000) that formally recognise the trustor's willingness to act on perceptions of others' trustworthiness. Within this behaviourist view, cognitive, affective and normative perspectives may help outline the construct of

trustworthiness rather than trust itself: "It is the willingness to engage in trusting behaviour…which defines trust" (Albrecht & Sevastos, 2000, p. 36).

While the aforementioned five categories of trust are theoretically distinguishable, research is equivocal as to whether they are measurable as separate factors (Ferres, Connell & Travaglione, 2004). Correlations reported by Cummings and Bromiley (1996) indicated that affective and cognitive trust response modes are almost interchangeable, but both differed somewhat from behavioural intent. However, McAllistar (1996) found that while cognition and affective based trust might be causally connected, each form of trust functioned in a unique manner and had a distinct pattern of association to other variables studied. McAllistar's (1996) research further indicates that perceptions of trustworthiness may at least be measurable across distinct cognitive and affective dimensions.

2.3.3 Exploring Different Referents of Trust

Perhaps just as important as identifying the type of trust and its dimensions, is identifying the exact referent of trust (Dirks & Skarlicki, 2004). Many authors use the term "trust in leader" without considering variation in leadership roles. Focusing solely on trust in the leader, however, may overlook other, equally important, referents. Arguments from the relational and character-based perspectives would suggest that trust in different referents might be associated with different consequences (Dirks & Skarlicki, 2004).

The contemporary workplace has become a place where employees are less reliant on a supervisor or manager and more reliant on exchanges with co-workers, to influence their performance (Dirks & Skarlicki, 2004). Exploring trust from the viewpoint of peers is highly relevant in light of the growing presence of lateral relationships in organisations. Chattopadhyay and George (2001), Cook and Wall (1980) and McAllistar (1995) have all acknowledged the importance of co-worker or peer trust.

Tan and Tan (2000) also argued that there is a distinction between trust in the supervisor and trust in the organisation and that, although these constructs are related to one another, they are distinctly different. They believe that each has its own set of outcomes and antecedents. Following social exchange principles, the relationship-based

perspective implies that followers will reciprocate benefits received, and that individuals will target their efforts to reciprocate toward the source of the benefit received (Dirks & Skarlicki, 2004). Empirical results support this notion. Tan and Tan (2000) found that, although trust in the supervisor and trust in the organisation were positively and significantly correlated, trust in the supervisor was found to be correlated stronger with proximal variables (e.g. ability, benevolence and integrity of the supervisor), while trust in the organisation was more strongly correlated with global variables (e.g. perceived organisational support and justice). They also found that trust in the supervisor was related to innovative behaviour and satisfaction with the supervisor, and trust in the organisation was related to high organisational commitment and lower intention to leave. Dirks and Ferrin (2002) obtained similar results and found that trust in a supervisor was more strongly related to job level variables, whereas trust in senior leadership was more strongly related to organisational level variables. Organisational commitment was found to be related at a significantly higher level with trust in senior leadership ($r = .57$) than with trust in a supervisor ($r = .44$).

In order, therefore, to effectively leverage the benefits of workplace trust, there needs to be a better understanding of which "referent" may be most relevant and important for eliciting such aspects as performance and citizenship behaviour under different conditions (Dirks, 2000). Organisations need to know when they should focus their efforts on establishing trust in supervisor-subordinate relationships, versus building trust in senior management. Alternatively, under which conditions should organisations focus on building trust among co-workers? Whitener (1997) goes further and, based on the dynamic relationship between HR activities and trust, considers how classes of human resource activities can increase employees' trust in their supervisor, work groups and organisation.

2.3.4 Establishing Trust in the Organisation

It is held that workplace trust is established and developed primarily through an organisation's leaders (Creed & Miles, 1996; Fairholm, 1994). Mayer et al. (1995) developed a model of dyadic trust that focuses on trust in an organisational setting involving two specific parties, namely the trusting party (trustor) and the person to be trusted (trustee). The model includes factors relating to the trustor that includes propensity to trust (which is a moderating variable in the relationship) and the trustee

that includes three factors of perceived trustworthiness. They are: 1) ability, 2) benevolence and 3) integrity (Mayer et al. 1995). Engelbrecht and Cloete (2000) in an empirical analysis of this dyadic supervisor-subordinate relationship proposed by Mayer et al. (1995), in a South African sample found that a positive relationship exists between interpersonal trust, trustworthiness and successful outcomes of trust relationships. They found, however, that the propensity to trust and the length of the supervisor-subordinate relationship did not prove to have a moderating effect on the relationship between the factors of trustworthiness and interpersonal trust.

Schindler and Thomas (1993) identified five key factors that determine leader trustworthiness and that would lead to the establishment of a perception of trust within the follower. They are:

1) *Integrity*, which refers to the perceptions of honesty and truthfulness that is crucial in trusting another person. Without a perception of the other's 'moral character' and 'basic honesty', other dimensions of trust are meaningless (Butler & Cantrell, 1984).

2) *Competence*, which encompasses an individual's technical and interpersonal knowledge and skills.

3) *Consistency*, which relates to an individual's reliability, predictability, and good judgement in handling situations.

4) *Loyalty*, which is the willingness to protect and save face for another person, to depend on someone else not to act opportunistically.

5) *Openness*, which refers to the extent to which you are able to rely on the other person to tell the truth.

Consistent with the conceptualisations of trust mentioned earlier (Cook & Wall, 1980; McAllister, 1995; Mishra, 1996), co-worker trust concerns confidence that one's colleagues are competent and will act in a fair, reliable and ethical manner. It assumes that co-workers will support their peers and will not take advantage of them by

withholding information. Co-worker trust also leads employees to act on the basis that they have faith in the words and actions of their peers. Cook and Wall (1980) found that job satisfaction also had a positive relationship with trust at the peer level, as did organisational identification and organisational involvement. Ferres et al. (2004) found that co-worker trust is a significant predictor of perceived organisational support, affective commitment and lower intention to leave.

2.3.5 Untangling the Trust Construct from other Related Constructs

Lewicki and Bunker (1996) described four concepts related to the definition of trust: 1) an individual's disposition to trust, 2) situational parameters, 3) the history of two parties' relationship and 4) their future relationship. As an individual disposition, trust is an expectancy or feeling that is deeply rooted in the personality and has its origins in the individual's early psychosocial development. When a decision to trust is made, some situational parameters are indicated. A situational parameter exists when there is an ambiguous course of action in the future, and the outcome depends on the behaviour of others (Lewicki & Bunker, 1996). One person is likely to trust another if the trustor has demonstrated reliable and ethical behaviour in the past, because past behaviour is believed to be a relatively reliable predictor of future behaviour (Brockner & Siegel, 1996).

A common understanding is that trust and co-operation are closely and positively related. Gambetta (1988) defines trust in line with Luhmann (1988), but the link between trust and co-operation is made more explicit: "…when we say we trust someone or that someone is trustworthy, we implicitly mean that the probability that he will perform an action that is beneficial or at least not detrimental to us is high enough for us to consider engaging in some form of co-operation with him." Creed and Miles (1996) build on Gambetta's (1988) definition, but their definition is more focused on trust within organisations. Based on the work of Garfinkel (1967), "…considering engaging in co-operation with another" is widened to a positive inclination towards the demands of the social order within the organisation: "…trust is both the specific expectation that another's actions will be beneficial rather than detrimental and the generalized ability to take for granted, to take under trust, a vast array of features of the social order" (Creed & Miles, 1996, p. 17).

2.3.6 Measuring the Trust Construct

Various measures of trust have been reported in the literature that measure various numbers of trust dimensions; some of them are outlined here.

Bews (2000) developed a measure of interpersonal trust that measures a single dimension of trust i.e. the employee's trust in his/her supervisor. This trust scale is based on research conducted by Mayer and Davis (1999) and consists of 11 items. The internal consistency and reliability for this scale was found to be .94 (Bews, 2000). Krafft et al. (2004) and Engelbrecht and Chamberlain (2005), in two independent South African studies, made use of this measure of trust and found that it had satisfactory psychometric properties.

Albrecht (2001) provided a measure of trust in senior management as a group, which has a behavioural focus. The parsimonious scale is constructive, as organisational trust does permeate through senior management. Unfortunately, use of the instrument is restricted when it comes to assessing the possible effects of peer trust or trust in immediate supervisors (Ferres & Travaglione, 2003).

Butler (1991) proposed the Conditions of Trust Inventory (CTI) as a measure of cognitive-based trust of team members in their leader. This instrument has a subscale that measures trust. Butler's Conditions of Trust Inventory (CTI) contains ten factors: 1) discreteness, 2) fairness, 3) integrity, 4) loyalty, 5) openness, 6) availability, 7) competence, 8) consistency, 9) promise fulfilment and 10) overall trust. The instrument has four statements for measuring each of the factors. A 11-item short form of the CTI is reported in Gillespie and Mann (2004).

Cook and Wall (1980) developed a ten-item trust scale that measured two dimensions of trust at group level, rather than focusing on individual trustworthiness. These dimensions were: 1) trust in the management and 2) trust in peers. Incidentally, Levin (1999) has called into question the reliability of this scale. Cummings and Brommiley's (1996) OTI scale measures trust between different units within an organisation at a group level, and inter-organisational trust between separate organisations, while Dwivedi's (1980) measure is one of few instruments that assesses trust at an organisational level. Nyhan and Marlowe (1997) proposed the Organisational Trust

Inventory (OTI), which that was used to measure both the level of trust in the leader and in the organisation. It is a 12-item scale that has been found to be reliable and valid (Joseph & Winston, 2005).

Another trust measure, the *Workplace Trust Survey (WTS)* was designed and developed by Ferres et al. (2002). This instrument is based on a conceptualisation of trust that consists of three dimensions: 1) trust in the organisation, 2) trust in co-workers, and 3) trust in the leader (supervisor/line-manager). The items were constructed by means of a qualitative investigation (Ferres et al., 2002) and a review of the available trust literature (e.g. Albrecht & Sevastos, 2000; Cook & Wall, 1980; McAllister, 1995; Rotter, 1971; Rotter, 1980). Quantitative analyses did not support the hypothesis that discriminate cognitive, affective, normative and behavioural intent factors would be uncovered. However, the internal reliability, construct validity, partial known-instrument validity and divergent/convergent validity of the three emergent WTS factors (i.e. 1) trust in organisation, 2) trust in co-workers, and 3) trust in the supervisor or manager) was supported (Ferres & Travaglione, 2003). Related to this analysis was the finding that each emergent WTS factor was positively correlated to transformational leadership, perceived organisational support, and affective commitment, yet negatively correlated with turnover intention. Dispositional trust, included as a control variable, had a significant but small correlation with the WTS factors. The WTS scale was further evaluated psychometrically through recent research in Australia and South Africa (Ferres et al., 2004). It was decided to make use of the *Workplace Trust Survey (WTS)* as a measure of trust in the present study. Thus, it is hypothesised that:

Hypothesis 3:

H_3 The original measurement model of the Workplace Trust Survey proposed by Ferres and Travaglione (2003) more closely fits the obtained data and is more internally reliable than the measurement model of the trust construct derived from the responses of the present sample.

2.4 The Meaning Construct

Research has shown that a sense of meaning has a central place in a person's successful functioning (Harlow et al., 1986; O'Connor & Chamberlain, 1996; Pearson & Sheffield, 1974; Phillips, 1980; Reker, 1977; Yarnell, 1972; Zika & Chamberlain, 1992) and that it

is an important correlate of work motivation and positive work attitudes (Sargent, 1973), as well as goal orientation and commitment (Debats, 1999; Thompson & Janigian, 1988; Yalom, 1980). It has also been found that people with a sense of meaning tend to put more time and effort into work (Wrzesniewski et al., 1997), whether or not this time or effort is compensated for or not. They further found that those individuals that experienced meaning, reported higher levels of job and life satisfaction than their counterparts who did not experience the same sense of meaning (Wrzesniewski et al., 1997). For a further discussion of the importance of meaning within the work context, see Chapter 1.

2.4.1 Developing and Defining the Meaning Construct

Several perspectives on meaning can be found in the literature, especially in literature covering existential philosophy and existential psychology. Significantly, it was Frankl (1970, 1972, 1975, 1978, 1984, 1992), the founder of Existential Analysis and Logotherapy, who proposed the notion that man's search for meaning is the primary motivation in life. It is this key principle, which Frankl called the *will to meaning*, which has prompted many researchers over the years to explore the existential needs and preferences of people at work. It was decided to use Frankl's perspective of meaning as the foundation for the present study as it is the most well-known and established perspectives within the available literature.

Although Frankl (1970, 1972, 1975, 1978, 1984, 1992) does not precisely define meaning, one could through studying his works conclude that the definition of meaning entails the significance of being. Finding meaning thus relates to finding or having a reason for being and believing that this feeling and experience of being is one of significance. Meaning further seems to be related to a sense of having and fulfilling a higher purpose. That is, a purpose that results in significance that is more than just surviving, but having made, or being able to make, a difference in the world. Meaning therefore includes both the cognitive and emotional experiences of being significant (De Klerk, 2001).

Antonovsky (1983) and Sosik (2000) described meaning as the cognisance of order, importance, coherence, worthwhileness and purpose in one's existence. Reker and Wong (1988) further stated that meaning includes the pursuit and attainment of

worthwhile goals, with an accompanying sense of fulfilment, and a sense of optimism about the future despite the chaos that, at times exists, in a person's life. Thompson and Janigian (1988) described meaning as a search for a purpose or a task with which to define one's life. This search for meaning, as described by them, is a search for meaningfulness, to understand how events fit together into a larger context. An event is meaningful when one understands how it follows in an orderly fashion from one's views and beliefs.

A definition of personal meaning entails "…the degree to which people's lives make emotional sense and that the demands confronted by them are perceived as being worthy of energy and commitment" (Korotkov, 1998 p. 51). Personal meaning is believed to be influenced by various factors that include: self-belief, legacy, selflessness, cultural heritage and traditions, an activist mind-set, faith and spirituality, personal interests, and values (Reker & Wong, 1988). A person's sense of meaning is generally stable, undergoing gradual transformations across the life span in conjunction with changing beliefs and value systems (Reker & Wong, 1988).

Terms often used in relation to meaning are purpose, coherence, and meaning formed through experience. The term purpose, often used together and synonymously with meaning, refers to having life goals, having a mission in life, and having a sense of direction from the past in the present and toward the future (Reker, 1994). A person with a sense of personal meaning has a purpose and is striving toward a goal or different goals (Reker, Peacock & Wong, 1987). Implicit in purpose is the notion of worthwhileness, which is of central importance to a person's life (Lussier & Achua, 2004; Sosik, 2000). Coherence refers to having a logically integrated and consistent analytical and intuitive understanding of yourself, others, and life in general (Reker, 1994).

Battista and Almond (1973) noted that theories of meaning essentially agree on four major issues. When individuals state that their lives are meaningful, they imply that: 1) they are positively committed to some concept of purpose, 2) this concept provides them with some framework or goal in terms of which to view their lives, 3) they perceive their lives as related to or fulfilling this concept, and 4) they experience this fulfilment as a feeling of significance. This view of meaning in life respects the fact that

people have derived a sense of meaningfulness from various sources of meaning that do not appear to be reducible to one fundamental system of meaning (Battista & Almond, 1973).

For the purpose of this study, in line with Frankl's views, meaning is defined as having found or having discovered a reason for being and a feeling, experience, or perception that this being is one of significance. This definition further relates to a sense of having found and fulfilling a higher purpose, and having made or being able to make a difference in the world. Meaning in this sense includes both the cognitive and the emotional experiences of being significant.

2.4.2 The Role and Function of Meaning in the Work Context

Meaning serves a number of important functions in human life. Firstly, meaning provides a purpose for people's lives (Frankl, 1992). Secondly, it furnishes values or standards by which to judge an individual's actions. Thirdly, it gives people a sense of control over the events in their lives (Thompson & Janigian, 1988). Finally, it provides people with self-worth (Frankl, 1992). Frankl developed a theory of personality that deals explicitly with meaning and the role that it plays in human life, especially in the spiritual dimension of a person's life. His theory is based on a fundamental hypothesis about motivation, and is termed the will to meaning. It differs from the Freudian pleasure motive and the Adlerian power motive (drive for superiority) in numerous respects. Frankl not only supplanted pleasure and superiority with will, but he replaced "drive" for "will," (i.e. a pull, which he replaces with a push). "Will" also implies choice rather than a deterministic drive for pleasure or a drive that one obeys out of necessity (Sahakian, 1985).

Much of a person's spiritual journey occurs within the context of the workplace (King & Nicol, 1999). Konz and Ryan (1999) argue that, in general, people are searching for a way to connect their working lives with their spiritual lives. Many individuals are searching for meaning in their work, a meaning that transcends mere economic gain. Meaning gives a technical job deeper meaning by placing it in the context of a life (Keeva, 1999). Therefore, the work situation also belongs to the realm of "meaning" and spirituality. If personal transformation is to take place, one could expect that some of the transformation is likely to take place at work. Giving meaning to work implies

giving people a sense that they are not instruments in the hands of others, but that they are responsible participants in a larger process (World Council of Churches, 1949).

According to Menninger (cited in Neff, 1965), 75% of psychiatric patients suffer from an incapacity of satisfaction in work or from their inability to work. Too often, the fact that man's physical and mental conditions are significantly related to his occupational specialisation is overlooked (Bryant, 1972). Pathological idiosyncratic behaviour patterns, neurotic tendencies and mental breakdowns are legendary in business, and the pressures of bureaucratic existence may produce psychological disorders. Similarly, the relationship between the monotony and the meaninglessness of work and mental malaise has been recognised (Bryant, 1972).

Cherrington (1980) developed a matrix to illustrate the importance of meaning in life. His matrix also illustrates the relationship between meaning in life and meaningful work. This matrix, illustrated in Table 2.1, explains the concept of dual meaning, i.e. meaningful life and meaningful employment. According to Cherrington (1980), the areas in the quadrants describe the outcomes of the resulting combinations in the matrix. Cherrington's (1980) matrix suggests that the ultimate state of meaning is reached if a person both finds meaning in life and his work is meaningful. It is in this stage that the individual will most probably display positive organisational behaviours like organisational citizenship behaviour. If a person's personal sense of purpose is congruent with his occupation, his work becomes an expression of meaning (Savickas, 1991).

Table 2.1: **A matrix of meaning in life and meaningful work**

		View of work	
		Work is meaningful	**Work is meaningless**
View of life	**Life is meaningful**	Strong work ethic Happy and productive workers. Work is a terminal and/or instrumental value.	Work is an obligation that is not consistent with the meaning of life. Solution: inculcate work values, redesign the job, or change jobs.
	Life is meaningless	Work is a displaced terminal value. Work is the reason for existence. Solution: enforced rest, assessment of priorities, and diversification of interest.	Work is soulless, mind-numbing drudgery. Welfare is preferred to work. Solution: "right actions" and "contributing to live".

Cherrington (1980)

Sargent (1973) found that people with a higher sense of purpose in life are more positive about work and tend to be more work motivated. For a individual meaning in work is further significant because of its impact on the degree of satisfaction derived from, and commitment to, work. According to Guevara and Ord (1996, p. 712), "Meaning can be derived from specific aspects of the work context, for instance, work practices, organisational structures and cultures, rules and procedures, management style, and pay and rewards". The identification of meaning in work is analogous to the constant search for meaning in life. In Alderfer's (1969) basic needs theory, three factors of meaning of work are identified: 1) economic, 2) social and 3) psychological. Guevara and Ord (1996) identified 1) presence and belonging, 2) relationships and 3) contribution as three important aspects of the internal experience during work. Individuals identify meanings in work that are unique to their personal internal experiences and sources of meaning thus vary from person to person (Caudron, 1997). Individuals may include a supportive environment, creativity, the ability to learn, a high salary and the opportunity to influence others as potential sources of meaning. In a study on perspectives on the meaning of work of people with significant disabilities, there was a common feeling "…that 'what you do is what you are', and that work implies having a place in society and feeling constructive" (Freedman, 1996, p. 51). Herman, Gioia and Chalkley (1998) found that people in the corporate environment valued feedback on contributions they made to their organisations. Meaningful work is part of what is needed for companies to maintain a high performance workforce and to remain competitive in the future (Herman et al., 1998). These same facts form the basis of what perhaps is the most popular current perspective on job design, that which was developed by Hackman and Oldham (1980).

According to Hackman and Oldham's (1980) *Job Characteristic Approach*, an employee will experience internal or intrinsic motivation, job satisfaction, growth satisfaction and work effectiveness from a job when the job generates three critical psychological states. First, the employee must feel personal responsibility for the outcomes of the job. Secondly, the work must be experienced as meaningful; that is the employee must feel that his efforts "count" or matter somehow, to someone. The third critical state is knowledge of the actual results of the person's work efforts, i.e. feedback.

For Hackman and Oldham (1980), three specific core factors of jobs are particularly important for making work feel meaningful. The first factor is *skill variety*, the second factor is *task identity* and the third factor is *task significance* (Hackman & Oldham, 1980, p. 78). Hackman and Oldham's (1980) theory suggests that experienced meaningfulness is important for a job to arouse intrinsic motivation and that it, in turn, requires that the work be integrated, important, and demanding of the use of multiple skills and abilities. Boonzaier, Ficker and Rust (2001) assessed the validity of the Job Characteristics Model of Hackman and Oldham (1980) by reviewing relevant studies of the model. This review and evaluation was based on studies that tested the variables and the relationships between the variables as contained in the model. Evidence was found that confirms that the dimensionality of the job characteristics is best represented by the five-factor solution proposed by the model (Boonzaier et al., 2001). Strong empirical support was found to exist for the relationships between the job characteristics and the personal outcomes (Boonzaier et al., 2001).

The construct *psychological empowerment* describes how the intrinsic motivation and self-efficacy of people are influenced by leadership behaviour, job characteristics, organisation structure, and their own needs and values (Yukl, 2002). The state of psychological empowerment is referred to as a motivational state involving assessment of meaning, impact, competence and choice (Parker et al., 2001). Empowerment was first defined within the organisational literature by Conger and Kanungo (1988) and they defined it merely as the motivational self-concept of self-efficacy. Spreitze (cited in Pinder, 1998; Yukl, 2002) found support for the proposition that psychological empowerment is a multidimensional construct that includes elements of four cognitions related to a person's beliefs about his/her work: 1) its *meaning* or purpose; 2) *self-determination* or capability to determine how and when the work is done; 3) *self-efficacy* or the person's confidence about being able to it effectively; and 4) *impact* or the degree to which he/she can influence the strategic, administrative, or operating outcomes at the workplace. Parker et al. (2001) compares psychological empowerment to the Job Characteristics Model by highlighting the resemblance between: meaning and meaningfulness; impact and knowledge of results; and choice and experienced responsibility.

Psychological ownership is closer to empowerment than formal ownership (Pierce, Rubenfeld & Morgan, 1991). Pierce et al. (1991) suggest that psychological ownership covers dimensions of meaningfulness, self-determination and impact because it addresses meaningfulness at work. It is clear that employees could experience more meaningfulness, self-determination and a sense of impact through empowerment, ownership and job enrichment

With regard to the domain of meaning in work, one South African study could be found. It was conducted by De Klerk (2001) and investigated the relationships between a person's sense of meaning, or his “will to meaning”, work motivation and work commitment. De Klerk (2001) could find no significant correlations between these constructs, but rather between meaning and certain demographic variables.

2.4.3 Measuring the Meaning Construct

Several attempts to derive measures for meaning in life have been undertaken. Crumbaugh and Maholick (1964) were the first researchers to adopt a psychometric approach to measure meaning in life as conceptualised by Frankl. They devised the *Purpose in Life* scale (PIL), a self-report assessment method used to operationalise perceived meaning and purpose in life. Crumbaugh (1968) later on revised the PIL scale slightly, omitting two of the initial 22 items. The resulting PIL test is a 20-item measure, designed to assess the degree to which an individual experiences a sense of meaning and purpose (Crumbaugh, 1968; Crumbaugh & Maholick, 1964).

The 39-item Sense of Coherence (SOC) scale developed by Antonovsky (1979, 1983) is a more general scale, which attempts to measure three different components, 1) comprehensibility, 2) manageability, and 3) meaningfulness (Chamberlain & Zika, 1988).

Chamberlain and Zika (1988) in an empirical study (n=188) examined the factor structure of the three main scales to measure meaning in life, the PIL, LRI and the SOC scales. Their results suggest that meaning in life can be regarded as a multidimensional construct, with meaning attained in several different ways. Chamberlain and Zika (1988) concluded that all three of the PIL, LRI, and SOC measures were rationally derived instruments (Chamberlain & Zika, 1988). The intercorrelations between the

PIL, the LRI, and the SOC (found to be between .63 and .74) indicated that similar constructs were being assessed by the three tests. It therefore supported the existence of a meaning in life dimension. Chamberlain and Zika (1988) commented that the moderate correlations indicate that these measures might relate to different aspects of meaning in life.

Reker and Peacock (1981) developed the *Life Attitude Profile* (LAP) test. This is a 56-item scale, intended to assess both the degree of meaning and purpose as well as the strength of motivation to find meaning and purpose. The LAP is a measure of attitudes towards life measuring six dimensions: 1) purpose, 2) coherence, 3) life control, 4) death acceptance, 5) existential vacuum and 6) goals seeking (Reker & Wong, 1988). Reker (1994) revised the LAP and constructed the Life Attitude Profile - Revised (LAP-R) test, a 48-item measure of meaning and purpose in life and the search for meaning.

In addition to these better known and more frequently used instruments, Crumbaugh (1977) developed the Seeking of Noetic Goals (SONG) test to complement the PIL scale. Subsequently, other scales of meaning have been developed, such as the Meaning In Life Depth Instrument (MILDI) (Ebersole & Sacco, 1983) and the Sources of Meaning Profile (SOMP) (Reker, 1994).

Battista and Almond (1973) developed the *Life Regard Index* (LRI) to overcome some difficulties identified in the PIL scale. This instrument measures the degree to which meaning in life is being sought and fulfilled (i.e. it has two dimensions). The LRI, based on the concept of meaning in life as described by Frankl (1984, 1992), was developed by Battista and Almond (1973) in an attempt to provide a simple, non-biased measure of meaning in life. Battista and Almond (1973) stated that a “positive life regard” refers to an individual's belief that he/she is fulfilling a meaningful purpose in life. The LRI measure is divided into two subscales: 1) Framework and 2) Fulfilment. The Framework subscale (FR) measures the ability of an individual to see his/her life within some perspective or context and to have derived a set of life goals, purpose in life, or life view from them. The Fulfilment subscale (FU) measures the degree to which an individual sees himself as having fulfilled or as being in the process of fulfilling his framework or life goals. It is important to realise that this scale does not distinguish

where meaning is derived from, i.e. between meaning in life and meaning in work, but rather assesses a level of general meaning that is experienced by the respondent.

Several studies have attested to the satisfactory psychometric properties of the LRI as indicated (Battista & Almond, 1973; Chamberlain & Zika, 1988; Debats, 1999; Debats & Drost, 1995). All of these studies also recommended the use of the LRI in further research on the subject of meaning in life. In the South African context, this measure was used in a study by De Klerk (2001) and it was also decided that this measure would be used in the present study. This choice is reflected in the following hypothesis:

Hypothesis 4:

H_4 The original measurement model of the Life Regard Index proposed by Battista and Almond (1973) more closely fits the obtained data and is more internally reliable than the measurement model of the meaning construct derived from the responses of the present sample.

2.5 The Leader Emotional Intelligence Construct

As seen from the discussion in Chapter 1, it is evident that there is an increasing number of researchers who argue that emotional intelligence is a core variable that affects the performance of leaders and who have investigated this link between effective leadership and emotional intelligence (Ashforth & Humphrey, 1995; Barling et al., 2000; Carmeli, 2003; Duckett & Macfarlane, 2003; Gardner & Stough, 2002; Goleman, 1995, 1998a; Goleman, 1998b; Higgs, 2001; Higgs, 2003; Higgs & Aitken, 2003; Johnson & Indvik, 1999; Langley, 2000; Leban & Zulauf, 2004; Lewis, 2000; Mathews et al., 2002; Miller, 1999; Palmer et al., 2001; Sivanathan & Fekken, 2002; Wong & Law, 2002). Refer to Chapter 1 for a more detailed discussion regarding the importance of emotional intelligence in organisations.

It should be noted that emotional intelligence is one of the most hotly debated and controversial constructs in organisational research and psychology (Spector, 2005). Debates rage about the definition and nature, measurement and application of emotional intelligence. The exaggerated claims made in the popular literature and by consultants have fuelled opponents of emotional intelligence (Spector, 2005). Meyer (1999) has gone as far as to suggest that entrepreneurs have taken the emotional intelligence

product to market before it was ready. So much so that it would seem that its popular interest has outstripped its scientific interest (Landy, 2005). Locke (2005) went as far as to say that there is no such thing as emotional intelligence and that it is an invalid concept all together. This is based on the argument that it is not a form of intelligence at all. In the article, Lock (2005) distinguishes emotional intelligence from rationality, arguing that the real relation is between reason and emotion. He offers introspection as an alternative to emotional intelligence. Daus and Ashkanasy (2005) do address these and other issues by provided an overview of the empirical evidence supporting the role of emotional intelligence in organisational and social behaviour. It would seem that for now, much work will still have to be done to achieve consensus in the field of organisational psychology about the viability of the emotional intelligence concept, and the construct validity of emotional intelligence measures.

Some emerging leadership theories also imply that emotional and social intelligence are more important for leaders and managers than for employees in general. This is due to the fact that cognitive and behavioural complexity and flexibility are important characteristics of competent and effective leaders (Boal & Whitehead, 1992). Based on these and other arguments regarding the link between effective leadership and emotional intelligence, the present study will primarily focus on the importance of leader emotional intelligence on selected follower and organisational outcomes and not emotional intelligence in general. Even so, this section will include a broad overview and introduction to the emotional intelligence construct.

2.5.1 Developing the Emotional Intelligence Domain and Defining the Construct

Psychologists have pondered and argued for more than a century about what constitutes general intelligence and whether the notion of intelligence has any validity at all. Theorists have wrestled in particular with the question of whether intelligence is a singular, general aptitude/ability as Galton originally put it, or whether intelligence is composed of many separate and distinct aptitudes/abilities (Lubinski, 2000).

Spearman (1904) maintained that intelligence is quite general and flows through a person's every action. The intelligent person therefore understands things quickly, makes sound decisions, carries on interesting conversations, and tends to behave intelligently in a variety of situations (Spearman, 1904). Thurstone (1938), on the other

hand, disagreed with Spearman (1904) and argued that intelligence consisted of seven distinct mental abilities that are relatively independent of one another. Thurstone (1938) argued that these seven primary mental abilities, taken together, make up general intelligence. In contrast to Thurstone, Cattel (1971) identified just two clusters of mental abilities that make up intelligence, namely: 1) crystallised intelligence, and 2) fluid intelligence.

More recently, Sternberg (1985) proposed the *Triarchic Theory of Intelligence* that argues that human intelligence encompasses a broad variety of skills that influence our effectiveness in many areas of life. Sternberg's theory suggests that there are three basic kinds of intelligence: 1) *Componential Intelligence,* 2) *Experiential Intelligence* and, 3) *Contextual Intelligence*. A second influential theory of intelligence to see the light at about the same time was the *Theory of Multiple Intelligences* of Gardner (1983). Gardner's (1983) theory of intelligence, which is based on Thorndike's (1920) concept of *social intelligence,* formed the 'embryonic' basis for emotional intelligence as it is known today. Landy (2005) in a recent point/counterpoint series of articles refute this fact and is of the opinion that this claim is simple revisionism and disagrees that Thorndike provided that theoretical foundation of emotional intelligence. Thorndike (1920), however, did define social intelligence as "…the ability to understand and manage men and women, boys and girls—to act wisely in human relations." Gardner (1983) included social intelligence as one of the seven intelligence domains in his theory of multiple intelligences. According to Gardner (1983) social intelligence is comprised of a person's interpersonal and intrapersonal intelligences. Intrapersonal intelligence relates to one's intelligence in dealing with oneself, and is the ability to symbolize complex and highly differentiated sets of feelings. In contrast, interpersonal intelligence relates to one's intelligence in dealing with others and is the ability to "…notice and make distinctions among other individuals and, in particular, among their moods, temperaments, motivations and intentions" (Gardner, 1983, p. 239).

Gardner's (1983) theory resembles Thurstone's (1938) theory of intelligence in a key respect, both theories hold that intelligence is made up of several distinct abilities, each relatively independent of the other. Gardner (1983) lists seven intelligences, three of which are similar to five of Thurstone's primary mental abilities. Importantly, Gardner (1983) further defined two new kinds of intelligence, namely 1) *interpersonal* and 2)

intrapersonal intelligence. Even though Gardner (1983) did not use the term emotional intelligence, his concepts of interpersonal intelligence and intrapersonal intelligence formed the foundation for later models of emotional intelligence. It is evident, though, that Gardner clearly included additional abilities not normally seen under the heading of intelligence and his theory led more recent theorists like Salovey and Mayer (1990) and Goleman (1995, 1998a) to propose a new theory of *emotional intelligence.*

Goleman (1998a) suggests that emotional intelligence at work is a multidimensional construct consisting of five components, each with a number of associated competencies. These dimensions of emotional intelligence are:

1) *Self-awareness*. This component is associated with emotional awareness, accurate self-assessment and self-confidence.
2) *Self-regulation*. This component is associated with self-control, trustworthiness, conscientiousness, adaptability and innovation.
3) *Motivation*. This component refers to achievement drive, commitment initiative and optimism.
4) *Empathy*. This component refers to understanding and developing others, service orientation, leveraging diversity and political awareness.
5) *Social skills.* This component is associated with influence, communication, conflict management, leadership, change catalyst, building bonds, collaboration and co-operation, and team capabilities.

Kierstead (1999) regards emotional intelligence as an umbrella term and summarises it as one that captures a broad collection of individual skills and dispositions usually referred to as inter- and intra-personal skills or soft skills. Goleman, Boyazis and McKee (2002) in a further conceptualisation of emotional intelligence distinguish between four fundamental areas of emotional intelligence that can be split up in: *personal competence*, which consists of two emotional domains namely 1) *self-awareness* and 2) *self-management*; and *social competence*, which encompasses 3) *social awareness* and 4) *relationship management*. Each of these four domains is once again made up of different associated competencies.

Salovey and Mayer (1990, 1995) conceptualised emotional intelligence in terms of three categories of adaptive abilities: 1) appraisal and expression of emotion, 2) regulation of emotions and 3) utilisation of emotions in solving problems. The first category consists of the components of appraisal and expression of emotions in the self and appraisal of emotion in others. The component of appraisal and expression of emotion in the self is further divided into subcomponents of verbal and non-verbal and, as applied to others, is broken into the subcomponents of non-verbal perception and empathy. The second category of emotional intelligence, regulation of emotion, has the components of regulation of emotions in the self and in others. The third category, utilisation of emotion, includes the components of flexible planning, creative thinking, redirected attention and motivation. Even though emotions are at the core of this conceptualisation of emotional intelligence, it also includes the social and cognitive functions related to the expression, regulation and utilisation of emotions (Salovey & Mayer, 1990, 1995).

Mayer and Salovey (1997, p. 5) in a revision of their emotional intelligence theory, define emotional intelligence as "the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and knowledge, and to reflectively regulate emotions so as to promote emotional intellectual growth." Furthermore, they add that emotional intelligence refers to the ability to effectively combine emotions and reasoning, thus describing the extent to which people's cognitive capabilities are supported by emotions and the extent to which emotions are cognitively managed (Mayer & Salovey, 1997). This revised version of the emotional intelligence model places more emphasis on the cognitive components of emotional intelligence than those of Goleman (1995) and Mayer & Salovey's (1995) original conceptualisation of emotional intelligence. This revised model of Mayer and Salovey (1997) conceptualises emotional intelligence in terms of potential for intellectual and emotional growth and consists of four branches: 1) perception, appraisal and expression of emotion; 2) emotional facilitation of thinking; 3) understanding, analysing and employing emotional knowledge; and 4) reflective regulation of emotions to further emotional and intellectual growth. The perception, appraisal and expression of emotion are viewed as the most basic processes, while the reflective regulation of emotions requires more complex processing (Schutte et al., 1998).

In the operationalisation, measurement and demarcation of the emotional intelligence construct and its domain, Petrides and Furnham (2001) propose a differentiation between *trait* and *ability* emotional intelligence. Emphasising this distinction in emotional intelligence aids the organisation of the literature that represents the development and conceptualisation of the construct. The trait approach to emotional intelligence encompasses various behavioural dispositions/self-perceived abilities and its investigation is therefore primarily conducted within a personality framework, using self-report scales. Given that intelligence and personality are essentially independent domains, it is expected that trait emotional intelligence should therefore be related to personality factors, and not to ability factors. It is reasonable to expect, furthermore, that a construct that measures individual differences in the ability to understand, process, and use affect-laden information should be associated with personality dimensions that reflect individual differences in positive and negative affectivity (Petrides & Furnham, 2001). Ability emotional intelligence, formally referred to as *information-processing* emotional intelligence by Petrides and Furnham (2000), on the other hand, concerns actual abilities that people possess and ought then to be measured with maximum-performance tests, rather than self-report scales, which as is the case with trait emotional intelligence. In contrast to trait emotional intelligence, ability emotional intelligence should be studied primarily with respect to general intelligence (i.e. IQ). Ability emotional intelligence should be related to cognitive ability, but should also correlate with those personality dimensions that have a strong affective core. The ability model of emotional intelligence behaves psychometrically just as an intelligence should, and demonstrates convergent and discriminant validity to support claims that it is an intelligence (Daus & Ashkanasy, 2005). Amongst the controversy that is currently raging in the literature, it would seem as if the ability approach to emotional intelligence it emerging as the approach to emotional intelligence that is able to add value to the field of organisational psychology and withstand rigorous scrutiny.

There are theorists who view intelligence as a trait, but virtually everyone would agree that it is an ability (Petrides & Furnham, 2001). These labels therefore have certain limitations. Eysenck and Eysenck (1995) regard traits as *dispositions* that have a strong relationship with the basic dimensions of personality, while not being a cognitive ability, and therefore distinguish them from abilities. In contrast, the term ability emphasises the fact that the second type of emotional intelligence belongs in the domain

of cognition. These two labels have a built-in oxymoron and redundancy respectively, because intelligence is an ability and not a trait. To avoid this inconsistency, Petrides and Furnham (2001) proposed two alternate labels for trait emotional intelligence and ability emotional intelligence, as two fundamentally different constructs, i.e. *emotional self-efficacy* for the former, and *cognitive-emotional ability* for the latter. Petrides and Furnham (2001) noted that these two constructs are not mutually exclusive and may co-exist and that there is no reason why the operationalisation of the one should preclude that of the other.

2.5.2 Emotional Intelligence as a Leadership Quality

Leadership concerns the dyadic interaction between leaders and subordinates or followers. Once social interactions are involved, emotional awareness and emotional regulation become important factors affecting the quality of these interactions and relationships (Wong & Law, 2002). "Contemporary research on intelligence offers renewed potential for leadership trait research. The notion of multiple intelligence and Sternberg's theory of triarchic intelligence have implications for managerial roles. Leadership is thus embedded in a social context, and the idea of social intelligence as a required leadership trait is a powerful one" (House & Aditya, 1997, p. 418). Sternberg (1997) echoed the House and Aditya (1997) viewpoint by providing examples to illustrate why social intelligence may be even more important in affecting the job success of managers and leaders than traditional general intelligence. Many researchers have also argued that effective leadership behaviour fundamentally depends upon the leader's ability to solve complex social problems that arise in organisations (George, 2000; Mumford, Zaccaro, Harding, Jacobs & Fleishman, 2000; Zaccaro, Mumford, Connelly, Marks & Gilbert, 2000). Echoing these sentiments, Goleman (1998a, p. 92).) considered leadership and emotional intelligence to be synonymous: "IQ and technical skills do matter, but mainly as threshold capabilities … recent research clearly shows that emotional intelligence is the *sine qua non* of leadership. Without it, a person can have the best training in the world, an incisive, analytical mind, and an endless supply of smart ideas, but still will not make a good leader".

Emotionally intelligent leaders are able to improve decision making via their knowledge and management of emotions, and those who are able to accurately recognise emotions are more able to determine whether the emotion is linked to opportunities or problems

and thus use those emotions in the process of decision making (Vitello-Cicciu, 2002). George (2000) similarly suggests that emotional intelligence plays an important role in leadership effectiveness and proposes that the ability to understand and manage moods and emotions in oneself and in others, theoretically contributes to the effectiveness of leaders. Emotional intelligence enhances the leaders' ability to solve problems and to address issues and opportunities facing them and their organisation. George (2000) proposes specifically, that leaders that are high on emotional intelligence will be able to use positive emotions to envision major improvements to the functioning of an organisation. She suggests, further, that a leader high in emotional intelligence is able to accurately appraise how their followers feel and use this information to influence their subordinates' emotions, so that they are receptive and supportive of the goals and objectives of the organisation (George, 2000). As stated earlier, this document uses the term leader emotional intelligence to refer to the emotional intelligence of a leader.

Caruso et al. (2002) discussed the theoretical relationships between emotional intelligence and effective leadership and provided an explanation as to how, specifically, emotional intelligence facilitates the functioning of an effective leader. These hypothesised relationships are derived from Mayer and Salovey's (1997) four-branch model of emotional intelligence (identifying emotions, using emotions, understanding emotions and managing emotions). Within this model Caruso et al. (2002) propose that greater self-awareness influences performance, and the ability to identify emotion therefore allows leaders to be aware of their own emotions and the emotions of subordinates, assisting them to differentiate between honest and false emotions in others. Caruso et al. (2002) argue that leaders who are able to use emotions to guide decision making are able to motivate subordinates by engaging in activities facilitated by emotions, and are able to encourage open-minded generation of ideas, decision making and planning, because they can consider multiple points of view. Understanding emotion is also considered to be important for effective leadership, because it provides the leader with the ability to understand their own and other people's point of view (Caruso et al., 2002). Finally, these authors also suggest that the ability to successfully manage emotions allows the leader to handle the stress of the job, the frustrations, disappointments and joys.

By integrating emotional intelligence into modern theories of leadership, Hooijberg, Hunt, and Dodge (1997) presented a framework of the cognitive, social, and behavioural complexities of leadership. They argued that the social aspect of a leader's capacity consisted of two components, namely 1) social differentiation and 2) social integration (Hooijberg et al., 1997, p. 382). Social differentiation was defined as:

> "The ability of a managerial leader to discriminate and recognize the various facets, aspects, and significances of a given social situation over time. Social differentiation is a function of the leader's ability to discern existing and potential patterns of social relationships; the leader's ability to regulate emotions within self and recognize emotions in others; the number and degree of independence of a leaders' value preferences; and the leader's level of self-complexity".

In other words, good leaders need to have a sound understanding of their own emotions as well as those of others, and be able to regulate their own emotions when interacting with others (Hooijberg et al., 1997). This idea was reinforced by Boal and Hooijberg (2000) when they highlighted the argument that behavioural complexity is a core element of leader effectiveness; leaders needed to play different roles at different times and, more importantly, good leaders had the ability to select the right roles for the situation. Boal and Hooijberg (2000) argued that social intelligence was the underlying ability that governed the behavioural complexity of leaders.

Day (2000) also reinforced the importance of emotional intelligence in leader effectiveness. While discussing the training and development of leaders in organisations, Day (2000) emphasised that specific examples of the type of intrapersonal competence associated with leader development initiatives include self-awareness (e.g., emotional awareness, self-confidence), self-regulation (e.g., self-control, trustworthiness, adaptability), and self-motivation (e.g., commitment, initiative, optimism). Bass (2002) has called for more research into the moderating effects of emotional intelligence on transformational leadership.

2.5.3 Measuring the Emotional Intelligence Construct

The rapid development of theoretical models of emotional intelligence has been paralleled by the development of measurement instruments or scales to measure this construct. Since 1990, when the first *scale* measuring an aspect of emotional intelligence was reported in a scientific journal, there has been an explosion of different measures of emotional intelligence ranging from more serious endeavours (BarOn, 1997; Cooper & Sawaf, 1997; Mayer, Salovey & Caruso, 2000) to a host of non-scientific self-report scales that have appeared in newspapers, magazines, and on Internet websites.

Emotional intelligence scales can be arranged into three groups: 1) ability scales, 2) self-report scales, and 3) observer-rating measures based on the categories within which the relevant theories find themselves. A fourth group is also evident, which is a combination of the self-report and observer-rating methodologies. This is not merely a semantic argument and in reality reflects fundamental issues of 1) content validity, and 2) incremental validity. When evaluating a measure of emotional intelligence, it is firstly important to determine what aspect of mental life is measured. The content of emotional intelligence scales have been found to vary greatly due to the fact that many different interpretations and conceptualisations of emotional intelligence exist.

The first method is to use a performance or ability measure that directly measures the ability. These scales measure emotional intelligence according to the theory that emotional intelligence is an intelligence per se in that it relates to the processing of information (Mayer & Salovey, 1997; Mayer et al., 2000). Ability testing is the ultimate standard in intelligence research because, in this context, intelligence corresponds to the actual capacity to perform well at mental tasks, not just one's beliefs about those capacities (Mayer & Salovey, 1997). Attempts to measure emotional intelligence as a cognitive ability requires that objectively correct responses to test items need to be determined, which is a relatively complex requirement. The fact that it is particularly difficult to apply truly veridical criteria in scoring emotional intelligence tasks has prompted many researchers to investigate the construct as a constellation of dispositions and self-perceived abilities rather than as a class of cognitive-emotional abilities (Davies et al., 1998). This is the reason why most emotional intelligence research papers and literature in recent times have been concerned with aspects of trait emotional

intelligence (Petrides & Furnham, 2000). Empirical evidence shows that trait emotional intelligence is likely to be implicated in a variety of behaviours and subjective judgements.

The Multifactor Emotional Intelligence Scale (MEIS) is an example of such an ability scale. It is divided into four components (Mayer & Salovey, 1997): 1) *emotional perception,* 2) *emotional facilitation of thought,* 3) *emotional understanding,* and 4) *emotional management.* Mayer, Salovey & Caruso (2000) developed an ability scale called the MSCEI, as a further greater enhanced scale.

The second type of measures, i.e. self-report measures, asks people to endorse a series of descriptive statements to indicate to what extent these describe or do not describe themselves (Mayer & Gaschke, 1988; Salovey et al., 1995). Self-reported abilities and traits rely on the individual's self-understanding. If a person's self-concept is accurate, then these kinds of measures can often serve as an accurate measure of the actual ability. If the person's self-concept, on the other hand, is inaccurate, which is often the case (Taylor & Brown, 1988), self-report measures only yield information concerning only the person's self-concept, rather than the actual ability or trait. People are notoriously inaccurate reporters in several areas of functioning, including the self-assessment of ability. Self-reported intelligence correlates only modestly with actual measured intelligence, often below .30 (Paulhus, Lysy & Yik, 1998).

The overlap between self-report measures of emotional intelligence and personality inventories recently led a group of researchers to conclude that "…as presently postulated, little remains of emotional intelligence that is unique and psychometrically sound. Thus, [self-report] questionnaire measures are too closely related to 'established' personality traits [to be considered anything new]" (Davies et al., 1998, p.103). Although the above quote represents an extreme position, the degree of overlap between self-report scales of emotional intelligence and existing personality scales, is a matter of legitimate concern.

One example of a self-report scales that has become widely known is BarOn's EQ-i that is intended to measure "…an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and

pressures" (BarOn, 1997, p. 14). This is most probably the oldest measure of emotional intelligence and has been around for over a decade. Incidentally, it did not evolve out of an occupational context, but a clinical one. The EQ-i is divided into five sections: 1) *intrapersonal,* 2) *interpersonal*, 3) stress *management,* 4) *adaptability* and 5) *general mood.*

The use of informants is the third methodology for measuring emotional intelligence. The use of informants yields information about how a person is perceived by others and employs questions that require the respondent to indicate the level (i.e. very high, high, average, low, very low) the person being evaluated has attained on such aspects as: stays open to ideas; readily adapts to changes; and is a good listener. This alternative has obvious advantages over self-report measures that are so seriously influenced by a person's self-concept and social desirability. The problem with the informant approach on the other hand is that it essentially measures a person's reputation. Many actions, such as how well the person treats those around him or her, can influence reputation and the informant's beliefs about how personality operates (Funder, 1995). This is not necessarily bad as reputations are important (Hogan & Shelton, 1998). A person's reputation may even be more important than his or her actual abilities for some purposes, but reputation is different from abilities. Some aspects of a reputation are fairly visible and appear to be judged accurately, e.g. talkativeness, and sociability. More internal cognitive styles and capacities, however, are judged much less accurately (Funder & Debroth, 1987). A related approach enlists observers who directly code specific behaviours, called the observer rating approach. Although there are no tests of emotional intelligence that employ this method, it would be appropriate only for observable behaviours and not for mental abilities with no fixed behavioural consequences.

Various mixed-model approaches to assessing emotional intelligence have emerged recently. The Emotional Competence Inventory (ECI) is an example of a joint self-report/observer-rated scale that defines emotional intelligence as the "…capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships" (Boyatzis, Goleman & Hay/McBer, 1999, p. 1). The Emotional Competence Inventory measures four aspects of emotional intelligence: 1) *self-awareness,* 2) *self-management,* 3) *social awareness,*

and 4) *social skills.* These competencies are measured by asking informants to rate the target person, as well as by having the target evaluate him- or herself via a self-report scale. This measurement instrument has been used in a South African study to investigate the role of emotional intelligence in a call centre environment (Nel & De Villiers, 2004).

Another apparently mixed-model measure of emotional intelligence is that of Rahim and Minors (personal communication, April 2001), called the Emotional Intelligence Index (EQI). The scale was developed to assess Goleman's (1995) five dimensions of emotional intelligence: 1) self-awareness, 2) self-regulation, 3) self-motivation, 4) empathy, and 5) social skills. Rahim and Minors (2003) used a similar measure (it was slightly shortened) in a study that investigated the effects of emotional intelligence on quality and problem solving. It was decided that the original version (Rahim & Minors, personal communication, April 2001) of this measure would be used in the present study, a fact that is evident in the formulation of the hypothesis that follows:

Hypothesis 5:

H_5 The original measurement model of the Emotional Intelligence Index (EQI) proposed by Rahim and Minors (2002) more closely fits the data and is more internally reliable than the measurement model of the leader emotional intelligence derived from the responses of the present sample.

2.6 The Transformational Leadership Construct

Bass's (1985) model of transformational leadership has been embraced by scholars and practioners alike as one way in which organisations may encourage employees to perform beyond expectation and feel that these efforts are related to a wide variety of positive individual and organisational outcomes (Avolio & Bass, 1988; Avolio et al., 1988; Bass, 1985, 1990; Bass et al., 1987), including being empirically linked to increased organisational performance (Avolio et al., 1988; Bass et al., 1987; Howell & Avolio, 1993; Lowe et al., 1996; Seltzer & Bass, 1990; Yammarino et al., 1993). Transformational leadership has been found empirically to be related to a variety of organisational success and performance variables, such as employee satisfaction, organisational commitment, satisfaction with supervision, extra effort, employee effectiveness, lower turnover intention, organisational citizenship behaviour, overall

employee performance, effective leadership and trust (Avolio et al., 1988; Bass, 1998; Bass & Avolio, 1995; Bass et al., 1987; Bennis & Nanus, 1985; Bryman, 1992; Butler & Cantrell, 1984; Butler et al., 1999; Bycio et al., 1995; Conger & Kanungo, 1987; Den Hartog et al., 1997; House & Aditya, 1997; Howell & Avolio, 1993; Judge et al., 2001; Lowe et al., 1996; MacKenzie et al., 2001; Podsakoff et al., 1996; Podsakoff et al., 1990; Podsakoff et al., 2000; Seltzer & Bass, 1990; Yammarino & Dubinsky, 1994; Yammarino et al., 1993). Moreover, the effects of transformational leadership appear to be potent across management levels (Howell & Avolio, 1993), work environments (Bass, 1985) and national cultures (Bass, 1997). More information on the importance of transformational leadership within organisations can be found in Chapter 1.

2.6.1 Developing and Defining the Transformational Leadership Construct

Over the years, industrial/organisational psychologists have shown an intense interest in leadership. Many authors have noted the major paradigm shift in leadership research that has occurred in the last three decades. The business environment has become a place of constant change (Burns, 1978) and this has brought about the need for a 'new leadership' notion to define those leaders who are able to promote, adapt to, and survive change (Alimo-Metcalfe & Alban-Metcalfe, 2001). As result of the changes in the work environment, theorists began to move away from the traditional 'command and control' and technical-skills based models associated with traditional (transactional) leadership towards a more flexible, collaborative and nurturing style, called transformational leadership (Bennis, 1999). This "new" leadership style has become the ideal style for organisational success (Bass, 1985). Transformational leadership has been researched extensively in the past two decades (Kouzes & Posner, 1990; Tichy & Devanna, 1990; Yukl, 2002).

The development of transformational leadership theory partially was a response to findings about charismatic leaders, a construct that is believed to be closely related and intertwined with that of transformational leadership (Conger & Kanungo, 1988; Conger & Kanungo, 1990; House, 1971; Shamir, House & Arthur, 1993). Many researchers view transformational and charismatic leadership as identical concepts (Yukl, 2002). 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 necessarily transformational (Hughes, Ginnett & Curphy, 1996). Charisma is a necessary ingredient of transformational leadership, but by itself it is not sufficient to account for the transformational process (Lussier & Achua, 2004). 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 leadership types differ considerably. Transformational leaders seek to empower their followers and enhance their desires for achievement and self-development, even so far as to develop themselves as transformational leaders in their own right (Bass & Avolio, 1994). On the other hand, charismatic leaders seek to keep followers weak and dependent to instil personal loyalty rather than commitment to ideals, while satisfying their own need for power and manipulation (Conger, 1989).

The transformational leadership notion has developed over the years and has had various guises. Various transformational leadership models have been proposed by different authors, and these include (note that the references are provided in a chronological order to provide a time line): *Charismatic Leadership* (House, 1977; Sashkin & Fulmer, 1988; Shamir, House & Arthur, 1993; Conger & Kanungo, 1994), *Transforming Leadership* (Burn, 1978), *Transformatic Leadership* (Bennis & Nanus, 1985), and *Transformational leadership* (Kouzes & Posner, 1990; Tichy & Devanna, 1990; Bass & Avolio, 1994). When the models of transformational leadership are compared, it becomes clear that there are many similarities among them. Formulating a vision, communicating a vision, influencing followers, taking risks and building trust are all reflected in these models in one way or another. In addition, charisma seems to be the most important component of transformational leadership, which again indicates the close relationship between charismatic and transformational leadership.

The most influential model of transformational leadership was that of Burns (1978). Since Burns (1978) first defined the term transformational leadership, it has received intense scrutiny and has emerged as a major leadership theory (Rada, 1999). Burns' (1978) conception of transformational leadership was based on a vision that the leader was committed to, and one that the leader empowered others to achieve, with the goal being to accomplish more with less (Taccetta-Chapnick, 1996). Transformational leadership involves transformation within a group, an organisation, and in those

individuals involved in the leadership process. It is also involved in creating real and substantive change in profits, direction and the attitude of employees and the organisation, as well as moral elevation (Burns, 1978). Transformational leaders are thus able to elevate people to a higher sense of self (Burns, 1978). Although Burns laid the foundation for transformational leadership theory, it was in fact refined by Bass (1985). Bass (1985) held that leaders had an ability to inspire and activate subordinates to perform beyond all expectations and achieve goals that are beyond those originally set. Bass (1985) was also the first person to measure the perceptions of subordinates to establish whether a leader was transformational or not. This theory developed into the *full range leadership model* of Bass and Avolio (1994). This particular model and theory of transformational leadership was chosen for the present study as it is based on exchange processes that are relevant in this context. These dimensions, in addition have been successfully incorporated into the Multifactor Leadership Questionnaire (MLQ).

Bass and Avolio (1994) outlined four dimensions of transformational leadership. These dimensions are believed to cause followers to commit themselves to performance outcomes that exceed their expectations. The dimensions are described as follows:

1. ***Idealised influence*** refers to the extent to which follower's admire, respect and trust their leaders because of their extraordinary capability, persistence and determination to the point that they want to emulate them. It refers to the extent to which followers perceive their leaders as charismatic role models. This feeling of trust binds the follower in an unconditioned belief in and identification with the leader. The leader is thus in the position to motivate the followers to make a concerted effort in order to reach a level of optimal development and performance.

2. ***Inspirational motivation*** involves the leader's ability to motivate and inspire followers to achieve the organisation's goals through: symbols and emotional appeals; a meaningful, appealing and inspiring vision; and an optimistic and enthusiastic approach. It also means that the leader increases follower's optimism and enthusiasm through communicating his/her vision in a truthful manner. Transformational leaders further provide meaning and challenge to the work of their followers and try to get followers involved in

envisioning attractive future outcomes, while also clearly communicating expectations concerning the commitment to a shared vision.

3. ***Intellectual stimulation*** involves the leader's efforts to encourage followers to perceive old methods in new ways and to foster creativity by challenging prevailing assumptions and the status quo. Leaders further stress the utilisation of intelligence, rationality, intuition and logic to question and reframe problems to be able to solve them. The same approach is solicited from followers, who are actively involved in the problem-solving journey. The desired results of the leader's efforts are not only to motivate followers to solve problems on their own, but to solve them in new and creative ways.

4. ***Individualised consideration*** involves paying attention to all individuals and their needs; creating and increasing their sense of value; recognising individual contribution; providing learning opportunities; and supporting and developing followers. The leader makes a concerted effort to provide his/her followers with direction, attention, structure, advice and feedback in accordance to their needs and level of self-development. In doing this, transformational leaders raise the expectations and confidence levels of followers to take on greater level of responsibility. The transformational leader does not encourage followers to merely meet their requirements or to maximise performance, but rather, accompanies followers in their personal development for them to experience challenges in their daily work activities. (Bass, 1990; Bass & Avolio, 1990).

Transformational leaders are those leaders that develop, motivate and inspire their followers to perform beyond expectations by activating their higher order needs, by fostering a climate of trust and inducing followers to transcend self-interest for the sake of the group or organisation (Avolio, Waldman & Yammarino, 1991; Bass, 1985). This form of leadership can also be defined in terms of the effects it has on employees, as followers experience trust, admiration, loyalty and respect toward the leader and they are motivated to do more than they were originally expected to do. Followers further hold perceptions of proactive behaviour, empathy and need for achievement of transformational leaders (Pillai, Williams, Lowe & Jung, 2003). Bass and Avolio (1994)

and Shamir et al. (1993) agree that transformational leaders are stimulating, which in turn generates commitment, effort and, ultimately, greater performance.

2.6.2 Measuring the Transformational Leadership Construct

Bass and Avolio (1995) developed an instrument for measuring both transactional and transformational leadership, the Multifactor Leadership Questionnaire (MLQ). It is based on Bass' (1985) original model of leadership and later revised models of leadership by Bass and Avolio (1994). According to Pillai et al. (1999) the MLQ is the most widely used measurement of transformational leadership. Bass (1997) cites an extensive range of studies from almost every sector and every continent to support the reliability and validity of the questionnaire.

The MLQ is a multi-rater scale that allows leaders to report on themselves or other employees to report on their leader. The scale has three subscales for transactional, transformational and laissez-faire leadership. Transformational leadership is assessed via four subscales, 1) Idealised Influence, 2) Inspirational Motivation, 3) Intellectual Stimulation, and 4) Individualised Consideration. It was decided that this measurement instrument of transformational leadership would be used for the purposes of the present study. Based on the available information, the following hypothesis was suggested:

Hypothesis 6:

H_6 The original measurement model of the transformational leadership subscale of the Multifactor Leadership Questionnaire (MLQ) proposed by Bass and Avolio (1995) more closely fits the data and is more internally reliable than the measurement model of the transformational leadership construct derived from the responses of the present sample.

2.7 The Relationships between the Constructs

The relationship between organisational citizenship behaviour and the constructs that are the focus of the present study will be discussed in this section. These comprise the specific linkages between organisational citizenship behaviour, and transformational leadership, trust, meaning, leader emotional intelligence and intention to quit. Each of these relationships will be discussed in terms of the empirical evidence and theoretical convictions to be found in the available literature describing them.

2.7.1 Transformational Leadership and Organisational Citizenship Behaviour

Numerous studies have demonstrated a positive relationship between transformational leadership and job performance (Bass, 1985). On the other hand, fewer studies have been conducted on the direct link between this kind of leadership behaviour and extra role behaviour, such as organisational citizenship behaviour. It is important to note that several of the studies that investigated this link were able to find evidence for the direct relationship between transformational leadership and organisational citizenship behaviour (Bycio et al., 1995; Chen & Farh, 1999; Ferres et al., 2002; Gerstner & Day, 1997; Koh et al., 1995; MacKenzie et al., 2001; Podsakoff et al., 1996; Podsakoff et al., 1990). It has also been found that Leader Member eXchange (LMX) mediates the relationship between transformational leadership and organisational citizenship behaviours (Wang, Law, Hackett, Wang & Chen, 2005). Bass (1990) found, after training managers in transformational leadership, that they were as good as or even better at improving organisational citizenship behaviour among their subordinates than those managers trained in transactional leadership. Koh et al. (1995) also established an empirical link between organisational citizenship behaviour and transformational leadership and found that transformational leadership has significant add-on effects to transactional leadership in the prediction of organisational citizenship behaviour. This argument concerning the positive relationship between transformational leadership and organisational citizenship behaviour is strengthened by the fact that Zellars, Tepper and Duffy (2002) found a strong negative relationship between abusive supervision (i.e. the opposite of transformational leadership) and organisational citizenship behaviour.

Transformational or inspirational leaders, by definition, are believed to be capable of eliciting extraordinary levels of motivation and performance that are beyond normal expectations or the minimum levels specified by the organisation from employees (Bass, 1985). This inspirational effect is a key tenet of charismatic leadership. Transformational leaders are thus believed to have a strong influence on an employee's willingness to engage in extra-role behaviours, i.e. to perform organisational citizenship behaviours (Podsakoff et al., 1990).

Podsakoff et al. (2000), in a meta-analytic review of studies examining the antecedents of organisational citizenship behaviours, found that leadership support, vision, intellectual stimulation and contingent reward were strongly (positively) associated with

two types of helping behaviour: 1) altruism and 2) courtesy. Smith et al. (1983) examined the influence of leadership style on organisational citizenship behaviour and reported that a leader's individualised consideration, which is one of the transformational leadership behaviours identified by Bass (1985), has a direct effect on some forms of organisational citizenship behaviour. Avolio et al. (1991) further stated that inspirational motivation often produces individual effort 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 organisational citizenship behaviour dimensions. Transformational leadership behaviours were found to have significant and consistent positive relationships with altruism, courtesy, conscientiousness, sportsmanship and civic virtue (Podsakoff et al., 2000). All of these are dimensions of organisational citizenship behaviour.

Wayne, Shore and Liden (1997) stated that "…the exchange between an employee and his or her direct superior is the primary determinant of employee behaviour" (p. 103). A study by Konovsky and Pugh (1994) found that citizenship behaviours occurred within a context in which social exchange characterised the quality of the leader and subordinate relationships. It has also been shown that the more employees feel that they participate in decision-making, the more they feel supported by their immediate supervisor and the more likely it is that they will exhibit organisational citizenship behaviour (Diefendorff et al., 2002; Van Yperen & Van den Berg, 1999). Research supports this notion that high-quality relationships with supervisors are related to extra-role behaviour that includes organisational citizenship behaviour (Deluga, 1995; Farh et al., 1990; Podsakoff et al., 1996; Schanke, 1991; Settoon, Bennet & Liden, 1996; Wayne et al., 1997). Many theorists suggest that leader supportiveness is specifically related to organisational citizenship behaviour (Farh et al., 1990; Organ & Ryan, 1995; Wayne et al., 1997). Smith et al. (1983) offered the opinion that much of supervisor consideration is in itself citizenship behaviour and Graham (1988) also proposed a conceptual linkage between transformational leadership and organisational citizenship behaviour that is attributed to member empowerment in the form of individualised consideration and intellectual stimulation.

Organisational citizenship behaviour has been viewed as a social resource that may be exchanged by individuals who have been the recipients of social rewards (Moorman, 1991). Bass (1985) clearly also stated that transformational leadership is based on social exchanges, thus it can be argued that transformational leadership may lead to organisational citizenship behaviour. Earlier, Smith et al. (1983) had suggested that leaders' supportiveness may lead to organisational citizenship behaviour, as employees may choose organisational citizenship behaviour as a means of reciprocation in social exchange.

If it is taken into account that transformational leaders act as role models to their subordinates (Avolio et al., 1991; Bass & Avolio, 1990), they, in effect, model organisational citizenship behaviour to their followers (Koh et al., 1995). Employees who observe leaders or co-workers modelling organisational citizenship behaviour are more likely to exhibit such behaviour than those employees who do not have such examples to follow (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, stating that leaders who practise transformational leadership will foster it being exhibited in followers at lower levels in the organisation.

Organisational citizenship behaviour requires the subordination of self-interest for the ultimate performance of the work unit. This is also something that transformational leaders encourage in their subordinates (Avolio et al., 1991). Koh, Steers and Terborg (1995) found that transformational leaders often motivate followers to transcend their own self-interests and to expend energy on behalf of the group or organisation. By definition, transformational leadership therefore 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). Moorman and Blackley (1995) indicated that individuals with collectivistic values and norms are more likely to perform organisational citizenship behaviours. It would therefore be expected that employees who have transformational leaders would be more likely to display organisational citizenship behaviour (Koh et al., 1995; MacKenzie et al., 2001; Podsakoff et al., 1990).

A recent study by Diedendorf et al. (2002) showed that job involvement is a significant predictor of organisational citizenship behaviour. It is believed that transformational

leaders empower employees by supporting them in thinking for themselves and encourage them to take responsibility (Bass & Avolio, 1994). Therefore, transformational leaders create and encourage job involvement within employees and in this way may elicit organisational citizenship behaviours from employees.

There is a strong belief that leaders who are able to articulate an appealing vision should have a positive effect on extra-role behaviours amongst other behavioural aspects (Bass, 1985; Bennis & Nanus, 1985; Boal & Bryson, 1988; Burns, 1978; Conger & Kanungo, 1994; House, 1977; Tichy & Devanna, 1990). Again, articulating: a vision is a key tenet of transformational leadership (Bass, 1985).

Based on the above theoretical convictions and empirical evidence, the following hypothesis is proposed:

Hypothesis 7:

H_7 A positive relationship exists between transformational leadership and organisational citizenship behaviour.

2.7.2 Trust and Organisational Citizenship Behaviour

Trust leads to many effects and possible consequences, including organisational citizenship behaviour. Arguments for and evidence of a direct positive relationship between trust and organisational citizenship behaviour have been presented in several studies (Debats & Drost, 1995; Deluga, 1994; Engelbrecht & Chamberlain, 2005; Greenburg, 1993; Konovsky & Organ, 1996; Konovsky & Pugh, 1994; Pillai et al., 1999; Podsakoff et al., 1990; Robbins et al., 2003; Settoon et al., 1996; Van Yperen & Van den Berg, 1999; Wagner & Rush, 2000; Wech, 2002).

When an employee trusts his/her direct supervisor and believes that this person will not take unfair advantage of him/her, it can be argued that the employee will be more willing to engage in voluntary extra-role behaviour such as organisational citizenship behaviour (Pillai et al., 1999). Trust may further lead to an "...unspecified obligation that may be manifested in citizenship behaviour" (Podsakoff & Paine, 1999, p. 905). Deluga (1994, 1995) reported that supervisory behaviours that facilitate trust or subordinate-supervisor relationships that exhibit high levels of trust, are related to

organisational citizenship behaviour. The more trust the employee has in his/her supervisor, the better the subordinate's performance, not only in terms of expected behaviour, but also voluntary citizenship behaviours (Settoon et al., 1996). When followers experience trust and respect toward the leader, they are motivated to do more than they are expected to do (Yukl, 2002). 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 organisational citizenship behaviours (Rousseau et al., 1998).

Organisational citizenship behaviour occurs mostly in contexts where social exchange, rather than economic exchange, characterises the quality of the relationship between the subordinate and the leader (Konovsky & Pugh, 1994; Organ & Konovsky, 1989). Organ and Konovksy (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". As trust is a manifestation of social exchange, it is this trust by which participants enter into non-contractual exchanges with the supervisor and/or organisation. Robinson and Morrison (1995) studied the relationship between psychological contracts and organisational citizenship behaviour and found that trust is an important factor in this relationship. The extent of psychological contract fulfilment and the maintenance of trust in the relationship is positively related to the performance of organisational citizenship behaviour (Turnley, Bolino, Lester & Bloodgood, 2003). Employees are therefore much less likely to engage in organisational citizenship behaviour when trust is violated. These arguments have contributed to the notion that trust is a necessary precondition for employees to display organisational citizenship behaviours.

Based on the theoretical convictions and empirical evidence presented above, it is postulated that there is a direct relationship between trust and organisational citizenship behaviour. The following hypothesis was formulated to reflect this notion:

Hypothesis 8:

H_8 A positive relationship exists between trust and organisational citizenship behaviour.

2.7.3 Leader Emotional Intelligence and Organisational Citizenship Behaviour

In applying the social exchange theory to the area of leadership, some scholars have argued that followers will have stronger commitment and satisfaction should leaders treat them with psychological benefits such as approval, respect, esteem and affection (Hollander, 1979; Jacobs, 1970). Dansereau et al. (1995) also found that leaders are able to affect the performance of their subordinates by supporting their feelings of self-worth. Some leadership studies have shown that the emotional maturity of leaders is associated with their managerial effectiveness (Bass, 1990). It would seem that supervisors with high emotional intelligence and emotional maturity are more likely to use supportive behaviour and encourage their followers with psychological benefits, as they are more sensitive to feelings and emotions within themselves and their followers (Wong & Law, 2002). It can be argued, therefore, that high emotional intelligence and emotional maturity on the part of supervisors may have a positive effect on the job outcomes of their followers. Carmeli (2003) found evidence of this relationship between emotional intelligence and positive work attitudes, altruistic behaviour and work outcomes. Earlier, Spector and Fox (2002) had already proposed a model that postulate a positive relationship between positive emotion, empathy and perceived ability to help and the increased likelihood of organisational citizenship behaviour.

According to Organ and Ryan (1995) “organisational citizenship behaviour is less likely than in-role performance to be constrained by limitations of ability or by work process” (p. 777). Therefore, given equal levels of "task" ability, individuals with higher levels of emotional intelligence may excel at work, because they are more likely to engage in prosocial activities at work (Day & Carroll, 2004). Mayer et al. (2000) suggested that individuals who posses in emotional intelligence are experts at identifying and responding appropriately to the emotions of co-workers, customers and superiors. Employees who exhibit high emotional intelligence are also more likely to be empathetic (Ciarrochi et al., 2000) and, therefore, may be able to adopt the organisation's perspective and act in a manner that will benefit the organisation (Abraham, 1999). It is well established in the social psychological literature that a positive mood is associated with helping behaviour (Penner, Midili & Kegelmeyer, 1997; Salovey, Mayer & Rosenham, 1991).

Mayer et al. (2000) proposed that employees who posses high emotional intelligence may enjoy smoother interaction with members of their work teams, and may be better at monitoring how the work group members are feeling, taking the appropriate action. Therefore, emotionally intelligent individuals could be expected to engage in organisational citizenship behaviours in a group situation. Day and Carroll (2004) empirically found that highly emotionally intelligent individuals tended to view members in their group more positively, in that they rated their group members as actively participating in, and showing concern for, the group.

If it is taken into account that transformational leaders act as role models to their subordinates (Avolio et al., 1991; Bass & Avolio, 1990), it can be postulated that if leaders possess high emotional intelligence and display organisational citizenship behaviours, they can in effect model organisational citizenship behaviour to their followers. As stated before, employees who observe leaders or co-workers modelling organisational citizenship behaviour are more likely to exhibit such behaviour than those employees who do not have such examples to follow (Tang & Ibrahim, 1998).

The following hypothesis was formulated, on the basis of these theoretical convictions that propose a direct positive relationship between a leader's emotional intelligence and employee's organisational citizenship behaviour:

Hypothesis 9:

H_9 A positive relationship exists between leader emotional intelligence and organisational citizenship behaviour.

2.7.4 Meaning and Organisational Citizenship Behaviour

Motivating job characteristics like meaningful work, autonomy and feedback "…maximise the possibility for internal motivation" (Hackman & Oldham, 1976, p. 273). This sense of meaning and responsibility can increase an employees' sense of responsibility and attachment to the organisation (Salancik, 1977). Understanding how one's job contributes to interdependent outcomes enhances these feelings of embeddedness and accountability. Similarly, awareness of outcomes (feedback) can lead to a stronger feeling of mutual responsibility, like that typically found in covenantal relationships. Proactive behaviour such as citizenship behaviour is therefore

likely to follow this heightened sense of responsibility and embeddedness in the organisation (Van Dyne et al., 1994). Wrzeniewski et al. (1997) have found that people with a sense of calling tend to put more time and effort into their work.

Wrzeniewski (2003) has also suggested that individuals, through the practice of job crafting, can hold different orientations toward their work and that they may structure their work behaviour differently, in ways that would help to create or undermine the level of meaning that they experience in work. Job crafting is defined as "…the physical and cognitive changes individuals make in the task or relational boundaries of their work. Thus, job crafting, is an action, and those who undertake it are job crafters; making job crafting both a verb and a noun" (Wrzesniewski, 2003, p. 179). By crafting their jobs, employees are able to change the way they approach the tasks in their work, thus increasing or decreasing the number and kinds of tasks they do as part of their job, and change the number and nature of the relationships they have with other people that they encounter in the work environment (Wrzesniewski, 2003). An employee, who chooses to engage in extra-role behaviour or organisational citizenship behaviour, therefore is a good example of job crafting in action. Choosing to engage in organisational citizenship behaviour, and thus job crafting, opens new possibilities for the establishment of meaning in work by allowing for the creation of meaning in any job by the way in which the individual constructs it. Through job crafting, one can thus realise a sense of calling by reshaping the task and relationship boundaries of the job in ways that allow one to view the work as making a more significant contribution to the wider world.

It is therefore postulated that meaning is associated with citizenship behaviour and the following hypothesis is formulated to represent this notion:

Hypothesis 10:

H_{10} A positive relationship exists between meaning and organisational citizenship behaviour.

2.7.5 Intention to Quit and Organisational Citizenship Behaviour

Several studies have investigated and empirically tested the relationship between turnover intentions and organisational citizenship behaviour. (Chen et al., 1998;

MacKenzie et al., 1998; Paré, Tremblay & Lalonde, 2001). Chen et al. (1998) found evidence of a negative relationship between the intention to quit and organisational citizenship behaviour, while, MacKenzie et al. (2001) found an even stronger negative association between actual turnover and organisational citizenship behaviour. Paré (2001) obtained similar results from a study of IT professionals.

The intention to quit therefore constitutes a key indication of organisational citizenship behaviour (Chen et al., 1998; Paré et al., 2001). Studies into this aspect suggest that withdrawal from the organisation and an intention to quit may explain the lack of willingness to exhibit helping or extra-role behaviour. The following hypothesis reflects these findings:

Hypothesis 11:

H_{11} A negative relationship exists between intention to quit and organisational citizenship behaviour.

On the basis of previous sections describing the various relationships between organisational citizenship behaviour and the five constructs believed to antecedents of organisational citizenship behaviour (i.e. 1) transformational leadership (Hypothesis 7), 2) trust (Hypothesis 8), 3) emotional intelligence (Hypothesis 9), 4) meaning (Hypothesis 10), and 5) intention to quit (Hypothesis 11), it can be postulated that these constructs can be used as independent variables to predict organisational citizenship behaviour as a dependent variable. The following hypothesis was formulated on the basis of this conviction:

Hypothesis 12:

H_{12}. Leader emotional intelligence, transformational leadership, trust, meaning and intention to quit can be used to predict organisational citizenship behaviour.

2.7.6 Trust and Intention to Quit

A number of studies conducted in a variety of settings have found support for a relationship between trust and intention to quit (Albrecht & Travaglione, 2003; Costigan, Ilter & Berman, 1998; Cunningham & MacGregor, 2000; Ferres et al., 2004; Ferres et al., 2002; Mishra & Morrisey, 1990; Tan & Tan, 2000). Ferres et al. (2004)

also found that co-worker trust was a significant predictor of lowered turnover intention. It has been found that when trust exists within an organisation, motivational and decision-making processes result in employees feeling that they are supported, that they belong and are willing to stay in the organisation (i.e. the opposite of intention to quit) (Tan & Tan, 2000).

The meta-analysis conducted by Dirks & Ferrin (2001) showed that trust demonstrated a substantial relationship with various attitudinal variables. Trust was found to have the strongest relationships with job satisfaction (r =.51) and organisational commitment (r = .49). Trust also showed a sizeable relationship with turnover intentions (r = -.40). Lastly, trust was highly related to the correlates satisfaction with leader (r = .73) and LMX (r = .69). It should be noted that several models have postulated that job satisfaction and organisational commitment are important antecedents of turnover (Arnold & Feldman, 1982; Bishop, Scott & Burroughs, 2000; Clegg, 1983; Farkas & Tetrick, 1989; Williams & Hazer, 1986). Tett and Meyer's (1993) meta-analysis found that intention to leave was predicted more strongly by job satisfaction (or the lack of it) than organisational commitment and that intention to leave mediated the linkages between these attitudes and actual turnover. Tzeng (2002) investigated the role of general job satisfaction, overall satisfaction with their professional role, and general job happiness on intention to quit, while controlling for the following variables: demographic characteristics, working motivation, and nine job satisfaction subscales. General job satisfaction, general job happiness, satisfaction with salary and promotion proved to be significant predictors of intention to quit (Tzeng, 2002). Support was found, therefore, for a direct negative relationship between trust and intention to quit and for an indirect negative relationship mediated by job satisfaction.

As can be seen from the above discussion, it is evident that trust is linked to a number of attitudinal outcomes, like turnover intentions, organisational commitment and job satisfaction (Dirks & Ferrin, 2001; Ferres et al., 2002; Paré et al., 2001; Pillai et al., 1999). Rich (1997) recognised that managers, by virtue of their position in the hierarchy are responsible for many duties that have a major effect on employees' job satisfaction on account of performance evaluations, guidance and assistance with job responsibilities, and training. Dirks and Ferrin (2001) suggest a perspective that focuses on the perception of the leader's character and how it impacts a follower's vulnerability

in the hierarchical relationship (Mayer et al., 1995). According to this perspective, trust-related concerns about a leader's character are important, because the leader may have authority to make decisions that have a significant impact on a follower and the follower's ability to achieve his or her goals (e.g. with regards promotion, pay, work assignments, layoffs). This perspective implies that followers attempt to draw inferences about the leader's characteristics concerning integrity, dependability, fairness and ability, and that these inferences have consequences for work behaviour and attitudes. Examples of research undertaken from this perspective include models of trust based on characteristics of the trustee (Mayer et al., 1995), research on perceptions of supervisor characteristics (Cunningham & MacGregor, 2000; Oldham, 1975) and research on some forms of leader behaviour (Jones, James & Bruni, 1975). Dirks and Ferrin (2001) refer to this perspective as the *character-based* perspective.

Individuals are likely to feel safer, and more positive, about the manager making these decisions when they believe the leader is trustworthy (Dirks & Ferrin, 2001). In contrast, entertaining a low level of trust in a leader is likely to be psychologically distressing when the leader has power over important aspects of one's job, and this distress is likely to impact on one's attitudes about the workplace. The implication of this idea is that trust in leadership should be associated with higher levels of job satisfaction, higher organisational commitment and lower intention of quitting (Dirks & Ferrin, 2001). For instance, when individuals do not trust their leaders, they are more likely to consider quitting, because they may be concerned about decisions that the leaders might make (due to perceptions of lack of integrity, fairness, honesty, or competence) and do not want to put themselves at risk with regard to the leader (Dirks & Ferrin, 2001). This same logic can be used when the broader trust construct is considered, therefore it can be argued that, besides trust in the leader, trust in the organisation and trust in co-workers may also lead to higher levels of job satisfaction, higher organisational commitment and lower intention of quitting.

The following hypothesis was formulated on the basis of these notions:

Hypothesis 13:

H_{13} A negative relationship exists between trust and intention to quit.

As shown in the preceding sections above, earlier research has argued about and shown the existence of relationships between trust and intention to quit (Hypothesis 13), as well as intention to quit and organisational citizenship behaviour (Hypothesis 11). With this knowledge as a basis, it can be postulated that intention to quit may exert a mediating effect on the relationship between trust and organisational citizenship behaviour. This has led to the formulation of the following hypothesis:

Hypothesis 14:

H_{14} Intention to quit exerts a mediating effect on the relationship between trust and organisational citizenship behaviour.

2.7.7 Transformational Leadership and Intention to Quit

Turnover intention was found to be negatively related to transformational leadership in a study conducted by Bycio, Hackett, and Allen (1995). Subsequently, Ferres et al. (2002) and Connel et al. (2003) also found that transformational leadership was a significant predictor of turnover intention. These findings support the notion of a direct relationship between transformational leadership and intention to quit.

Empirical research has further linked transformational leadership to such constructs as increased employee satisfaction (Podsakoff et al., 1990) and organisational commitment (Bycio et al., 1995) and satisfaction with supervision (Podsakoff et al., 1990), all of them being constructs that have been shown to be strongly related to turnover intentions (Arnold & Feldman, 1982; Bishop et al., 2000; Clegg, 1983; Farkas & Tetrick, 1989; Williams & Hazer, 1986). Clegg (1983) contended that the two antecedents, 1) satisfaction and 2) commitment, were the most frequently investigated components of affect with regard to turnover decisions. Recently, Larrabee, Janney, Ostrow, Withrow, Hobbs, and Burant (2003) found the major predictor of intent to leave to be job dissatisfaction and the major predictor of job satisfaction to be psychological empowerment. Transformational leadership style was found to be a predictor of psychological empowerment (Larrabee et al., 2003).

Boshoff et al. (2002) assessed the relative strength of a number of kinds of variables, which included biographic background information of respondents, work commitment (in various forms), role strain, and views on the psychological climate of their

organisation to predict the level of intention to quit. The work commitment variables were found to predict a substantial proportion (40 to 50 percent) of the variance in intention to quit. Affective organisational commitment and career commitment contributed the largest proportion of the common variance. When role strain (in the form of role ambiguity and role conflict) was added to the work commitment variables as independent variables to predict intention to quit, the proportion variance predicted was increased significantly (Boshoff et al., 2002). Role conflict and role ambiguity have consistently been shown to have a negative impact on performance, commitment, involvement, tension, anxiety and propensity to leave the firm (King & King, 1990), while individuals who experience a positive affective relationship with their employing organisations seem to be less likely to want to leave their employers. As noted above, transformational leadership has been empirically linked to organisational commitment (Bycio et al., 1995) and it is believed that transformational leaders may reduce intention to quit within their followers by creating organisational commitment. Research has also shown that transformational leaders reduce role conflict and role ambiguity among their followers and subordinates and may therefore in that way reduce intention to quit.

These theoretical arguments described above have led to the formulation of the following hypothesis:

Hypothesis 15:

H_{15} A negative relationship exists between transformational leadership and intention to quit.

The previous sections describing the relationships between transformational leadership and intention to quit (Hypothesis 15), as well intention to quit and organisational citizenship behaviour (Hypothesis 11) create the basis for the argument that intention to quit may exert a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour. The following hypothesis was therefore formulated accordingly:

Hypothesis 16:

H_{16} Intention to quit exerts a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour.

2.7.8 Leader Emotional Intelligence and Intention to Quit

Wong & Law (2002) argued that emotional intelligence should be related to other affective job outcomes such as job satisfaction, organisational commitment and turnover intention. Their argument was based on the fact that the ability to apply antecedent- and response-focused regulation of emotion should enable employees to have better relationships with co-workers and supervisors, as well as greater satisfaction in their jobs. It follows that the continual presence of positive emotional states in employees will also lead to positive affection towards the work environment and the organisation. As a result, positive experience on the job and positive affective emotions also should make employees more committed to the organisation and less likely to leave their jobs (Ashkanasy & Hooper, 1999a, 1999b; Goleman, 1998a). Several studies have found evidence of this linkage between emotional intelligence and turnover intention (Carmeli, 2003; Wong & Law, 2002). The following hypothesis was therefore formulated as follows, reflecting this belief:

Hypothesis 17:

H_{17} A negative relationship exists between leader emotional intelligence and intention to quit.

2.7.9 Meaning and Intention to Quit

The study of meaning in organisations is fuelled by the assumption that meaningful work influences various job and organisational attitudes, as well as motivation and performance (Roberson, 1990). One of the most common outcomes linked to meaningful work is satisfaction with one's job (Pratt & Ashforth, 2003).

As stated earlier, various models have postulated job satisfaction to be an important antecedent of turnover (Arnold & Feldman, 1982; Farkas & Tetrick, 1989; Williams & Hazer, 1986). Clegg (1983) has pointed out that the two antecedents, job satisfaction and organisational commitment, were the most frequently investigated components of affect with regard to turnover decisions. These constructs share their relation to the importance or salience of work and the specific aims, goals, or reasons that people have for working. Thus it is to be expected that, if employees experience meaning and job satisfaction in the organisation, they most probably will not foster intentions of quitting. Based on this theoretical conviction, the following hypothesis was formulated:

Hypothesis 18:

H_{18} A negative relationship exists between meaning and intention to quit.

Following from the evidence and theoretical convictions presented above regarding the various relationships between intention to quit and leader emotional intelligence (Hypothesis 17), meaning (Hypothesis 18), trust (Hypothesis 13) and transformational leadership (Hypothesis 15), it can be argued that these constructs can be used as independent variables to predict intention to quit as a dependent variable. The following hypothesis is grounded on this postulation:

Hypothesis 19:

H_{19} Meaning, trust, leader emotional intelligence and transformational leadership can be used to predict intention to quit.

2.7.10 Transformational leadership and Trust

Transformational leaders motivate their followers to perform beyond expectations by making them more aware of the importance and value of goals, inducing them to transcend self-interest for the good of the group or organisation and appealing to followers' higher order needs (Bass, 1985). Whilst theories of transformational leadership differ in some of the specific leadership behaviours they identify, all theories posit trust as a central feature of the relationship such leaders have with their followers, and postulate that it is due to followers' trust in and respect for their leader that they are motivated to perform beyond expectations (Bennis & Nanus, 1985; Bryman, 1992; Conger & Kanungo, 1998; House, 1977; Podsakoff et al., 1990; Sashkin, 1988; Shamir, Arthur & House, 1994; Yukl, 2002).

In a recent meta-analysis on trust and leadership, Dirks and Ferrin (2002) report that the transformational leadership is strongly predictive of trust. Pillai et al. (1999) had previously found strong correlations between transformational leadership and trust. They also found structural parameter estimates of the relationship between transformational leadership and trust to be .66 ($p<.01$), indicating the direct relationship between these. Support for the notion that transformational leadership is related to trust has been found in other studies too (MacKenzie et al., 2001). Krafft et al. (2004), when attempting to validate Pillai's (1999) model in a Namibian sample using structural

equation modelling, could not confirm the findings obtained by Pillai et al. (1999), that transformational leadership is directly related to trust. Ferres et al. (2002) and Ferres et al. (2003), though, had found that trust in management, trust in peers and dispositional trust significantly influenced ratings of transformational leadership.

So far, then, empirical work on the relationship between specific transformational leadership behaviours and trust in the leader shows mixed and inconsistent findings. Findings also suggest that some transformational leadership behaviours, such as providing an appropriate model, individualised support, and fostering acceptance of group goals, are consistently positively associated with trust in the leader (Butler et al., 1999; MacKenzie et al., 2001; Podsakoff et al., 1996; Podsakoff et al., 1990). Mixed results have also been found for other transformational practices, such as articulating a vision, setting high expectations, and stimulating new ways of thinking. For example, in a study of managers and professionals, Podsakoff et al. (1996) reported that these three behaviours have no significant association with trust. However, in a earlier study of salespeople by Podsakoff et al. (1990) reported that high performance expectations and intellectual stimulation have a negative impact on trust. In contrast to these studies by Podsakoff and his colleagues, Butler et al. (1999) reported that all of the transformational leadership behaviours had a positive impact on trust in the leader in self-directed work teams. The fact that several of the studies showing inconsistent findings used the same leadership measure and similar methods (Butler et al., 1999; MacKenzie et al., 2001; Podsakoff et al., 1996; Podsakoff et al., 1990), suggests that the impact of specific leadership behaviours on followers' trust in the leader may be sample or setting specific.

Studies using related measures of charismatic leadership have also yielded similarly inconsistent findings. In a study of managers, Conger, Kanungo, and Menon (2000) found that only one charismatic leadership behaviour (sensitivity to the environment) predicted trust in the leader, whereas other behaviours, such as articulating a vision and sensitivity to member needs (similar to individualised support), had no significant effect. An earlier study involving military units, by Shamir, Zakay, Breinin and Popper (1998), found that supportive leadership and emphasising a collective identity were associated with identification and trust in the leader, whilst emphasising collective

values and mission, and demonstrating commitment to values and goals, had only low correlations.

Transformational leaders have to instil trust before followers will commit to the strategic vision that they propose (Bass, in Pillai et al., 1999). A reason for this is that transformational leaders try to motivate followers to take risks by stimulating them intellectually. To be able to do that, transformational leaders need to set a personal example to gain the trust of their followers (Pillai et al., 1999). Furthermore, transformational leaders engage in activities that promote identification-based trust. Activities that strengthen identification-based trust include developing a collective identity, creating joint products and goals, and committing to commonly shared values (Lewicki & Bunker, 1996). It is evident that the transformational leader engages in individual consideration, in which the leader diagnoses the individual needs and capacities of his/her followers in order to be able to attend to them. The leader makes a concerted effort to provide his/her followers with direction, attention, structure, advice and feedback in accordance with their needs and developmental level. This understanding of the followers' needs is analogous to identification-based trust, in which the basis of trust is an appreciation of the follower's wants and desires that enables the leader to act effectively on the follower's behalf.

Butler et al. (1999) reported that all transformational leadership behaviours had a positive impact on trust in the leader in self-directed work teams. It is to be expected that the team leader's demonstration of transformational leadership will be positively associated with the team members' trust in the leader. By communicating and role-modelling important values and a shared sense of purpose (i.e. idealised influence), team leaders demonstrate their integrity, competence, and hence trustworthiness. By confidently communicating attractive and attainable goals to the team (i.e. inspirational motivation), leaders motivate and focus team member's efforts on a set of shared goals, which in turn facilitate trust (Bennis & Nanus, 1985; Fairholm, 1994; Sashkin & Fulmer, 1988). The alignment of leader's and team member's goals helps team members to predict their leader's future behaviour and suggests that the leader will act in mutually beneficial ways. By communicating willingness to understand the individual needs and capabilities of followers, and to put effort into developing their individual strengths and serving their needs (i.e. individualised consideration), the

leader demonstrates that he/she values and cares about team members, and hence, can be trusted (Conger et al., 2000; Fairholm, 1994; Jung & Avolio, 2000). As Bass (1985) notes, the more supportive leaders are perceived to be, the deeper and more enduring their followers' trust in them.

Leaders who encourage and teach their team members to approach problems in new ways and critically re-examine assumptions (i.e. intellectual stimulation) are essentially coaching and developing their members. Such behaviour reinforces the leader's commitment to the development of team members, as well as to rigorous scientific thinking in the team, and hence builds trust. Finally, when leaders act in ways that build the respect, pride and confidence of their team members (i.e. attributed charisma), they will be trusted.

There is empirical evidence that indicates that transformational leadership influences organisational citizenship behaviour indirectly, with trust playing a mediating role between these two concepts (Boal & Bryson, 1988; Kouzes & Posner, 1990; Pillai et al., 1999). Leadership effectiveness is believed to depend on the ability to gain the trust of followers (Bennis & Nanus, 1985; Brockner & Siegel, 1996; Robbins et al., 2003). It is believed that one of the key tenets for why followers are motivated by transformational leaders to perform beyond expectations, is that followers trust and respect them (Kouzes & Posner, 1990; Yukl, 2002). Podsakoff et al. (1990) found it surprising that more attention has not been given in empirical research to trust as a mediator of the effects of transformational leadership on other behaviours. Even so, there have been several studies before and after that studied this mediating role of trust between transformational leadership and organisational citizenship behaviour (Boal & Bryson, 1988; Kouzes & Posner, 1990; Pillai et al., 1999), while other research efforts focused on factors facilitating trust (Butler, 1991), together with trustworthiness (Bews, 2000; Engelbrecht & Cloete, 2000; Mayer et al., 1995).

Podsakoff et al. (1990), in a study that examined the indirect and direct effects of transformational leadership on organisational citizenship behaviour, found an indirect relationship that was mediated by followers' trust in their leaders. They found that transformational leadership influenced followers' trust and trust, in turn, influenced organisational citizenship behaviour. Mackenzie et al. (2001), in an empirical study,

also found that trust mediated the relationship between transformational leadership and organisational citizenship behaviour. Pillai et al. (1999) found further support for these findings and reported that transformational leadership has an indirect influence on organisational citizenship behaviour, through trust in the supervisor. The same researchers postulated and found confirmation for a second path from transformational leadership to organisational citizenship behaviour that was mediated firstly by procedural justice and secondly by trust. This result was replicated and confirmed through a study conducted in South Africa by Engelbrecht and Chamberlain (2005).

Based on the arguments and evidence presented above, the following hypothesis was formulated regarding the proposed relationship between transformational leadership and trust.

Hypothesis 20:

H_{20} A positive relationship exists between transformational leadership and trust.

It is evident from the review of literature presented above, that transformational leadership is related to trust (Hypothesis 20) and that trust and organisational citizenship behaviour are also related (Hypothesis 8). From these theoretical arguments, it is postulated that trust exerts a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour. Based on this notion, the following hypothesis was formulated:

Hypothesis 21:

H_{21} Trust exerts a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour.

2.7.11 Leader Emotional Intelligence and Trust

Emotionally intelligent leaders are thought to be happier and more committed to their organisations (Abraham, 1999), achieve greater success (Miller, 1999), perform better in the workplace (Goleman, 1998a, 1998b; Watkin, 2000), take advantage of and use positive emotions to envision major improvements in organisational functioning (George, 2000), and use emotions to improve their decision making and instil a sense of

enthusiasm, trust and co-operation in other employees through interpersonal relationships (George, 2000).

With the models developed by Salovey and Mayer (1990), Mayer and Salovey (1997) and Goleman (1995, 1998a, 1998b) as basis, Barling et al. (2000) proposed that, consistent with the conceptualisation of idealised influence, leaders who are able to understand and manage their emotions and display self-control act as role models for followers, thereby enhancing the followers' trust and respect for the leader. This ability to control emotions experienced at work is integral to effective leadership (Gardner & Stough, 2002). It is thus postulated that emotional intelligence provides the leader with the ability to maintain a positive appearance with subordinates that will instil feelings of security, trust and satisfaction among subordinates and maintain an effective team. These theoretical arguments led to the formulation of the following hypothesis reflecting the notion that leader emotional intelligence is associated with trust:

Hypothesis 22:

H_{22} *A positive relationship exists between leader emotional intelligence and trust.*

The above sections have shown that a leader's emotional intelligence is related to trust (Hypothesis 22) and trust is related to organisational citizenship behaviour (Hypothesis 8). Based on this knowledge, it is postulated that trust exerts a mediating effect between these two constructs. The hypothesis that follows reflects this notion:

Hypothesis 23:

H_{23} *Trust exerts a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.*

Furthermore, based on the relationships described above between 1) leader emotional intelligence and trust (Hypothesis 22); 2) trust and intention to quit (Hypothesis 13); and 3) intention to quit and organisational citizenship behaviour (Hypothesis 11); the above hypothesis can be developed further to reflect that both trust and intention to quit both mediate the relationship between transformational leadership and organisational citizenship behaviour. The following hypothesis was therefore formulated:

Hypothesis 24:

H_{24} Trust and intention to quit exert a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour.

On the basis of the above arguments regarding the relationships between trust and both transformational leadership (Hypothesis 20) and leader emotional intelligence (Hypothesis 22), it can be argued that these two constructs can be used to predict trust as a dependent variable. This belief led to the following hypothesis being formulated:

Hypothesis 25:

H_{25} Transformational leadership and leader emotional intelligence can be used to predict trust.

2.7.12 Transformational Leadership and Meaning

Inspirational motivation, a dimension of transformational leadership, involves the leader's ability to motivate and inspire followers to achieve the organisation's goals (Bass & Avolio, 1994). This is done through symbols and emotional appeals; a meaningful, appealing and inspiring vision; and an optimistic and enthusiastic approach. Transformational leaders further provide meaning and challenge to the work of their followers and try to involve followers in envisioning attractive future outcomes, while also clearly communicating expectations concerning commitment to a shared vision (Bass & Avolio, 1994).

Pratt and Ashforth (2003) asserted that fostering meaningfulness at work may involve the practice of visionary and inspirational leadership. Visionary leadership creates "…a general transcendent ideal that represents shared values" (Kirkpatrick & Locke, 1996, p. 37) and is closely associated with charismatic or transformational leadership (Pratt & Ashforth, 2003). While a vision may include reference to individual roles and thus may be indirectly related to creating meaningfulness in work, it is often articulated as an idealised, future-oriented and organisationally based goal (Conger & Kanungo, 1987). Like culture, ideologies and collective identities, a vision makes membership of a particular organisation special, enriching and meaningful. It creates meaning by appealing to and resonating with members identities (Shamir et al., 1994).

Pratt and Ashforth (2003) suggested that meaningfulness in work may be fostered within organisations by focusing on job redesign, a construct proposed by Hackman & Oldham (1980), and employee involvement (Lawler, Mohrman & Benson, 2001). Job redesign and employee involvement may foster *flow experiences* that dissolve barriers between self and work and allow individuals "…fullest expression of what is best in [them]" (Gardner, Csikszentmihalyi & Damon, 2001, p. 5). Practices like job redesign and job involvement only lead to meaningfulness when employees are given the opportunities and resources to actually perform their work. Pratt and Ashforth (2003) thus suggested that path-goal leadership may enhance these practices by clarifying the link between effort and performance and by removing obstacles to performance (House, 1977). Literature on workplace hassles and frustration (e.g. as shown by Fox & Spector, 1999; Zohar, 1999) suggest that such performance obstacles can erode the meaningfulness of even the most inspiring of jobs.

Organisations that can articulate how work serves a valued purpose can foster a sense of calling (Pratt & Ashforth, 2003). Transformational leadership in particular, by espousing identified goals, values and beliefs through such means as visionary leadership and culture-building, may help employees frame what they do as a special part of the organisation. Emmons (1999) argued that seemingly small tasks can have tremendous personal meaning if they are framed as connecting to something larger.

Based on these theoretical arguments, the following hypothesis describing the relationship between transformational leadership and meaning was formulated:

Hypothesis 26:

H_{26} *A positive relationship exists between transformational leadership and meaning.*

The following two hypotheses were based on the theoretical arguments presented in previous sections regarding the different relationships between 1) transformational leadership and meaning (Hypothesis 26); 2) meaning and intention to quit (Hypothesis 18); and 3) intention to quit and organisational citizenship behaviour (Hypothesis 11).

Hypothesis 27:

H_{27} Meaning exerts a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour.

Hypothesis 28:

H_{28} Meaning and intention to quit exerts a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour.

2.7.13 Leader Emotional Intelligence and Meaning

Organisations that create meaningfulness at work are those that employ practices that build organisational communities (Pratt & Ashforth, 2003). Pratt and Ashforth (2003) have emphasised two general sets of practices that appear to enhance community building: 1) creating family-like dynamics at work, and 2) emphasising a mission focused on goals and values beyond simple profit. Frost, Dutton, Worline, and Wilson (2000, p. 26) described how organisations create an "…emotional ecology where care and human connection are enabled or disabled". This kind of ecology involves recognising that beneath the work roles employees are flesh-and-blood individuals struggling for meaningfulness through personal connection. Leaders may signal a caring orientation by means of different actions, e.g. encouraging trust and openness; demonstrating personalised attention and humour; self-disclosing; displaying inclusiveness and compassion; tolerating honest mistakes; proving instrumental and expressive support; and engaging in social rituals that are either celebratory or commemorative (Frost et al., 2000). These are characteristics and behaviours believed to be associated with leaders that have a high level of emotional intelligence (Goleman, 1998a, 1998b; Mayer, 1995).

Based on these theoretical arguments, the following hypothesis was formulated to describe the linkage between leader emotional intelligence and meaning

Hypothesis 29:

H_{29} A positive relationship exists between leader emotional intelligence and meaning.

The preceding discussion regarding the relationships between these constructs led to the formulation of the following four hypotheses:

Hypothesis 30:

H_{30} Meaning exerts a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 31:

H_{31} Intention to quit exerts a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 32:

H_{32} Meaning and intention to quit exerts a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 33:

H_{33} Transformational leadership and leader emotional intelligence can be used to predict meaning.

2.7.14 Emotional Intelligence and Transformational Leadership

There has been some evidence that emotional intelligence is related to effective leadership in general (Ashforth & Humphrey, 1995; Dulewicz et al., 2003; George, 2000; Goleman, 1995; Goleman, 1998b; Kobe, Reiter-Palmon & Rickers, 2001; Miller, 1999; Watkin, 2000). More specifically, strong arguments and evidence have been presented concerning a positive link between a leaders' emotional intelligence and transformational leadership (Barling et al., 2000; Duckett & Macfarlane, 2003; Gardner & Stough, 2002; Goleman, 1995, 1998a; Goleman, 1998b; Higgs, 2001; Higgs, 2003; Johnson & Indvik, 1999; Leban & Zulauf, 2004; Palmer et al., 2001; Sivanathan & Fekken, 2002; Sosik & Megerian, 1999). According to Bass (2002), the link between emotional intelligence and transformational leadership is based on transformational leaders requiring multiple types of intelligence, concerning which Salovey and Mayer (1990) stressed emotional intelligence as a critical component. According to Goleman, Boyatzis and McKee (2002) an organisation would thrive if a leader resonates energy and enthusiasm; and the organisation would suffer if leaders spread negativity and dissonance. These behaviours are contingent upon the leader driving emotions in the right direction to have a positive impact on earnings or strategy. According to Murphy

(2002), an expansion of leadership research to encompass emotional intelligence provides ways to choose and develop successful leaders.

An exploratory study by Barling et al. (2000) examined the relationship between transformational and transactional leadership and emotional intelligence. These authors suggested that emotional intelligence predispose leaders to use transformational behaviours. Barling et al. (2000) proposed that, consistent with the conceptualisation of idealised influence, leaders who are able to understand and manage their emotions and display self-control act as role models for followers, enhancing the followers' trust and respect for the leader. Sosik and Megerain (1999) similarly suggested that a leader may demonstrate foresight, strong beliefs and consideration of the needs of others to the extent that he/she is self-aware and emotionally intelligence. These traits are required for subordinates to rate leaders as having idealised influence. Barling et al. (2000) secondly, suggest that leaders who are rated highly in the emotional intelligence component of understanding emotions are more likely to accurately perceive the extent to which followers' expectations can be raised, and this is related to the transformational subcomponent of inspirational motivation. The ability to manage emotions and relationships permits the emotionally intelligent leader to understand followers' needs and to react accordingly (this being related to the component of individualised consideration). Barling et al. (2000), in an empirical study of the relationship between the leadership styles and emotional intelligence of 49 managers, found that emotional intelligence related positively to three of the five components of self-reported transformational leadership namely, idealised influence, inspirational motivation and individualised consideration.

Fisher and Ashkanasy (2000) found that transformational leaders possessed high levels of emotional intelligence and that emotional intelligence was related to successful change behaviours, behaviours typically exhibited by transformational leaders. Higgs (2002) and Huy (1999) had also found that emotional intelligence played a significant part in the effectiveness of leadership within contexts of change. Murphy (2002) also identified emotional intelligence exhibited by transformational leaders when involved in particularly stressful situations. Earlier, Bass (1985), had already found that a transformational leader is more effective during times of organisational change and turbulence.

In their experimental evidence for the relationship between emotional intelligence and effective leadership, Palmer et al. (2001) predicated that, because transformational leadership is considered to be more emotion based (involving heightened emotional levels) than transactional leadership (Yammarino and Dubinsky, 1994) there should be a stronger relationship between emotional intelligence and transformational leadership than with transactional leadership. These researchers correlated the subscales of a modified version of the Trait Meta Mood Scale (Salovey et al., 1995) (see Palmer et al. for a description of the modification), which measures the attention, clarity and mood repair dimensions derived from the Salovey and Mayer (1990) model, with the subscales of the multifactor leadership questionnaire (Bass and Avolio, 1995) which measures leadership style. Several significant correlations between transformational leadership and emotional intelligence were observed (Palmer et al., 2001), for instance the ability to monitor and the ability to manage emotions in oneself and others were both significantly correlated with inspirational motivation and individualised consideration. Second, the ability to monitor emotions within oneself and others correlated significantly with the transformational leadership components of idealised attributes and idealised behaviours. Another study in the area involved an analysis of 110 senior managers (Gardner & Stough, 2002). These researchers found that senior managers who regarded themselves as transformational reported higher emotional intelligence. All aspects of emotional intelligence correlated moderately or highly with each transformational leadership dimension. The ability to identify and calculate the emotions of others was the best emotional intelligence predictor of transformational leadership.

Based on these theoretical arguments, the following hypothesis was formulated:

Hypothesis 34:

H_{34} A positive relationship exists between leader emotional intelligence and transformational leadership.

The preceding discussions of the various relationships led to the formulation of the following five hypotheses regarding the mediating roles that are played by some of them:

Hypothesis 35:

H_{35} Transformational leadership exert a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 36:

H_{36} Transformational leadership and trust exert a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 37:

H_{37} Transformational leadership and meaning exert a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 38:

H_{38} Transformational leadership, meaning and intention to quit exert a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

The theoretical arguments and empirical evidence for this model, as discussed here, are summarised in the next section.

2.8 The Proposed Theoretical Model

The preceding discussion of the various constructs and the various relationships that are believed to exist between them, as found in the available literature, led to the construction of an integrated theoretical model that formed the basis of the present study. This model is graphically represented in Figure 2.1 and is the culmination of all the various arguments linking the different constructs.

Several empirical studies have found **a positive relationship between transformational leadership and organisational citizenship behaviour** (Bycio et al., 1995; Chen & Farh, 1999; Ferres et al., 2002; Gerstner & Day, 1997; Koh et al., 1995; MacKenzie et al., 2001; Podsakoff et al., 1996; Podsakoff et al., 1990). This is explained by the fact that transformational leaders by definition are believed to be capable of inspiring followers to extraordinary levels of motivation and performance

(Bass, 1985), and to motivate employees to perform extra-role behaviours (Podsakoff et al., 1990). Organisational citizenship behaviour further requires the subordination of self-interest and Koh, Steers and Terborg (1995) found that transformational leaders often motivate followers to transcend their own self-interests and expend energy on behalf of the group/organisation. Leader consideration and supportiveness, a basic tenet of transformational leadership, was also found to be related to organisational citizenship behaviour (Farh et al., 1990; Organ & Ryan, 1995; Smith et al., 1983; Wayne et al., 1997).

A **positive relationship has been shown between trust and organisational citizenship behaviour** (Debats & Drost, 1995; Deluga, 1994; Engelbrecht & Chamberlain, 2005; Greenburg, 1993; Konovsky & Organ, 1996; Konovsky & Pugh, 1994; Pillai et al., 1999; Podsakoff et al., 1990; Robbins et al., 2003; Settoon et al., 1996; Van Yperen & Van den Berg, 1999; Wagner & Rush, 2000; Wech, 2002). Employees enter into non-contractual exchanges with the organisation and leaders, because they trust them and Robinson and Morrison (1995) were able to show that psychological contract fulfilment, and the maintenance of trust in the relationship, is positively related to organisational citizenship behaviour (Turnley et al., 2003).

Social exchange theory supports the belief that followers develop stronger commitment and satisfaction when leaders treat them with approval, respect, esteem and affection (Hollander, 1979; Jacobs, 1970). A positive mood is associated with helping behaviour (Penner et al., 1997; Salovey et al., 1991) and Spector and Fox (2002) found that a **positive relationship exists between positive emotion and the increased likelihood of organisational citizenship behaviour**. Dansereau et al. (1995) found that leaders are able to affect the performance of their subordinates by supporting their feelings of self-worth. Emotionally intelligent leaders are more likely to practice supportive behaviour and award their followers with psychological benefits, as they are more sensitive to their own feelings and emotions and those of their followers (Wong & Law, 2002). Carmeli (2003) has also found evidence of this **positive relationship between emotional intelligence and positive work attitudes, altruistic behaviour and work outcomes**.

Motivating job characteristics like meaningful work, autonomy and feedback can increase an employees' sense of **meaning**, embeddedness, responsibility and attachment to the organisation (Salancik, 1977) and in doing so, **motivate employees to display proactive and prosocial behaviours such as organisational citizenship behaviour** (Van Dyne et al., 1994). Wrzeniewski et al. (1997) has also found that people with a sense of calling tend to put more time and effort into their work. Wrzeniewski and Dutton (2003) have more recently suggested that individuals use job crafting to structure their work behaviour differently in ways that would help to increase the level of meaning in their work.

Chen et al. (1998), Paré (2001) and MacKenzie et al. (2001) found a significant **negative relationship between intention to quit and organisational citizenship behaviour**. An unwillingness to exhibit extra-role behaviours may be an indication of withdrawal from the organisation and an intention to quit. A **negative relationship also exists between trust and intention to quit** (Albrecht & Travaglione, 2003; Costigan et al., 1998; Cunningham & MacGregor, 2000; Dirks & Ferrin, 2002; Ferres et al., 2004; Ferres et al., 2002; Mishra & Morrisey, 1990; Tan & Tan, 2000). Followers are likely to feel more positive about the manager making decisions that affect them when they believe the leader is trustworthy (Dirks & Ferrin, 2001). Trust in the leadership, organisation and co-workers is associated with higher levels of job satisfaction and organisational commitment, and lower intention of quitting (Dirks & Ferrin, 2001; Ferres et al., 2004).

Transformational leadership is negatively related to intention to quit (Bycio et al., 1995; Connell, Ferres & Travaglione, 2003; Ferres et al., 2002), while transformational leadership is positively related to increased employee satisfaction (Podsakoff et al., 1990), organisational commitment (Bycio et al., 1995), and satisfaction with supervision (Podsakoff et al., 1990), which are constructs found to be negatively related to turnover intentions (Arnold & Feldman, 1982; Bishop et al., 2000; Clegg, 1983; Farkas & Tetrick, 1989; Williams & Hazer, 1986).

Intention to quit is related to other affective job outcomes such as job satisfaction, organisational commitment, and emotional intelligence (Carmeli, 2003; Wong & Law, 2002). This is due to the fact that the ability to apply antecedent- and response-

focused emotion regulation enables leaders to have better relationships with followers. The presence of positive emotional states also leads to positive affection towards the work environment/organisation that should make employees more committed to the organisation and less likely to leave their jobs (Abraham, 1999; Ashkanasy & Hooper, 1999; Goleman, 1998a).

Meaningful work influences various job and organisational attitudes, including motivation and performance (Roberson, 1990) and satisfaction with one's job (Pratt & Ashforth, 2003). Job satisfaction and organisational commitment are important antecedents of **turnover decisions and the intention to quit** (Arnold & Feldman, 1982; Clegg, 1983; Farkas & Tetrick, 1989; Williams & Hazer, 1986). Therefore, if employees find meaning and job satisfaction in the organisation, they most probably would not experience intentions of quitting.

Trust is a central feature of the relationship between transformational leaders and followers (Dirks & Ferrin, 2002; Ferres et al., 2004; Ferres & Travaglione, 2003; Pillai et al., 1999) **and it is through trust and respect for their leader that followers perform beyond expectations** (Bennis & Nanus, 1985; Bryman, 1992; Conger & Kanungo, 1998; House, 1977; Podsakoff et al., 1990; Sashkin, 1988; Shamir et al., 1994; Yukl, 2002). These findings suggest that some transformational leadership behaviours, such as providing an appropriate model, individualised support, and fostering acceptance of group goals, are consistently positively associated with trust in the leader (Butler et al., 1999; MacKenzie et al., 2001; Podsakoff et al., 1996; Podsakoff et al., 1990). Understanding the follower's needs is analogous to identification-based trust, in which the basis of trust is an appreciation of the follower's wants and desires, which enables the leader to act effectively on the follower's behalf. Transformational leaders therefore promote identification-based trust.

Emotionally intelligent leaders use emotions to instil a sense of enthusiasm, trust and co-operation in other employees, through maintaining more effective interpersonal relationships (George, 2000). Barling et al. (2000) and Gardner and Stough (2002) proposed that leaders who are emotionally intelligent are more effective leaders and have the ability to maintain a positive appearance to subordinates, which will instil feelings of security, trust and satisfaction.

Transformational and visionary leadership practices foster meaningfulness at work (Kirkpatrick & Locke, 1996; Pratt & Ashforth, 2003). A vision includes reference to important individual roles and thus may be indirectly related to creating meaningfulness in work (Conger & Kanungo, 1987). The vision further makes membership of an organisation into something that is special, enriching and meaningful by appealing to and resonating with members' identities (Shamir et al., 1994). Organisations that can articulate how work serves a valued purpose can foster a sense of calling (Pratt & Ashforth, 2003). Transformational leaderships in particular, by espousing identified goals, values and beliefs through such means as visionary and inspirational leadership, may help employees frame what they do as a special part of the organisation. Emmons (1999) argued that seemingly small tasks can have tremendous personal meaning if they are framed as connecting to something larger.

The organisations that create meaningfulness at work are those that employ practices that build organisational communities and that emphasise two general sets of practices: 1) creating family-like dynamics at work, and 2) emphasising a mission focused on goals and values beyond simple profit (Pratt & Ashforth, 2003). According to Frost et al. (2000), organisations should create an emotional ecology that promotes a caring climate which recognises that beneath the work roles employees are human beings struggling to find meaningfulness. Leaders with a **high level of emotional intelligence signal this caring orientation** by displaying behaviours characteristic of a high emotional intelligence (Goleman, 1998a; Goleman, 1998b; Mayer, 1995).

Emotional intelligence is positively related to transformational leadership (Barling et al., 2000; Duckett & Macfarlane, 2003; Gardner & Stough, 2002; Goleman, 1995, 1998a; Goleman, 1998b; Higgs, 2001; Higgs, 2003; Johnson & Indvik, 1999; Leban & Zulauf, 2004; Palmer et al., 2001; Sivanathan & Fekken, 2002; Sosik & Megerian, 1999). According to Murphy (2002) an expansion of leadership research to encompass emotional intelligence will provide ways to choose and develop successful leaders. Barling et al. (2000) proposed that, consistent with the definition of idealised influence, emotionally intelligent leaders firstly act as role models for followers, enhance followers' trust and respect for the leader and demonstrate foresight, strong beliefs and consideration for the needs of others. Secondly, leaders that are emotionally intelligent are more likely to accurately perceive the extent to which followers' expectations can be

raised, which is related to inspirational motivation. The emotionally intelligent leader understands followers' needs and reacts accordingly, and this is related to individualised consideration. Barling et al. (2000) found that emotional intelligence was positively related to idealised influence, inspirational motivation, and individualized consideration. Palmer et al. (2001) showed that the ability to monitor and manage emotions in oneself and others were both significantly correlated with the inspirational motivation and individualised consideration and, secondly, that the ability to monitor emotions within oneself and others correlated significantly with idealised attributes and idealised behaviours. In another study, Gardner and Stough (2002) found that all aspects of emotional intelligence correlated moderately or highly with each transformational leadership dimension. Higgs (2002) and Huy (1999) and Fisher and Ashkanasy (2000) found that emotional intelligence is related to successful change behaviours; behaviours typically exhibited by transformational leaders.

These empirical findings and theoretical convictions were integrated into the theoretical model graphically represented in Figure 2.1. The next step in the research process was to test this model empirically and this was stated in the following hypothesis:

Hypothesis 39:

H_{39}. The proposed conceptual model adequately fits the collected data.

2.9 Chapter Summary

The chapter has provided an overview of the literature dealing with the six constructs that were the focus of the present study. Each of the constructs was first defined, then discussed with regard to its conceptual development and its measurement. A measurement instrument for measuring each of the constructs in the present study was proposed. This was followed by a discussion of the various relationships that exist between the various constructs. Hypotheses were formulated to describe the various direct, indirect and mediated relationships between the constructs. Further arguments pointed to the possibly of using several of these constructs as independent variables to predict particular dependent variables. Lastly, the integrated theoretical and conceptual framework or model within which the present study was carried out, was described and proposed.

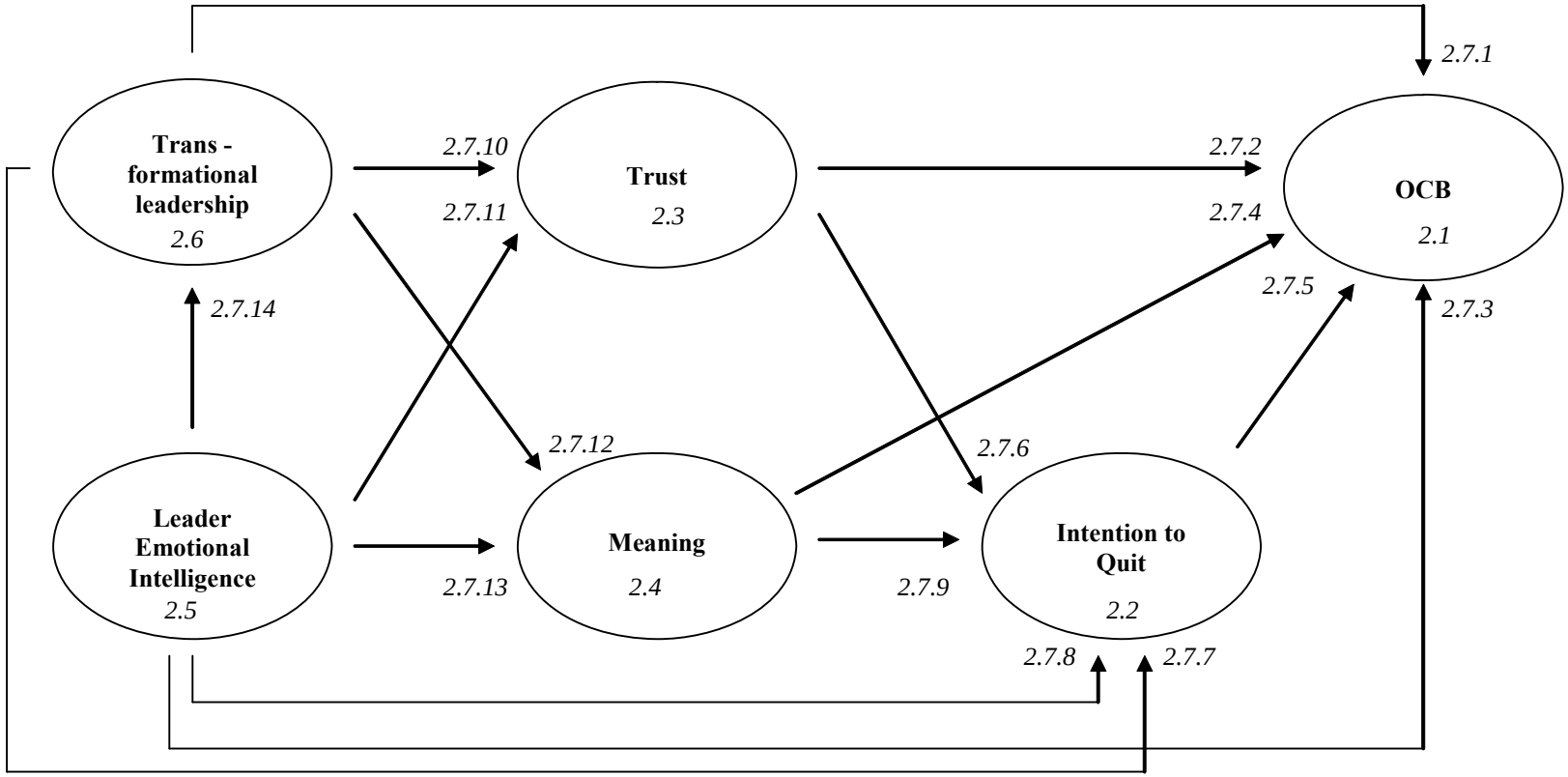


Figure 2.1: The conceptual model showing the postulated relationships between transformational leadership, leader emotional intelligence, trust, meaning, intention to quit and organisational citizenship behaviour. (The relevant headings in the chapter are superimposed onto the model for ease of reference.)

CHAPTER 3

THE RESEARCH METHODOLOGY

3.1 Introduction

Based on identified shortcomings in knowledge and research in the field of organisational psychology, it was decided that the present study should aim to improve the understanding of and gain insight into the organisational citizenship behaviour construct and some of the factors that underlie it. This was done by investigating, within the framework of an integrated model, the influence that five chosen constructs have on organisational citizenship behaviour. The principal aim of the present study was formulated as follows:

> ***To, in South African organisations, design and conduct a scientific investigation that will attempt to determine the relationship between leader emotional intelligence, transformational leadership, trust, meaning and intention to quit, and organisational citizenship behaviour, as well as to determine the role that these five constructs play in influencing organisational citizenship behaviour.***

The aim of the present study, as described above, led to the formulation of the five research questions that were described in Chapter 1. These, in turn, resulted in the formulation of the 39 hypotheses stated in Chapter 2. For ease of reference the hypotheses are presented chronologically in Addendum A and sorted by research question in Addendum B. To test them and to complete this study in such a way that it may reach a meaningful conclusion, decisions had to be made regarding the use of an appropriate research methodology and these will be discussed in this chapter.

Discussion of the chosen research methodology used in an empirical study is necessary in order to establish the reader's confidence in the scope and quality of the procedures that were used. Not providing any indication of the logic that was followed in the implementation of a scientific study may result in the evaluation and interpretation of the research findings as being regarded as highly problematic and suspect (Babbie, 1998).

The chapter consists of the following sections: the research process; methodology and research design; sampling strategy; data collection procedure; measuring instruments used; and a description of the statistical procedures used to analyse the obtained data.

3.2 The Research Process, Methodology and Design

Leedy (1993) describes research as a procedure by which the researcher systematically and with the support of demonstrable fact, attempts to find the answer to a question or the resolution of a research problem. Leedy (1993) further states that research can be viewed as circular in the sense that the researcher seeks facts (i.e. data) which seem pertinent to the solution of the researchable problem from within the research universe (i.e. the environment) that gave rise to the problem that is potentially fact-laden. The collected data is then organised, analysed and interpreted in order to facilitate the solution of the problem. At this step the research cycle is complete and comes to an end. It may, however, be more realistic to view this cyclical process as a helical or spiral concept, as research frequently gives rise to further unexplored problems that then require a repetition of the research cycle to explore their solution (Leedy, 1997). The present study is no different and can be described in these terms.

Research methodology can be viewed as the logic behind implementing scientific methods in the study of reality within the research cycle. Research methodology and design have two basic purposes: 1) to provide answers to research questions and 2) to control the experimental, extraneous and error variance (Mouton, 1996). Research design sets up a framework for the study of the relationships among variables and tells the researcher which observations to make, how to make them and how to analyse the quantitative representations of the observations. Finally, an adequate research design outlines the possible conclusions to be drawn from the statistical analysis (Mouton, 1996).

Bearing these views in mind, the present study followed a process of systematic enquiry into the research problem and was therefore structured in such a way that

- the data could be statistically manipulated to indicate meaningful relationships;

- defensible conclusions could be drawn from relationships, or the absence thereof;
- new or improved understanding of results could be achieved from these conclusions; and
- further avenues of research could be laid bare (Kerlinger & Lee, 2000; Merriam & Simpson, 1984).

The design of the research project is probably the most important part of the research process as it makes it possible to draw valid conclusions from the data (Oppenheim, 1992). Research design makes the research problem researchable by setting up the study in such a way that it will produce specific answers to specific questions (Oppenheim, 1992).

3.2.1 The Chosen Research Design

The research design of the present study is quantitative and of the *ex post facto* variety. It is further, at least partly, cross-sectional. *Ex-post facto* design, which is also known as a non-experimental approach, comprises "…a systematic empirical enquiry 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 & Lee, 2000, p. 379). These authors further stated that "…inferences about relations among variables are made, without direct intervention, from concomitant variation in independent and dependent variables" (Kerlinger & Lee, 2000, p. 379).

The purpose of the *ex-post facto* design is to test empirical validity of the "if x then y" type of statement. With *ex-post facto* design, random assignment or experimental manipulation is not possible and it thus lacks control. In experimental design such manipulation or control of the independent variables is possible. This lack of control that is evident in *ex-post facto* designs could lead to erroneous interpretations that may originate from explanations of complex events (Kerlinger & Lee, 2000). The three major limitations of *ex-post facto* designs are: 1) the inability to manipulate the independent variables, 2) the lack of power to randomise and 3) the risk of improper interpretations. Because of this, Kerlinger and Lee (2000) suggest that clearly formulated hypotheses are required and results should be treated with caution when using *ex-post facto* designs are used.

There is value and merit, however, in the use of ex-post facto designs. This type of research design is a reality in most research within the social science domain, or as is the case in the present study, when conducting research of this nature within organisations, which does not lend itself to experimentation as was the case here (Kerlinger & Lee, 2000). The research design used in the present study was set up in such a way to maximise systematic variance and to control systematic non-relevant variance and error variance as far as possible.

3.2.2 The Chosen Research Methodology

The descriptive survey method, sometimes called the normative survey method, was utilised in the present study. This method is appropriate for data that is derived from observational situations that may lie buried deep within the minds, attitudes or reactions of people (Behr, 1988). In descriptive research, the emphasis is on the accurate description of a specific individual, situation, group, organisation, subculture, etc. The emphasis can also be on the description of the frequency with which a specific characteristic or variable is present in a sample (Mouton & Marais, 1985). The instrument for observing data beyond the physical reach of the observer most often is the questionnaire (Leedy, 1993).

Babbie (1998) suggests that survey research, also called sample surveys, may be used for descriptive, explanatory, and exploratory purposes. Survey research, as used in this study, examines populations by selecting and studying samples chosen from the populations to discover the relative incidence, distribution and interrelation of sociological and psychological variables (Schnetler, Stoker, Dixon, Herbst & Geldenhuys, 1989). Survey researchers are interested in the accurate assessment of the characteristics of whole populations. However, survey researchers only rarely study whole populations; they usually study samples drawn from these populations, as is the case in the present study. Practical considerations exclude the possibility of investigating whole populations. Consequently, the researcher has to rely on the data obtained from a sample of the population (Huysamen, 1994).

The chosen survey methodology has several advantages and disadvantages. The advantages include:

- **Cost:** A sample survey costs less because data is collected from only part of a population.
- **Time:** Results are obtained far more quickly for a sample survey as fewer units are contacted and less data needs to be processed.
- **Response burden:** Fewer people have to respond in the sample.
- **Control**: The smaller scale allows for better monitoring and quality control.

On the other hand, the disadvantages of the survey method include:

- **Sampling variance is non-zero:** The data may not be as precise because the data came from a sample of a population, instead of the total population.
- **Detail:** The sample may not be large enough to produce information about small population sub-groups or small geographical areas.

It was however felt that the advantages do outweigh the disadvantages and is was believed that this methodology would, given the situational constraints, be appropriate for the aims and objectives of the present study.

The data obtained from the survey methodology was studied in such a way that the relationships that were found between the chosen variables could be uncovered. As Kerlinger and Lee (2000, p81) put it, "Relations are the essence of knowledge. What is important in science is not knowledge of particulars, but knowledge of the relations among phenomena." The search for these relations formed the focus of the present study.

3.3 The Sample

This section describes the sampling strategy, the data collection procedure and the sample profile.

3.3.1 The Sampling Strategy

A distinction is made between: *probability samples* (e.g. random samples, stratified samples, systematic samples and cluster samples) and *non-probability samples* (e.g. accidental samples, purposive samples, quota samples, snowball samples and

convenience samples) (Emory & Cooper, 1991). Probability sampling refers to the probability that every element in the population is given a known non-zero chance of selection and may thus be included in the sample (Oppenheim, 1992). Although this is the ultimate in sampling, this kind of sampling method is not always practical or even attainable in social research. Non-probability sampling, which is non-random, is therefore often used as the more practical alternative.

Non-probability sampling or quota sampling was used in the present study and therefore it cannot claim to have sampled a representative subset of people working in South African organisations. This is due to the fact that the present study relied on accidental choice and the use of a convenient sample (Kerlinger & Lee, 2000).

3.3.2 The Data Collection Procedure

An on-line composite questionnaire was used to measure leader emotional intelligence, transformational leadership, trust, meaning in work, organisational citizenship behaviour, intention to quit and certain demographic variables. The on-line survey was sent to approximately 8000 people. The exact figure is not known and is a limitation of the present study. The exact response rate can also therefore not be determined.

Respondents were asked to assess: 1) the emotional intelligence and leadership style of their supervisor/line-manager, 2) their own trust, meaning and intention to quit levels, and 3) the organisational citizenship behaviour of their co-workers who reported to the same line-manager/supervisor as they did. This procedure was followed specifically to try to reduce the impact of mono-rater bias and social desirability that plagues such studies (Kerlinger & Lee, 2000). The electronic questionnaire was designed in such a way that only one answer could be given per item and that all items had to be answered before the respondent could proceed to the next subscale. The only responses that were used were those from respondents who had completed all the subscales fully.

An e-mail request was sent out to approximately 6500 employees of 76 media companies in South Africa. These media companies include, inter alia: electronic media (content websites, pay television channels, an international internet service provider), printed media (magazines and newspapers), printing presses (newspaper and magazine), publishers, and retail bookstores. A second e-mail was sent to the member database of a

people management institute that represents approximately 1500 members from a wide spectrum of South African organisations.

The e-mail that was sent out consisted of a request to participate in the study and a link to the on-line questionnaire (described above) that was developed and kept on the University of Stellenbosch's web server. This request was followed by two follow-up e-mails. When respondents clicked on the link, it opened the web form of the questionnaire so that the required fields could be completed. The raw data was collected from the web questionnaire into a Microsoft Access database. Various query tables were developed for the Microsoft Access database to extract the data in Microsoft Excel format. These Microsoft Excel spreadsheets containing the raw data were then used as input for the two statistical programmes that were used to do the statistical analysis with. The statistical programmes used were SPSS (version 13) and LISREL (version 8.53).

The advantages of using such a web-based survey data collection methodology can be summarised as follows:

- **Speed:** Web surveys can be conducted much more quickly than mail surveys, which take several weeks for returns to come in. Data entry time is negligible, as the respondent in effect does that him/herself as they fill in the survey.
- **Data-entry accuracy:** Data entry errors (on the part of the researcher) are non-existent.
- **Security**: Using a secure server security is not an issue. Anyone who attempts to intercept a transmission made to a secure server will not be able to understand the information they see, as it is encoded. With written surveys, respondents may question whether their handwriting will give a clue to their identities.
- **Control.** Internet surveys enable much more control than do paper surveys. A few examples of this include: algorithms can be written to ensure that in answering an item, no item can be have more than one answer; through the use of cookies, people can be prevented from taking a survey multiple times; a section can be programmed that all the items in that section must be answered

before the next section can be attempted (which ensures that there is no missing data).

- **Cost:** For medium to large size surveys, Web surveys will have a cost advantage over telephone and mail.
- **Ability to gather complex data:** It is possible to gather relatively large amounts of data quickly and effortlessly.

These advantages were used to motivate the use of this web-based methodology over the more traditional paper and pencil format of conducting sample surveys.

3.3.3 The Sample Profile

The above sampling strategy was followed and a total of 496 responses to the composite questionnaire were received and used for the purposes of the present study. Due to the data collection methodology that was utilised (as described above) there were no missing values in these responses.

The sample consisted of 272 females and 224 males. The average age of respondents in the sample was 37.73 years (SD = 9.62). The race distribution in the sample was: African (n = 12), Asian (n = 8), Coloured (n = 62), Indian (n = 12) and White (n = 402) (i.e. there were 94 non-white and 402 white respondents). Concerning the highest level of qualification; four respondents had fewer than 12 years of schooling, 112 had 12 years of schooling, 227 had a diploma or first degree and 153 had post-graduate degrees. The job levels comprised: 234 non-managerial, 86 lower level management, 130 middle level management, and 46 upper level management positions. The average numbers of years of work experience was 8.44 years (SD = 9.45) and the mean years' of working under the current supervisor/line manager was found to be 2.42 (SD = 2.64). The respondents worked in the following sectors of the South African economy: Agriculture (n = 2); Chemical Industries (n = 2); Construction (n = 4); Education, Training and Development Practices (n = 22); Energy (n = 4); Financial and Accounting Services (n = 16); Food and Beverages (n = 8); Health and Welfare (n = 2); Information Systems, Electronics and Telecommunication Technologies (n = 44); Insurance (n = 8); Local Government, Water and Related Services (n = 2); Manufacturing, Engineering and Related Services (n = 4); Media, Advertising, Publishing and Printing (n = 342);

Mining (n = 2); Public Service (n = 4); Tourism, Hospitality & Sports (n = 4); Transport (n = 4); and Wholesale and Retail (n = 22).

Two subsamples where created to enable double cross-validation. These two groups were derived from the complete data set (n_t = 496) by random division using the appropriate SPSS commands and procedure. These random subsamples, namely "subsample 1" (n_1 = 248) and "subsample 2" (n_2 = 248), henceforth referred to as subsample A and subsample B, respectively, were found to be comparable to one another as no significant differences between them could be detected with the use of the Pearson Chi-square test and Levene's test for equality of variances. The characteristics of the sample, as well as the two subsamples, are summarised in Table 3.1.

Table 3.1: Gender, Ethnicity, Highest Level of Qualification, Job Level in the Organisation, and Age Demographics across the Sample and the Two Subsamples

Demographic Variables	Total Sample (n_t=496) N	% in Sample	Subsample A (n_1=248) n	% in Group	Subsample B (n_2=248) n	% in Group	Pearson Chi-Square
Gender							
Male	224	45.16%	115	46.37%	109	43.95%	0.293, p=.588 df=1
Female	272	54.84%	133	53.62%	139	56.05%	
Ethnicity							
Non-White	94	18.95%	45	18.15%	49	19.75%	1.739, p=.784 df=4
White	402	81.05%	203	81.85%	199	80.24%	
Highest level of Qualification							
Less than 12 years schooling	4	0.81%	3	1.21%	1	0.40%	2.010, p=.570 df=3
12 years of schooling	112	22.58%	60	24.19%	52	20.97%	
Diploma/Degree	227	45.77%	109	43.95%	118	47.58%	
Post-grad Degree	153	30.85%	76	30.24%	77	31.05%	
Job level in organisation							
Non-managerial	234	47.18%	121	48.79%	113	45.56%	5.052, p=.168 df=3
Lower Level Management	86	17.34%	37	14.92%	49	19.76%	
Middle level Management.	130	26.21%	68	27.42%	62	25.00%	
Upper level Management.	46	9.27%	22	8.87%	24	9.68%	

Age

	N	Mean	Std dev.	Std. Error mean
Subsample A	248	38.59	9.68	0.615
Subsample B	248	36.87	9.49	0.603

Levene's Test for Equality of Variances: F=0.000, Sig. = 0.987

Table 3.1 indicates that slightly more females than males completed the questionnaire, although the difference seems marginal. It is apparent that the white population formed

the largest part of the sample. Of the other race groupings, the coloured community made up the largest proportion within the non-white group. This is most probably due to the fact that most of the respondents were from the Western Cape region. Demographically, this region is home to the largest coloured community in South Africa. The single largest group of individuals that responded to the questionnaire had some form of tertiary education and a large portion of this group had a further postgraduate qualification. Only four people in the sample had fewer than 12 years of schooling. This creates the impression that this was a relatively sophisticated and well-educated sample.

This situation can possibly be ascribed to the fact that the sample was drawn from predominantly printed and electronic media organisations that sells services, information, technology and knowledge and can, therefore, be classed as operating within the knowledge economy. The fact that the data collection was done electronically could also have contributed to this situation. Slightly more than half of the respondents are working in management positions. Again, this may be due to the sampling procedure and could also be related to the relatively high qualification levels of the respondents.

In considering the average age of the respondents, the average years of work experience and the number of years of working under the current supervisor/line manager, one is led to believe that the respondents knew the organisations and their supervisors relatively well and therefore could have been in a position to complete the questionnaire with some confidence and insight.

3.4 The Measuring Instruments

The on-line self-administered composite questionnaire containing measures of leader emotional intelligence, transformational leadership, trust, meaning, organisational citizenship behaviour, intention to quit and certain demographic variables, was compiled with reference to existing credible questionnaires that are known to be valid and reliable. The questionnaire was compiled in English, as it is the language of business and the most common language in daily use in the relevant companies from which the sample was drawn. In Chapter 2, various measuring instruments that are available to assess the six constructs were discussed. The following measurement

instruments were chosen from these to measure or quantify the constructs under investigation:

3.4.1 Organisational Citizenship Behaviour

Organisational citizenship behaviour was measured by means of the latest version of the Organ organisational citizenship behaviour scale developed by Konovsky and Organ (1996). This scale consists of 32 items or statements to which the respondent needs to react to on a 5-point Likert-type response scale. The measure consists of items that were taken largely from the measurement instruments developed by Podsakoff et al. (1994) and MacKenzie et al. (1991). It was designed to measure Organ's (1988) five dimensions of OCB, thus: 1) courtesy, 2) civic virtue, 3) conscientiousness, 4) altruism and 5) sportsmanship.

Various studies that have made use of this measure of organisational citizenship behaviour include those by Niehoff and Moorman (1993), Moorman et al. (1993) and Moorman (1991).

The present study made use of a slightly modified version of the measure. Each of the items was reworded so that it would refer to a co-worker, and not to the respondent (i.e. him/herself) as is the case in the original scale. The respondents were directed to think of a fellow co-worker who reported to the same line manager or supervisor and to indicate the degree to which each of the statements characterised that individual. This was done to counter the effect of social desirably that is often found when people are asked to report on their own performance and effort.

3.4.2 Intention to Quit

Cohen (1993) proposed a three-item scale that measures a subject's intention to leave an organisation. The three items of the scale are:

1) I think a lot about leaving the organisation,
2) I am actively searching for an alternative to the organisation, and
3) When I can, I will leave the organisation (Cohen, 1993).

The respondent needed to react to these three statements on a seven-point Likert-type response scale, which varied from “Strongly Disagree” (1) to “Strongly Agree” (7). This measure has been used in a South African study by Boshoff et al. (2002).

3.4.3 Trust

Trust was measured by means of the *Workplace Trust Survey (WTS)* that was developed and validated by Ferres and Travaglione (2003). This 36-item instrument is based on a conceptualisation of trust that consists of three dimensions and is constructed to assess these dimensions at three levels. These dimensions are 1) trust in the organisation, 2) trust in co-workers, and 3) trust in leader (or supervisor/line manager).

The items were constructed by means of a qualitative investigation (Ferres, 2002) and a review of the available literature (e.g. Albrecht and Sevastos, 1999; Cook and Wall, 1980; McAllister, 1995; Rotter, 1971, 1980). The qualitative phase consisted of four focus groups, each divided into management and non-management groups (Ferres & Travaglione, 2003). Focus group narratives and content analysis were conducted and “trust themes” that were divided into items measuring trust at the organisational, managerial and co-worker levels were obtained from the transcribed discussions. The obtained themes were then translated into items, which were screened for content validity by way of an expert panel (Ferres & Travaglione, 2003).

Support for the internal reliability, construct validity, partial known-instrument validity and divergent/convergent validity of the three emergent WTS factors (i.e. 1) Trust in Organisation, 2) Trust in Co-workers, and 3) Trust in Immediate Manager) was obtained (Ferres & Travaglione, 2003). Related to this analysis was the finding that each emergent WTS factor was positively correlated to transformational leadership, perceived organisational support, and affective commitment, yet negatively correlated to turnover intention (Ferres & Travaglione, 2003). Ferres and Travaglione (2003) further included five items that measure trust as a personality trait, which originated from the NEO-PI and which is believed to be a reliable measurement of dispositional trust (Costa & McRae, 1992). The trust subscale developed for Costa and McRae’s (1992) NEO-PI is thought to reliably measure propensity to trust (Young & Schinka, 2001). The alpha reliability of the original NEO subscale was .90 (Costa & McCrae, 1985). Dispositional trust, included as a control variable, had a significant but small

correlation with the WTS factors. Demographic variables (age, gender, tenure, position level) also had a negligible impact on trust scores (Ferres & Travaglione, 2003).

The WTS was subjected to further psychometric evaluation through recent research in Australia and South Africa (Ferres et al., 2004). In these studies, the Cronbach alpha coefficients ranged between .90 and .97 (Van Wyk, personal communication September 2002) and thus were satisfactory (trust in the organisation = .97; trust in co-workers = .94; and trust in supervisors = .90). In the standardisation sample these three factors explained 59.47 percent of the variance in the data (trust in the organisation = 48.58%, trust in co-workers = 5.41%, and trust in supervisor = 5.48%). The present study made use of a 29-item version of the WTS received from the authors.

3.4.4 Transformational Leadership

Transformational leadership was measured by using an adapted version of the Multifactor Leadership Questionnaire (MLQ) (Engelbrecht & Chamberlain, 2005; Krafft et al., 2004). This adapted questionnaire is based on Bass' (1985) original model of leadership and the later revised models of leadership by Bass and Avolio (1994). Pillai et al. (1999) have identified the MLQ as the most widely used measurement of transformational leadership and Bass (1997) had also cited an extensive range of studies from almost every sector and every continent to support the reliability and validity of the original questionnaire.

The MLQ relies on a multi-rater scale that allows leaders to report on themselves or other employees to report on their leader. The scale has three subscales for 1) transactional, 2) transformational and 3) laissez-faire leadership. Only items relevant to transformational leadership were chosen for the composite questionnaire employed in the present study. This decision was based on the theoretical model that was built from the literature review as described in Chapter 2. The present study focuses on transformational leadership and its proposed role in organisational citizenship behaviour and the other related constructs.

Transformational leadership is assessed via four subscales, 1) Idealised Influence, 2), Inspirational Motivation, 3) Intellectual Stimulation, and 4) Individualised Consideration. Bass and Avolio (1995) reported a Cronbach alpha of .89 for the MLQ,

and .87 for the short form of the MLQ. In earlier studies, Cronbach alpha coefficients of .93 for idealised influence, .72 for inspirational motivation, .81 for intellectual stimulation and .75 for individualised consideration have been found for the transformational subscales (Den Hartog et al., 1997). Lowe et al. (1996) reported similar Cronbach alpha coefficients for these dimensions. In the South African context, two recent studies have used the MLQ as a measure of transformational leadership. Krafft et al. (2004) reported Cronbach alpha coefficients of .84 for idealised influence, .80 for inspirational motivation, .72 for intellectual stimulation and .77 for individualised consideration. Engelbrecht and Chamberlain (2005) reported the following Cronbach alpha coefficients .94 for idealised influence, .92 for inspirational motivation, .92 for intellectual stimulation and .92 for individualised consideration.

3.4.5 Leader Emotional Intelligence

Emotional intelligence was measured in the present study by using the original 40-item instrument developed by Rahim and Minors (personal communication, April 2001), the Emotional Intelligence Index (EQI). The scale was developed to assess Goleman's (1995) five dimensions of emotional intelligence, namely, 1) Self-awareness, 2) Self-regulation, 3) Self-motivation, 4) Empathy, and 5) Social skills.

Respondents had to react to the 40 statements on a seven-point response scale (ranging from 1= "strongly disagree" to 7= "strongly agree") to measure emotional intelligence in the supervisor/line manager as perceived by the respondent. Rahim and Minors (personal communication, 2002), after conducting an EFA (utilising principal component analysis and Varimax rotation), presented a five-factor solution (the same five Goleman (1995) factors were found) for a 35-item version of this scale at the 10th Annual ICAM conference in Boston. These five factors explained 67.70 percent of the variance in their data: 1) Self-motivation = 16.10% (eigenvalue = 18.43), 2) Empathy = 10.60% (eigenvalue = 4.25), 3) Social skills = 4.40% (eigenvalue = 1.76), 4) Self-regulation = 3.60% (eigenvalue = 3.60), 5) Self-awareness = 3.00% (eigenvalue = 1.19). Rahim and Minors reported Cronbach alphas for the sub-dimensions ranging from .62 to .98 for the six countries where the research was conducted.

3.4.6 Meaning

Meaning was measured with Battista and Almond's (1973) Life Regard Index (LRI), a measure that assesses the degree to which meaning in life is sought and achieved. This instrument is based on the concept of meaning in life as described by Frankl (1984, 1992) and was developed by Battista and Almond (1973) in an attempt to provide a simple, valid and reliable measure of meaning in life. Battista and Almond (1973) stated that a "positive life regard" refers to an individual's belief that he/she is fulfilling a meaningful life.

The LRI measure is composed of 28 items, each responded to on a five-point Likert-type scale, and is divided into two subscales: 1) Framework and 2) Fulfilment. The Framework subscale (FR) measures the extent to which an individual sees his/her life in some perspective or within a context and has derived a set of goals for life, a purpose in life, or life view from this. The Fulfilment subscale (FU) measures the degree to which an individual sees himself/herself as having attained or as being in the process of attaining this framework or life goals. Each subscale consists of 14 items, seven phrased positively and seven phrased negatively to control for response set. The sum of these two scales comprises the Life Regard Index (LRI) (Battista & Almond, 1973). It is important to realise that this scale does not distinguish where meaning is derived from i.e. distinguish between meaning in life and meaning in work, but rather assesses a level of general meaning experienced by the respondent.

In terms of the construct validity of the instrument, Battista and Almond (1973) reported that the LRI correlated .62 with self-esteem as measured by the Rosenberg Self-Esteem Scale. Furthermore, the scores on the index related in predicted ways to a variety of criteria, including observer ratings of the meaningfulness of an individual's life, openness and defensiveness, number and duration of psychiatric consultations, family background and work measures, environmental fit and goals (Battista & Almond, 1973). Battista and Almond (1973) also investigated the discriminant validity of the LRI. A structured interview was conducted with some of the subjects of the study; the 14 subjects with the highest total life regard scores, whose FR and FU scores were at least 1.5 standard deviations greater than the mean and whose social desirability scores were < 1.5 standard deviation from the mean were selected. In similar fashion, the 16 subjects with the lowest total life regard scores were selected. A structured

interview was then conducted with each of these subjects on his or her life goals and satisfaction with life. The subjects did not know why they were interviewed and the interviewer did not know whether they came from a positive or negative life regard group. By utilising this technique, the interviewer was able to correctly identify 14/14 of the high meaning in life group, and 14/16 of the low meaning in life group ($p < .001$), thereby proving the discriminant validity of the LRI, as well as the ability to discriminate between high and low scorers on purpose in life (Battista & Almond, 1973).

To evaluate the reliability of the Life Regard Index, Battista and Almond (1973) studied the test-retest reliability of the LRI. The test-retest reliability of the Life Regard Index was extremely high: .94 (Battista & Almond, 1973). Several studies have attested to the satisfactory psychometric properties of the LRI (Battista & Almond, 1973; Chamberlain & Zika, 1988; Debats, 1999; Debats et al. 1993; Debats & Drost, 1995). All of these studies also recommended the use of the LRI in further research on the subject of meaning in life. In the South African context, this measure was used in a study conducted by De Klerk (2001).

3.4.7 Demographic data

This section of the questionnaire consisted of questions regarding the following variables:

- Gender
- Age
- Ethnic group
- Length of service in the organisation
- Period of time working under the current supervisor / line manager
- Highest qualification
- Job Level in the organisation
- Functional role in which the respondent primarily operates
- Industry or services sector in which the respondent primarily operates

3.5 Uncontrolled Variables

Uncontrolled variables are 'free-floating' variables and can theoretically be of two kinds: 1) confounding and 2) error variables (Oppenheim, 1992). Confounding variables, sometimes called '*correlated biases'*, have hidden influences of unknown size on the results. Essentially, this means that knowledge and understanding of the phenomena under investigation is still incomplete in important ways as there are variables other than the experimental and controlled ones, but compounded with them, that can affect the results and hence produce serious misinterpretations (Mouton, 1998).

Inevitably, any research can also suffer from error. There are probably many moderating variables that affect the relationships between the variables under investigation in the present study, e.g. the economy; government regulation, the existence of competitors. These are acknowledged and believed to be present in this study, as is the case in studies of this nature.

Another major source of error variance is the current shortcomings or error factor in measurement scales designed to assess organisational behaviour constructs. This study made an attempt to limit this kind of error by using a methodology that included Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). This will be discussed in the next section.

3.6 The Statistical Analysis and Procedure that was followed

Once all the raw data had been obtained for the six constructs and their underlying dimensions, it was possible to proceed with the statistical analysis. The various statistical methods were chosen on the basis of the five research questions that had been formulated for the present study. According to Cohen's statistical power tables (Cohen 1988) the size of the sample (n_f=496) was regarded as adequate. There was therefore no need for any statistical manipulations to rectify or compensate for a small sample (Kerlinger & Lee, 2000).

3.6.1 Statistical Analysis and Procedure Followed to Answer Research Question 1

The dimensionality and factorial or configurational validity of each instrument was first tested within the context of the present study, i.e. the South African business context. This was done because all the measuring instruments had originally been developed in

other countries and in cultures different from the one used in the present study. It was decided to do this by subjecting each of the measurement scales to Exploratory and then Confirmatory Factor Analysis in a double cross-validation procedure. Exploratory Factor Analysis is used to explore the interrelationships among a set of variables, while Confirmatory Factor Analysis is a more complex set of techniques used to test or confirm the underlying structure of a set of variables (Tabachnick & Fidell, 2001).

Studies that confirm the existence of the various dimensions of the constructs have traditionally used either Exploratory or Confirmatory Factory Analysis. These methods are useful for determining the factor structure for a current sample, but do not have the rigour to generalise the measurement model beyond that particular sample. An approach that improves on this practice is the application of a *double cross-validation* procedure that tests the measurement model across two or more groups. This is preferably conducted with data derived from two or more samples from, for instance different organisations. However, in the absence of such data, a useful alternative is to randomly split a single large sample into two equal subsamples, 1) a calibration sample and 2) a validation sample, and then to conduct the analyses. This split sample approach is the most basic form of cross-validation analysis (Diamantopoulos & Siguaw, 2000). This procedure is then reversed to do a double cross-validation. A further description of this procedure follows below.

3.6.1.1 Exploratory Factor Analysis (EFA)

Exploratory Factor Analysis (EFA), using the Statistical Package for the Social Sciences (SPSS) (version 13) program, was used to uncover the underlying latent variables within the data obtained from the sample.

The Principal-Axis factoring extraction method employing Direct Oblimin rotation was used to conduct the Factor Analysis. It was decided to use this extraction method over the more traditionally used Principal Components method with Varimax rotation, because: 1) inter-correlations between the factors were expected to exist and 2) it is more rigorous than the Principal Components extraction method with Varimax rotation. This is in accordance with the recommendations of Fabrigar, Wegner, MacCallum and Strahan (1999). They suggest that, because most constructs in psychology are related, Principal-Axis factoring employing Direct Oblimin rotation is more appropriate in

psychological research. Further, if an orthogonal solution is the most appropriate, the oblique rotation will effectively correspond to an orthogonal solution (Fabrigar et al., 1999). Principal-Axis factoring employing Direct Oblimin rotation provides a more realistic factor solution, while Principal Component and Varimax rotation methods spuriously yield higher factor loadings (Gorsuch, 1997). Gorsuch (1997, p. 549) had the following to say about the use of rotation methods:

> It follows that it is critical to note that simple structure bias against a general factor requires an unrestricted rotation to allow compensation for the bias. Restricting the rotation to uncorrelated factors, as Varimax does, precludes any general factor. Varimax is the worst method for item analysis because there is no way to overcome the simple structure bias, a bias that is present when the items come from the same domain (e.g. are all ability items, motivational items, or depression items). It should be noted that non-restricted solutions – such as Direct Oblimin or Promax – will give uncorrelated factors when that provides a reasonable solution.

Prior to performing the EFA, the suitability of the data for factor analysis was assessed. The factorability of the data was determined with the use of the Keiser-Meyer-Olkin (KMO) measure of sampling adequacy. The KMO index ranges from 0 to 1, with .6 suggested as the minimum value for a good factor analysis (Tabachnick & Fidell, 2001). When this requirement was achieved, the EFA process could proceed.

Factors that had eigenvalues greater than one and "clear breaks" on the Scree-plot were considered to be the indication of the number of meaningful factors. After determining the number of factors, the factor loadings in the rotated matrix were studied. An item was selected if it had a loading ≥.30 on a factor and was deemed to cross-load across factors if the loadings differed by ≤.25. Items that did not comply with the inclusion criteria were rejected. The EFA was then repeated until no "problematic" items remained on any factor and a so-called "clean" factor structure was obtained according to the aforementioned evaluative procedure. To appraise the size of the factor loadings Comrey and Lee (cited in Tabachnick & Fidell, 2001) suggest as a rule of thumb that loadings in excess of .71 (50% overlapping variance) are considered excellent, .63 (40%

overlapping variance) very good, .55 (30% overlapping variance) good, .45 (20% overlapping variance) fair, .32 (10% overlapping variance) poor.

Factors are considered to reflect underlying processes that have created the correlations among variables (Tabachnick & Fidell, 2001). After studying the items in each factor for this study, they were characterised by assigning them an appropriate name or a label. These factor names attempt to epitomize the essence of the factors. According to Kerlinger and Lee (2000), anything that introduces correlation between variables can create or produce factors and they name several examples of the many things that can do this, which includes: differences in sex, education, social and cultural background. Factors do emerge repeatedly with different tests, different samples and different conditions and when this happens, one has a fair assurance that there is an underlying variable that is being measured successfully (Kerlinger & Lee, 2000). Factor Analysis is thus "…conceived of as a construct validity tool" (Kerlinger & Lee, 2000, p. 856).

3.6.1.2 Confirmatory Factor Analysis (CFA)

The factor structure as obtained by the author/s or developer/s of the scale was first imposed on the data of the total sample (n_t=496) using LISREL (version 8.53) to carry out Confirmatory Factor Analysis (CFA). The fit between the original factorial configuration or measurement model and the data collected from the sample in the present study was therefore investigated. The maximum likelihood (ML) method was used to estimate the model.

Secondly, the factor structures obtained by the EFA were imposed on the data using CFA. This process of doing an EFA and then a CFA was first carried out on the total sample (n_t=496), and then repeated with each of the two randomly derived subsamples (n_1=248 and n_2=248). Following this, Confirmatory Factor Analysis was done to test the measurement model as derived from subsample A, using the data from subsample B and vice versa, i.e. CFA that subjected the model derived from subsample B to the data of subsample A. This was done to complete the double-cross validation procedure. Six CFA's were thus done for each derived measurement scale. The fit indices obtained for each of these measurement models were then compared with one another and the "rules of thumb" to determine numerically which provided the best "fit" for the data (see the section on assessment of model fit below for more detail on the way in which fit indices

were dealt with). It was thought that this procedure would give an indication of the measurement model's stability or robustness, as well as construct validity.

3.6.1.3 Determining the Appropriate Measurement Model

To determine the most appropriate measurement model within the context of the present study, two sets of results from the respective questionnaires were compared with one another. First the results from the CFA were used to compare the fit of the original measurement model and the EFA-derived measurement model on the obtained data. The overall goodness-of-fit indices were calculated on the basis of these two measurement models and were numerically compared with one another and with the guidelines for goodness-of-fit measures described below.

Secondly, the Cronbach alpha coefficients were determined for the scale and subscale scores of the original measurement model and the EFA-derived measurement model to examine the differences in the internal stability of the latent variables in the various measurement models. The Cronbach alpha coefficient ideally should be above .70 (Tabachnick & Fidell, 2001). The assumption was that the measurement model that achieves a numerically higher Cronbach alpha coefficient would be the more reliable one of the two. This was based on the fact that the measurement models measure the same construct, and the data is furthermore derived from the same sample. These two results could thus together be used to determine whether support for Hypotheses 1 to 6 could be assumed or not.

3.6.1.4 EFA and CFA vs. Item Analysis

With item analysis, one normally assumes that the factorial configuration remains the same across populations and the original measurement model is tested as proposed by the authors in terms of its suitability to the new sample. It therefore only serves as a confirmatory process.

It was decided that the methodology described above would be superior to item-analysis. This was based on the fact that the sample used in the present study differed substantially (in terms of culture, language, demographics, etc.) from the sample on which the original measurement models had been developed and standardised. Due to the differences it could not be assumed that the factorial configuration would

necessarily be replicated and that the items would necessarily load on the same factors for the sample used in the present study as was the case in the original study. In other words, metric equivalence could not be assumed. For that reason it was decided to first conduct Exploratory Factor Analysis to see if the factorial configuration could be replicated. This EFA-derived factor structure was then assessed using Confirmatory Factor Analysis in the manner described above.

3.6.2 Statistical Analysis and Procedure Followed to Answer Research Questions 2 and 3

Research questions 2 and 3 respectively were concerned with the direct and indirect relationships between the constructs. Pearson's Product Moment Correlation Coefficients were computed to measure the extent of the direct (i.e. bivariate) association between the various constructs and the underlying dimensions. The Coefficients of Determination (100 x r^2) derived from the correlation coefficients were also calculated when the Correlation Coefficient was found to be significant. The Coefficients of Determination indicate the percentage common variance between the different variables that correlate with one another (Tabachnick & Fidell, 2001). To assess the mediating relationships (i.e. the role of mediating variables), Path Analysis was used.

The relationships were interpreted in terms of the actual size of Pearson's r and the amount of shared variance between the variables. The correlation coefficients were further evaluated in terms of their effect size or practical significance, rather than their statistical significance (Cohen, 1988). Effect sizes were used for several reasons. The first of these are that inferential statistics cannot be used because the study population could not be regarded as a probability sample (Steyn, 1999). Correlations of .20 and below may further be statistically significant, but would be very limited in terms of practical significance or relevance, according to Guilford (cited in Tredoux & Durrheim, 2002). Furthermore, these small significant correlations are often due to large sample sizes (i.e. n=100+) or the presence of mono-method bias and most probably are not true reflections of the relationships in the data (Tabachnick & Fidell, 2001). For this reason a cut-off point of .30, which is described as a medium effect by Cohen (1988), was set for the practical significance of correlations coefficients (Steyn, 1999). This is slightly higher than the .20 proposed by Guilford (cited in Tredoux & Durrheim, 2002),

but it was felt that it would be better to err on the stricter size when determining practical significance.

The convention proposed by Guilford (cited in Tredoux & Durrheim, 2002) was further used to interpret sample correlation coefficients. Guilford (cited in Tredoux & Durrheim, 2002, p. 194) proposes the following values for interpretation of correlation coefficients:

Less than .20	Slight, almost negligible relationship;
.20 - .40	Low correlation: definite but small relationship;
.40 - .70	Moderate correlation: substantial relationship;
.70 - .90	High correlation: marked relationship; and
.90 - 1.0	Very high correlation: very dependable relationship.

For the purposes of the present study, the .30 cut-off point and the above value interpretation was therefore used to evaluate the obtained correlation coefficients. The first two levels of the above guideline are thus adapted as follows: Less than .30 = Not practically significant; and .30 - .40 = Low correlation: definite but small relationship.

Although somewhat arbitrary, and although it ignores the normative question about the magnitude of values typically encountered in a particular context, these guidelines nonetheless fosters consistency in interpretation.

3.6.3 Statistical Analysis and Procedure Followed to Answer Research Question 4

Standard Multiple Regression Analyses were conducted in order to predict the levels of the identified dependent variable (i.e. organisational citizenship behaviour) by means of different independent variables. The unique contribution of each independent variable to the prediction of the dependant variable can be determined using this method. It was decided to use standard multiple regression whereby predictors are simultaneously put into the equation. In standard multiple regression, all independent variables enter into the regression equation at once, each one is assessed as if it had entered the regression after all other independent variables had entered (Tabachnick & Fidell, 2001).

The effect size (which indicates practical significance) was again used for the same reasons as provided above. In the case of Multiple Regression effect size is assessed by the following formula proposed by Steyn (1999):

$$f^2 = R^2 / (1-R^2).$$

A cut-off point of 0.35 is regarded as a large effect and was set for the practical significance of f^2 (Steyn, 1999).

3.6.4 Statistical Analysis and Procedure Followed to Answer Research Question 3 and 5

There has been a growing interest among social researchers in testing multivariate theoretical models (Lavee, 1988). This is due to the fact that social science research deals with psychological and social explanations of complex human and social phenomena. With Multiple Regression, separate models or elements of a model have to be studied as this technique can only accommodate one dependent variable at a time. The complexity of constructs in the social sciences demand techniques that are able to simultaneously test a complete model, therefore one with multiple dependent variables.

Path Analysis as a statistical approach to the analysis of casual models has recently received some criticism, due to the fact that it is based on the assumptions of measures without error and uncorrelated residuals. This requirement is rarely met in social studies where measures are not perfectly reliable and residuals are often correlated (Lavee, McCubbin & Patterson, 1985). As a result, it is difficult to infer causal relationships among variables that are not directly observable, but are reflected as fallible variables (Jöreskog & Sörbom, 1993). The 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 the Latent Variable Structural Equation Modelling approach. The present study uses a multivariate statistical package called LISREL, which is such a statistical computer programme that uses this approach and analyses covariance structure models (Jöreskog & Sörbom, 1993). LISREL is based on Factor Analysis, Multiple Regression Analysis and Analysis of Variance, but is a far more complex and powerful method than any of these procedures (Stage, 1989). Structural Equation Modelling normally involves four

steps: 1) model specification; 2) model identification; 3) model estimation; and 4) evaluation of model fit (Kenny, Kashy & Bolger, 1998).

LISREL is based on a general model that assumes that there are two different kinds of psychological variables: 1) observed variables and 2) latent variables or hypothetical constructs (Jöreskog & Sörbom, 1993). The relationship between observed variables and latent variables are assumed to be causal in that observed variables are effects of latent variables. Observed variables can therefore be used as indicators of latent variables. 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). LISREL is thus able to evaluate postulated causal relationships among latent variables that represent the true substantive phenomena one intends to measure (Chen & Land, 1990).

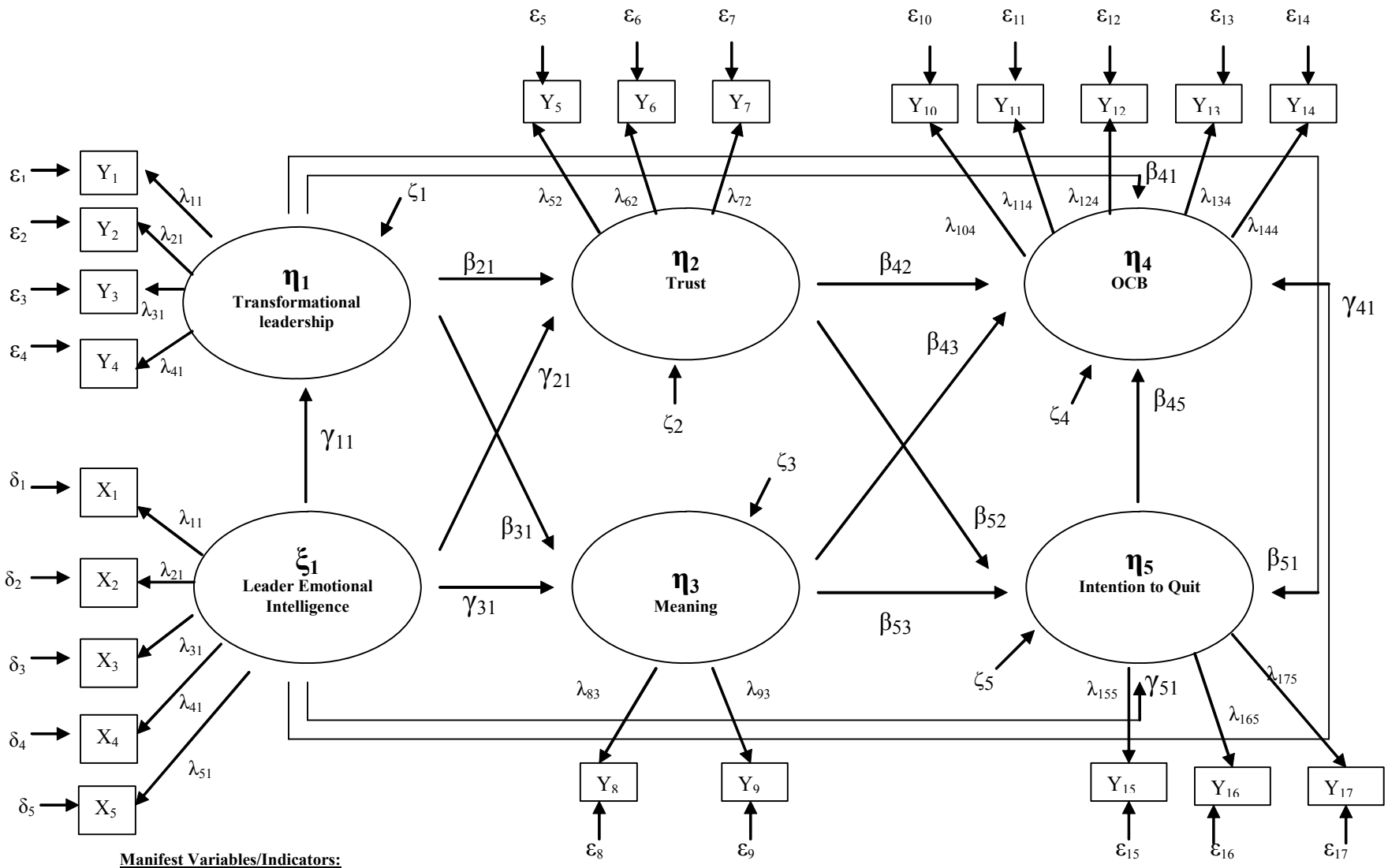
3.6.4.1 Structural Model of the Present Study

Structural Equation Modelling (SEM) allows for the specification and testing of complex models, when mediational relationships and causal processes are of interest (Kelloway, 1998). 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." In specifying the hypothesised model, as well as, after the estimation, in evaluating the results and introducing modifications to the model, the researcher should be guided by theoretical reasoning (Lavee, 1988). The structural model that forms the basis of this study is grounded in the theory discussed in Chapter 2.

Leader emotional intelligence is the independent or exogenous latent variable in the present study and is termed KSI-1 (ξ_1). In terms of the measurement model, X1, X2, X3, X4 and X5 are the observed variables designed to load on *leader emotional intelligence* (ξ_1). LAMBDA (λ) usually describes the paths between KSI (ξ) and X and also between ETA (η) or endogenous variables and Y (or observed variables). λ_{11}, λ_{21}, λ_{31}, λ_{41} and λ_{51} were used to describe the path that was used from *leader emotional intelligence* to the observed variables. DELTA (δ) was used to describe possible measurement errors in the exogenous variable (i.e. on KSI-1).

Transformational leadership, trust, meaning, organisational citizenship behaviour and *intention to quit* were the dependent or endogenous latent variables. The endogenous variables are indicated by the symbol ETA (η). In this measurement model, Y describes the observed variables and their paths are described by LAMBDA (λ). The single directional paths that describe the relationships between *transformational leadership* and *trust; trust* and *organisational citizenship behaviour*; *trust* and *intention to quit*; *meaning* and *organisational citizenship behaviour*; *meaning* and *intention to quit*; *transformational leadership* and *organisational citizenship behaviour*; *transformational leadership* and *intention to quit; transformational leadership* and *meaning*; and *intention to quit* and *organisational citizenship behaviour*, were termed BETA (β). EPSILON (ε) was used to describe possible measurement errors in the observed endogenous variables.

The structural model indicates a variety of paths that represent direct and mediating relationships between the constructs. The model therefore assesses mediated and non-mediated relationships. These directional paths between exogenous and endogenous variables are described with the sign GAMMA (γ). Zeta (ζ) indicates the errors in structural equations in the model and describes the error term on ETA-1, ETA-2, ETA-3, ETA-4 and ETA-5. It therefore represents residual error in the latent endogenous variables. The structural model based on the conceptual arguments presented in Chapter 2 is illustrated in Figure 3.1.



Manifest Variables/Indicators:

X_1 = Empathy, X_2 = Self-Regulation, X_3 = Self-Motivation, X_4 = Self-Awareness, X_5 = Social Skills, Y_1 = Idealised Influence, Y_2 = Inspirational Motivation, Y_3 = Intellectual Stimulation, Y_4 = Individualised Consideration, Y_5 = Trust in the organisation, Y_6 = Trust in the co-worker, Y_7 =Trust in the leader, Y_8= Having a purpose, Y_9 = Fulfilling a purpose, Y_{10} = Altruism, Y_{11} = Civic virtue, Y_{12} = Conscientiousness, Y_{13} = Courtesy, Y_{14} = Sportsmanship, Y_{15} = Intention to Quit 1 Y_{16}= Intention to Quit 2, Y_{16}= Intention to Quit 3 Y_{156} = Intention to Quit 3.

Figure 3.1: The Conceptual Structural Model

The measurement and structural equations depicted in Figure 3.1 can alternatively be expressed algebraically, in the form of matrix equations. These equations form the basis of the present study and are presented below.

Measurement model and matrices for X variables:

$X_1 = \lambda_{11}\xi_1 + \delta_1$

$X_2 = \lambda_{21}\xi_1 + \delta_2$

$X_3 = \lambda_{31}\xi_1 + \delta_3$

$X_4 = \lambda_{41}\xi_1 + \delta_4$

$X_5 = \lambda_{51}\xi_1 + \delta_5$

$$\begin{pmatrix} X_1 \\ X_2 \\ X_3 \\ X_4 \\ X_5 \end{pmatrix} = \begin{pmatrix} \lambda_{11} \\ \lambda_{21} \\ \lambda_{31} \\ \lambda_{41} \\ \lambda_{51} \end{pmatrix} \times \begin{pmatrix} \\ \xi_1 \\ \\ \\ \\ \end{pmatrix} + \begin{pmatrix} \delta_1 \\ \delta_2 \\ \delta_3 \\ \delta_4 \\ \delta_5 \end{pmatrix}$$

Measurement Model and matrices for Y Variables:

$Y_1 = \lambda_{11}\eta_1 + \varepsilon_1$

$Y_2 = \lambda_{21}\eta_1 + \varepsilon_2$

$Y_3 = \lambda_{31}\eta_1 + \varepsilon_3$

$Y_4 = \lambda_{41}\eta_1 + \varepsilon_4$

$Y_5 = \lambda_{52}\eta_2 + \varepsilon_5$

$Y_6 = \lambda_{62}\eta_2 + \varepsilon_6$

$Y_7 = \lambda_{72}\eta_2 + \varepsilon_7$

$Y_8 = \lambda_{83}\eta_3 + \varepsilon_8$

$Y_9 = \lambda_{93}\eta_3 + \varepsilon_9$

$Y_{10} = \lambda_{104}\eta_4 + \varepsilon_{10}$

$Y_{11} = \lambda_{114}\eta_4 + \varepsilon_{11}$

$Y_{12} = \lambda_{124}\eta_4 + \varepsilon_{12}$

$Y_{13} = \lambda_{134}\eta_4 + \varepsilon_{13}$

$Y_{14} = \lambda_{144}\eta_4 + \varepsilon_{14}$

$Y_{15} = \lambda_{155}\eta_5 + \varepsilon_{15}$

$Y_{16} = \lambda_{145}\eta_5 + \varepsilon_{16}$

$Y_{17} = \lambda_{175}\eta_5 + \varepsilon_{17}$

$$
\begin{pmatrix} Y_1 \\ Y_2 \\ Y_3 \\ Y_4 \\ Y_5 \\ Y_6 \\ Y_7 \\ Y_8 \\ Y_9 \\ Y_{10} \\ Y_{11} \\ Y_{12} \\ Y_{13} \\ Y_{14} \\ Y_{15} \\ Y_{16} \\ Y_{17} \end{pmatrix}
=
\begin{pmatrix}
\lambda_{11} & 0 & 0 & 0 & 0 \\
\lambda_{21} & 0 & 0 & 0 & 0 \\
\lambda_{31} & 0 & 0 & 0 & 0 \\
\lambda_{41} & 0 & 0 & 0 & 0 \\
0 & \lambda_{52} & 0 & 0 & 0 \\
0 & \lambda_{62} & 0 & 0 & 0 \\
0 & \lambda_{72} & 0 & 0 & 0 \\
0 & 0 & \lambda_{83} & 0 & 0 \\
0 & 0 & \lambda_{93} & 0 & 0 \\
0 & 0 & 0 & \lambda_{104} & 0 \\
0 & 0 & 0 & \lambda_{114} & 0 \\
0 & 0 & 0 & \lambda_{124} & 0 \\
0 & 0 & 0 & \lambda_{134} & 0 \\
0 & 0 & 0 & \lambda_{144} & 0 \\
0 & 0 & 0 & 0 & \lambda_{155} \\
0 & 0 & 0 & 0 & \lambda_{165} \\
0 & 0 & 0 & 0 & \lambda_{175}
\end{pmatrix}
\times
\begin{pmatrix} \eta_1 \\ \\ \\ \\ \eta_2 \\ \\ \\ \eta_3 \\ \\ \eta_4 \\ \\ \\ \\ \\ \eta_5 \\ \\ \\ \end{pmatrix}
+
\begin{pmatrix} \varepsilon_1 \\ \varepsilon_2 \\ \varepsilon_3 \\ \varepsilon_4 \\ \varepsilon_5 \\ \varepsilon_6 \\ \varepsilon_7 \\ \varepsilon_8 \\ \varepsilon_9 \\ \varepsilon_{10} \\ \varepsilon_{11} \\ \varepsilon_{12} \\ \varepsilon_{13} \\ \varepsilon_{14} \\ \varepsilon_{15} \\ \varepsilon_{16} \\ \varepsilon_{17} \end{pmatrix}
$$

<u>The Structural Equations:</u>

$\eta_1 = \gamma_{11}\xi_1 + \zeta_1$

$\eta_2 = \beta_{21}\eta_1 + \gamma_{21}\xi_1 + \zeta_2$

$\eta_3 = \beta_{31}\eta_1 + \gamma_{31}\xi_1 + \zeta_3$

$\eta_4 = \beta_{41}\eta_1 + \beta_{42}\eta_2 + \beta_{43}\eta_3 + \beta_{45}\eta_5 + \lambda_{41}\xi_1 + \zeta_4$

$\eta_5 = \beta_{53}\eta_3 + \beta_{52}\eta_2 + \beta_{51}\eta_1 + \gamma_{51}\xi_1 + \zeta_5$

3.6.4.2 Assessing Model Fit

The data was read into PRELIS (Jöreskog & Sörbom, 1996) to serve as input for the LISREL analysis. The structural model was tested using LISREL (Version 8.53). The method of estimation that was chosen for this model was Maximum Likelihood (ML). Maximum Likelihood estimators are known to be consistent and asymptomatically efficient in large samples (Kelloway, 1998). ML is a full information technique, because one is able to estimate all parameters (i.e. path coefficients) simultaneously. Goodness-

of-fit statistics are then provided (Jöreskog & Sörbom, 1996). Assessing the overall goodness-of-fit for structural equation modelling is complicated by the fact that no single statistical test best describes the conjoint analysis (Hair, Anderson, Tatham & Black, 1998). Instead, the goodness-of-fit measures are used in combination, assessing the results from three perspectives: 1) overall fit, 2) comparative fit to a base model, and 3) model parsimony (Hair et al., 1998).

An issue prevalent in assessing model fit concerns the choice of index, and the level of an index that indicates acceptable fit (Vandenberg & Lance, 2000). The last decade has seen a number of publications on the topic of model fit (Hu & Bentler, 1993, 1998, 1999; Marsh, Balla & Hau, 1996) and despite the desire to have a set of critical values against which one can make a definitive "fit" or "no-fit" decision, no unambiguous guidelines are forthcoming (Bollen & Long, 1993; Vandenberg & Lance, 2000). "No one index serves as a definite criterion for testing a hypothesised model" (Schumacker & Lomex, 1996, p.135). Some of the goodness-of-fit statistics provided by LISREL are discussed below (Jöreskog & Sörbom, 1993). Several authors have provided some guidelines for the levels of the indices that would indicate acceptable fit and these are also reported (Bentler, 1980; Diamantopoulos & Siguaw, 2000; Hair et al., 1998; Kelloway, 1998; Vandenberg & Lance, 2000).

1) Measures of Absolute Fit

Absolute and comparative fit indices were determined in order to estimate how well the theoretical model fitted the data. These measures therefore determine the degree to which the overall model predicts the observed covariance and correlation matrix (Hair et al., 1998). The absolute fit measures reported in the LISREL output are discussed below.

The most fundamental measure of overall fit is the chi-square statistic (also denoted as the Minimum Fit Function Chi-Square) (Hair et al., 1998). If the model is specified correctly, the chi-square (χ^2) statistic can be used, following an asymptotically χ^2 distribution, to test the null hypothesis that the specified model would lead to the reproduction of the population covariance matrix of the observed variables. A significant test statistic would make the model specification doubtful (Brannick, 1995). This implies that a non-significant χ^2 indicates model fit in that the model can reproduce

the population covariance matrix (Bollen & Long, 1993; Kelloway, 1998). Chi-square is a measure of overall fit of the model to the data. It measures the distance between the sample covariance or correlation matrix and the fitted covariance/correlation matrix (i.e. the difference between the observed and estimated matrices). Zero chi-square corresponds to good fit (Jöreskog, 1993). The Normal Theory Weighted Least Squares Chi-Square statistic uses a slightly more complicated formula to calculate the test statistic, but the substantive interpretation remains the same (Diamantopoulos & Siguaw, 2000).

Chi-square however is, sensitive to sample size, especially where there are more than 200 respondents (Hair et al., 1998). In large samples it is therefore unlikely to obtain an insignificant χ^2, even if the model fits the data, although the approximation of the χ^2 distribution occurs only in large samples (N >200). The value of χ^2 increases with an increase in sample size (Kelloway, 1998). In an effort to avoid this problem, it is suggested that the χ^2 should be expressed in terms of its degrees of freedom (i.e. χ^2/df). (Kelloway, 1998). 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). This is not normally reported in LISREL. Disagreement about the interpretation of the values for χ^2/df is found in the literature, but generally good fit is indicated by values between 2 and 5. A value less than 2 indicates over fitting (Kelloway, 1998).

Further absolute fit measures that are reported are: the Goodness-of-Fit Index (GFI), Root Mean Square Residual (RMR), Root Mean Squared Error of Approximation (RMSEA), and Expected Cross-Validation Index (ECVI) (Bentler, 1980; Hair et al., 1998; Kelloway, 1998).

GFI is "based on a ratio of the sum of the squared discrepancies to the observed variance" (Kelloway, 1998, p. 27). GFI thus directly assesses how well the covariances predicted from the parameter estimates reproduce the sample covariance. The GFI ranges from 0 (poor fit) to 1 (perfect fit), with values exceeding 0.9 assumed to indicate a good fit of the model to the data (Bentler, 1980; Kelloway, 1998). Kelloway (1998) does warn, however, that the GFI has no known sampling distribution, which implies that the standards as to what constitutes good fit to the data is somewhat arbitrary.

RMR 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, Johnston & Burton, 1990). The RMR should be interpreted in relation to the size of the observed variances and covariances (Netemeyer et al., 1990). RMR also has a lower bound of 0 and an upper bound of 1. Generally it is accepted that the lower the index, the better the fit of the model to the data. The standardised RMR provided by LISREL has a lower bound of 0 and an upper bound of 1, with values less than 0.05 interpreted as indicating a good fit to the data (Kelloway, 1998).

RMSEA is based on the analysis of residuals, with smaller values indicating a better fit to the data. Most authors contend that a value lower than .08 indicates a reasonable fit, while a value lower than 0.05 indicates a good fit and values below 0.01 indicate outstanding fit to the data (Bentler, 1995; Hair et al., 1998). RMSEA has the advantage of going beyond RMSEA point estimates to the provision of 90% confidence intervals for the point estimate (Kelloway, 1998).

The ECVI assesses whether a model is likely to cross-validate across samples of the same size from the same population (Diamantopoulos & Siguaw, 2000). It measures the difference between the fitted covariance matrix in the analysed sample, and the expected covariance matrix that would be obtained in another sample of equivalent size (Byrne, 1998). ECVI is a useful indicator of a model's overall fit; however, there is no appropriate range of values for the ECVI index (Jöreskog, 1993). Smaller ECVI values indicate better fitting models that are believed to have the greatest potential for replication (Diamantopoulos & Siguaw, 2000).

2) Incremental Fit Measures: Comparative Fit

Kelloway (1998) indicates that tests for absolute fit are concerned with the ability of the fitted model to reproduce the observed correlation/covariance matrix, while tests of comparative fit indicate the success with which the model explains the observed correlation/covariance matrix compared to a baseline model (also referred to as the null model).

Comparative fit chooses a baseline model for comparison. Comparative fit is based on a comparison of the structural model with the independence model that provides the poorest fit possible to the data. Comparative fit measures reported are: the Normed-Fit

Index (NFI), the Non-Normed Fit Index (NNFI) (also known as the Tucker-Lewis Index), the Incremental Fit Index (IFI), the Comparative Fit Index (CFI), the Relative Fit Index (RFI) and the Adjusted Goodness-of-Fit Index (AGFI). With the exception of the NNFI, all of these indices have a range between 0 and 1 with values closer to 1 and more specifically >0.9 representing good fit. The NNFI can take values greater than 1.

3) Parsimonious Fit Measures

Comparative fit is further subdivided into the assessment of comparative and parsimonious fit. Parsimonious fit implies that a better fitting model can be obtained by estimating more parameters (Kelloway, 1998). It is desirable, however, to obtain acceptable fit with the least number of parameters. For comparisons the independence and saturated model serve as the baseline model and they represent the two ends of a continuum. In the independence model, all parameters have been set to zero and the degrees of freedom (df) are equal to the number of equations. In the just-identified model, the equations in the model are equal to the number of unknowns (Kelloway, 1998). Such a just-identified or saturated model will always provide a unique solution that will be able to reproduce the observed correlation matrix.

Parsimonious fit relates to the benefit that accrues in terms of improved fit in relation to degrees of freedom lost to achieve the improvement of fit (Jöreskog, 1993). This increase in model fit obtained by the additional parameters set free, does come at the cost of a loss in degrees in freedom. Parsimonious fit measures therefore relate the goodness-of-fit of the model to the number of estimated coefficients required to achieve the level of fit. Their objective is to diagnose whether model fit has been achieved by "overfitting" the data with too many coefficients (Hair et al., 1998). The meaningful use of parsimonious fit indices necessitates a second formulated model that contains a number of additional paths that can be theoretically justified.

Relevant indices from the parsimonious fit group of indices are the Parsimonious Fit Index (PNFI), the Parsimonious Goodness-of-Fit Index (PGFI), All the indices described here assume values between 0 and 1, where larger values indicate better fit and good fit is indicated by a values above 0.90 (Bentler, 1980; Kelloway, 1998). Further indices include the Akaike Information Criterion (AIC) and Consistent Akaike Information Criterion (CAIC). The PNFI adjusts the NFI for model parsimony, while

the PGFI adjusts the GFI for the degrees of freedom in the model. The PNFI and the PGFI range from 0 to 1 and higher values indicate better fit. The AIC and CAIC consider fit of the model and the number of estimated parameters in the model (Kelloway, 1998). In the case of the AIC and the CAIC, smaller values indicate a more parsimonious model, but no convention exists to indicate what value implies good fit. When comparing the fitted models to a model in which all possible parameters are set free, the AIC favours the saturated model in both cases, while the CAIC favours fitted models. The AIC, however, is known to tend to favour the more complex model (Kelloway, 1998).

Summary of Goodness-of-Fit Indices

Table 3.2 summarise the goodness-of-fit indices as described above. These indices, and the levels summarised in this table will be used for the purposes of the present study to reach a conclusion regarding model fit. The indices will further also be provided in this format.

Table 3.2: Summary of Goodness-of-Fit Indices to be used.

Absolute Fit Measures	
Minimum Fit Function Chi-Square	a non-significant result indicates model fit
Normal Theory Weighted Least Chi-Square	a non-significant result indicates model fit
χ^2/df	values between 2 and 5 indicate good fit
Root Mean Square Error of Approx. (RMSEA)	values of 0.08 or below indicate acceptable fit, below 0.05 indicate good fit and values below 0.01 indicate outstanding fit
90% Confidence Interval for RMSEA	this is 90% confidence interval of RMSEA testing the closeness of fit (i.e. testing the hypothesis H_o:RMSEA <0.05)
Expected Cross-validation index (ECVI)	lower values indicate better fitting models
90% Confidence interval for ECVI	this is 90% confidence interval for ECVI
Root Mean Square Residual (RMR)	lower values indicate better fit with values below 0.08 indicative of good fit
Standardised RMR	lower values indicate better fit with values less than 0.05 indicating good fit
Goodness of Fit Index (GFI)	values closer to 1 and >0.90 represent good fit
Incremental Fit Measures	
Normed Fit Index (NFI)	values closer to 1 indicate better fit with values >0.90 indicative of good fit
Non-Normed Fit Index (NNFI)	higher values indicate better fit with values >0.90 indicative of good fit
Adjusted Goodness of fit (AGFI)	values closer to 1 indicate better fit with values >0.90 indicative of good fit
Comparative Fit Index (CFI)	values closer to 1 indicate better fit with values >0.90 indicative of good fit
Incremental Fit Index (IFI)	values closer to 1 indicate better fit with values >0.90 indicative of good fit
Relative Fit Index (RFI)	values closer to 1 indicate better fit with values >0.90 indicative of good fit
Parsimonious Fit Measures	
Parsimony Normed Fit Index (PNFI)	values closer to 1 indicate better fit with values >0.90 indicative of good fit
Parsimony Goodness of fit (PGFI)	values closer to 1 indicate better fit with values >0.90 indicative of good fit

Reaching a Decisive Conclusion

Vandenberg and Lance (2000) summarised the recent literature on model goodness of fit as it relates to judging the appropriateness of invariance constraints. Based on this overview of the available literature, Vandenberg and Lance (2000) provided recommendations on which indices should be used to assess overall model fit. The adoption of each of the goodness-of fit indices have known trade-offs and therefore no single index has emerged that will be appropriate to use on its own to evaluate model fit. Vandenberg and Lance (2000) have recommended that at least four indexes be used to assess model fit. They are: 1) the Tucker-Lewis index (TLI) (Tucker & Lewis, 1973), also referred to as the Non-Normed Fit Index (NNFI), 2) the Relative non-centrality Index (RNI) (McDonald & Marsh, 1990), 3) the Root Mean Squared Error of Approximation (RMSEA) (Steiger, 1990), and 4) the Standardized Root Mean Squared Residual (RMR) (Bentler, 1995).

Vandenberg and Lance (2000) have recommended that TLI or NNFI and RNI values of 0.90 and above indicate good fit. RMR historically used a critical value of .10 or less, but this has been challenged by Hu and Bentler (1999). They recommend a value of 0.08 or less. Vandenberg and Lance (2000) recommended that 0.08 should be indicative of good fit, with 0.10 acting as an upper limit. Ideally, RMSEA values of 0.08 represent reasonable errors of approximation in the population (Jöreskog & Sörbom, 1996). Hu and Bentler (1999) challenged this value and, based on their findings, stated that a value of 0.06 or less was most likely to prevent the acceptance of truly misspecifed models. Vandenberg and Lance (2000) again made the recommendation that the value of 0.08 is not unreasonable but, because it comes from one study, should perhaps be looked at as an upper limit for now. Diamantopoulos and Siguaw (2000, p. 88) on the other hand proposes that "…the results of the chi-square test, in conjunction with the RMSEA, ECVI, Standardized RMR, GFI and CFI indices, should be more than sufficient to reach an informed decision concerning the model's overall fit."

3.6.4.2 Evaluation of the Structural Model: Testing the Hypotheses

The structural model build from the theory discussed in Chapter 1 and 2, as depicted in Figure 3.1, serves as the basis for the present study. It represents a more detailed account of the nature of the various relationships between transformational leadership, emotional intelligence, trust, meaning, intention to quit and organisational citizenship

behaviour. Here the focus is on evaluating the structural model and more specifically the substantive relationships (i.e. the direct and mediated linkages) between the various endogenous and exogenous latent variables. The aim of this process is to determine whether the theoretical relationships specified in the conceptualisation stage of the study are indeed supported by the data obtained from the sample. The study of the structural model necessitates the formulation of the statistical hypotheses that are implied by the research hypotheses (which postulate these various relationships). Not explicitly translating the research hypotheses into statistical hypotheses on the relevant path coefficients in the structural mode could result in a logical dilemma when deciding on the validity of the stated hypotheses. The specific statistical hypotheses on the relevant elements of B and Γ population matrices, derived from the research hypotheses as described in Chapter 2 are show in Table 3.3 below.

At least two important pieces of information is obtained. Firstly, the signs of the parameters representing the paths between the latent variables indicate whether the directions of the hypothesised relationships are as they were hypothesised (i.e. positive or negative) (Diamantopolous & Signauw, 2000). The magnitude of the estimated parameters further provides important information on the strength of the hypothesised relationships and more specifically the t-values should (at least) be significant. Significant indicator loadings ($p<0.05$) are indicated by t-values in excess of |1.96| in absolute terms for a two-tailed test and |1.645| for a one-tailed test (Diamantopolous & Signauw, 2000; Hair et al. 1998). The t-values in excess of |1.96| in absolute terms for a two-tailed test criterion (i.e. a significant t-value) will be used to assess the hypotheses.

The same procedure will be used in studying the mediating paths proposed in Research Question 3. Structural models will be composed for each of the mediating hypotheses and these will be tested with the use of SEM so that the path coefficients and parameter estimates can be determined each time. If, in the case of a proposed mediated relationship, all of the parameter estimates are found to be significant in the mediated model (based on t-values in excess of |1.96|) then the mediating hypothesis will be thought to have been corroborated.

Table 3.3: The Statistical Hypotheses

Hypothesis 7:
Ho: $\beta_{41} = 0$
Ha: $\beta_{41} > 0$

Hypothesis 8:
Ho: $\beta_{42} = 0$
Ha: $\beta_{42} > 0$

Hypothesis 9:
Ho: $\gamma_{41} = 0$
Ha: $\gamma_{41} > 0$

Hypothesis 10:
Ho: $\beta_{43} = 0$
Ha: $\beta_{43} > 0$

Hypothesis 11:
Ho: $\beta_{45} = 0$
Ha: $\beta_{45} > 0$

Hypothesis 13:
Ho: $\beta_{52} = 0$
Ha: $\beta_{52} > 0$

Hypothesis 14:
Ho: $\beta_{52}\beta_{45} = 0$
Ha: $\beta_{52}\beta_{45} > 0$

Hypothesis 15:
Ho: $\beta_{51} = 0$
Ha: $\beta_{51} > 0$

Hypothesis 16:
Ho: $\beta_{51}\beta_{45} = 0$
Ha: $\beta_{51}\beta_{45} > 0$

Hypothesis 17:
Ho: $\gamma_{51} = 0$
Ha: $\gamma_{51} > 0$

Hypothesis 18:
Ho: $\beta_{53} = 0$
Ha: $\beta_{53} > 0$

Hypothesis 20:
Ho: $\beta_{21} = 0$
Ha: $\beta_{21} > 0$

Hypothesis 21:
Ho: $\beta_{21}\beta_{42} = 0$
Ha: $\beta_{21}\beta_{42} > 0$

Hypothesis 22:
Ho: $\gamma_{21} = 0$
Ha: $\gamma_{21} > 0$

Hypothesis 23:
Ho: $\gamma_{21}\beta_{42} = 0$
Ha: $\gamma_{21}\beta_{42} > 0$

Hypothesis 24:
Ho: $\beta_{21}\beta_{52}\beta_{45} = 0$
Ha: $\beta_{21}\beta_{52}\beta_{45} > 0$

Hypothesis 26:
Ho: $\beta_{31} = 0$
Ha: $\beta_{31} > 0$

Hypothesis 27:
Ho: $\beta_{31}\beta_{43} = 0$
Ha: $\beta_{31}\beta_{43} > 0$

Hypothesis 28:
Ho: $\beta_{31}\beta_{53}\beta_{45} = 0$
Ha: $\beta_{31}\beta_{53}\beta_{45} > 0$

Hypothesis 29:
Ho: $\gamma_{31} = 0$
Ha: $\gamma_{31} > 0$

Hypothesis 30:
Ho: $\gamma_{31}\beta_{43} = 0$
Ha: $\gamma_{31}\beta_{43} > 0$

Hypothesis 31:
Ho: $\gamma_{51}\beta_{45} = 0$
Ha: $\gamma_{51}\beta_{45} > 0$

Hypothesis 32:
Ho: $\gamma_{31}\beta_{53}\beta_{45} = 0$
Ha: $\gamma_{31}\beta_{53}\beta_{45} > 0$

Hypothesis 34:
Ho: $\gamma_{11} = 0$
Ha: $\gamma_{11} > 0$

Hypothesis 35:
Ho: $\gamma_{11}\beta_{41} = 0$
Ha: $\gamma_{11}\beta_{41} > 0$

Hypothesis 36:
Ho: $\gamma_{11}\beta_{21}\beta_{42} = 0$
Ha: $\gamma_{11}\beta_{21}\beta_{42} > 0$

Hypothesis 37:
Ho: $\gamma_{11}\beta_{31}\beta_{43} = 0$
Ha: $\gamma_{11}\beta_{31}\beta_{43} > 0$

Hypothesis 38:
Ho: $\gamma_{11}\beta_{31}\beta_{53}\beta_{45} = 0$
Ha: $\gamma_{11}\beta_{31}\beta_{53}\beta_{45} > 0$

3.7 Summary

The purpose of the present study was to design and conduct an investigation that would attempt to determine the influence of and relationships between transformational leadership, leader emotional intelligence, trust, meaning, and intention to quit on organisational citizenship behaviour within South African organisations. To do this, five research questions, and the subsequent 39 hypotheses that followed from them, were described and discussed in the first two chapters.

In this chapter, the methodology that would be used to implement the study in such a way that meaningful answers could be obtained for these research questions was described and discussed. The methodology followed in the present study includes: determining construct validity using an EFA/CFA double cross-validation method; determining internal reliability with Cronbach's alpha; determining relationships with Pearson's r and Standard Multiple Regression; predicting dependent variables using Standard Multiple Regression; and assessing model fit by means of SEM.

CHAPTER 4

THE STATISTICAL FINDINGS

4.1 Introduction

This chapter presents the results that were obtained by means of the research methodology described in the previous chapter. The statistical analyses were conducted as to obtain answers to the research questions posed in the present study and to test the stated hypotheses. The findings and interpretation of the results within the theoretical and conceptual framework of the literature review will be discussed in the next chapter.

4.1.1 Screening and Cleaning the Data

Before the data obtained from the sample could be analysed, it was essential to check for errors in the data file as these could seriously affect the results achieved from it. This process involved three steps: 1) checking, 2) finding and 3) correcting errors in the data that may have occurred. Descriptive statistics and frequencies were used to check for errors and the following steps were performed:

- The data was inspected for missing data and as expected no missing cases were found.
- The data was inspected to ensure that no out-of-range variable scores (i.e. in terms of possible scores) were present. Again, no such data was found.
- The means and standard deviations were studied and found to be plausible.
- The data was inspected for the presence of outliers and none were found.
- When assessing the normality of the data, a non-normal distribution of the variable scores was identified and this will be discussed further later on in the chapter.

4.2 Results for Research Question One

The first research question was concerned with the validity and reliability of the measurement scales. More specifically, it had to be ensured that, for the purposes of the present study, the measurement scales demonstrated acceptable levels of construct

validity and internal reliability. The importance of this step lay in the fact that as much as possible of the construct had to be "captured" by the measurement scale in the current context of the study, as the remainder of the study was built on the outcome thereof. This was done by utilising a double cross-validation process based on Exploratory and Confirmatory Factor Analysis. The process was discussed in detail in Chapter 3.

4.2.1 Results: Hypothesis 1

Hypothesis 1 stated that the original measurement model of organisational citizenship behaviour proposed by Konovsy and Organ (1996) more closely fits the obtained data and is more internally reliable than the measurement model of the organisational citizenship behaviour construct derived from the responses of the present sample. The following results were obtained with regard to this measurement scale, based on the data collected and the procedure described in the previous chapter.

4.2.1.1 Exploratory Factor Analysis

The responses to the 32-item Konovsy and Organ (1996) Organisational Citizenship Behaviour Scale were subjected to Exploratory Factor Analysis (EFA), utilising the Principal-Axis Factoring extraction method and Direct Oblimin rotation. This was performed on the data obtained from the total sample (n_t=496) and was done to uncover the underlying latent variable structure. The suitability of the data for factor analysis was assessed using the KMO measure of sampling adequacy. The level of the KMO measure was found to be .911, which is above the required .6 level (Tabachnick & Fidell, 2001). After inspection of the eigenvalues and conducting the Scree test (Catell cited in Tabachnick & Fidell, 2001), it was decided to retain three factors for further investigation. The eigenvalues were found to be: eigenvalue one = 8.705, eigenvalue two = 2.268, and eigenvalue three = 1.731.

Specifying a three-factor solution, the factor loadings in the rotated matrix were investigated. Items that did not comply with the criteria for inclusion were rejected (an item was selected if it had a loading ≥.30 on the appropriate factor and was deemed to cross-load across factors if the loadings differed by ≤.25). In the first round of EFA, the following items did not meet the required inclusion criteria and were removed: *13. My co-workers try to avoid creating problems for others; 14. My co-workers consider the*

effects of their actions on other colleagues; 15. My co-workers consult with other people who might be affected by their actions and decisions; *12. My co-workers respect the rights and privileges of others*, *16. My co-workers inform others before taking any important actions; 17. My co-workers never abuse other's rights and privileges;* and *31. My co-workers attend and participate in meetings regarding the organisation*. During the second round of EFA, item *9. My co-workers do not complain about work assignments* did not meet the inclusion requirements and was removed. The following round of EFA resulted in the finally accepted three-factor structure.

The accepted factor structure obtained by the EFA, based on the data of the total sample, is shown in Table 4.1. After inspecting the items that loaded on the three factors and comparing this factor structure to the original one, it was decided to name them as follows: factor one = *Altruism*, factor two = *Civic virtue*, and factor three = *Conscientiousness*. These three factors together explained 52.93 percent of the variance. The three factors correlated with one another as follows: factor one correlated with factor two .385, and with factor three .544; while factor two correlated with factor three .467.

Table 4.1: Factor Structure of OCB Items for the Total Sample (n_t=496)

Item	Factor 1	Factor 2	Factor 3
1. My co-workers help others who have heavy workloads	.847		
2. My co-workers help others who have been absent	.753		
6. My co-workers help orientate new people even though it is not required	.732		
7. My co-workers share personal property with others, if necessary, to help them with their work	.708		
5. My co-workers help make other workers productive	.683		
3. My co-workers look for other work to do when finished with assigned work	.594		
4. My co-workers always do more than they are required to do	.581		
8. My co-workers try to make the best of the situation, even when there are problems	.543		
10. My co-workers are able to tolerate occasional inconvenience when it arises	.402		
22. My co-workers express resentment at any changes introduced by management		.894	
21. My co-workers always find faults with what the organisation is doing		.841	
20. My co-workers complain a lot about trivial matters		.700	
23. My co-workers only think about their work problems, not others		.479	
24. My co-workers pay no attention to announcements, messages, or printed material that provides information about the organisation		.440	
27. My co-workers give advance notice when they are unable to come to work			.764
25. My co-workers are always on time			.715
28. My co-workers maintain a clean and tidy workplace			.698
26. My co-workers attendance at work is above average			.636
29. My co-workers always complete their work on time			.482
19. My co-workers always treat company property with care.			.436
18. My co-workers always follow the rules of the organisation and the team			.427
30. My co-workers stay informed about developments in the organisation			.383
11. My co-workers demonstrate concern about the image of the organisation			.351
32. My co-workers offer suggestions for ways to improve operations			.306
Eigenvalues	8.705	2.268	1.731
Percentage Variance Explained	36.27%	9.45%	7.21%

Extraction Method: Principal Axis Factoring.
Rotation Method: Direct Oblimin with Kaiser Normalization.
Rotation converged in 8 iterations.

On inspecting the above result, it is evident that the original factor structure was not replicated in the data obtained from the total sample used in the present study. Eight items had to be rejected and only three of the five dimensions or factors of organisational citizenship behaviour emerged from the responses. Even though the three factors obtained were given similar descriptions or labels to those used in the original organisational citizenship scale, again there were differences in the combination of items that loaded on these factors.

This process was repeated for the data obtained from subsample A (n_1=248). The KMO measure of sampling adequacy was found to be .897 and was therefore acceptable. The Scree test (Catell cited in Tabachnick & Fidell, 2001) along with the eigenvalue specification revealed the presence of three factors that could be investigated further. The eigenvalues were found to be: eigenvalue one = 8.509, eigenvalue two = 2.192, and eigenvalue three = 1.748.

The first round of EFA was conducted with specification of a three-factor solution. On inspecting the factor loadings, the following items did not meet the requirements for inclusion: *13. My co-workers try to avoid creating problems for others*; *15. My co-workers consult with other people who might be affected by their actions and decisions*; *14. My co-workers consider the effects of their actions on other colleagues*; *12. My co-workers respect the rights and privileges of others*; *17. My co-workers never abuse other's rights and privileges*; *30. My co-workers stay informed about developments in the organisation*; *16. My co-workers inform others before taking any important actions*; *29. My co-workers always complete their work on time;* and *32. My co-workers offer suggestions for ways to improve operations*. After eliminating these items, the next round of EFA resulted in the final factor structure that was made up of the remaining 23 items.

After inspecting the items that loaded on the three factors, it was decided to name them as follows: factor one = *Altruism*, factor two = *Civic virtue*, and factor three = *Conscientiousness*. The final factor pattern for subsample A is shown in Table 4.2. The three factors together explained 54.13% of the variance in the data. The three factors correlated with one another as follows: factor one and two correlated .419, and factor one and three .475; while factors two and three correlated .482.

Table 4.2: Factor Structure of OCB items for Subsample A (n_1 = 248)

Item	Factor 1	Factor 2	Factor 3
1. My co-workers help others who have heavy workloads	.802		
6. My co-workers help orientate new people even though it is not required	.768		
2. My co-workers help others who have been absent	.691		
7. My co-workers share personal property with others, if necessary, to help them with their work	.690		
8. My co-workers try to make the best of the situation, even when there are problems	.608		
5. My co-workers help make other workers productive	.598		
4. My co-workers always do more than they are required to do	.578		
3. My co-workers look for other work to do when finished with assigned work	.571		
10. My co-workers are able to tolerate occasional inconvenience when it arises	.331		
22. My co-workers express resentment at any changes introduced by management		.927	
21. My co-workers always find fault with what the organisation is doing		.890	
20. My co-workers complain a lot about trivial matters		.688	
23. My co-workers only think about their work problems, not others		.523	
31. My co-workers attend and participate in meetings regarding the organisation		.375	
24. My co-workers pay no attention to announcements, messages, or printed material that provides information about the organisation		.368	
27. My co-workers give advance notice when they are unable to come to work			.706
25. My co-workers are always on time			.682
19. My co-workers always treat company property with care.			.608
28. My co-workers maintain a clean and tidy workplace			.588
18. My co-workers always follow the rules of the organisation and the team			.571
26. My co-worker's attendance at work is above average			.565
11. My co-workers demonstrate concern about the image of the organisation			.371
9. My co-workers do no complain about work assignments			.305
Eigenvalues	8.509	2.192	1.748
Percentage Variance Explained	36.99%	9.53%	7.60%

Extraction Method: Principal Axis Factoring.
Rotation Method: Direct Oblimin with Kaiser Normalization.
Rotation converged in 8 iterations.

The original factor structure again was not replicated for the data obtained from subsample A. Nine items were rejected and only three of the five dimensions emerged in this subsample. The three factors obtained were given similar labels to those used in the original organisational citizenship behaviour scale. It should be noted that the manner in which the items loaded on the three factors once again differed from the pattern in the original measurement model.

The same process was followed with the data obtained from subsample B (n_2=248). The items seemed to load on three meaningful factors as three eigenvalues >1.00 was obtained (8.810, 2.403, and 1.761 respectively). Inspecting the factor loadings obtained from the first round of EFA, the following items did not meet the requirements for inclusion: *13. My co-workers try to avoid creating problems for others*; *8. My co-workers try to make the best of the situation; even when there are problems*; *12. My co-workers respect the rights and privileges of others*; and *9. My co-workers do not complain about work assignments.* After the second round of EFA; items *16. My co-workers inform others before taking any important actions*; *10. My co-workers are able to tolerate occasional inconvenience when it arises*; *31. My co-workers attend and participate in meetings regarding the organisation*; *32. My co-workers offer suggestions*

for ways to improve operations; and *30. My co-workers stay informed about developments in the organisation;* were rejected. After eliminating these items, the next round of EFA resulted in the final factor structure.

After inspecting the items that loaded meaningfully on the three factors it was decided to name them as follows: factor one = *Altruism*, factor two = *Civic virtue*, and factor three = *Conscientiousness*. The final factor pattern obtained from the data collected from subsample B is shown in Table 4.3. The three factors together explained 56.41% of the variance in the data. The three factors correlated with one another as follows: factor one correlated with factor two .340, and with factor three .548, while factor two correlated with factor three .423.

Table 4.3: Factor Structure of OCB Items for Subsample B (n_2= 248)

Item	Factor 1	Factor 2	Factor 3
1. My co-workers help others who have heavy workloads	.897		
2. My co-workers help others who have been absent	.805		
5. My co-workers help make other workers productive	.760		
6. My co-workers help orientate new people even though it is not required	.689		
4. My co-workers always do more than they are required to do	.638		
7. My co-workers share personal property with others, if necessary, to help them with their work	.637		
3. My co-workers look for other work to do when finished with assigned work	.625		
17. My co-workers never abuse other's rights and privileges	.595		
14. My co-workers consider the effects of their actions on other colleagues	.582		
15. My co-workers consult with other people who might be affected by their actions and decisions	.522		
21. My co-workers always find fault with what the organisation is doing		.849	
22. My co-workers express resentment at any changes introduced by management		.844	
20. My co-workers complain a lot about trivial matters		.692	
23. My co-workers only think about their work problems, not others		.450	
24. My co-workers pay no attention to announcements, messages, or printed material that provides information about the organisation		.448	
19. My co-workers always treat company property with care.		.325	
18. My co-workers always follow the rules of the organisation and the team		.320	
27. My co-workers give advance notice when they are unable to come to work			.794
25. My co-workers are always on time			.728
26. My co-worker's attendance at work is above average			.695
28. My co-workers maintain a clean and tidy workplace			.621
29. My co-workers always complete their work on time			.576
11. My co-workers demonstrate concern about the image of the organisation			.408
Eigenvalues	8.810	2.403	1.761
Percentage Variance Explained	38.30%	10.45%	7.66%

Extraction Method: Principal Axis Factoring.
Rotation Method: Direct Oblimin with Kaiser Normalization.
Rotation converged in 6 iterations.

Once again, the original factor structure was not replicated when studying the data obtained from subsample B and only three of the five dimensions emerged in this subsample. Nine items had to be rejected. Even though the three factors were given similar descriptions as on the original organisational citizenship scale, the manner in which the items loaded on the factors again differed from the original measurement model.

4.2.1.2 Internal Reliability

The Cronbach alpha coefficients of the dimensions of the various EFA-derived measurement models, as well as for the original measurement model proposed by Konovsky and Organ (1996) were calculated using the data from of the total sample (n_t=496), as well as the two subsamples . This was done for two reasons: 1) to ensure that the measurement models obtained an acceptable level of internal reliability; and 2) to be able to compare the obtained Cronbach alphas numerically with one another to determine which of the measurement models were found to be the more internally reliable. The results are summarised in Table 4.4.

Table 4.4: Cronbach alphas for OCB scales and subscales

Model derived from:-	**Original**	**Total Group**	**S-Sample A**	**Original**	**S-Sample B**	**Original**
Data obtained from:-	**Total Group**	**Total Group**	**S-Sample A**	**S-Sample A**	**S-Sample B**	**S-Sample B**
Total Scale	.906	**.922**	.921	.894	.923	.907
Altruism	.844	**.895**	.887	.781	.919	.844
Civic Virtue	.817	**.826**	.843	.773	.832	.811
Conscientiousness	.811	**.852**	.833	.813	.812	.811
Sportsmanship	.797			.808		.797
Courtesy	.858			.817		.858

It is evident that all of the Cronbach alpha coefficients were above the .7 requirement (Tabachnick & Fidell, 2001). Therefore, the EFA-derived measurement models, and their subscales, are all believed to be reliable measures of organisational citizenship behaviour. The original measurement model proposed by Konovsky and Organ (1996) was also able to achieve an adequate level of internal reliability on the data of the total sample and the two subsamples.

It is further evident from the results summarised in Table 4.4 that when numerically comparing the Cronbach alpha coefficients obtained for the EFA-derived measurement models (and their subscales) to those obtained for the original measurement model (and its subscales) based on the data of the total sample and the two subsamples, the EFA-derived scales consistently obtain numerically higher Cronbach alpha coefficients.

4.2.1.3 Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) was performed with the use of LISREL (version 8.53) to examine and compare the goodness-of-fit indices obtained from the EFA-

derived measurement model and the original measurement model proposed by Konovsky and Organ (1996). CFA was further used in the double cross-validation method used to assess the stability and robustness of the EFA-derived measurement models. These two processes yielded six sets of goodness-of-fit indices that were used to compare the different models with one another. The models were:

1) the original measurement model as proposed by Konovsky and Organ (1996),
2) the measurement model derived from the total sample on the data of the total sample,
3) the measurement model derived from subsample A on the data of subsample A,
4) the measurement model derived from subsample B on the data of subsample B,
5) the measurement model derived from subsample A on the data of subsample B, and
6) the measurement model derived from subsample B on the data of subsample A.

This procedure is described in the previous chapter. The maximum likelihood (ML) method was used to estimate all models.

The indices of model fit for each of the six CFAs under investigation are summarised in Table 4.5. To aid the comparison of the goodness-of-fit indices obtained from the EFA-derived measurement models and the original measurement model proposed by Konovsky and Organ (1996), the indices that indicated a numerically better result, compared to the guidelines for goodness-of-fit discussed in the previous chapter are highlighted by shading the cell (i.e. the higher or lower result). The results are discussed below in terms of the three categories of fit measures, as well as their required levels as summarised in Table 3.2 to be able to make a suggestion regarding the appropriateness of the different measurement models.

Table 4.5: Confirmatory Factor Analysis: Model Fit Indices for the OCB Scale						
Model derived from:-	**Original**	**Total Group**	**S-Sample A**	**S-Sample A**	**S-Sample B**	**S-Sample B**
Data obtained from:-	**Total Group**	**Total Group**	**S-Sample A**	**S-Sample B**	**S-Sample B**	**S-Sample A**
Absolute Fit Measures						
Degrees of Freedom	454	249	227	227	206	206
Minimum Fit Function Chi-Square	3149.8490 p=.0	1294.0039 p=.0	698.1706 p=.0	924.3231 p=.0	741.0502 p=.0	835.0827 p=.0
Normal Theory Weighted Least Chi-Square	3868.7501 p=.0	1309.8328 p=.0	687.7660 p=.00	954.3341 p=.0	806.9509 p=.0	867.8766 p=.0
χ^2/df	6.94	5.20	3.08	4.07	3.60	4.05
Root Mean Square Error of Approx. (RMSEA)	0.1230	0.09259	0.09047	0.1139	0.1085	0.1138
90% Confidence Interval for RMSEA	(0.1195; 0.1266)	(0.08768; 0.09756)	(0.08277; 0.09825)	(0.1065; 0.1214)	(0.1006; 0.1164)	(0.1061; 0.1217)
Expected Cross-validation index (ECVI)	8.0820	2.8407	3.1684	4.2605	3.6329	3.8785
90% Confidence interval for ECVI	(7.6898; 8.4890)	(2.6203; 3.0762)	(2.8657; 3.5018)	(3.8894; 4.6621)	(3.2960; 4.0002)	(3.5267; 4.2607)
Chi-square for independence Model for Degrees of Freedom (df) =	35007.7241 (496)	16736.7345 (276)	7954.1837 (253)	8262.7933 (253)	7540.2610 (231)	7030.4641 (231)
Root Mean Square Residual (RMR)	0.1040	0.09726	0.1037	0.1295	0.1106	0.1192
Standardised RMR	0.08427	0.07925	0.08278	0.1031	0.08663	0.09815
Goodness of Fit Index (GFI)	0.6727	0.8199	0.8057	0.7485	0.7717	0.7586
Incremental Fit Measures						
Normed Fit Index (NFI)	0.9100	0.9227	0.9122	0.8881	0.9017	0.8812
Non-Normed Fit Index (NNFI)	0.9147	0.9296	0.9318	0.9030	0.9179	0.8963
Adjusted Goodness of fit (AGFI)	0.6194	0.7830	0.7638	0.6942	0.7196	0.7036
Comparative Fit Index (CFI)	0.9219	0.9365	0.9388	0.9129	0.9268	0.9075
Incremental Fit Index (IFI)	0.9220	0.9366	0.9390	0.9132	0.9270	0.9078
Relative Fit Index (RFI)	0.9017	0.9143	0.9022	0.8753	0.8898	0.8668
Parsimonious Fit Measures						
Parsimony Normed Fit Index (PNFI)	0.8330	0.8324	0.8185	0.7969	0.8041	0.7858
Parsimony Goodness of fit (PGFI)	0.5784	0.6805	0.6627	0.6156	0.6284	0.6177

Results: Absolute Fit Measures

The significant Minimum Fit Chi-Square statistics demonstrates imperfect model fit and implies that the models are not adequate and may possibly have to be rejected. The same picture is provided by the Normal Theory Weighted Least Chi-Square. As stated earlier, the Chi-square statistic is however, sensitive to multivariate normality and sample size (Diamantopoulos & Signuaw, 2000). The χ^2/df ratio for the EFA-derived measurement model (based on the total sample) comes closer to the 2-5 range than that obtained for the original measurement model that indicates near acceptable fit (5.20 vs. 6.94), but still falls outside of this range. Neither model thus seems to fit the data well based on this criterion.

RMSEA suggests mediocre fit for the EFA-derived measurement model (0.09 which is <0.10), while RMSEA for the original measurement model suggests even poorer fit (>0.10). Again neither of the models obtains RMSEA values below the 0.08 level that is indicative of acceptable fit. ECVI has no appropriate range, but when the ECVI values are compared it can be seen that the EFA-derived measurement model has a smaller ECVI value and therefore is believed to have the greater potential for replication. The GFI value for the EFA-derived measurement model, which is an indication of overall fit, comes closer to 1.0 (0.8199 vs. 0.6727) showing that it is a better fit than the original measurement model, but it does not reach the >0.90 level required to indicate good fit. The RMR and standardised RMR values exceeds the 0.05 threshold, further raising doubts regarding the models' fit.

When assessing overall fit using all of the absolute measures of fit described above, it would seem that both models fit the data rather poorly. Furthermore, it should be noted that the indices obtained from the EFA-derived measurement model based on the data from the total sample do however, on the whole fair better against the guidelines for assessment of overall model fit, when numerically compared with those obtained from the original Konovsky and Organ (1996) measurement model.

Results: Incremental Fit Measures

When compared to a baseline model, both models achieve NFI, NNFI, IFI, CFI, and RFI indices that are >0.9, which represents good fit. The AGFI values, on the other hand, do not reach the 0.9 level slightly contradicting this result. It would, however, seem that these relative or comparative indices portray a more positive picture of model fit than which was presented by the absolute fit measures described above. The results seem to indicate that the model is at least better than can be expected from only chance. Once again, the incremental fit indices of the EFA-derived measurement model comes closer to 1.0 showing that it better fits the data than the original measurement model.

Results: Parsimonious Fit Measures

The models do not achieve PNFI and PGFI indices >0.9 to indicate adequate fit. Further, it should be noted that the original measurement model does achieve a numerically higher PNFI, while the EFA-derived model achieves a slightly higher PFGI.

Overall Results: Goodness-of-Fit

Examination of the various model fit indices summarised in Table 4.5 leads one to believe that the quality of the fit of neither of the two models is very good. Only the incremental fit indices provide some support for acceptable fit, while the absolute and parsimonious fit measures indicate that the models most probably fit the data rather poorly. It could be argued though that the EFA-derived model is at least marginally acceptable.

It would, however, seem that the EFA-derived measurement model most probably fits the data of this particular study better than the original measurement model as developed by Konovsky and Organ (1996). When the goodness-of-fit measures are numerically compared to one another, it is evident that all but one of the indices obtained from the EFA-derived measurement model fare better (i.e. are numerically higher, and lower where relevant) when compared to the guidelines for assessment of model fit discussed in the previous chapter and which is summarised in Table 3.2.

In further examining the fit indices of the cross-validation process, one is left with the assumption that the EFA-derived measurement model remains relatively stable across the two subsamples. This is based on a numerical comparison of the fit indices obtained when the measurement model derived from one subsample is fitted on that subsample's data and those obtained when the measurement model derived from one subsample is fitted to the data of the other subsample from which it was not derived. This comparison is purely numerical and is a rather rudimentary one that should be treated with the necessary caution as no absolute standards exist to evaluate the differences between the indices.

4.2.1.4 Conclusion Regarding Hypothesis 1

When subjecting the data obtained from the Konovsky and Organ scale (1996) to EFA the original factorial configuration could not be replicated in the present study. When using CFA to assess model fit, it was found that both the EFA-derived and original measurement models fits the obtained data rather poorly. It could be argued that the EFA-derived measurement model did achieve goodness-of-fit indices that show to possible mediocre fit. When numerically comparing the indices of model fit obtained from the EFA-derived measurement model (as derived from the total sample), with

those obtained from the original Konovsky and Organ scale's (1996) factorial configuration, one is led to believe that the EFA-derived measurement model more closely fits the data than the original measurement model. It is therefore thought to have demonstrated greater construct validity as a measure of the organisational citizenship behaviour construct in the present study. Comparing the various indices obtained from the cross-validation procedure, furthermore, shows that the EFA-derived measurement model could be considered a relatively robust or stable measure of the organisational citizenship behaviour construct within the current sample.

It is further speculated that the EFA-derived measurement model, based on the total sample is a marginally more reliable measure of the organisational citizenship behaviour construct in the present sample than the original measurement model proposed by Konovsky and Organ (1996). This conclusion is based on the fact that the Cronbach alpha coefficients were numerically higher for this measurement model where comparison was possible.

Based on these results, the EFA-derived measurement model as obtained from the data of the total sample is therefore believed to be the more appropriate measure of organisational citizenship behaviour within the context of the present study. It would seem that it may be approiate to reject the null hypothesis. It was therefore decided to use this measurement model for further analysis of the relationships between the constructs and for testing the theoretical model rather than the original Konovsky and Organ scale (1996).

4.2.1.5 Summary of the OCB Measure

The 32-item Konovsy and Organ (1996) organisational citizenship behaviour scale, which was developed to assess the five dimensions of organisational citizenship behaviour, was subjected to Exploratory Factor Analysis as part of the process to determine its construct validity. Factor Analysis is "…conceived of as a construct validity tool" (Kerlinger & Lee, 2000, p. 856). In the total sample, as well as the two subsamples that were used as test and validation samples in the double cross-validation process, only three factors of organisational citizenship behaviour emerged. These factors were considered to reflect underlying processes that have created the correlations among the variables (Tabachnick & Fidell, 2001). After studying the items

that loaded on these three factors and considering the original factorial configuration, it was decided that they should be named: 1) *Altruism*, 2) *Civic virtue* and 3) *Conscientiousness*. These factor names or labels were chosen in an attempt to epitomise the essence of the obtained factors.

The emergence of three of the original factors in the South African sample did, however, provide the assurance that these underlying variables were being measured successfully. The three measurement models, as derived from the total sample and two subsamples, explained between 53% and 56% of the variance. Of the three factors, *Altruism* explained the largest proportion of the variance (36-38%). *Altruism* is defined to include all discretionary behaviours that have the effect of helping a specific other person with an organisationally relevant task or preventing the occurrence of work-related problems (Organ, 1988). More broadly speaking, *altruism* is seen as the unselfish act of helping others. It can therefore be seen as a very important element of organisational citizenship behaviour. *Civic virtue* explained 9% to 10% of the variance and is defined as responsible participation in the political life of the organisation. *Conscientiousness*, which explained about 7% of the variance, captures the various instances in which members of the organisation carry out certain role behaviours that are well beyond the minimum required levels of the organisation. *Conscientiousness* is also sometimes referred to as *generalised compliance*. The conscientious employee operates within an appropriate personal code of conduct.

It is believed that these three factors and their definitions do represent a valid indication of the organisational citizenship behaviour construct. Based on the results obtained, construct validity of the EFA-derived measurement model is assumed. The internal reliability of the derived measurement model and its subscales were assessed with the use of Cronbach's alpha. Cronbach alphas for the whole scale and the subscales were found to be satisfactory in the present study (α=.83 -.92).

The fact that little more than half of the variance was explained is expected to impact on further results, e.g. the observed strength of the relationships between organisational citizenship behaviour and the other constructs. It is evident that a significant proportion of organisational citizenship behaviour has not been measured and one will not know exactly what influence this would have on further results that are based on this measure.

When the goodness-of-fit indices obtained from the Confirmatory Factor Analyses and the Cronbach alphas were compared, it was found that the measurement model derived from the responses of the present sample fitted the obtained data more closely and were more internally reliable than the measurement model proposed by Konovsy and Organ (1996). In the split-sample approach, an EFA was conducted on a subsample to obtain a derived measurement model. CFA was used to see how well this measurement model fitted the other subsample (from which it was not derived). In comparing the goodness-of-fit indices, it was presumed that the EFA-derived measurement models were relatively robust and stable.

On the basis of the results, the derived measurement model was used in the present study as a measure of organisational citizenship behaviour instead of the original measurement instrument, as it was believed to be have achieved a higher level of construct validity and internal reliability within the present sample. It should be noted that the present study cannot suggest that the derived measurement model is a more valid or reliable measure of the organisational citizenship behaviour construct in general and it does not make this claim.

4.2.2 Results: Hypothesis 2

Hypothesis 2 stated that the Intention to Quit scale developed by Cohen (1993) is an internally reliable measure of the *intention to quit* construct in the present sample. The construct validity could not be determined by means of EFA, due to the fact that the scale only had three items.

4.2.2.1 Descriptive Statistics and Reliability

The descriptive statistical results that were obtained from the three items of the intention to quit scale are summarised in Table 4.6. The Cronbach alpha coefficient for this scale was found to be 0.91 and is considered to be adequate (Tabachnick & Fidell, 2001).

Table 4.6: Intention to Quit Scale: Descriptive Statistics

(1 = Strongly disagree and 7 = strongly agree)	Mean	Std. Deviation	Variance	Skewness	Std. Error	Kurtosis	Std. Error
1. I think a lot about leaving the organisation	4.07	2.145	4.601	.119	.110	-1.384	.219
2. I am actively searching for opportunities to leave the organisation	3.30	2.143	4.591	.457	.110	-1.212	.219
3. When I can I will leave this organisation.	4.28	2.274	5.171	.231	.110	-1.468	.219
Total Scale	11.65	6.045	36.542	.053	.110	-1.255	.219

Taking the descriptive statistics into account, it would seem that most people in these organisations had obtained a slightly higher than average score for intention to quit i.e. 11.65 out of 21 or between 3.3 and 4.28 out of 7 (where 1 represents *strongly disagree* and 7 represents *strongly agree* and the middle point would be 3.5). The skewness of the data was positive. Kurtosis showed a relatively flat distribution of scores, which implies that there are many people at the extremes of the scale.

4.2.2.2 Conclusion Regarding Hypothesis 2

The Cronbach alpha coefficient was above the .7 requirement and seems to support the hypothesis questioning the acceptable internal reliability of this measurement scale (Tabachnick & Fidell, 2001). For the purposes of the present study, this measure was therefore used in its present format. Furthermore, due to the relatively high Cronbach alpha coefficient that was obtained, it is believed that these three items are very closely related and most probably represent a single construct, which in this case is intention to quit. This is apparent when the item wording is taken into consideration.

4.2.2.3 Summary of the Intention to Quit Measure

Due to the fact that the *intention to quit* scale of Cohen (1993) only consists of three items, it was not considered wise to conduct an EFA on it. The internal reliability, as measured by Cronbach alpha, was found to be rather high (α=.91) indicating that the three items "hang closely together" and were probably measuring the same underlying construct. Construct validity could in this case be assessed on face value after inspecting the items at most. There was no reason to suggest that this would not be an appropriate measure of the intention to quit construct.

4.2.3 Results: Hypothesis 3

Hypothesis 3 stated that the original measurement model of the Workplace Trust Survey (WTS) proposed by Ferres and Travaglione (2003) more closely fits the obtained data and is more internally reliable than the measurement model of the trust construct derived from the responses of the present sample. The following results were obtained based on the data collected during the present study with this measurement instrument.

4.2.3.1 Exploratory Factor Analysis

The responses to the items of the Workplace Trust Survey (WTS) proposed by Ferres and Travaglione (2003) were subjected to Exploratory Factor Analysis (EFA), utilising the Principal-Axis Factoring extraction method and Direct Oblimin rotation. This was performed on the data obtained from the total sample (n_t=496) and was done to uncover the underlying latent variable structure. The suitability of the data for factor analysis was assessed using the KMO measure of sampling adequacy. The level of the KMO measure of sampling adequacy was found to be above the .6 requirement (KMO=.967). Based on the Scree test (Catell, cited in Tabachnick & Fidell, 2001) and obtained eigenvalues, it was decided that a three-factor solution would be most appropriate. The eigenvalues were found to be: eigenvalue one = 12.657, eigenvalue two = 2.689, and eigenvalue three = 2.076. The three factors together were able to explain 64.52 percent of the variance.

After the first round of EFA, specifying a three-factor solution, two items were found to cross-load and were therefore removed. They were: *I perform knowing that this organisation will recognise my work* and *I feel confident that my co-workers appreciate my good work*. The next round of EFA resulted in the final three factor structure.

The three factors correlated with one another as follows: factor one correlated with factor two .519 and with factor three .549; while factor two correlated with factor three .471. The final factor structure obtained by the EFA based on the data of the total sample, is shown in Table 4.7. After inspecting the items that loaded on the three factors, it was decided to name them as follows: factor one = *Trust in the organisation*, factor two = *Trust in co-workers*, and factor three = *Trust in the leader*.

Table 4.7: Factor Structure of the Trust Items Based on the Total Sample (n_t = 496)

Item	Factor 1	Factor 2	Factor 3
There is widely held belief that this organisation is moving forward for the better	.897		
It is generally accepted that this organisation takes care of employees interests	.848		
I have positive feelings about the future of this organisation	.837		
I think that this organisation offers a supportive environment	.810		
Employees generally believe that management provides honest answers	.721		
I think that processes within this organisation are fair	.703		
Employees commonly believe that they are treated fairly at this organisation	.697		
I feel encouraged to perform well in this organisation	.688		
I believe that this organisation recognises and rewards employees' skills and abilities	.650		
It is frequently acknowledged by employees in this organisation that their immediate managers/supervisors reward those who perform well	.613		
I express my opinion honestly at this organisation with the knowledge that employees' views are valued	.539		
Most people at this organisation feel comfortable with their immediate managers/supervisors	.508		
Most employees at this organisation believe that co-workers are reliable		.779	
I think that my co-workers act reliably from one moment to the next		.756	
I feel that my co-workers are truthful in their dealings with me		.711	
I believe that my co-workers support me if I have problems		.704	
I feel that I can trust my co-workers to do their jobs well		.697	
I proceed with the knowledge that my co-workers are considerate regarding my interests		.693	
Most employees at this organisation believe that co-workers will be supportive if problems arise		.636	
I will act on the basis that my co-workers display ethical behaviour		.602	
I believe that my co-workers give me all the information necessary to assist me at work		.598	
I feel that my manager listens to what I have to say			.864
I think that my manager appreciates additional efforts I make			.787
I believe that my manager keeps personal discussions confidential			.775
I act knowing that my manager will keep his/her word			.748
I believe that my manager follows through promises with action			.689
I feel that my manager trusts his/her employees to work without excessive supervision			.569
Eigenvalues	12.657	2.689	2.076
Percentage Variance Explained	46.88%	9.96%	7.69%

Extraction Method: Principal Axis Factoring.
Rotation Method: Direct Oblimin with Kaiser Normalization.
Rotation converged in 6 iterations.

The EFA-derived factor structure, as obtained from the data from the total sample, is very similar to that of the original measurement model in that the factors that emerged were the same as those proposed by Ferres and Travaglione (2003). Only two items were rejected and one of the items did not load on the same factor as proposed by Ferres and Travaglione (2003). The item *Employees generally believe that management provides honest answers*, which, in the original measurement scale, is part of the *trust in manager/supervisor* subscale shifted to *the trust in organisation* subscale in the EFA-derived measurement model. It would seem that the present sample understood the term manager to refer to their line-manager/supervisor and the term management to refer to the organisation and its leadership.

This process was repeated with the data obtained from subsample A. After the EFA had been conducted, it was decided that a three-factor solution would be appropriate for further investigation. The KMO measure of sampling adequacy was found to be above the .6 requirement (KMO=.964). The three eigenvalues were found to be: eigenvalue one = 13.763, eigenvalue two = 4.879, and eigenvalue three = 2.670.

After the first round of EFA, which specified a three-factor solution, the following items were rejected due to the fact that they did not meet the requirements for inclusion: *I feel encouraged to perform well in this organisation*; *I express my opinion honestly at this organisation with the knowledge that employees views are valued*; *I feel confident that my co-workers appreciate my good work;* and *I perform knowing that this organisation will recognise my work*. The following round of EFA resulted in the accepted final factor structure.

The three factors together explained 60.88% of the variance in the data (factor one = 36.75%, factor two = 12.56%, and factor three = 11.57%). The three factors correlated with one another as follows: factor one correlated with factor two .348, and with factor three .346, while factor two correlated with factor three .313. After inspecting the items that loaded meaningfully on the three factors, it was decided to name them as follows: factor one = *Trust in the organisation*, factor two = *Trust in co-workers*, and factor three = *Trust in the leader*. The final factor solution based on the data from subsample A is shown in Table 4.8.

Table 4.8: Factor structure of trust items based on Subsample A (n_1 = 248)

Item	Factor 1	Factor 2	Factor 3
It is generally accepted that this organisation takes care of employees' interests	.849		
There is widely held belief that this organisation is moving forward for the better	.824		
Employees generally believe that management provides honest answers	.801		
I have positive feelings about the future of this organisation	.711		
I think that this organisation offers a supportive environment	.666		
Employees commonly believe that they are treated fairly at this organisation	.633		
I think that processes within this organisation are fair	.611		
I believe that this organisation recognises and rewards employees' skills and abilities	.555		
I feel that my manager listens to what I have to say	.551		
It is frequently acknowledged by employees in this organisation that their immediate managers/supervisors reward those who perform well	.523		
I think that my co-workers act reliably from one moment to the next		.785	
I proceed with the knowledge that my co-workers are considerate regarding my interests		.742	
Most employees at this organisation believe that co-workers are reliable		.714	
I believe that my co-workers support me if I have problems		.699	
I feel that I can trust my co-workers to do their jobs well		.644	
I feel that my co-workers are truthful in their dealings with me		.633	
I believe that my co-workers give me all the information necessary to assist me at wok		.609	
Most employees at this organisation believe that co-workers will be supportive if problems arise		.587	
I will act on the basis that my co-workers display ethical behaviour		.513	
I think that my manager appreciates additional efforts I make			.903
I feel that my manager listens to what I have to say			.863
I believe that my manager keeps personal discussions confidential			.815
I act knowing that my manager will keep his/her word			.774
I believe that my manager follows through promises with action			.732
I feel that my manager trusts his/her employees to work without excessive supervision			.622
Eigenvalues	13.763	4.879	2.670
Percentage Variance Explained	36.75%	12.56%	11.57%

Extraction Method: Principal Axis Factoring.
Rotation Method: Direct Oblimin with Kaiser Normalization.
Rotation converged in 6 iterations.

The factor structure obtained from the EFA, based on the subsample A data, differed very slightly from that of the original measurement model proposed by Ferres and Travaglione (2003). Four items were rejected and the same item as above (i.e. *Employees generally believe that management provides honest answers*) again shifted to the *trust in the organisation* subscale in the EFA-derived measurement model.

This process was now repeated for the data obtained from subsample B. After the first round of EFA had been conducted, it was decided that, once again, a three-factor solution would be appropriate. The KMO measure of sampling adequacy was found to be above the .6 requirement (KMO=.957). The items loaded on three meaningful factors: eigenvalue one = 13.539; eigenvalue two = 2.531; and eigenvalue three = 1.783.

After the first round of EFA specifying a three factor solution, the items *Most people at this organisation feel comfortable with their immediate managers/supervisors;* and *I perform knowing that this organisation will recognise my work,* were rejected, as they did not meet the requirements for inclusion. The final factor structure was obtained after the second round of EFA.

The three factors together explained 66.12% of the variance in the data (factor one = 50.14%; factor two = 9.37%; and factor three = 6.60%). The three factors correlated with one another as follows: factor one correlated with factor two .563, and with factor three .611, while factor two correlated with factor three .541. After inspecting the items that loaded meaningfully on the three factors, it was decided to name them as follows: factor one = *Trust in the organisation*, factor two = *Trust in co-workers*, and factor three = *Trust in the leader.* The final factor solution based on the data from subsample B is shown in Table 4.9.

Table 4.9: Factor Structure of Trust Items Based on Subsample B (n_2 = 248)

Item	Factor 1	Factor 2	Factor 3
There is widely held belief that this organisation is moving forward for the better	.897		
I have positive feelings about the future of this organisation	.858		
I think that this organisation offers a supportive environment	.841		
It is generally accepted that this organisation takes care of employees' interests	.836		
I feel encouraged to perform well in this organisation	.736		
I think that processes within this organisation are fair	.716		
Employees commonly believe that they are treated fairly at this organisation	.701		
I believe that this organisation recognises and rewards employees' skills and abilities	.691		
Employees generally believe that management provides honest answers	.664		
It is frequently acknowledged by employees in this organisation that their immediate mangers/supervisors reward those who perform well	.631		
I express my opinion honestly at this organisation with the knowledge that employees' views are valued	.608		
Most employees at this organisation believe that co-workers are reliable		.796	
I feel that my co-workers are truthful in their dealings with me		.759	
I feel that I can trust my co-workers to do their jobs well		.732	
I think that my co-workers act reliably from one moment to the next		.720	
I believe that my co-workers support me if I have problems		.713	
I proceed with the knowledge that my co-workers are considerate regarding my interests		.676	
I will act on the basis that my co-workers display ethical behaviour		.651	
Most employees at this organisation believe that co-workers will be supportive if problems arise		.637	
I believe that my co-workers give me all the information necessary to assist me at wok		.613	
I feel confident that my co-workers appreciate my good work		.433	
I feel that my manager listens to what I have to say			.875
I believe that my manager keeps personal discussions confidential			.763
I act knowing that my manager will keep his/her word			.752
I think that my manager appreciates additional efforts I make			.738
I believe that my manager follows through promises with action			.689
I feel that my manager trusts his/her employees to work without excessive supervision			.544
Eigenvalues	13.539	2.531	1.783
Percentage Variance Explained	50.14%	9.37%	6.60%

Extraction Method: Principal Axis Factoring.
Rotation Method: Direct Oblimin with Kaiser Normalization.
Rotation converged in 6 iterations

Comparing the EFA-derived measurement model obtained from the data from subsample B, it can be seen that the same three factors as proposed by Ferres and Travaglione (2003) have emerged. Two items had to be rejected and it should be noted that the same item as previously (*Employees generally believe that management provides honest answers*) has shifted from the *trust in the leader* subscale in the WTS to the *trust in the organisation* subscale in the EFA-derived measurement model.

4.2.3.2 Internal Reliability

The Cronbach alpha coefficients of the dimensions of the various EFA-derived measurement models and the WTS proposed by Ferres and Travaglione (2003) were calculated using the data of the total sample, as well as the two subsamples. The results are summarised in Table 4.10 below.

Table 4.10: Cronbach alphas for Trust scales and subscales

Model derived from:-	**Original**	**Total Group**	**S-Sample A**	**Original**	**S-Sample B**	**Original**
Data obtained from:-	**Total Group**	**Total Group**	**S-Sample A**	**S-Sample A**	**S-Sample B**	**S-Sample B**
Total Scale	.954	**.956**	.961	.960	.964	.955
Trust in the organisation	.914	**.947**	.947	.940	.971	.969
Trust in co-workers	.901	**.909**	.914	.910	.942	.935
Trust in the leader	.839	**.917**	.917	.909	.811	.810

The EFA-derived measurement scales (and their subscales), as well as the original measurement model as proposed by Ferres and Travaglione (2003) (and its subscales) are all believed to be reliable measures of trust. This assumption is based on the fact that all of the Cronbach alpha coefficients were above the .7 requirement (Tabachnick & Fidell, 2001).

It is further evident from the results summarised in Table 4.10 that when numerically comparing the Cronbach alpha coefficients obtained for the various EFA-derived measurement models (and their subscales) to those obtained for the original measurement model (and its subscales) based on the data of the total sample and the two subsamples, the EFA-derived scales consistently obtain numerically higher Cronbach alpha coefficients.

4.2.3.3 Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) was performed, with the use of LISREL (version 8.53), to examine the goodness-of-fit between the different measurement models and the obtained data. The maximum likelihood (ML) method was used to estimate all models. The indices of model fit for each of the six CFAs are summarised in Table 4.11. To aid the comparison of the goodness-of-fit indices obtained from the EFA-derived measurement model and the original measurement model proposed by Ferres and Travaglione (2003), the indices that indicated a numerically better result compared to the guidelines for goodness-of-fit measures discussed in the previous chapter and summarised in Table 3.2, were highlighted by shading.

Table 4.11: Confirmatory Factor Analysis: Model Fit Indices for the Trust Scale						
Model derived from:-	**Original**	**Total Group**	**Sample A**	**Sample A**	**Sample B**	**Sample B**
Data obtained from:-	**Total Group**	**Total Group**	**Sample A**	**Sample B**	**Sample B**	**Sample A**
Absolute Fit Measures						
Degrees of Freedom	813	773	658	696	813	812
Minimum Fit Function Chi-Square	4626.8232 p=.0	4206.7781 p=.0	2165.9996 p=.0	2561.4881 p=.0	2892.1485 p=.0	2812.7011 p=.0
Normal Theory Weighted Least Chi-Square	5075.9096 p=.0	4461.3790 p=.0	2156.5919 p=.0	2573.6877 p=.0	3010.0317 p=.0	2987.6979 p=.0
χ^2/df	5.691	5.44	3.292	3.680	3.557	3.464
Root Mean Square Error of Approx. (RMSEA)	0.1029	0.09818	0.09602	0.1045	0.1046	0.1042
90% Confidence Interval for RMSEA	(0.1002; 0.1056)	(0.09539; 0.1010)	(0.09153; 0.1005)	(0.1002; 0.1088)	(0.1006; 0.1086)	(0.1002; 0.1082)
Expected Cross-validation index (ECVI)	10.6180	9.3684	9.4032	11.1000	12.9151	12.8328
90% Confidence interval for ECVI	(10.1711; 11.0797)	(8.9515; 9.8003)	(8.8490; 9.9881)	(10.4866; 11.7437)	(12.2505; 13.6101)	(12.1710; 13.5249)
Chi-square for independence Model for Degrees of Freedom (df)	74413.9730 (861)	68752.1369 (820)	23357.9078 (703)	39920.3845 (741)	47562.3876 (861)	28956.0641 (861)
Root Mean Square Residual (RMR)	0.2342	0.2109	0.2312	0.2529	0.2274	0.2380
Standardised RMR	0.08359	0.07742	0.08485	0.08545	0.07962	0.08982
Goodness of Fit Index (GFI)	0.6719	0.6946	0.6852	0.6517	0.6328	0.6345
Incremental Fit Measures						
Normed Fit Index (NFI)	0.9376	0.9388	0.9073	0.9358	0.9392	0.9029
Non-Normed Fit Index (NNFI)	0.9449	0.9464	0.9289	0.9493	0.9529	0.9245
Adjusted Goodness of fit (AGFI)	0.6356	0.6598	0.6454	0.6097	0.5921	0.5936
Comparative Fit Index (CFI)	0.9479	0.9495	0.9334	0.9524	0.9555	0.9288
Incremental Fit Index (IFI)	0.9480	0.9496	0.9336	0.9524	0.9555	0.9289
Relative Fit Index (RFI)	0.9339	0.9351	0.9009	0.9317	0.9356	0.8970
Parsimonious Fit Measures						
Parsimony Normed Fit Index (PNFI)	0.8850	0.8853	0.8492	0.8790	0.8868	0.8515
Parsimony Goodness of fit (PGFI)	0.6049	0.6236	0.6084	0.5816	0.5697	0.5706

Results: Absolute Fit Measures

Significant Minimum Fit Chi-Square and Normal Theory Weighted Least Chi-Square statistics were obtained that point to imperfect model fit and that implies that the models are not adequate. The χ^2/df ratio is used to counter the problems associated with these statistics (Diamantopoulos & Signuaw, 2000; Hair et al., 1998). The χ^2/df ratio for the EFA-derived measurement model comes closer to the 2-5 range, which indicates acceptable fit (5.44 vs. 5.691), but still just falls outside of the required range.

RMSEA suggests that the EFA-derived model fits the obtained data rather poorly (0.098 which is <0.10), while the original measurement model suggests even poorer fit (0.102

which is >0.10). When the ECVI values are compared it can be seen that the EFA-derived measurement model has a smaller ECVI value and therefore is believed to have a better potential for replication. The GFI value for the EFA-derived measurement model comes closer to 1.0 (0.695 vs. 0.672) showing that it is a better fit than the original measurement model, but it still does not reach the >0.90 level required to indicate good fit. The RMR and standardised RMR values exceeds the 0.05 threshold, further raising doubts regarding the quality of fit.

When assessing overall fit using the absolute measures of fit, it would seem that both models fit the data rather poorly. Furthermore, it should be noted that the indices obtained from the EFA-derived measurement model do, however, fair slightly better against the guidelines for the assessment of overall model fit, when numerically compared with those obtained from the original WTS.

Results: Incremental Fit Measures

When compared to a baseline model, both models achieve NFI, NNFI, IFI, CFI, and RFI indices that are >0.9, which represents good fit. The AGFI values, on the other hand, do not reach the 0.9 level slightly contradicting this result. These relative or comparative indices therefore seem to portray a more positive picture of model fit than which was presented by the absolute fit measures. The results further seem to indicate that the model can be ascribed to more than chance. Once again, the incremental fit indices of the EFA-derived measurement model comes closer to 1.0 and are numerically larger showing that it most probably fits the data better than the original measurement model.

Results: Parsimonious Fit Measures

The models do not achieve PNFI and PGFI indices >0.9 to indicate adequate fit. When compared to one another, the EFA-derived model achieves a numerically slightly higher PFGI and PNFI.

Overall Results: Goodness-of-Fit

Examination of the various model fit indices summarised in Table 4.11 leads one to believe that the quality of fit of both of these models is rather poor. Only the incremental fit indices provide some support for possible acceptable fit, while the

absolute and parsimonious fit measures indicate that the models most probably fit the data rather poorly.

Examination of the model fit indices shown in Table 4.11, above, shows that the EFA-derived model obtained slightly better fit indices that those achieved by the original measurement model as developed by Ferres and Travaglione (2003), when they were compared numerically with one another and with the guidelines or "rules of thumb" for goodness-of-fit measures summarised in Table 3.2.

In further examining the fit indices of the cross-validation process, one is left with the impression that the EFA-derived measurement model remains relatively stable across the two subsamples. This is based on a numerical comparison of the fit indices obtained from the double cross-validation procedure. This comparison is purely numerical and is a rather rudimentary one that should be treated with the necessary caution as no absolute standards exist to evaluate the differences between the indices.

4.2.3.4 Conclusion Regarding Hypothesis 3

The original dimensions and factorial configuration of the Workplace Trust Survey (WTS) by Ferres and Travaglione (2003) were very closely replicated in a South Africa sample. The same three factors emerged in the sample, as well as in the two subsamples.

It would seem that the EFA-derived measurement model did achieve mediocre model fit. When numerically comparing the indices of model fit obtained from the EFA-derived measurement model (as derived from the total sample), with those obtained from the original WTS's factorial configuration, one is led to believe that the EFA-derived measurement model more closely fits the data than the original measurement model proposed by Ferres and Travaglione (2003). It is therefore thought to have demonstrated greater construct validity as a measure of the trust construct. Comparing the various indices obtained from the cross-validation procedure, furthermore, shows that the EFA-derived measurement model could be considered a relatively robust or stable measure of the trust construct within the current sample.

When numerically comparing the obtained Cronbach alpha coefficients for the EFA-derived measurement model with those obtained from the original measurement model

proposed by Ferres and Travaglione (2003) it is speculated that the EFA-derived measurement model based on the total sample (n_t=496) is a marginally more reliable measure of the trust construct in the present sample than the original measurement model proposed by Ferres and Travaglione (2003).

Based on these results, the EFA-derived measurement model as obtained from the data of the total sample ($\underline{n}_t$=496), is therefore believed to be the more appropriate measure of trust within the context of the present study as it fits the data better than the original measurement model (i.e. the WTS). It was therefore decided, for the purposes of the present study to make use of this measurement model for further analysis. Based on these results, it would seem that it may be approiate to reject the null hypothesis.

4.2.3.5 Summary of the Trust Measure

The Workplace Trust Survey (WTS) of Ferres and Travalione (2003) was subjected to Exploratory Factor Analysis as part of the process to determine its construct validity. In the total sample, as well as in the two subsamples that were used as test and validation samples in the double cross-validation process, three factors of trust emerged. After studying the items that loaded on these three factors and considering the original factorial structure, it was decide that they were: 1) *Trust in the organisation*, 2) *Trust in co-workers* and 3) *Trust in the manager/supervisor*. The emergence of the same three factors in the South African sample as proposed by Ferres and Travalione (2003) provided the assurance that the underlying variables were being measured successfully.

The EFA-derived measurement models were very similar to those proposed by Ferres and Travalione (2003). Several items did not meet the inclusion criteria and one item shifted from the *trust in the manager/supervisor* subscale to the *trust in the organisation* subscale. It is believed that this shift was due to the word management in the item, which seems to have been understood to refer to the broader organisation and its leadership, while the term manager, it seems, was understood to refer to the direct line-manager/supervisor. Even though the instrument was developed and standardised on an Australian sample, it seemd not to be affected very much by the differences between that sample and the present South African sample. The small differences that were found, were ascribed to the differences that are believed to exist between these two samples. For all intents and purposes, this measurement scale can be considered as

robust and stable across these cultures. One could further presume that the trust construct may be universal and that it is understood on different continents and in different cultures in very much the same way.

The three trust measurement models, derived from the total sample and two subsamples explained between 61% and 66% of the variance in the data, with *trust in the organisation* explaining the largest proportion thereof. The fact that only about 65% of the variance was explained, may impact on the other results, as a significant proportion of the trust construct has still not been measured. Based on the results obtained, construct validity of the derived measurement model was presumed. The internal reliability of the derived measurement models was assessed using Cronbach's alpha. Cronbach alphas for the whole scale and the subscales were found to be satisfactory (α=.92-.96).

When the goodness-of-fit indices obtained from the Confirmatory Factor Analyses and the Cronbach alphas were compared numerically, it was found that the measurement model derived from the responses of the present sample marginally fitted the obtained data more closely and was more internally reliable than the measurement model proposed by Ferres and Travaglione (2003). When the goodness-of-fit indices obtained in the split-sample approach were compared, it was presumed that the EFA-derived measurement models were relatively stable. Based on these results, it was decided that it would be prudent to use the derived measurement model as a measure of trust instead of the original measurement instrument, as it was believed to have achieved a slightly higher level of construct validity and internal reliability within the present sample. As before, the present study cannot suggest that the derived measurement model is a more valid or reliable measure of the trust construct in general and it also does not make this claim.

4.2.4 Results: Hypothesis 4

Hypothesis 4 stated that the original measurement model of the Life Regard Index proposed by Battista and Almond (1973) more closely fits the obtained data and is more internally reliable than the measurement model for the meaning construct derived from the responses of the present sample. The following results were obtained based on the data collected with the Life Regard Index (LRI).

4.2.4.1 Exploratory Factor Analysis

An Exploratory Factor Analysis (EFA) utilising the Principal-Axis Factoring extraction method and Direct Oblimin rotation was performed on the responses of the entire sample (n_t=496) to the 28 items of the LRI scale, to uncover the underlying latent variable structure of this instrument. The level of the KMO measure of sampling adequacy was found to be .907 and was therefore considered acceptable. Based on the eigenvalue criterion and the Scree test, the items seemed to load on two meaningful factors that could be investigated further. The eigenvalues were found to be: eigenvalue one = 6.764 and eigenvalue two = 1.769.

The first round of EFA, specifying a two factor solution was conducted. The following items did not meet the criteria for inclusion: *26. Living is deeply fulfilling*; *3. I just do not know what I really want to do with my life*; *10. I really do not believe in anything about my life very deeply*; *24. I have real passion in my life*; *19. I feel like I have found a really significant meaning for leading my life*; *7. I have a very clear idea of what I would like to do with my life*; *12. I have really come to terms with what is important to me in my life*; and *11; I really do not have much of a purpose for living; even for myself.* These were removed and a next round of EFA conducted. After the second round of EFA, items *21. I have a philosophy of life that really gives my living significance;* and *17. I have a system or framework that allows me to truly understand my being alive* did not meet the criteria for inclusion and were removed. The third round of EFA resulted in the final factor structure. The two factors together explained 47.41 percent of the variance. The two factors correlated .151 with one another.

Even though the same numbers of factors were obtained (i.e. two), the original factor structure proposed by Battista and Almond (1973) was not replicated in the data obtained from the total sample. The way in which the items loaded on the two factors differed substantially from that of the original measurement model and the way in which they had originally loaded on the factors proposed by Battista and Almond (1973). This meant that the original labels or descriptions could not be used and different descriptions had to be found for the factors. This was done by inspecting the items and deciding on an appropriate label that would describe them adequately. After inspecting the items that loaded on the two factors it was decided to name them as follows: factor 1 = *fulfilling a purpose* and factor 2 = *having a purpose*. The final factor

structure obtained by the EFA on the data of the total sample is summarised in Table 4.12.

Table 4.12: Factor Structure of LRI Items for the Total Sample (n_t = 496)

tem	Factor 1	Factor 2
15. Something seems to stop me from doing what I really want to do	.789	
22. I do not seem to be able to accomplish those things that are really important to me	.786	
9. I really feel good about my life	.766	
5. I feel that I am living fully	.730	
18. Other people seems to feel better about their lives than I do	.683	
8. I feel that I am really going to attain what I want in life	.653	
27. I spent most of my time doing things that really are not very important to me	.635	
6. I get completely confused when I try to understand my life	.606	
14. Nothing very outstanding ever seems to happen to me	.602	
2. When I look at my life I feel the satisfaction of really having worked to accomplish something	.584	
4. I do not really value what I am doing	.561	
20. I have a lot of potential that I do not normally use	.547	
23. I get so excited by what I am doing that I find new stores of energy that I did not know I had	.514	
13. I need to find something that I can really be committed to	.499	
1. Other people seem to have a much better idea of what they want to do with their lives than I do	.476	
16. I have some aims and goals that would personally give me a great deal of satisfaction if I could accomplish them		.719
25. There honestly is not anything that I totally want to do		.628
28. There are things that I devote all my life's energy to		.301
Eigenvalues	6.764	1.769
Percentage Variance Explained	37.58%	9.82%

Extraction Method: Principal Axis Factoring.
Rotation Method: Direct Oblimin with Kaiser Normalization.
Rotation converged in 4 iterations.

This process was repeated for the data obtained from subsample A. The level of the KMO measure of sampling adequacy was found to be .876 and was therefore considered acceptable. The eigenvalues were found to be: eigenvalue one = 7.534 and eigenvalue two = 2.173.

After the first round of EFA specifying a two factor solution, items *3. I just do not know what I really want to do with my life*; *19. I feel like I have found a really significant meaning for leading my life*; *24. I have real passion in my life*; *21. I have a philosophy of life that really gives my living significance*; and *17. I have a system or framework that allows me to truly understand my being alive* were rejected as they did not meet the criteria for inclusion. The next round of EFA resulted in the final factor structure. The remaining items seemed to load on two meaningful factors that could be investigated further. These two factors together explained 44.12% of the variance in the data. Factor 1 correlated with Factor 2 .108.

Once again two factors were obtained, but, as before, the original factor structure proposed by Battista and Almond (1973) was not replicated in the data obtained from

subsample A. The way in which the items loaded on the two factors differed substantially from that of the original measurement model. This meant that the original labels or descriptions could not be used. Different descriptions had to be found for the factors or dimensions and this was done by inspecting the items and deciding on an appropriate label that would describe them adequately. It was decided to name them: factor 1 = *fulfilling a purpose* and factor 2 = *having a purpose*. The final factor pattern based on the data obtained from subsample A is summarised in Table 4.13.

Table 4.13: Factor Structure of LRI Items for Subsample A (n_1 = 248)

Item	Factor 1	Factor 2
22. I do not seem to be able to accomplish those things that are really important to me	.794	
15. Something seems to stop me from doing what I really want to do	.776	
9. I really feel good about my life	.759	
5. I feel that I am living fully	.683	
8. I feel that I am really going to attain what I want in life	.640	
6. I get completely confused when I try to understand my life	.638	
26. Living is deeply fulfilling	.637	
18. Other people seems to feel better about their lives than I do	.631	
27. I spent most of my time doing things that really are not very important to me	.594	
2. When I look at my life I feel the satisfaction of really having worked to accomplish something	.573	
4. I do not really value what I am doing	.567	
14. Nothing very outstanding ever seems to happen to me	.561	
20. I have a lot of potential that I do not normally use	.551	
10. I really do not believe in anything about my life very deeply	.507	
12. I have really come to terms with what is important to me in my life	.503	
1. Other people seem to have a much better idea of what they want to do with their lives than I do	.495	
23. I get so excited by what I am doing that I find new stores of energy I did not know that I had	.468	
13. I need to find something that I can really be committed to	.438	
11. I really do not have much of a purpose for living, even for myself	.436	
16. I have some aims and goals that would personally give me a great deal of satisfaction if I could accomplish them		.712
25. There honestly is not anything that I totally want to do		.631
28. There are things that I devote all my life's energy to		.308
Eigenvalues	7.534	2.173
Percentage Variance Explained	34.24%	9.78%

Extraction Method: Principal Axis Factoring.
Rotation Method: Direct Oblimin with Kaiser Normalization.
Rotation converged in 6 iterations.

This process was repeated for subsample B. The level of the KMO measure of sampling adequacy was found to be .919 and was considered acceptable and the process could continue. The items seemed to load on two meaningful factors: eigenvalue one = 9.599 and eigenvalue two = 2.270.

After the first round of EFA specifying a two factor solution, the following items were rejected as they did not meet the criteria for inclusion: *3. I just do not know what I really want to do with my life; 24. I have real passion in my life;* and *7. I have a very clear idea of what I would like to do with my life.* The next round of EFA resulted in the final factor structure being obtained. The two factors together explained 47.47% of the variance in the data. The two factors correlated .435 with one.

The original factor structure proposed by Battista and Almond (1973) was not replicated in the data obtained from subsample B. The way in which the items loaded on the two factors differed from that of the original measurement model. Due to this, different descriptions had to be found for the dimensions. After inspecting the items that loaded on the two factors, it was decided to name them as follows: factor 1 = *fulfilling a purpose* and factor 2 = *having a purpose*. The final factor pattern based on the data from subsample B is shown in Table 4.14.

Table 4.14: Factor Structure of LRI Items for Subsample B (n_2 = 248)

Item	Factor 1	Factor 2
15. Something seems to stop me from doing what I really want to do	.825	
22. I do not seem to be able to accomplish those things that are really important to me	.780	
5. I feel that I am living fully	.763	
9. I really feel good about my life	.756	
18. Other people seems to feel better about their lives than I do	.734	
27. I spent most of my time doing things that really are not very important to me	.697	
14. Nothing very outstanding ever seems to happen to me	.640	
8. I feel that I am really going to attain what I want in life	.624	
4. I do not really value what I am doing	.595	
2. When I look at my life I feel the satisfaction of really having worked to accomplish something	.591	
26. Living is deeply fulfilling	.566	
23. I get so excited by what I am doing that I find new stores of energy I did not know I had	.550	
13. I need to find something that I can really be committed to	.531	
6. I get completely confused when I try to understand my life	.530	
20. I have a lot of potential that I do not normally use	.529	
1. Other people seem to have a much better idea of what they want to do with their lives than I do	.448	
16. I have some aims and goals that would personally give me a great deal of satisfaction if I could accomplish them		.724
25. There honestly is not anything that I totally want to do		.516
28. There are things that I devote all my life's energy to		.360
Eigenvalues	9.599	2.270
Percentage Variance Explained	38.39%	9.08%

Extraction Method: Principal Axis Factoring.
Rotation Method: Direct Oblimin with Kaiser Normalization.
Rotation converged in 6 iterations

4.2.4.2 Internal Reliability

The Cronbach alpha coefficients of the dimensions of the various EFA-derived measurement models, as well as for the original LRI proposed by Battista and Almond (1973) were calculated using the data of the total sample, as well as the two subsamples. The results are summarised in Table 4.15.

Table 4.15: Cronbach alphas for Meaning scales and subscales

Model derived from:-	**Original**	**Total Group**	**S-Sample A**	**Original**	**S-Sample B**	**Original**
Data obtained from:-	**Total Group**	**Total Group**	**S-Sample A**	**S-Sample A**	**S-Sample B**	**S-Sample B**
Total Scale	.806	**.892**	.897	.906	.930	.906
Fulfilling a purpose	.888	**.906**	.908	.872	.918	.893
Having a purpose	.792	**.850**	.838	.774	.836	.797

The EFA-derived measurement scales (and their subscales), as well as the original measurement scale as proposed by Battista and Almond (1973) (and its subscales) are

all believed to be reliable measures of meaning based on the fact that all of the Cronbach alpha coefficients were above the .7 requirement (Tabachnick & Fidell, 2001).

It is further evident from the results summarised in Table 4.15 that when numerically comparing the Cronbach alpha coefficients obtained for the various EFA-derived measurement models (and their subscales) to those obtained for the original measurement model (and its subscales) based on the data of the total sample and the two subsamples, the EFA-derived scales in all but one instance obtain numerically higher Cronbach alpha coefficients.

A word of warning though. The above numerical comparison is valid at least when comparing the Cronbach alpha coefficients obtained on the two total scales. Both the scales are measuring the same construct within the same sample and therefore such a comparison is warranted. On the other hand, the factorial configurations and therefore the two dimensions that make up the construct do differ from one another and the numerical comparison of the Cronbach alpha coefficients found for the subscales should be done with some caution, as it may be unwarranted to do this.

4.2.4.3 Confirmatory Factor Analysis

The indices of model fit for each of the six CFAs are summarised in Table 4.16 for comparison. To aid comparison of the goodness-of-fit indices obtained from the EFA-derived measurement model and the original measurement model proposed by Battista and Almond (1973), the indices that indicated a (numerically) better result in terms of the guidelines for Goodness-of-Fit indices discussed in the previous chapter and summarised in Table 3.2, are highlighted with shading.

Table 4.16: Confirmatory Factor Analysis: Model Fit Indices for the LRI						
Model derived from:-	**Original**	**Total Group**	**Sample A**	**Sample A**	**Sample B**	**Sample B**
Data obtained from:-	**Total Group**	**Total Group**	**Sample A**	**Sample B**	**Sample B**	**Sample A**
Absolute Fit Measures						
Degrees of Freedom	349	134	208	208	274	273
Minimum Fit Function Chi-Square	2394.6495 p=.0	645.8193 p=.0	633.8309 p=.0	1519.8831 p=.0	772.7205 p=.0	984.9754 p=.00
Normal Theory Weighted Least Chi-Square	3261.6994 p=.0	660.2627 p=.0	665.9645 p=.0	1561.6518 p=.00	800.8935 p=.0	1044.1644 p=.00
χ^2/df	6.86	4.82	7.31	3.05	2.872	3.61
Root Mean Square Error of Approx. (RMSEA)	0.1296	0.08889	0.09422	0.1144	0.08806	0.1067
90% Confidence Interval for RMSEA	(01255; 0.1337)	(0.08219; 0.09572)	(0.08625; 0.1023)	(0.1092; 0.1198)	(0.08101; 0.09517)	(0.09991; 0.1136)
Expected Cross-validation index (ECVI)	6.7922	1.4774	3.0482	3.3232	3.6407	4.6297
90% Confidence interval for ECVI	(6.4317; 7.1675)	(1.3237; 1.6463)	(2.7490; 3.3782)	(3.0779; 3.5835)	(3.3142; 3.9980)	(4.2452; 5.0447)
Chi-square for independence Model for Degrees of Freedom (df)	24561.8858 (371)	9287.0734 (153)	7720.7466 (231)	12197.5175 (231)	10159.0165 (300)	8315.2198 (300)
Root Mean Square Residual (RMR)	0.08450	0.08445	0.08141	0.09295	0.07176	0.09093
Standardised RMR	0.08323	0.07761	0.08206	0.09238	0.07564	0.09302
Goodness of Fit Index (GFI)	0.6808	0.8714	0.8038	0.7778	0.7947	0.7480
Incremental Fit Measures						
Normed Fit Index (NFI)	0.9025	0.9305	0.9179	0.8754	0.9239	0.8815
Non-Normed Fit Index (NNFI)	0.9084	0.9360	0.9369	0.8782	0.9446	0.9024
Adjusted Goodness of fit (AGFI)	0.6287	0.8359	0.7613	0.7297	0.7565	0.7000
Comparative Fit Index (CFI)	0.9154	0.9440	0.9431	0.8904	0.9494	0.9112
Incremental Fit Index (IFI)	0.9155	0.9441	0.9433	0.8906	0.9495	0.99115
Relative Fit Index (RFI)	0.8944	0.9206	0.9088	0.8616	0.9167	0.8698
Parsimonious Fit Measures						
Parsimony Normed Fit Index (PNFI)	0.8333	0.8149	0.8265	0.7882	0.8439	0.8022
Parsimony Goodness of fit (PGFI)	0.5853	0.6828	0.6608	0.6395	0.6700	0.6284

Results: Absolute Fit Measures

The obtained significant Minimum Fit Chi-Square statistics demonstrates imperfect model fit and implies that the models are not adequate and may possibly have to be rejected. The same picture is provided by the Normal Theory Weighted Least Chi-Square. As stated in Chapter 3, the Chi-square statistic is, however, sensitive for multivariate normality and sample size (Diamantopoulos & Signuaw, 2000). The χ^2/df ratio for the EFA-derived measurement model falls within the 2-5 range, which indicates acceptable fit with the data. The original LRI on the other hand does not achieve this level (χ^2/df = 6.86).

RMSEA for the EFA-derived measurement model comes relatively close to the 0.08 level that indicates good fit (RMSEA = 0.09), while the original measurement model suggests poor fit (0.13 which is >0.10). ECVI has no appropriate range, but when the ECVI values are compared it can be seen that the EFA-derived measurement model has a smaller ECVI value and therefore is believed to have the greatest potential for replication (1.48 vs. 6.79). The GFI value for the EFA-derived measurement model, which is an indication of overall fit, comes closer to 1.0 (0.9 vs. 0.7) showing that it is a better fit than the original measurement model, and further just reaches the >0.90 level required to indicate good fit. The RMR and standardised RMR values exceeds the 0.05 threshold, raising doubts regarding the models fit. Again the EFA-derived model fares better on this index.

When assessing overall fit using the absolute measures of fit, it would seem that the EFA-derived model based on the total sample (n_t=496) obtains indices that may show to acceptable model fit. The original LRI on the other hand fits the data rather poorly when using these same criteria.

Results: Incremental Fit Measures

When compared to a baseline model, both models achieve NFI, NNFI, IFI, and CFI indices that are >0.9, which represents good fit. For the EFA-derived model RFI is >0.9, while for the original measurement model (i.e. the LRI) it is <0.9 therefore not indicative of good fit. The results do however seem to indicate that the model can be ascribed to more than chance. The AGFI values for the derived model, on the other hand, do not reach the 0.9 level slightly contradicting this result.

Results: Parsimonious Fit Measures

The models do not achieve PNFI and PGFI indices >0.9 to indicate adequate fit. Further, it should be noted that the original measurement model does achieve a numerically higher PNFI, while the EFA-derived model achieves a slightly higher PFGI.

Overall Results: Goodness-of-Fit

Examination of the various model fit indices summarised in Table 4.16 leads one to believe that the quality of the fit of the EFA-derived measurement model based on the

total sample (n_t=496), may be acceptable. The indices obtained from the original LRI measurement model, on the other hand shows that it does not fit the data well at all.

If would, therefore, seem that the EFA-derived measurement model most probably fits the data of this particular study better than the original measurement model as developed by Battista and Almond (1973). This is based on the fact that the EFA-derived measurement model obtained fit indices that show to acceptable fit. Furthermore, when the Goodness-of-Fit measures are numerically compared to one another, it is evident that all but one of the indices obtained from the EFA-derived measurement model fare better (i.e. are numerically higher, and lower where relevant) when compared to the guidelines for assessment of model fit discussed in the previous chapter and which is summarised in Table 3.2.

When numerically comparing the fit indices obtained when the measurement model derived from one subsample is fitted on that subsample's data and those obtained when the measurement model derived from one subsample is fitted to the data of the other subsample from which it was not derived, one is left with the impression that the EFA-derived measurement model remains relatively stable across the two subsamples. This comparison is purely numerical and is a rather rudimentary one that should be treated with the necessary caution as no absolute standards exist to evaluate the differences between the indices.

4.2.4.4 Conclusions Regarding Hypothesis 4

The original dimensions and factorial configuration of the scale of meaning by Battista and Almond (1973) could not be replicated in a South African sample. Even though the same number of factors was found, the obtained factorial configuration differed substantially from that of the original LRI. The EFA-derived measurement model does further seem to fit the data adequately, while the same cannot be said for the original model. The EFA-derived measurement model is therefore thought to have demonstrated greater construct validity as a measure of the meaning construct. Comparing the various indices obtained from the cross-validation procedure, furthermore, shows that the fit of the EFA-derived measurement model could be considered a relatively robust or stable measure of the meaning construct within the current sample.

It is further speculated that the EFA-derived measurement model based on the total sample (n_t=496) is a marginally more reliable measure of the meaning construct in the present sample than the original measurement model proposed by Battista and Almond (1973). This assumption was based on the fact that the obtained Cronbach alpha coefficients for the EFA-derived measurement scale were numerically higher when compared with that obtained from the original measurement model. This comparison is primarily based on the comparison of the obtained total scale Cronbach alpha coefficients. It was decided that it may not be correct to compare the Crobach alphas obtained for the dimensions, as they differed considerably from one another.

Based on these results, the EFA-derived measurement model as obtained from the data of the total sample (n_t=496), is therefore believed to be the more appropriate measure of meaning within the context of the present study. It was therefore decided to use this measurement model for further analysis of the relationships between the constructs and for testing the theoretical model. Based on the above results, it would seem that it may be approiate to reject the null hypothesis.

4.2.4.5 Summary of the Meaning Measure

Battista and Almond's (1973) Life Regard Index (LRI) was subjected to Exploratory Factor Analysis as part of the process to determine its construct validity. This measurement instrument was developed to assess two dimensions of meaning: 1) *Framework* and 2) *Fulfilment*. These dimensions measure the degree to which meaning in life is being sought and fulfilled. The emergence of similar factors in the South African sample provided the assurance that the underlying variables were being measured successfully.

In the total sample, as well as the two subsamples that were used as test and validation samples in the double cross-validation process, both of these factors of meaning emerged. After studying the items that loaded on these factors and considering the original factorial structure, it was decided that they were: 1) *Fulfilling a purpose*, and 2) *Having a purpose.* These factor names were adopted in an attempt to epitomise the essence of the obtained factors. Almost a third of the items did not meet the inclusion criteria and had to be rejected. Only three items with which the *having a purpose* dimension could be assessed remained. This is believed to have severely limited the

way in which this dimension was assessed. The configuration of the EFA-derived measurement model was therefore quite different from that of the original measurement model proposed by Battista and Almond (1973).

The three measurement models derived from the total sample and two subsamples explained between 44% and 47% of the variance, with *fulfilling a purpose* explaining the largest proportion thereof. The fact that little less than half of the variance is explained was expected to impact on further results based on this measure. Based on the EFA and CFA results obtained, construct validity of the derived measurement model is assumed. Cronbach alphas for the whole scale and the subscales were further found to be satisfactory (α=.85-.91).

When the goodness-of-fit indices obtained from Confirmatory Factor Analyses and from Cronbach alpha's were compared, it was found that the measurement model derived from the responses of the present sample more closely fitted the obtained data and was more internally reliable than the measurement model proposed by Battista and Almond (1973). In the split-sample approach, an EFA was conducted on a subsample to obtain a derived measurement model. CFA was used to see how well this measurement model fitted the other subsample (from which is was not derived). When comparing the goodness-of-fit indices, the assumption was that the EFA-derived measurement models were relatively stable. Based on those results, the derived measurement model was used in the present study as a measure of meaning instead of the original measurement instrument, as it was believed to be have achieved a higher level of construct validity and internal reliability within the present sample. The present study, once again does not suggest that the derived measurement model is a more valid or reliable measure of the meaning construct in general, but it was felt it would be the more appropriate measure in the present context.

4.2.5 Results: Hypothesis 5

Hypothesis 5 stated that the original measurement model of the Emotional Intelligence Index (EQI) proposed by Rahim and Minors (2002) more closely fits the data and is more internally reliable than the measurement model of leader emotional intelligence derived from the responses of the present sample. The following results were obtained from the data collected with the EQI.

4.2.5.1 Exploratory Factor Analysis

Exploratory Factor Analysis (EFA), utilising the Principal-Axis Factoring extraction method and Direct Oblimin rotation, was performed. The level of the KMO measure of sampling adequacy was found to be .957 and was considered acceptable and the process could therefore be continued. After inspection of the eigenvalues and the Scree plot, it was decided that the items seemed to load on four meaningful factors. The eigenvalues were to be: eigenvalue one = 15.422, eigenvalue two = 1.938; eigenvalue three = 1.681; and eigenvalue four = 1.023.

Specifying a four-factor solution, the first EFA was performed using all (n_t=496) the responses obtained on all of the items. After the first round of EFA, the following items were rejected as they did not meet the criteria for inclusion: *9. Confronts problems without demeaning*; *5. Is well aware of which emotions he or she is experiencing and why*; *27. Understands the emotional cues from others*; *3. Accepts rapid change to attain the goals of his or her group/organisation*; *35. Does not hesitate to make sacrifices to achieve important organisational goals*; *23. Takes responsibility for his or her performance*; *37. Is self-disciplined and does the right thing even when it is unpopular*; and *32. Manages task-related conflicts effectively.* After the second round of EFA, items *39. Seeks fresh ideas from a variety of sources;* and *34. Stays positive and generates innovative solutions to problems,* did not meet the inclusion criteria and were removed. After the third round of EFA, item *16. Understands the feelings transmitted through non-verbal messages* was removed and after the fourth round of EFA, items *40. Understands the feelings transmitted through verbal messages* and *33. Is well aware of his or her limitations* were removed. The fifth round of EFA resulted in the accepted final factor structure.

The four factors together explained 74.31 percent of the variance. The four factors correlated with one another as follows: factor one correlated with factor two .632; with factor three .581; and with factor four .689; while factor two correlated with factor three .581; and factor four .648.

The final factor structure based on the data from the total sample is shown in Table 4.17. After inspecting the items that loaded meaningfully on the four factors it was

decided to name them as follows: factor one = *Empathy;* factor two = *Self-Regulation;* factor three = *Self-Motivation;* and factor four = *Self-Awareness*.

Table 4.17: Factor Structure of EQI Items for the Total Sample (n_t = 496)

Item	Factor 1	2	3	4
15. Provides emotional support to people during stressful conditions	.842			
25. Inspires and guides employees to improve their job performance	.765			
2. Helps others feel better when they are down	.765			
22. Understands the links between employees' emotions and what they do	.688			
6. Understands why people feel the way they do	.594			
38. Provides useful and timely feedback	.565			
17. Remains calm in potentially volatile situations		.925		
18. Keep his or her disruptive impulses in check		.889		
4. Keeps his or her anger in check		.876		
21. Maintains composure irrespective of his or her emotions		.865		
1. Keeps his or her distressing emotions in check		.854		
36. Manages his or her stress well		.687		
29. Handles emotional conflicts with tact and diplomacy		.685		
11. Sets aside emotions in order to complete the task at hand		.615		
24. Does not allow his or her own negative feelings to inhibit collaboration		.548		
10. Does not allow the negative feelings of others to inhibit collaboration		.404		
19. Has strong drive to attain organisational goals			.979	
20. Has high motivation to set and attain challenging goals			.909	
26. Is well aware of his or her capabilities			.525	
31. Stays focused on goals despite setbacks			.499	
30. Operates from hope of success rather than fear of failure			.432	
13. Recognises the political realities of the organisation			.404	
7. Is well aware of the effects of his or her feelings on others				.870
8. Is well aware of his or her moods				.870
14. Is well aware of the non-verbal messages he or she sends to others.				.804
12. Is well aware of his or her impulses.				.775
28. Is well aware of how his or her gut feelings influence decisions				.426
Eigenvalues	15.422	1.938	1.681	1.023
Percentage Variance Explained	57.12%	7.18%	6.23%	3.79%

Extraction Method: Principal Axis Factoring.
Rotation Method: Direct Oblimin with Kaiser Normalization.
Rotation converged in 10 iterations.

The original factor structure was therefore not completely replicated in the data obtained from the total sample. Only four of the five dimensions emerged in the current sample and the items that had loaded on them did so differently to the way in which they had loaded in the original measurement model proposed by Rahim and Minors (2002).

This process was repeated with the data collected from subsample A using the EQI. After inspection of the eigenvalues and the Scree plot it was decided that the items seemingly loaded on three meaningful factors. The items loaded on three meaningful factors: eigenvalue one = 16.953; eigenvalue two = 2.128; and eigenvalue three = 1.783. The KMO measure of sampling adequacy was found to be .949 and was considered acceptable. The process could therefore be continued.

After the first round of EFA specifying a three factor solution, the following items were rejected: *32. Manages task-related conflicts effectively*; *39. Seeks fresh ideas from a*

variety of sources; *33. Is well aware of his or her limitations*; *9. Confronts problems without demeaning*; *10. Does not allow the negative feelings of others to inhibit collaboration; 5. Is well aware of which emotions he or she is experiencing and why*; *40. Understands the feelings transmitted through verbal messages;* and *22. Understands the links between employees' emotions and what they do.* After the second round of EFA. item *25. Inspires and guides employees to improve their job performance* was removed and after the third round of EFA item *2. Helps others feel better when they are down* was removed. The fourth round of EFA resulted in the accepted final factor structure.

The three factors together explained 69.55% of the variance in the data. The three factors correlated with one another as follows: factor one correlated with factor two .631 and with factor three .665, while factor two correlated with factor three .642. After inspecting the items that loaded meaningfully on the three factors, it was decided to name them as follows: factor one = *Self-Awareness;* factor two = *Self-Motivation;* and factor three = *Self-Regulation*. The final factor pattern for subsample A is shown in Table 4.18.

Table 4.18: Factor Structure of the EQI Items for Subsample A (n_1 = 248)

Item:	Factor 1	Factor 2	Factor 3
14. Is well aware of the non-verbal messages he or she sends to others.	.915		
16. Understands the feelings transmitted through non-verbal messages	.860		
7. Is well aware of the effects of his or her feelings on others	.829		
12. Is well aware of his or her impulses	.708		
27. Understands the emotional cues from others	.680		
28. Is well aware of how his or her gut feelings influence decisions	.657		
8. Is well aware of his or her moods	.629		
6. Understands why people feel the way they do	.550		
15. Provides emotional support to people during stressful conditions	.508		
20. Has high motivation to set and attain challenging goals		1.016	
19. Has strong drive to attain organisational goals		.931	
23. Takes responsibility for his or her performance		.730	
26. Is well aware of his or her capabilities		.708	
31. Stays focused on goals despite setbacks		.657	
35. Does not hesitate to make sacrifices to achieve important organisational goals		.656	
3. Accepts rapid change to attain the goals of his or her group/organisation		.654	
37. Is self-disciplined and does the right thing even when it is unpopular		.628	
13. Recognises the political realities of the organisation		.549	
34. Stays positive and generates innovative solutions to problems		.495	
30. Operates from hope of success rather than fear of failure		.480	
38. Provides useful and timely feedback		.472	
21. Maintains composure irrespective of his or her emotions			.930
4. Keeps his or her anger in check			.923
17. Remains calm in potentially volatile situations			.886
18. Keeps his or her disruptive impulses in check			.881
1. Keeps his or her distressing emotions in check			.783
29. Handles emotional conflicts with tact and diplomacy			.708
36. Manages his or her stress well			.634
11. Sets aside emotions in order to complete the task at hand			.519
24. Does not allow his or her own negative feelings to inhibit collaboration			.482
Eigenvalues	16.953	2.128	1.783
Percentage Variance Explained	56.51%	7.10%	5.94%

Extraction Method: Principal Axis Factoring.
Rotation Method: Direct Oblimin with Kaiser Normalization.
Rotation converged in 17 iterations.

The original factor structure was therefore not replicated in the data obtained from subsample A. This time, only three of the five dimensions emerged in the current subsample, with *Social-skills* and *Empathy* not being replicated. In the total sample the fourth factor only achieved an eigenvalue of 1.023 and therefore only just achieved the required >1 level. In the smaller subsample it could not achieve that level again. The items that had loaded on the three dimensions did so differently to those found in the original measurement model.

This process was also repeated for the data obtained from subsample B. The KMO measure of sampling adequacy was found to be .948 and was considered acceptable, so that the process EFA could therefore be continued. After inspection of the eigenvalues and the Scree plot, it was decided that the items seemed to load on three meaningful factors. The following eigenvalues were found: eigenvalue one = 13.963; eigenvalue two = 2.197; and eigenvalue three = 1.737.

After the first round of EFA specifying a three-factor solution, the following items were rejected as they did not meet the criteria for inclusion: *19. Has strong drive to attain organisational goals*; *25. Inspires and guides employees to improve their job performance*; *38. Provides useful and timely feedback*; *33. Is well aware of his or her limitations*; *10. Does not allow the negative feelings of others to inhibit collaboration*; *40. Understands the feelings transmitted through verbal messages*; *22. Understands the links between employees' emotions and what they do*; *6. Understands why people feel the way they do*; *15. Provides emotional support to people during stressful conditions.* and *2. Helps other feel better when they are down*. In the second round of EFA items *36. Manages his or her stress well*; *9. Confronts problems without demeaning*; *27. Understands the emotional cues from others; 28. Is well aware of how his or her gut feelings influence decisions;* and *5. Is well aware of which emotions he or she is experiencing and why* were rejected. The following round of EFA resulted in obtaining the accepted final factor structure consisting of 25 items.

The three factors together explained 71.59% of the variance in the data. These factors correlated with one another as follows: factor one correlated with factor two .644, and with factor three .594; while factor two correlated with factor three .585. After inspecting the items that loaded meaningfully on the three factors it was decided to name them as follows: factor one = *Self-Motivation;* factor two = *Self-Regulation;* and factor three = *Self-Awareness*. Even though the three factors use similar descriptions to the original EQI, the factor structure differs substantially from the original measurement model. The final factor pattern based on the data obtained from subsample B is shown in Table 4.19.

Table 4.19: Factor Structure of EQI Items for Subsample B (n_2 = 248)

Item	Factor 1	Factor 2	Factor 3
31. Stays focused on goals despite setbacks	.814		
35. Does not hesitate to make sacrifices to achieve important organisational goals	.810		
37. Is self-disciplined and does the right thing even when it is unpopular	.790		
3. Accepts rapid change to attain the goals of his or her group/organisation	.786		
34. Stays positive and generates innovative solutions to problems	.781		
20. Has high motivation to set and attain challenging goals	.760		
23. Takes responsibility for his or her performance	.742		
39. Seeks fresh ideas from a variety of sources	.735		
26. Is well aware of his or her capabilities	.704		
32. Manages task-related conflicts effectively	.670		
30. Operates from hope of success rather than fear of failure	.644		
13. Recognises the political realities of the organisation	.642		
17. Remains calm in potentially volatile situations		.927	
18. Keeps his or her disruptive impulses in check		.891	
4. Keeps his or her anger in check		.871	
21. Maintains composure irrespective of his or her emotions		.834	
1. Keeps his or her distressing emotions in check		.817	
29. Handles emotional conflicts with tact and diplomacy		.649	
11. Sets aside emotions in order to complete the task at hand		.603	
24. Does not allow his or her own negative feelings to inhibit collaboration		.551	
7. Is well aware of the effects of his or her feelings on others			.843
14. Is well aware of the non-verbal messages he or she sends to others.			.842
8. Is well aware of his or her moods			.842
12. Is well aware of his or her impulses.			.732
16. Understands the feelings transmitted through non-verbal messages			.707
Eigenvalues	13.963	2.197	1.737
Percentage Variance Explained	55.85%	8.79%	6.95%

Extraction Method: Principal Axis Factoring.
Rotation Method: Direct Oblimin with Kaiser Normalization.
Rotation converged in 6 iterations.

The original factor structure was therefore not replicated in the data obtained from subsample B. Only three of the five dimensions emerged in the current subsample. The two dimensions that were not replicated were *Social-skills* and *Empathy*. The items that had loaded on them did so differently to those found in the original measurement model.

4.2.5.2 Internal Reliability

The Cronbach alpha coefficients for the various EFA-derived measurement models and the original EQI measurement model proposed by Rahim and Minors (2002) were calculated for the total sample, as well as for the two subsamples. The results are summarised in Table 4.20.

Table 4.20: Cronbach alphas for Leader Emotional Intelligence scales and subscales

Model derived from:-	**Original**	**Total Group**	**S-Sample A**	**Original**	**S-Sample B**	**Original**
Data obtained from:-	**Total Group**	**Total Group**	**S-Sample A**	**S-Sample A**	**S-Sample B**	**S-Sample B**
Total Scale	.963.	**.971**	.973	.893	.958	.893
Empathy	.929	**.937**	n/a	.940	n/a	.939
Self-Regulation	.946	**.961**	.956	.934	.958	.950
Self-Motivation	.839	**.891**	.943	.938	.948	.938
Self-Awareness	.921	**.911**	.944	.904	.919	.904
Social Skills	.912	**n/a**	n/a	.939	n/a	.928

The EFA-derived measurement scales (and their subscales), as well as the original measurement scale as proposed by Rahim and Minors (2002) (and its subscales) are all believed to be reliable measures of meaning based on the fact that all of the Cronbach alpha coefficients were above the .7 requirement (Tabachnick & Fidell, 2001).

It is further evident from the results summarised in Table 4.20 that when numerically comparing the Cronbach alpha coefficients obtained for the various EFA-derived measurement models (and their subscales) to those obtained for the original measurement model (and its subscales) based on the data of the total sample and the two subsamples, the EFA-derived scales consistently obtain numerically higher Cronbach alpha coefficients where comparison was possible.

4.2.5.3 Confirmatory Factor Analysis

Confirmatory Factor Analysis was performed, using LISREL (version 8.53), to examine the goodness-of-fit between the obtained measurement models, the EQI and the obtained data. The indices of model fit for each of the six CFAs are summarised in Table 4.21. To aid the comparison of the goodness-of-fit indices obtained from the EFA-derived measurement model and the original measurement model proposed by Rahim and Minors (2002), the indices that indicated a numerically better result compared in terms of the guidelines for Goodness-of-Fit measures discussed in the previous chapter and summarised in Table 3.2, were highlighted by shading the cell.

Table 4.21: Confirmatory Factor Analysis: model fit indices for the EQI						
Model derived from:-	**Original**	**Total Group**	**Sample A**	**Sample A**	**Sample B**	**Sample B**
Data obtained from:-	**Total Group**	**Total Group**	**Sample A**	**Sample B**	**Sample B**	**Sample A**
Absolute Fit Measures						
Degrees of Freedom	730	318	402	402	272	272
Minimum Fit Function Chi-Square	4674.1335 p=.0	1918.0272 p=.0	1479.5565 p=.0	1754.5100 p=.0	886.9209 p=.0	969.2832 P=.0
Normal Theory Weighted Least Chi-Square	4997.2085 p=.0	2066.8308 p=.0	1462.3699 p=.0	1808.3356 p=.0	859.9727 p=.0	962.1442 p=.0
χ^2/df	6.40	6.03	3.68	4.36	3.26	3.56
Root Mean Square Error of Approx. (RMSEA)	0.1085	0.1052	0.1031	0.1188	0.09336	0.1011
90% Confidence Interval for RMSEA	(0.1056; 0.1113)	(0.1009; 0.1095)	(0.09748; 0.1088)	(0.1132; 0.1244)	(0.08637; 0.1004)	(0.09426; 0.1081)
Expected Cross-validation index (ECVI)	10.4169	4.4001	6.4047	7.7997	3.8951	4.3070
90% Confidence interval for ECVI	(9.9736; 10.8750)	(4.1183; 4.6968)	(5.9487; 6.8912)	(7.2829; 8.3468);	(3.5533; 4.2674)	(3.9409; 4.7037)
Chi-square for independence Model for Degrees of Freedom (df)	123357.6809 (780)	54974.1786 (351)	33409.3325 (435)	32358.7001 (435)	22446.2318 (300)	23026.9652 (300)
Root Mean Square Residual (RMR)	0.2047	0.2108	0.1814	0.2307	0.1844	0.1713
Standardised RMR	0.06990	0.06851	0.06330	0.07129	0.05539	0.05890
Goodness of Fit Index (GFI)	0.6655	0.7645	0.7178	0.6729	0.7828	0.7631
Incremental Fit Indices						
Normed Fit Index (NFI)	0.9621	0.9651	0.9557	0.9458	0.9605	0.9579
Non-Normed Fit Index (NNFI)	0.9656	0.9677	0.9646	0.9542	0.9694	0.9662
Adjusted Goodness of fit (AGFI)	0.6242	0.7201	0.6736	0.6216	0.7405	0.7170
Comparative Fit Index (CFI)	0.9678	0.9707	0.9673	0.9576	0.9722	0.9693
Incremental Fit Index (IFI)	0.9678	0.9707	0.9674	0.9577	0.9723	0.9694
Relative Fit Index (RFI)	0.9595	0.9615	0.9521	0.9413	0.9564	0.9536
Parsimonious Fit Measures						
Parsimony Normed Fit Index (PNFI)	0.9004	0.8744	0.8832	0.8740	0.8708	0.8685
Parsimony Goodness of fit (PGFI)	0.5924	0.6432	0.6206	0.5817	0.6552	0.6387

Results: Absolute Fit Measures

It is evident from the obtained significant Minimum Fit Chi-Square statistics that the model does not fit the data perfectly and implies that the models may possibly have to be rejected. The same picture is provided by the Normal Theory Weighted Least Chi-Square. As stated in Chapter 3, the Chi-square statistic is, however, sensitive for multivariate normality and sample size (Diamantopoulos & Signuaw, 2000). The χ^2/df ratio for the EFA-derived and original EQI measurement models both fall outside the 2-5 range. This indicates poor fit with the data. The EFA-derived measurement model does however achieve a χ^2/df ratio marginally closer to the 2-5 range

RMSEA for the EFA-derived and original EQI measurement models indicate poor fit (in both cases RMSEA > 0.10). When the ECVI values are compared it can be seen that the EFA-derived measurement model has a smaller ECVI value and therefore is believed to have the greatest potential for replication (4.40 vs. 10.42). The GFI value for the EFA-derived measurement model, which is an indication of overall fit, comes closer to 1.0 (0.8 vs. 0.7) showing that it is a better fit than the original measurement model, but does not reach the >0.90 level required to indicate good fit. The RMR and standardised RMR values exceeds the 0.05 threshold, raising even further doubts regarding the models fit. Again the EFA-derived model fares better on this index than the original.

When assessing overall fit using the absolute measures of fit, it would seem that neither the EFA-derived model nor the original EQI, convincingly achieve indices that would show to acceptable model fit based on the data of the total sample (n_t=496). It could be said that the EFA-derived measurement model did however obtain marginally better results.

Results: Incremental Fit Measures

When compared to a baseline model, both models achieve NFI, NNFI, IFI, RFI, and CFI indices that are >0.9, which represents good fit. This does point that the model is based on more than chance. The PNFI values, on the other hand, do not reach the 0.9 level slightly contradicting this result. The EFA-derived model does achieve higher values on these indices.

Results: Parsimonious Fit Measures

The models do not achieve PNFI and PGFI indices >0.9 to indicate adequate fit. Further, it should be noted that the original measurement model does achieve a numerically higher PNFI, while the EFA-derived model achieves a slightly higher PFGI.

Overall Results: Goodness-of-Fit

Examination of the various model fit indices summarised in Table 4.21 leads one to believe that the quality of the fit of the EFA-derived measurement model based on the

total sample, is rather poor. The indices obtained from the original EQI, on the other hand indicates that it fits the data even less well.

If would, therefore, seem that the EFA-derived measurement model most probably fits the data of this particular study better than the original measurement model as developed by Rahim and Minors (2002). The EFA-derived measurement model obtained fit indices that point to acceptable fit. Furthermore, when the goodness-of-fit measures are numerically compared to one another, it is evident that all but one of the indices obtained from the EFA-derived measurement model fare better (i.e. are numerically higher, and lower where relevant) when compared to the guidelines for assessment of model fit discussed in the previous chapter and which is summarised in Table 3.2.

In further examining the fit indices of the cross-validation process, one is left with the conclusion that the EFA-derived measurement model remains relatively stable across the two subsamples. This is based on a numerical comparison of the fit indices obtained when the measurement model derived from one subsample is fitted on that subsample's data and those obtained when the measurement model derived from one subsample is fitted to the data of the other subsample from which it was not derived. This comparison is purely numerical and is a rather rudimentary one that should be treated with the necessary caution as no absolute standards exist to evaluate the differences between the indices.

4.2.5.4 Conclusions Regarding Hypothesis 5

The original dimensions and factorial configuration of the EQI as proposed by Rahmin and Minors (2002) could not be replicated in this South Africa sample. Only four out of the five factors were replicated. The way these factors are made up by the items also differs from the original EQI.

The EFA-derived measurement model seems to have marginally achieved acceptable fit, while the quality of the fit obtained by the original EQI is rather poor. The EFA-derived measurement model does therefore fit the data better by comparison and is therefore thought to have demonstrated greater construct validity as a measure of the leader emotional intelligence construct.

Furthermore, when numerically comparing the Cronbach alpha coefficients obtained from the EFA-derived measurement model with those obtained from the original EQI scale, one is also led to believe that the EFA-derived measurement model is a more internally reliable measure of leader emotional intelligence. Comparing the various indices obtained from the cross-validation procedure, furthermore, shows that the fit of the EFA-derived measurement model could be considered a relatively robust or stable measure of the leader emotional intelligence construct within the current sample.

Based on these results, the EFA-derived measurement model as obtained from the data of the total sample is therefore believed to be the more appropriate measure of leader emotional intelligence within the context of the present study. It was therefore decided to use this measurement model for further analysis of the relationships between the constructs and for testing the theoretical model. Based on these results, it would seem that it may be approiate to reject the null hypothesis.

4.2.5.5 Summary of the Leader Emotional Intelligence Measure

The original version of the Emotional Intelligence Index (EQI) was used in the present study (Rahim & Minors, personal communication, April 2001). The scale was developed to assess Goleman's (1995) five dimensions of emotional intelligence: 1) *Self-awareness*, 2) *Self-regulation*, 3) *Self-motivation*, 4) *Empathy*, and 5) *Social skills*. This measurement instrument uses the leader (or supervisor/manager) as the referent person who should be assessed.

The data obtained with this measurement instrument was subjected to Exploratory Factor Analysis as part of the process to determine its construct validity. From the total sample, four factors of leader emotional intelligence emerged: 1) *Empathy*, 2) *Self-regulation*, 3) *Self-motivation*, and 4) *Self-awareness*. These factor names or labels were chosen in an attempt to epitomise the essence of the obtained factors. The emergence of the same three factors in the South African sample provided some assurance that the underlying variables were being measured successfully. Only three factors emerged. In the two subsamples: 1) *Self-regulation*, 2) *Self-motivation*, and 3) *Self-awareness*. It should be noted that not only did fewer factors emerge in the present sample, but the items loaded differently on these factors.

The measurement model derived from the total sample explained 74% of the variance in the data, with *Empathy* explaining the largest proportion thereof (57%). Based on the results obtained, construct validity of the derived measurement model was presumed. The internal reliability of the derived measurement models was assessed using Cronbach's alpha. Cronbach alphas for the whole scale and the subscales were found to be satisfactory (α=.91-.97).

When comparing the goodness-of-fit indices obtained from the Confirmatory Factor Analyses and the Cronbach alphas, it was found that the measurement model and configuration derived from the responses of the present sample more closely fitted the obtained data and were more internally reliable than the measurement model proposed by the authors. When the goodness-of-fit indices obtained from the cross-validation process were compared, it was presumed that the EFA-derived measurement models were relatively stable. The derived measurement model was used in the present study as a measure of leader emotional intelligence instead of the original measurement instrument, as it was believed to have achieved a higher level of construct validity and internal reliability within the present sample. The present study cannot suggest that the derived measurement model is a more valid or reliable measure of the leader emotional intelligence construct in general and does not make such a claim.

4.2.6 Results: Hypothesis 6

Hypothesis 6 stated that the original measurement model of the transformational leadership subscale of the Multifactor Leadership Questionnaire (MLQ) proposed by Bass and Avolio (1995) more closely fits the data and is more internally reliable than the measurement model of the transformational leadership construct derived from the responses of the present sample. The following results were obtained on the basis of the data collected by means of the transformational leadership subscales of the MLQ.

4.2.6.1 Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) was performed based on the data from the total sample to uncover the underlying latent variable structure of the transformational leadership items. Using the >1 eigenvalue criteria and examining the Scree plot led to the decision that a one factor solution would be most appropriate. The KMO measure of sampling adequacy was found to be .966 and was considered acceptable. As only a

single factor emerged, a rotation could not be done. The eigenvalue for the first factor was found to be 11.972. All subsequent factors had eigenvalues well below 1. This factor explained 59.859 percent of the variance. The final factor structure for the total sample is shown in Table 4.22. After inspecting the items that loaded on the factor, it was decided to name it *Transformational Leadership*.

Table 4.22: Factor Structure of the Transformational Leadership Subscale Items of the MLQ for the Total Sample (n_t = 496)

Item	Factor 1
19. Acts in ways that builds my respect	.864
28. Helps me to develop my strengths	.851
8. Instils pride in me for being associated with him/her	.850
30. Emphasises the importance of having a collective sense of mission	.827
32. Expresses confidence that goals will be achieved	.822
12. Specifies the importance of having a strong sense of purpose	.821
24. Articulates a compelling vision of the future	.821
11. Talks enthusiastically about what needs to be accomplished	.814
27. Gets me to look at problems from many different angles	.813
13. Spends time supporting and coaching	.796
16. Goes beyond his/her self-interest for the good of the group.	.785
29. Suggests new ways of looking at how to complete assignments	.762
7. Talks optimistically about the future	.750
17. Treats you as an individual rather than just a member of the group	.740
2. Re-examines critical assumptions to question whether they are appropriate	.721
26. Considers me as having different needs, abilities and aspirations from others.	.704
21. Considers the moral and ethical consequences of his/her decisions	.700
6. Seeks differing perspectives when solving problems	.665
23. Displays a sense of power and confidence	.527
5. Talks about his/her most important values and beliefs	.443
Eigenvalues	11.972
Percentage Variance Explained	59.86%

Extraction Method: Principal Axis Factoring.
Rotation Method: Direct Oblimin with Kaiser Normalization.
Rotation converged in 4 iterations.

The dimensional structure of transformational leadership is therefore under question as evidence of the dimensional nature of transformational leadership could not be found in the present study. Further comparison of the Cronbach alpha coefficients with one another was not possible for the following two reasons: Firstly, the original scale and the EFA-derived scale were identical. Secondly, the Cronbach coefficients of the dimensions of transformational leadership as proposed by Bass and Avolio (1995) could not be compared to any that emerged in the present study, as none had emerged.

This process was repeated with data from subsample A. The KMO measure of sampling adequacy was found to be .943 and was considered acceptable and the process was therefore continued. After the first round of EFA again only factor that could be studied further had emerged. The eigenvalue for the first factor was found to be 12.268. All subsequent factors had eigenvalues below 1. The single factor explained 63.34% of the variance in the data. The Cronbach alpha coefficient was found to be 0.966 for the

instrument, which shows that the scale had reached the required level of internal consistency. After inspecting the items that loaded meaningfully on the factor, it was decided to name it *Transformational Leadership.* The final factor pattern based on the data from subsample A is shown in Table 4.23.

Table 4.23: Factor structure of the Transformational Leadership subscale items of the MLQ for Subsample A (n_1 = 248)

Item:	Factor 1
19. Acts in ways that builds my respect	.876
28. Helps me to develop my strengths	.873
30. Emphasises the importance of having a collective sense of mission	.843
17. Treats you as an individual rather than just a member of the group	.841
11. Talks enthusiastically about what needs to be accomplished	.825
27. Gets me to look at problems from many different angles	.819
8. Instils pride in me for being associated with him/her	.819
12. Specifies the importance of having a strong sense of purpose	.818
32. Expresses confidence that goals will be achieved	.810
24. Articulates a compelling vision of the future	.805
16. Goes beyond his/her self-interest for the good of the group.	.799
7. Talks optimistically about the future	.785
29. Suggests new ways of looking at how to complete assignments	.783
13. Spends time supporting and coaching	.765
21. Considers the moral and ethical consequences of his/her decisions	.701
2. Re-examines critical assumptions to question whether they are appropriate	.698
26. Considers me as having different needs, abilities and aspirations from others	.684
6. Seeks differing perspectives when solving problems	.662
5. Talks about his/her most important values and beliefs	.569
23. Displays a sense of power and confidence	.537
Eigenvalues	12.268
Percentage Variance Explained	63.34%

Extraction Method: Principal Axis Factoring.
Rotation Method: Direct Oblimin with Kaiser Normalization.
Rotation converged in 4 iterations.

It was not possible to replicate the dimensional structure of transformational leadership in the present study on the basis of the data from this subsample. As only one dimension emerged, the Cronbach alpha coefficients could not be compared with one another.

This same process was repeated with data from subsample B. The KMO measure of sampling adequacy was found to be .954 and was considered acceptable. After the first round of EFA, the items loaded on a single factor. The eigenvalue was found to be 9.872. The subsequent eigenvalues were below 1(the highest eigenvalue=.940). The factor explained 61.14% of the variance in the data. The Cronbach alpha coefficient was found to be .963 for the scale, indicating that it had attained the required level of internal reliability. After inspecting the items that loaded meaningfully on the factor, it was decided to name it *Transformational Leadership.* The final factor pattern based on the data from Sample B is shown in Table 4.24.

Table 4.24: Factor structure of the Transformational Leadership subscale items of the MLQ for Subsample B (n_2 = 248)

Item:	Factor 1
8. Instils pride in me for being associated with him/her	.862
19. Acts in ways that builds my respect	.861
28. Helps me to develop my strengths	.841
24. Articulates a compelling vision of the future	.828
32. Expresses confidence that goals will be achieved	.826
12. Specifies the importance of having a strong sense of purpose	.823
30. Emphasises the importance of having a collective sense of mission	.821
27. Gets me to look at problems from many different angles	.812
11. Talks enthusiastically about what needs to be accomplished	.811
13. Spends time supporting and coaching	.809
16. Goes beyond his/her self-interest for the good of the group.	.780
29. Suggests new ways of looking at how to complete assignments	.754
7. Talks optimistically about the future	.738
2. Re-examines critical assumptions to question whether they are appropriate	.730
26. Considers me as having different needs, abilities and aspirations from others	.713
21. Considers the moral and ethical consequences of his/her decisions	.700
17. Treats you as an individual rather than just a member of the group	.700
6. Seeks differing perspectives when solving problems	.666
23. Displays a sense of power and confidence	.525
5. Talks about his/her most important values and beliefs	.405

Extraction Method: Principal Axis Factoring.
Rotation Method: Direct Oblimin with Kaiser Normalization.
Rotation converged in 5 iterations.

The dimensional structure of transformational leadership again was not replicated within this subsample in the present study. The Cronbach alpha coefficients could not be compared with one another as only one dimension had emerged.

4.2.6.2 Confirmatory Factor Analysis

Confirmatory Factor Analysis, using LISREL (ver. 8.53) was performed, to examine the goodness-of-fit between the measurement model and the obtained data. The maximum likelihood (ML) method was used to estimate the models.

Due to the fact that EFA produced the same single factor measurement model for the total sample and both of the subsamples, the cross-validation process could not be followed. The single factor measurement model was therefore fitted to these three data sets and the original measurement model proposed by Bass and Avolio (1995) was fitted to the data from the total sample.

The CFA on the original measurement model did not converge. This model could thus not provide an adequate explanation for the observed covariance matrix. The indices of model fit that could be done for each of these CFAs are summarised in Table 4.25.

Table 4.25: Confirmatory Factor Analysis: model fit indices for the MLQ						
Model derived from:-	**Original**	**Total Group**	**Sample A**	**Sample A**	**Sample B**	**Sample B**
Data obtained from:-	**Total Group**	**Total Group**	**Sample A**	**Sample B**	**Sample B**	**Sample A**
Absolute Fit Measures						
Degrees of Freedom	N/A	164	164	N/A	164	N/A
Minimum Fit Function Chi-Square	N/A N/A	960.3970 (p=.0)	1168.3647 (p=.0)	N/A N/A	1217.1259 (p=.0)	N/A N/A
Normal Theory Weighted Least Chi-Square	N/A N/A	1133.7275 (p=.0)	1434.9356 (p=.0)	N/A N/A	1357.8339 (p=.0)	N/A N/A
χ^2/df	N/A	5.86	7.12	N/A	7.42	N/A
Root Mean Square Error of Approx. (RMSEA)	N/A	0.1093	0.1226	N/A	0.1213	N/A
90% Confidence Interval for RMSEA	N/A N/A	(0.1033, 0.1154)	(0.1168; 0.1285)	N/A N/A	(0.1153; 0.1273)	N/A N/A
Expected Cross-validation index (ECVI)	N/A	2.4762	3.0605	N/A	2.9290	N/A
90% Confidence interval for ECVI	N/A N/A	(2.2682; 2.6994)	(2.8237; 3.3123)	N/A N/A	(2.6990; 3.1739)	N/A N/A
Chi-square for independence Model for Degrees of Freedom (df)	N/A N/A	31688.9887 (190)	31688.9887 (190)	N/A N/A	29562.8565 (190)	N/A N/A
Root Mean Square Residual (RMR)	N/A	0.1161	0.04755	N/A	0.1313	N/A
Standardised RMR	N/A	0.04477	0.04755	N/A	0.05104	N/A
Goodness of Fit Index (GFI)	N/A	0.8136	0.7753	N/A	0.7847	N/A
Incremental Fit Indices						
Normed Fit Index (NFI)	N/A	0.9697	0.9631	N/A	0.9588	N/A
Non-Normed Fit Index (NNFI)	N/A	0.9707	0.9646	N/A	0.9585	N/A
Adjusted Goodness of fit (AGFI)	N/A	0.7614	0.7224	N/A	0.7244	N/A
Comparative Fit Index (CFI)	N/A	0.9747	0.9683	N/A	0.9641	N/A
Incremental Fit Index (IFI)	N/A	0.9747	0.9683	N/A	0.9642	N/A
Relative Fit Index (RFI)	N/A	0.9649	0.9588	N/A	0.9523	N/A
Parsimonious Fit Measures						
Parsimony Normed Fit Index (PNFI)	N/A	0.8370	0.8617	N/A	0.8276	N/A
Parsimony Goodness of fit (PGFI)	N/A	0.6354	0.6276	N/A	0.6128	N/A

Results: Absolute Fit Measures

The obtained significant Minimum Fit Chi-Square statistics demonstrates imperfect model fit and implies that the model is not adequate and may possibly have to be rejected. The same picture is provided by the Normal Theory Weighted Least Chi-Square. The χ^2/df ratio for the EFA-derived measurement model further does not fall within the 2-5 range, which further indicates poor fit with the data.

RMSEA for the EFA-derived measurement model does not come close to the 0.08 level that indicates good fit (RMSEA = 0.11). ECVI has no appropriate range so it is not possible to make a judgement on the quality of fit. The GFI value for the EFA-derived

measurement model, which is an indication of overall fit does not reach the >0.90 level required to indicate good fit. The standardised RMR value is just below the 0.05 threshold, providing some evidence of a relatively good model fit.

When assessing overall fit using the absolute measures of fit, it would seem that the EFA-derived model based on the total sample (N=496) does not achieve indices that would point to acceptable model fit. The Transformational Leadership subscale of the MLQ fits the data rather poorly when assessed against these criteria.

Results: Incremental Fit Measures

When compared to a baseline model, both models achieve NFI, NNFI, IFI, RFI, and CFI indices that are >0.9, which represents good fit. The AGFI values, on the other hand, do not reach the 0.9 level slightly contradicting this result. For the EFA-derived model does achieve higher values on these indices.

Results: Parsimonious Fit Measures

The model based on the total sample, as well as the subsamples, does not achieve PNFI and PGFI indices >0.9 to indicate adequate fit.

Overall Results: Goodness-of-Fit

Examination of the various model fit indices summarised in Table 4.25 leads one to believe that the quality of the fit of the EFA-derived measurement model based on the total sample (n_t=496), is rather poor. The original Transformational leadership subscale on the other hand did not fit the data at all.

4.2.6.3 Conclusions Regarding Hypothesis 6

The original dimensional and factorial configuration of the transformational leadership subscale of the MLQ compiled by Bass and Avolio (1995) could not be replicated in the present sample.

Based on the available information presented above, it was believed that the EFA-derived single factor measurement model would be the most appropriate to use for further analysis of the relationships between the constructs and for testing the theoretical model. This is based on the fact that the quality of fit achieved by the EFA-derived

measurement model is rather poor, while the original measurement model did not converge. The results do however cast some doubt on subsequent results where this scale was used in the analyses. Based on these results, it would seem that it may be approiate to reject the null hypothesis.

4.2.6.4 Summary of the Transformational Leadership Measure

The present study made use of the transformational leadership subscales from Bass and Avolio's (1995) MLQ. Transformational leadership was assessed by means of subscales: 1) *Idealised Influence*, 2) *Inspirational Motivation*, 4) *Intellectual Stimulation*, and 5) *Individualised Consideration*. This measurement instrument was subjected to Exploratory Factor Analysis as part of the process to determine its construct validity. In the total sample, as well as the two subsamples that were used as test and validation samples in the double cross-validation process, a single factor i.e. *transformational leadership* emerged. The present sample therefore did not differentiate between the dimensions of transformational leadership. This scale can be considered to be *factorially pure* (Kerlinger & Lee, 2000). This single factor explained between 60% and 63% of the variance in the samples. Based on the results that were obtained, construct validity of the derived measurement model was presumed. The internal reliability of the derived measurement model was assessed with the use of Cronbach's alpha and was found to be satisfactory (α=.97).

The original measurement model did not fit the data obtained in the present sample and the only alternative was to accept the EFA-derived measurement model on examining the goodness-of-fit indices obtained from the Confirmatory Factor Analyses and the Cronbach alphas, it was found that the measurement model derived from the responses of the present sample to some extent fitted the obtained data. The derived configuration was further found to be internally reliable. Based on these results, the derived measurement model was used in the present study as a measure of transformational leadership instead of the original measurement instrument. The present study cannot suggest that the derived measurement model is a more valid or reliable measure of the transformational leadership construct in general and does not make this claim.

4.3 Assessing Normality

Many of the statistical analysis procedures used in the present study (e.g. Pearson correlation coefficients, Multiple Regression, and Path and Structural Equations Analysis) assume that the distribution of scores on the dependent variables is "normal" i.e. assumes multivariate normality. Normal is used to describe a symmetrical, bell shaped curve, which has the greatest frequency of scores in the middle, with smaller frequencies towards the extremes (Tabachnick & Fidell, 2001).

Normality can be assessed by the Kolmogorov-Smirnov Statistic, skewness and kurtosis. A non-significant Kolmogorov-Smirnov Statistic result (i.e. significance value of more than $p>.05$) suggests normality (Tabachnick & Fidell, 2001). Skewness values are an indication of the symmetry of the distribution (either positive skew or negative skew) and Kurtosis provides information of the "peakedness" of the distribution (positive values means the distribution is rather peaked, while negative values mean that it is relatively flat).

When a non-normal distribution is found, there is the option to transform the variables. This is done by mathematically modifying the scores to obtain a normal distribution so that parametric statistics can be used for data analysis. There is much controversy around the transformation of data and some authors argue for and others against this practice (Tabachnick & Fidell, 2001). One of the reasons why data transformation is not universally recommended is that transformed variables, and their analyses are harder to interpret (Tabachnick & Fidell, 2001).

Table 4.26 summarises the results obtained on the Kolmogorov-Smirnov Statistic, Skewness and Kurtosis.

Table 4.26: Test of Normality, Skewness and Kurtosis

Variable	Kolmogorov-Smirnov*				
	Statistic	Sig.	df	Skewness	Kurtosis
Fulfil a Purpose	.082	.000	496	-.483	-.265
Have a Purpose	.177	.000	496	-.676	-.472
Meaning Total	.073	.000	496	-.418	-.313
Empathy	.125	.000	496	-.654	-.504
Self-Regulation	.103	.000	496	-.611	-.683
Self-Motivation	.137	.000	496	-1.063	-.926
Self-Awareness	.097	.000	496	-.672	-.073
EI Total	.121	.000	496	-.601	-.388
Altruism	.063	.000	496	-.407	-.119
Civic virtue	.088	.000	496	-.122	-.439
Conscientiousness	.083	.000	496	-.621	-.576
OCB Total	.046	.000	496	-.357	-.023
Intention to Quit	.098	.000	496	-.053	-1.255
Trust in Organisation	.084	.000	496	-.493	-.611
Trust in Co-worker	.081	.000	496	-.706	-.518
Trust in Leader	.132	.000	496	-.808	-.257
Trust Total	.078	.000	496	-.540	-.108
Transformational leadership	.085	.000	496	-.160	-.957

* Lilliefors Significance Correction

As can be seen from Table 4.26, it was found that, in all cases:

- the distribution of the data is negatively skewed (i.e. the scores cluster on the high end of the scales);
- the distribution of the data is rather flat with many cases at the extremes; and
- significant results (i.e. $p<.05$) were obtained with the Kolmogorov-Smirnov Statistic for all the dimensions.

It would therefore seem that the data obtained from the sample is not normally distributed on the variables. According to Tabachnick and Fidell (2001), this is quite common in larger samples. Many scales and measures used in the social sciences have scores that are skewed and that are not normally distributed. This does not necessarily indicate a problem with the measurement scale, but rather reflects the underlying nature of the construct being measured or even the characteristics of the respondents.

According to Tabachnick and Fidell (2001), Skewness and Kurtosis measures furthermore are too sensitive in large samples and statistically significant skewness will not make a substantitive difference in the analysis when relatively large samples of 200 and more cases are present. As stated above, normalisation is also controversial and

does not aid the interpretation of the variables. For these reasons, it was decided not to normalise the data before doing any of the statistical analyses, other than SEM. It was decided that for the SEM analysis, the data should be normalised as suggested to increase the possibility of obtaining good model fit (Jöreskog & Sörbom, 1993).

4.4 Results Research Question Two: The Direct Relationships between the Constructs

Making use of SPSS (version 13), the following statistical procedures were utilised to find answers to the second research question and the hypotheses that were derived from it: Pearson's product-moment correlation coefficient (r), and Standard Multiple Regression. The coefficients of determination (100 x r^2) derived from the correlation coefficients were also calculated when the Correlation Coefficient was found to be statistically significant.

These relationships were interpreted in terms of the actual size of Pearson's r and the amount of shared variance between the variables. As described in Chapter 3, the correlation coefficients were further evaluated in terms of their effect size or practical significance, rather than their statistical significance.

As described in Chapter 3, the following guidelines (based on Guilford cited in Tredoux & Durrheim, 2002, p. 194; Cohen, 1988) was used to assess the effect size of the correlations:

Less than .30	Not a practically significant correlation;
.30 - .40	Low correlation: definite but small relationship;
.40 - .70	Moderate correlation: substantial relationship;
.70 - .90	High correlation: marked relationship; and
.90 - 1.0	Very high correlation: very dependable relationship.

The obtained Pearson Correlations coefficients are summarised in Table 4.27.

Table 4.27: Summary of Pearson Correlations coefficients

N=496			TFL	TRUST				MEANING			LEADER EMOTIONAL INTELLIGENCE					ITQ
			Transformational Leadership	Trust in the organisation	Trust in co-workers	Trust in the leader	Trust Total	Fulfilling a purpose	Having a purpose	Meaning Total	Empathy	Self-Regulation	Self-Motivation	Self-Awareness	LEI Total	Intention to Quit
OCB	Altruism	r	.209**	.214**	.436**	.161**	.301**	.255**	-0.001	.239**	.171**	.091*	.193**	.161**	.158**	-.213**
		p	0	0	0	0	0	0	0.985	0	0	0.044	0	0	0	0
		r²x100	4.37%	4.58%	23.59%	2.59%	9.06%	6.50%		5.71%	2.92%	0.83%	3.72%	2.59%	2.50%	4.54%
	Civic virtue	r	.293**	.403**	.454**	.294**	.451**	.282**	-0.075	.250**	.242**	.206**	.279**	.193**	.253**	-.314**
		p	0	0	0	0	0	0	0.097	0	0	0	0	0	0	0
		r²x100	8.58%	16.24%	20.61%	8.64%	20.34%	7.95%		6.25%	5.56%	4.24%	7.78%	3.72%	6.40%	9,86%
	Conscientiousness	r	.260**	.240**	.424**	.214**	.328**	.278**	0.013	.263**	.222**	.166**	.288**	.225**	.238**	-.155**
		p	0	0	0	0	0	0	0.769	0	0	0	0	0	0	0
		r²x100	6.76%	5.76%	17.98%	4.58%	10.76%	7.73%		6.92%	4.93%	2,76%	8.29%	5.06%	5.66%	2.40%
	OCB Total	r	.294**	.317**	.518**	.251**	.410**	.321**	-0.015	.298**	.245**	.172**	.295**	.228**	.249**	-.254**
		p	0	0	0	0	0	0	0.745	0	0	0	0	0	0	0.006
		r²x100	8.64%	10.05%	26.83%	6.30%	16.81%	10.30%		8.88%	6.00%	2.96%	8.70%	5.20%	6.20%	6.45%
ITQ	Intention to Quit	r	-.452**	-.619**	-.373**	-.455**	-.592**	-.377**	-0.017	-.356**	-.469**	-.347**	-.423**	-.291**	-.427**	
		p	0	0	0	0	0	0	0.707	0	0	0	0	0	0	
		r²x100	20.43%	38.32%	13.91%	20.70%	35.01%	14.21%		12.67%	22.00%	12.04%	17,89%	8.47%	18.24%	
TFL	Transformational Leadership	r		.537**	.472**	.786**	.679**	.293**	.108*	.296**						
		p		0	0	0	0	0	0.01	0						
		r²x100		28.84%	22.28%	61.78%	46.10%	8.58%	1.17%	8.76%						
LEADER EMOTIONAL INTELLIGENCE	Empathy	r	.844**	.504**	.441**	.794**	.654**	.171**	0.058	.172**						
		p	0	0	0	0	0	0	0.197	0						
		r²x100	78.15%	25.40%	19.45%	63.04%	42.77%	2.92%		2.96%						
	Self-Regulation	r	.661**	.408**	.321**	.682**	.530**	.167**	0.023	.161**						
		p	0	0	0	0	0	0	0.617	0						
		r²x100	43.70%	16.65%	10.30%	46.51%	26.01%	2.79%		2.59%						
	Self-Motivation	r	.758**	.539**	.548**	.698**	.668**	.261**	0.05	.254**						
		p	0	0	0	0	0	0	0.263	0						
		r²x100	57.47%	29.05%	30.03%	48.72%	44.62%	6.81%		6.45%						
	Self-Awareness	r	.680**	.399**	.315**	.605**	.471**	.213**	.136**	.225**						
		p	0	0	0	0	0	0	0.002	0						
		r²x100	46.24%	15.92%	9.92%	36.60%	22.18%	4.54%	1.85%	5.06%						
	Leader EI Total	r	.817**	.509**	.437**	.786**	.626**	.217**	0.063	.216**						
		p	0	0	0	0	0	0	0.159	0						
		r²x100	66.75%	25.91%	19.90%	61.78%	39.19%	4.71%		4.67%						

	Not statistically significant correlation
≤.30	Statistically, but not practically significant correlation
.30 - .40	Low correlation: definite but small relationship
.40 - .70	Moderate correlation: substantial relationship
.70 - .90	High correlation: marked relationship
.90 - 1.0	Very high correlation: very dependable relationship

4.4.1 Results: Pearson Correlation Coefficients

From Table 4.27 it can be seen that no relationships were found that could be classified as very dependable (i.e. r=.9-1.0). From the same table it can be seen that the following marked relationships (i.e. high correlation coefficients of between .70 and .90) were found:

- positive relationships were found between *transformational leadership* and *leader emotional intelligence* (r=.82 and 66.8% shared variance); *empathy* (r=.84 and 78.2% shared variance); and *self-motivation* (r=.76 and 57.5% shared variance)
- positive relationships were found between *trust in the leader* and *transformational leadership* (r=.79 and 61.8% shared variance); *empathy* (r=.79 and 63% shared variance); and *leader emotional intelligence* (r=.78 and 61.8% shared variance)

Table 4.27 shows that the following substantial relationships (i.e. moderate correlation coefficients of between .40 and .70) were found:

- Negative relationships were found between *intention to quit* and *transformational leadership* (r=-.45 and 20.4% shared variance); *trust in the organisation* (r=-.62 and 38.3% shared variance); *trust in the leader* (r=-.46 and 20.7% shared variance); *total trust* (r=-.59 and 35% shared variance); *empathy* (r=-.47 and 22% shared variance); *self-motivation* (r=-.42 and 17.9% shared variance); and *leader emotional intelligence* (r=-.43 and 18.2% shared variance).
- A positive relationship was found between *transformational leadership* and *self-awareness* (r=.68 and 46.2% shared variance); and *self-regulation* (r=.66 and 43.7% shared variance).
- Positive relationships were found between *trust in the organisation* and *civic virtue* (r=.40 and 16.2% shared variance); *transformational leadership* (r=.54 and 28.8% shared variance); *empathy* (r=.504 and 25.4% shared variance); *self-regulation* (r=.41 and 16.7% shared variance); *self-motivation* (r=.54 and 29.1% shared variance); and *leader emotional intelligence* (r=.51 and 25.9% shared variance).

- Positive relationships were found between *trust in co-workers* and *altruism* (r=.44 and 23.6% shared variance); *civic virtue* (r=.45 and 20.6% shared variance); *conscientiousness* (r=.42 and 18.0% shared variance); *organisational citizenship behaviour* (r=.52 and 26.8% shared variance); *transformational leadership* (r=.47 and 22.3% shared variance); *empathy* (r=.44 and 19.5% shared variance); *self-motivation* (r=.55 and 30.0% shared variance); and *leader emotional intelligence* (r=.44 and 19.9% shared variance).
- Positive relationships were found between *trust in the leader* and *self-regulation* (r=.68 and 46.5% shared variance); *self-motivation* (r=.70 and 48.7% shared variance); and *self-awareness* (r=.61 and 36.6% shared variance).
- Positive relationships were found between *trust* and *civic virtue* (r=.45 and 20.3% shared variance); *organisational citizenship behaviour* (r=.41 and 16.8% shared variance); *transformational leadership* (r=.68 and 46.1% shared variance); *empathy* (r=.65 and 42.8% shared variance); *self-regulation* (r=.53 and 26.0% shared variance); *self-motivation* (r=.67 and 44.6% shared variance); *self-awareness* (r=.47 and 22.2% shared variance); and *leader emotional intelligence* (r=.63 and 39.2% shared variance).

The following definite, but small relationships (i.e. low correlations between .30 and .40) were found.

- Negative relationships were found between *intention to quit* and *trust in co-workers* (r=-.37 and 13.9% shared variance); *fulfilling a purpose* (r=-.38 and 14.2% shared variance); *meaning* (r=-.36 and 12.7% shared variance); *self-regulation* (r=-.35 and 12.0% shared variance); and *civic virtue* (r=-.31 and 9.9% shared variance).
- Positive relationships were found between *trust in the organisation* and *organisational citizenship behaviour* (r=.32 and 10.1% shared variance); and *self-awareness* (r=.40 and 15.9% shared variance).
- Positive relationships were found between *trust in co-workers* and *self-regulation* (r=.32 and 10.3% shared variance); and *self-awareness* (r=.32 and 9.9% shared variance).

- Positive relationships were found between *trust* and *altruism* (r=.30 and 9.1% shared variance); and *conscientiousness* (r=.33 and 10.8% shared variance).
- A positive relationship was found between *fulfilling a purpose* and *organisational citizenship behaviour* (r=.32 and 10.31% shared variance).

The remaining relationships were either found to be statistically, but not practically significant based on the criteria set by Guilford (cited in Tredoux & Durrheim, 2002, p. 194) and Cohen (1988); or where not found to be statistically significant at all.

Having a purpose was the only dimension that was not at all statistical significant with some of the other dimensions (see Table 4.27). This insignificant result may be due to restriction of range as *having a purpose* was measured using only three items. On the other hand, *intention to quit* was also only measured using three items and it faired better than this dimension in the present study.

Inspecting the effect sizes of the Pearson Correlation coefficients one is left with the impression that *trust* seems to be pivotal in this model. It is the one latent variable that seems to be substantially correlated with practically all of the other latent variables. On the other hand, *meaning* and *leader emotional intelligence* could for the most part not muster practically significant relationships with the other latent variables.

The results of these correlation analyses are superimposed on the model and summarised in Figure 4.1.

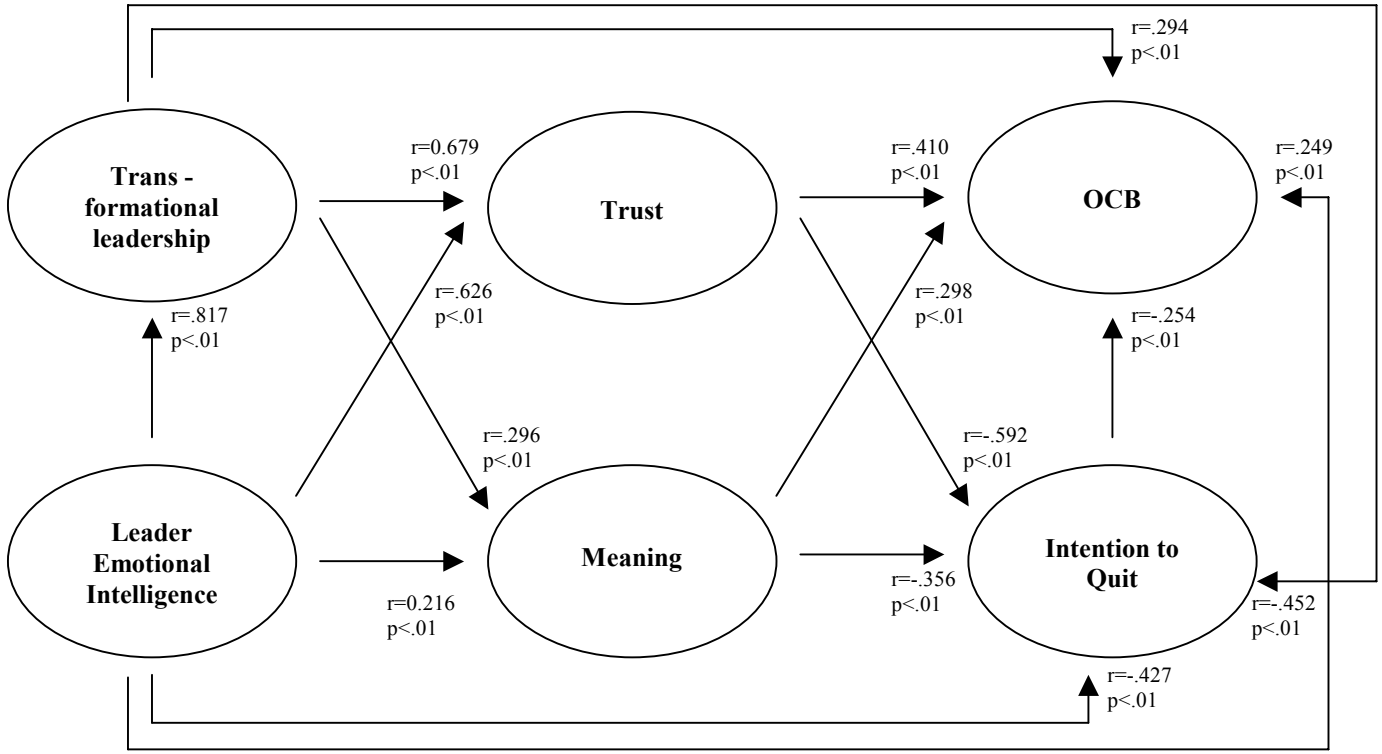


Figure 4.1: The Conceptual Model Showing the Significant Correlation Coefficients for the Relationships between Transformational Leadership, Leader Emotional Intelligence, Trust, Meaning, Intention to Quit and Organisational Citizenship Behaviour.

4.4.2 Results: Further Analyses of the Bivariate Relationships using Standard Multiple Regression

To analyse these direct (i.e. bivariate) relationships even further, the various dimensions of the constructs were used to predict one another, as well as the total scores where appropriate. This was done by means of Standard Multiple Regression and the results of this procedure is summarised in Table 4.28. The R-values obtained from the Standard Multiple Regression results, as summarised in Table 4.28, were further evaluated in terms of their effect size. The effect size (which indicates practical significance) in the case of Multiple Regression is assessed by the following formula proposed by Steyn (1999):

$$f^2 = R^2 / (1-R^2).$$

A cut-off point of 0.35 is regarded as a large effect and was set for the practical significance of f^2 (Steyn, 1999). Where this criteria was satisfied that result was shaded in the table so that it may be easily recognisable.

Table 4.28: Summary of Bivariate Relationships Standard Multiple Regression

		Model Summary			ANOVA	Coefficients			$f^2 = \frac{R^2}{(1-R^2)}$
	Model no. Predictor	**R**	**R Square**	**Adjusted R Square**		**B**	**Beta**	**t**	
Dependent variable: OCB Total									
Leader EI	**Constant** **Empathy** **Self-Reg** **Self-Motiv** **Self-Aware**	.315	.100	.092	13.569* (1)	58.173 0.113 0.142 0.611 0.251	 .070 .149 .276 .117	16.960** 0.906 2.113** 4.241** 1.718	0.11
Meaning	**Constant** **Fulfil a Pur** **Hav a Pur**	.334	.112	.108	30.976* (2)	60.003 0.568 0.778	 .344 .096	10.029** 7.863** 2.205	0.13
Trust	**Constant** **Trust Org** **Trust Co-W** **Trust Lead**	.521	.271	.267	61.063* (3)	42.874 0.052 0.857 0.121	 .056 .525 .073	14.413** 1.053 10.611** 1.403	0.37
Dependent variable: Altruism									
Leader EI	**Constant** **Empathy** **Self-Reg** **Self-Motiv** **Self-Aware**	.229	.052	.045	6.788* (4)	22.904 0.065 0.079 0.194 0.113	 .085 .176 .186 .111	13.793** 1.079 2.440** 2.779** 1.595**	0.055
Meaning	**Constant** **Fulfil a Pur** **Hav a Pur**	.262	.069	.065	18.240* (2)	21.836 0.211 0.248	 .270 .065	9.060** 6.040** 1.455	0.074
Trust	**Constant** **Trust Org** **Trust Co-W** **Trust Lead**	.446	.199	.194	40.809* (3)	15.283 0.005 0.387 0.084	 .012 .502 .106	10.385** 0.210 9.676** 1.954**	0.25

Dependent variable: Civic virtue									
Leader EI	**Constant**	.285	.081	.074	10.859*	9.927		10.616**	0.09
	Empathy				(4)	0.040	.091	1.177	
	Self-Reg					0.003	.013	0.179	
	Self-Motiv					0.132	.220	3.347**	
	Self-Aware					0.001	.002	0.035	
Meaning	**Constant**	.318	.101	.097	27.722*	11.628		8.586**	0.11
	Fulfil a Pur				(2)	0.142	.318	7.238**	
	Hav a Pur					0.328	.150	3.420	
Trust	**Constant**	.486	.236	.231	50.656*	5.963		7.254**	0.31
	Trust Org				(3)	0.057	.227	4.150**	
	Trust Co-W					0.151	.342	6.760**	
	Trust Lead					0.017	.038	0.723	
Dependent variable: Conscientiousness									
Leader EI	**Constant**	.308	.095	.087	12.836*	25.342		16.510**	0.10
	Empathy				(4)	0.008	.011	0.141	
	Self-Reg					0.059	.139	1.973**	
	Self-Motiv					0.286	.289	4.432**	
	Self-Aware					0.137	.143	2.092**	
Meaning	**Constant**	.284	.081	.077	21.587*	26.539		11.717**	0.090
	Fulfil a Pur				(2)	0.215	..292	6.564**	
	Have a Pur					0.202	.056	1.262	
Trust	**Constant**	.425	.180	.175	36.054*	21.628		15.359**	0.22
	Trust Org				(3)	0.000	.001	0.020	
	Trust Co-W					0.320	.438	8.356**	
	Trust Lead					0.020	.028	0.500	
Dependent variable: Intention to Quit									
Trust	**Constant**	.624	.389	.380	104.471*	23.764		22.990**	0.64
	Trust Org				(3)	0.196	.557	11.367**	
	Trust Co-W					0.007	.012	0.261	
	Trust Lead					0.068	.108	2.262**	
Leader EI	**Constant**	.495	.245	.239	39.920**	21.894		18.373**	0.32
	Empathy				(4)	0.269	.438	6.227**	
	Self-Reg					0.002	.007	0.102	
	Sef-Motiv					0.170	.202	3.387**	
	Self-Aware					0.120	.149	2.385**	
Meaning	**Constant**	.384	.147	.144	42.608*	22.119		11.926**	0.17
	Fulfil a Pur				(2)	0.248	.395	9.222**	
	Have a Pur					0.236	.077	1.796	
Dependent variable: Total Trust									
Leader EI	**Constant**	.719	.517	.513	131.318*	35.255		7.116**	1.07
	Empathy				(4)	1.184	.372	6.600**	
	Self-Reg					0.055	.029	0.565	
	Sef-Motiv					1.923	.440	9.234**	
	Self-Aware					0.075	.018	0.353	
Dependent variable: Trust in the organisation									
Leader EI	**Constant**	.565	.320	.314	57.636*	11.363		3.541**	0.47
	Empathy				(4)	0.437	.252	3.763**	
	Self-Reg					0.048	.047	0.770	
	Sef-Motiv					0.904	.379	6.700**	
	Self-Aware					0.045	.019	.326	

Dependent variable: Trust in the co-workers									
Leader EI	**Constant** **Empathy** **Self-Reg** **Sef-Motiv** **Self-Aware**	.565	.320	.314	57.690* (4)	21.329 0.208 0.098 0.728 0.056	 .211 .169 .537 .043	11.685** 3.153** 2.753** 9.489** 0.723	0.47
Dependent variable: Trust in the leader									
Leader EI	**Constant** **Empathy** **Self-Reg** **Sef-Motiv** **Self-Aware**	.821	.674	.671	253.453* (4)	2.564 0.539 0.092 0.291 0.063	 .555 .161 .219 .049	2.067** 11.992** 3.788** 5.589** 1.190	2.07
Dependent variable: Fulfilling a purpose									
Leader EI	**Constant** **Empathy** **Self-Reg** **Self-Mot** **Self-Awar**	.283	.080	.073	10.721* (4)	40.128 0.108 0.037 0.377 0.222	 .110 .064 .282 .171	19.136** 1.416 0.897 4.282** 2.480	0.07
Dependent variable: Having a purpose									
Leader EI	**Constant** **Empathy** **Self-Reg** **Self-Mot** **Self-Awar**	.173	.030	.022	3.771* (4)	10.920 0.009 0.017 0.008 0.067	 .044 .141 .028 .251	24.782** 0.552 1.929 0.408 3.560**	0.031
Dependent variable: Meaning Total									
Leader EI	**Constant** **Empathy** **Self-Reg** **Self-Mot** **Self-Awar**	.287	.082	.075	10.995* (4)	51.048 0.116 0.053 0.385 0.289	 .112 .087 .269 .208	22.832** 1.437 1.221 4.097** 3.028**	0.090
* Sig = .000 i.e. p<.005 ** Correlation is significant at the 0.01 level (2-tailed).									

From Table 4.28 it can be seen that the following dependant variables were practically significantly predicted:

- *Organisational citizenship behaviour* (as a dependant variable) was predicted by a model consisting of the dimensions of *trust* and this model could explain 27.10% of the variance in *organisational citizenship behaviour* (R=.521). *Trust in the co-worker* was the only dimension that could make a unique significant contribution in the prediction of *organisational citizenship behaviour.*
- *Intention to Quit* (score as a dependant variable) was predicted by a model consisting of the dimensions of *trust* and this model could explain 38.9% of the variance in *intention to quit* (R=.62). Two of the dimensions could significantly (p<0.01) predict *trust*. They are, in order, 1) *trust in the organisation*; followed by 2) *trust in the leader.*
- *Total Trust* (i.e. the trust scale score as a dependant variable) was predicted by a model consisting of the dimensions of *leader emotional intelligence* and this

model could explain 51.7% of the variance in *total trust* (R=.72). Two of the dimensions could significantly (p<0.01) predict *total trust*. They are, in order, 1) *self-motivation*, and 2) *empathy*.

- *Trust in the organisation* (as a dependant variable) was predicted by a model consisting of the dimensions of leader emotional intelligence and this model could explain 32.0% of the variance in *trust in the organisation* (R=.57). Two of the dimensions could significantly (p<0.01) predict *trust in the organisation*. They are, in order as determined by the Beta values, 1) *self-motivation; followed by* 2) *empathy.*
- *Trust in the co-workers* (as a dependant variable) was predicted by a model consisting of the dimensions of *leader emotional intelligence* and this model could explain 32.0% of the variance in *trust in the co-workers* (R=.57). Three of the dimensions could significantly (p<0.01) predict *trust in the organisation*. They are, in order, 1) *self-motivation; 2) empathy, followed by* 3) *self-regulation.*
- *Trust in the leader* (as a dependant variable) was predicted by a model consisting of the dimensions of *leader emotional intelligence* and this model could explain 67.4% of the variance in *trust in the leader* (R=.82). Three of the dimensions could significantly (p<0.01) predict *trust in the leader*. They are, in order as determined by the Beta values, 1) *empathy*, 2) *self-motivation* and 3) *self-regulation*.

4.5 Results: Research Question 3

Research question 3 was concerned with the different mediating relationships that exist between the six organisational behaviour constructs and their underlying dimensions. Several mediating variables that were believed to exert a mediating effect on some of the relationships were identified from Chapter 2.

As explained earlier, Structural Equation Modelling (SEM) allows for the specification and testing of complex models, where mediating relationships and causal processes are of interest (Kelloway, 1998). Hence SEM was used in the present study as a set of correlations were implied. Kelloway (1988, p.6) state 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." Structural models composed for each of the mediating hypotheses were tested with the use of SEM so that the path coefficients could be determined.

The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are presented as follows:

	Latent Variable
Latent Variable	Unstandardised estimate (Standard error) t-value

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

4.5.1 Results: Hypothesis 14

Hypothesis 14 stated that *intention to quit* exerts a mediating effect on the relationship between *trust* and *organisational citizenship behaviour*. Figure 4.2, in Addendum C, depicts the structural model for this mediating relationship with Maximum Likelihood Parameter Estimates. 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 in Figure 4.2 and $t \geq 1.96$ implies a significant parameter estimate ($p<.05$).

The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are depicted in Tables 4.29 and 4.30, respectively.

Table 4.29: Gamma Matrix Hypothesis 14

	Trust
Intention to Quit	-0.6397* (0.04425) -14.4569

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

Table 4.30: Beta Matrix Hypothesis 14

	Intention to Quit
Organisational Citizenship Behaviour	-0.2687* (0.04989) -5.3857

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

From the t-values in the above matrixes, it is evident that a negative and significant relationship exists between *trust* and *intention to quit* ($t>1.96$ at $t = -14.4569$), as well as between *intention to quit* and *organisational citizenship behaviour* ($t>1.96$ at $t = -5.3857$). This would lead one to believe that Hypothesis 14 is accepted.

4.5.2 Results: Hypothesis 16

Hypothesis 16 stated that intention to quit exerts a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour. Figure 4.3 in Addendum C depicts the structural model for this mediating relationship. The Maximum Likelihood Parameter Estimates are shown.

The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are depicted in Tables 4.31 and 4.32, respectively.

Table 4.31: Gamma Matrix Hypothesis 16

	Transformational Leadership
Intention to Quit	-0.5061* (0.06292) -8.0424

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

Table 4.32: Beta Matrix Hypothesis 16

	Intention to Quit
Organisational Citizenship Behaviour	-0.5324* (0.04846) -10.9854

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

From the t-values in the above matrices, it is evident that a negative and significant relationship exists between *transformational leadership* and *intention to quit* (t>1.96 at t = -8.0424), as well as between *intention to quit* and *organisational citizenship behaviour* (t>1.96 at t = -10.9854). Hypothesis 16 is therefore corroborated on the basis of this information.

4.5.3 Results: Hypothesis 21

Hypothesis 21 stated that trust exerts a mediating effect on the relationship between *transformational leadership* and *organisational citizenship behaviour*. Figure 4.4 in Addendum C shows the structural model for this mediating relationship with Maximum Likelihood Parameter Estimates.

The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are depicted in Tables 4.33 and 4.34, respectively.

Table 4.33: Gamma Matrix Hypothesis 21

	Transformational Leadership
Trust	0.6482* (0.04518) 14.3487

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

Table 4.34: Beta Matrix Hypothesis 21

	Trust
Organisational Citizenship Behaviour	0.4313* (0.05110) 8.4406

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

From the t-values in the above matrices, it is evident that a positive and significant relationship exists between *trust* and *transformational leadership* (t>1.96 at t = 14.3487), as well as between *trust* and *organisational citizenship behaviour* (t>1.96 at t = 8.4406). This would lead one to believe that this hypothesis is confirmed.

4.5.4 Results: Hypothesis 23

Hypothesis 23 stated that trust exerts a mediating effect on the relationship between *leader emotional intelligence* and *organisational citizenship behaviour*. Figure 4.5 in Addendum C depicts the structural model for this relationship and it includes the Maximum Likelihood Parameter Estimates.

The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are depicted in Tables 4.35 and 4.36, respectively.

Table 4.35: Gamma Matrix Hypothesis 23

	Leader Emotional Intelligence
Trust	0.7589* (0.04391) 17.2814

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

Table 4.36: Beta Matrix Hypothesis 23

	Trust
Organisational Citizenship Behaviour	0.3739* (0.04442) 8.4187

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

From the t-values in the above matrixes, it is evident that a positive and significant relationship exists between *trust* and *leader emotional intelligence* (t>1.96 at t = 17.2812), as well as between *trust* and *organisational citizenship behaviour* (t>1.96 at t = 8.4187). This would lead one to believe that hypothesis 23 is supported.

4.5.5 Results: Hypothesis 24

Hypothesis 24 stated that trust and intention to quit exert a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour. Figure 4.6 in Addendum C shows the structural model for this mediating relationship with Maximum Likelihood Parameter Estimates.

The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are depicted in Tables 4.37 and 4.38, respectively.

Table 4.37: Gamma Matrix Hypothesis 24

	Transformational leadership
Trust	0.7606* (0.07145) 10.6453

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

Table 4.38: Beta Matrix Hypothesis 24

	Trust	Intention to Quit
Trust	-	-0.6515* (0.05357) -12.1623
Intention to Quit	-0.6515* (0.05357) -12.1623	-
Organisational Citizenship Behaviour		-0.5357* (0.04810) -11.1369

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

From the t-values in the above matrixes, it is evident that a positive and significant relationship exists between *transformational leadership* and *trust* (t>1.96 at t = 10.6453). Negative significant relationships were found between trust and intention to quit (t>1.96 at t = -12.1623), as well as between *intention to quit* and *organisational citizenship behaviour* (t>1.96 at t = -11.1369). This evidence would lead one to believe that Hypothesis 24 is corroborated.

4.5.6 Results: Hypothesis 27

Hypothesis 27 stated that *meaning* exerts a mediating effect on the relationship between *transformational leadership* and *organisational citizenship behaviour*. Figure 4.7 in Addendum C depicts the structural model for this mediating relationship with Maximum Likelihood Parameter Estimates.

The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are depicted in Tables 4.39 and 4.40, respectively.

Table 4.39 Gamma Matrix Hypothesis 27

	Transformational Leadership
Meaning	0.3573* (0.07287) 4.9025

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

Table 4.40: Beta Matrix Hypothesis 27

	Meaning
Organisational Citizenship Behaviour	0.3484* (0.07396) 4.7112

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

From the t-values in the above matrices, it is evident that a positive and significant relationship exists between *transformational leadership* and *meaning* (t>1.96 at t = 4.9025), as well as between *meaning* and *organisational citizenship behaviour* (t>1.96 at t = 4.7112). This would lead one to believe that this hypothesis is confirmed.

4.5.7 Results: Hypothesis 28

Hypothesis 28 stated that *meaning* and *intention to quit* exerts a mediating effect on the relationship between *transformational leadership* and *organisational citizenship behaviou*r. Figure 4.8 in Addendum C shows the structural model for this mediating relationship with Maximum Likelihood Parameter Estimates.

The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are depicted in Tables 4.41 and 4.42, respectively.

Table 4.41: Gamma Matrix Hypothesis 28

	Transformational leadership
Mean	0.3709* (0.07552) 4.9115

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

Table 4.42: Beta Matrix Hypothesis 28

	Mean	Intention to Quit
Intention to Quit	-0.8218* (0.1561) -5.2655	-
Organisational Citizenship Behaviour		-0.4293* (0.07210) -5.9544

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

From the t-values in the above matrices, it is evident that a positive and significant relationship exists between *transformational leadership* and *meaning* (t>2 at t = 4.9115). Negative significant relationships were found between *meaning and intention to quit* (t>1.96 at t = -5.2655), as well as between *intention to quit* and *organisational citizenship behaviour* (t>1.96 at t = -5.9544). This evidence would lead one to believe that Hypothesis 28 is corroborated.

4.5.8 Results: Hypothesis 30

Hypothesis 30 stated that *meaning* exerts a mediating effect on the relationship between *leader emotional intelligence* and *organisational citizenship behaviour*. Figure 4.9 in Addendum C shows the structural model for this mediating relationship with Maximum Likelihood Parameter Estimates.

The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are depicted in Tables 4.43 and 4.44, respectively.

Table 4.43: Gamma Matrix Hypothesis 30

	Leader Emotional Intelligence
Meaning	0.2944* (0.6696) 4.3973

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

Table 4.44 Beta Matrix Hypothesis 30

	Meaning
Organisational Citizenship Behaviour	0.3484* (0.07412) 4.6977

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

From the t-values in the above matrixes, it is evident that a positive and significant relationship exists between *leader emotional intelligence* and *meaning* (t>1.96 at t = 4.3973), as well as between *meaning* and *organisational citizenship behaviour* (t>1.96 at t = 4.6977). This would lead one to believe that hypothesis 30 is corroborated.

4.5.9 Results: Hypothesis 31

Hypothesis 31 stated that intention to quit exerts a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour. Figure 4.10 in Addendum C shows the structural model for this mediating relationship with Maximum Likelihood Parameter Estimates.

The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are depicted in Tables 4.45 and 4.46, respectively.

Table 4.45: Gamma Matrix Hypothesis 31

	Leader Emotional Intelligence
Intention to Quit	-0.4848* (0.04537) -10.6846

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

Table 4.46: Beta Matrix Hypothesis 31

	Intention to Quit
Organisational Citizenship Behaviour	-0.2575* (0.04908) -5.2461

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

From the t-values in the above matrices, it is evident that a negative and significant relationship exists between *leader emotional intelligence* and *intention to quit* (t>1.96 at t = -10.6846), as well as between *intention to quit* and *organisational citizenship*

behaviour (t>1.96 at t = -5.2461). This would lead one to believe that Hypothesis 31 is corroborated.

4.5.10 Results: Hypothesis 32

Hypothesis 32 stated that *meaning* and *intention to quit* exerts a mediating effect on the relationship between *leader emotional intelligence* and *organisational citizenship behaviour*. Figure 4.11 in Addendum C depicts the structural model for this mediating relationship with Maximum Likelihood Parameter Estimates.

The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are depicted in Tables 4.47 and 4.48, respectively.

Table 4.47: Gamma Matrix Hypothesis 32

	Leader Emotional Intelligence
Mean	0.3058* (0.06863) 4.4559

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

Table 4.48: Beta Matrix Hypothesis 32

	Mean	Intention to Quit
Intention to Quit	-0.4455* (0.08420) -5.3039	-
Organisational Citizenship Behaviour		-0.2588* (0.08420) -5.1871

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

From the t-values in the above matrices, it is evident that a positive and significant relationship exists between *leader emotional intelligence* and *meaning* (t>1.96 at t = 4.4559). Negative significant relationships were found between *meaning* and *intention to quit* (t>1.96 at t = -5.3039), as well as between *intention to quit* and *organisational citizenship behaviour* (t>1.96 at t = -5.1871). This evidence would lead one to believe that Hypothesis 32 is corroborated.

4.5.11 Results: Hypothesis 35

Hypothesis 35 stated that *transformational leadership* exert a mediating effect on the relationship between leader *emotional intelligence* and *organisational citizenship behaviour*. Figure 4.12 in Addendum C shows the structural model for this mediating relationship with Maximum Likelihood Parameter Estimates.

The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are depicted in Tables 4.49 and 4.50, respectively.

Table 4.49: Gamma Matrix Hypothesis 35

	Leader Emotional Intelligence
Transformational Leadership	0.9238* (0.03750) 24.6339

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

Table 4.50: Beta Matrix Hypothesis 35

	Transformational Leadership
Organisational Citizenship Behaviour	0.2928* (0.04915) 5.9582

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

From the t-values in the above matrices, it is evident that a positive and significant relationship exists between *leader emotional intelligence* and *transformational leadership* (t>1.96 at t = 24.6339), as well as between *meaning* and *organisational citizenship behaviour* (t>1.96 at t = 5.9582). This would lead one to believe that Hypothesis 35 is confirmed.

4.5.12 Results: Hypothesis 36

Hypothesis 36 stated that transformational leadership and trust exert a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour. Figure 4.13 in Addendum C shows the structural model for this mediating relationship with Maximum Likelihood Parameter Estimates.

The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are depicted in Tables 4.51 and 4.52, respectively.

Table 4.51: Gamma Matrix Hypothesis 36

	Leader Emotional Intelligence
Transformational Leadership	0.9259* (0.03753) 24.6754

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

Table 4.52: Beta Matrix Hypothesis 36

	Transformational Leadership	Trust
Transformational Leadership	-	
Trust	0.6585* (00.04125) 15.9653	-
Organisational Citizenship Behaviour		0.4329* (0.05116) 8.4618

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

From the t-values in the above matrices, it is evident that a positive and significant relationship exists between *leader emotional intelligence* and *transformational leadership* (t>1.96 at t = 24.6754). Positive significant relationships were found between *transformational leadership* and *trust* (t>1.96 at t = 15.9653), as well as between *trust* and *organisational citizenship behaviour* (t>1.96 at t = 8.4618). This evidence would lead one to believe that Hypothesis 36 is corroborated.

4.5.13 Results: Hypothesis 37

Hypothesis 37 stated that *transformational leadership* and *meaning* exert a mediating effect on the relationship between *leader emotional intelligence* and *organisational citizenship behaviour*. Figure 4.14 in Addendum C depicts the structural model for this mediating relationship with Maximum Likelihood Parameter Estimates.

The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are depicted in Tables 4.53 and 4.54, respectively.

Table 4.53: Gamma Matrix Hypothesis 37

	Leader Emotional Intelligence
Transformational Leadership	0.9228* (0.03756) 24.5710

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

Table 4.54: Beta Matrix Hypothesis 37

	Transformational Leadership	Meaning
Transformational Leadership	-	
Meaning	0.3534* (0.07174) 4.9266	-
Organisational Citizenship Behaviour		0.3486* (0.07400) 4.7116

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

From the t-values in the above matrices, it is evident that a positive and significant relationship exists between *leader emotional intelligence* and *transformational leadership* (t>1.96 at t = 24.5710). Positive significant relationships were found between *transformational leadership* and *meaning* (t>1.96 at t = 4.9266), as well as between *meaning* and *organisational citizenship behaviour* (t>1.96 at t = 4.7116). This evidence would lead one to believe that Hypothesis 37 is corroborated.

4.5.14 Results: Hypothesis 38

Hypothesis 38 stated that *transformational leadership, meaning* and *intention to quit* exert a mediating effect on the relationship between *leader emotional intelligence* and *organisational citizenship behaviour*. Figure 4.15 in Addendum C shows the structural model for this mediating relationship with Maximum Likelihood Parameter Estimates.

The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are depicted in Tables 4.55 and 4.56, respectively.

Table 4.55: Gamma Matrix Hypothesis 38

	Leader Emotional Intelligence
Transformational Leadership	0.9229* (0.03756) 24.5696

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

Table 4.56: Beta Matrix Hypothesis 38

	Transformational Leadership	Meaning	Intention to Quit
Transformational Leadership	-	0.3647* (0.07362) 4.9539	
Meaning		-	-0.4488* (0.08426) -5.3257
Organisational Citizenship Behaviour			-0.2589* (0.08426) -5.1889

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

From the t-values in the above matrixes, it is evident that a positive and significant relationship exists between *leader emotional intelligence* and *transformational leadership* (t>1.96 at t = 4.9539). Negative significant relationships were found between *intention to quit* and *meaning* (t>1.96 at t = -5.3257), as well as between *intention to quit* and *organisational citizenship behaviour* (t>1.96 at t = -5.1889). This evidence would lead one to believe that Hypothesis 38 is corroborated.

4.5.15 Conclusion Research Question 3

The hypotheses stating that mediating relationships exist were tested using Path Analysis. The t-values obtained indicated that all of the paths can be seen as indicating significant relationships. Based on these results all of the mediating hypotheses are believed to have been corroborated.

4.6 Results: Research Question 4

The fourth research question explored the possible combinations of independent constructs that could be used to predict different dependent variables in the model. The following four hypotheses were formulated on the basis of the review of the literature and proposed theoretical model and were discussed in detail in Chapter 2.

4.6.1 Results: Hypothesis 12:

Hypothesis 12 stated that *leader emotional intelligence, transformational leadership, trust, meaning* and *intention to quit* could be used to predict *organisational citizenship behaviour*. A Standard Multiple Regression was performed to test this hypothesis and the results of this procedure are summarised and presented in Table 4.57.

Table 4.57: Predicting Organisational Citizenship Behaviour with Leader Emotional Intelligence, Transformational Leadership, Trust, Meaning and Intention to Quit: Standard Multiple Regression (n_t=496)

.	Model Summary			ANOVA	Coefficients			$f^2 = \frac{R^2}{(1-R^2)}$
Model no. Predictor	**R**	**R Square**	**Adjusted R Square**	**F (df)**	**B**	**Beta**	**t**	
Dependent variable: OCB Total								
Constant	.443	.196	.188	23.905	40.319		6.490**	0.24
Emot Intel				(5)	0.028	.063	0.870	
TFL					0.037	.057	0.763	
Trust					0.184	.364	5.750**	
Meaning					0.267	.172	3.869**	
Int to Quit					0.056	.021	0.417	
Dependent variable: Altruism								
Constant	.483	.233	.216	13.401	16.985		5.230**	0.30
Fulfil a Pur				(11)	0.074	.095	1.975**	
Have a Pur					0.085	.022	0.519	
Empathy					0.003	.004	0.043	
Self-Reg					0.026	.058	0.853	
Self-Mot					0.093	.089	1.259	
Self-Aware					0.120	.118	1.796	
Int to Quit					0.134	.108	1.984*	
Trust Org					0.045	.104	1.624	
Trust C-W					0.379	.492	8.902**	
Trust Lead					0.148	.189	2.345**	
TFL					0.041	.135	1.549	
Dependent variable: Civic virtue								
Constant	.510	.260	.243	15.433	8.174		4.478**	0.35
Fulfil a Pur				(11)	0.041	.092	1.940**	
Have a Pur					0.161	.074	1.748	
Empathy					0.037	.086	0.925	
Self-Reg					0.018	.069	1.024	
Self-Mot					0.051	.086	1.237	
Self-Aware					0.006	.010	0.155	
Int to Quit					0.061	.086	1.598	
Trust Org					0.037	.148	2.360**	
Trust C-W					0.147	.334	6.148**	
Trust Lead					0.042	.095	1.196	
TFL					0.027	.158	1.841	
Dependent variable: Conscientiousness								
Constant	.470	.220	.203	12.445	15.346		4.955**	.028
Fulfil a Pur				(11)	0.112	.152	3.127**	
Have a Pur					0.092	.026	0.591	
Empathy					0.016	.023	0.239	
Self-Reg					0.017	.039	0.568	
Self-Mot					0.074	.075	1.049	
Self-Aware					0.112	.117	1.766	
Int to Quit					0.057	.048	0.876	
Trust Org					0.12	.029	0.447	
Trust C-W					0.279	.383	6.862**	
Trust Lead					0.128	.173	2.127**	
TFL					0.023	.081	0.924	
Dependent variable: OCB Total t								
Constant	.555	.308	.292	19.593	40.505		6.195**	0.45
Fulfil a Pur				(11)	0.228	.138	3.004**	
Have a Pur					0.338	.042	1.026	
Empathy					0.024	.015	0.167	
Self-Reg					0.025	.026	0.407	
Self-Mot					0.070	.032	0.474	
Self-Aware					0.238	.111	1.772	
Int to Quit					0.139	.053	1.017	
Trust Org					0.020	.022	0.359	
Trust C-W					0.805	.493	9.389**	
Trust Lead					0.319	.192	2.506**	
TFL					0.092	.143	1.721	

* Sig = .000 i.e. p<.005 ** Correlation is significant at the 0.01 level (2-tailed).

It is evident from Table 4.57 that the model (i.e. the total scores on *leader emotional intelligence, transformational leadership, trust, meaning* and *intention to quit*) could explain 19.6% of the variance in *organisational citizenship behaviour (total score)*. *Trust*, followed by *meaning*, respectively, made the strongest unique contributions to the composite score of *organisational citizenship behaviour*. *Trust* and *meaning* were therefore the only two variables that significantly contributed to the regression equation. Further, based on the effect size criterion suggested by Steyn (1999) this model could not predict *organisational citizenship behaviour* in practically significant manner (i.e. $f^2<0.30$). The hypothesis should be rejected on the basis of the findings.

To analyse this question further, the dimensions of the independent variables were used to predict *organisational citizenship behaviour*, as well as its dimensions (as a dependent variables). The model used to predict the dependant variables therefore consisted of the dimensions of *leader emotional intelligence, transformational leadership, trust, meaning,* and *intention to quit.* The following conclusions can be drawn from the results presented in Table 4.57:

- Between 22% and 30.8% of the variance in the dimensions of *organisational citizenship behaviour,* and the total OCB score, could be explained by the model (i.e. the *dimensions of leader emotional intelligence, transformational leadership, trust, meaning,* and *intention to quit*). The model explained the least amount of variance in *conscientiousness*, followed by *altruism* and *civic virtue*. The largest percentage of variance was explained in the composite organisational citizenship behaviour score.
- *Trust in the co-worker* makes the strongest unique significant contribution to all of the dimensions of organisational citizenship behaviour, and total OCB score.
- *Trust in the leader* makes the second strongest unique significant contribution to all of the dimensions of organisational citizenship behaviour, except for *civic virtue* where *trust in the organisation* made the second largest contribution. It also makes the second strongest unique contribution to the composite score of organisational citizenship behaviour, when the variance explained by all other variables in the models is controlled for.

- *Intention to quit* is the third strongest predictor of *Altruism. Intention to quit* could not make a unique significant contribution to the remaining dimensions of organisational citizenship behaviour, or a composite score thereof.
- *Fulfilling a purpose* could make a unique significant contribution to all of the dimensions of organisational citizenship behaviour, and the composite score thereof. It was found to be third strongest predictor (after trust in the co-worker and trust in the organisation respectively) when predicting civic virtue, conscientiousness, and the composite score of organisation citizenship behaviour, and the fourth strongest when predicting *altruism* (where *intention to quit* was the third strongest predictor).
- *Having a purpose, empathy, self-regulation, self-awareness, transformational leadership* and *self-motivation* could not make a unique significant contribution to any of the dimensions of organisational citizenship behaviour, or a composite score thereof.

Taking the effect size consideration into account, the following dependant variables were predicted by the dimensions of *leader emotional intelligence, transformational leadership, trust, meaning,* and *intention to quit* in such a manner that they are considered to have reached a level that is deemed to be practically significant:

- The dimensions model (i.e. the *dimension scores for leader emotional intelligence, transformational leadership, trust, meaning,* and *intention to quit*) explained 26% of the variance in *Civic virtue*. *Trust in the co-worker* made the strongest unique significant contribution, followed by *trust in the organisation* and *fulfilling a purpose* (respectively) in this prediction of *civic virtue*.
- The dimension model (i.e. the *dimension scores for leader emotional intelligence, transformational leadership, trust, meaning,* and *intention to quit*) explained 30.8% of the variance in the total score for *Organisational Citizenship Behaviour*. *Trust in the co-worker* made the strongest unique significant contribution, followed by *trust in the organisation* and *fulfilling a purpose* (respectively) in this prediction.

4.6.2 Results: Hypothesis 19:

Hypothesis 19 stated that *meaning, trust, leader emotional intelligence* and *transformational leadership* could be used to predict *intention to quit*. A Standard Multiple Regression was performed to test this hypothesis and the results of this procedure is presented in Table 4.58

Table 4.58: Predicting Intention to Quit with Leader Emotional Intelligence, Transformational Leadership, Trust, and Meaning: Standard Multiple Regression

.	Model Summary			ANOVA	Coefficients			$f^2 = \frac{R^2}{(1-R^2)}$
Model no. Predictor	**R**	**R Square**	**Adjusted R Square**	**F (df)**	**B**	**Beta**	**t**	
Dependent variable: Intention to Quit								
Constant	.615	.378	.373	74.704	31.479		20.817**	0.61
Emot Intel				(4)	0.008	.047	0.738	
TFL					0.011	.045	.677	
Trust					0.091	.472	9.201**	
Meaning					0.097	.164	4.276**	
Dependent variable: Intention to Quit								
Constant	.683	.466	.455	42.373*	28.048		15.885**	0.87
TFL				(10)	0.002	.007	0.092	
Trust Org					0.181	.513	10.713**	
Trust C-W					0.045	.073	4.578	
Trust Lead					0.085	.134	2.003**	
Fulfil a Pur					0.129	206	5.257**	
Have a Pur					0.008	.003	0.071	
Empathy					0.261	.426	5.573**	
Self-Reg					0.014	.040	0.703	
Self-Mot					0.017	.020	0.337	
Self-Aware					0.166	.203	3.762**	
* Sig = .000 i.e. p<.005 ** Correlation is significant at the 0.01 level (2-tailed).								

It is evident from Table 4.58 that the model (i.e. *leader emotional intelligence, transformational leadership, trust,* and *meaning*) could explain 37.8% of the variance in *intention to quit*. This dependant variables was predicted in such a manner that this prediction is considered practically significant based on the f^2 criteria. *Trust*, followed by *meaning* (respectively), made the strongest unique contributions to the *intention to quit* score, when the variance explained by all other variables in the models is controlled for. It should be noted that *Trust* and *meaning* were the only two variables that significantly contributed to the regression equation. Based on these findings, the hypothesis should therefore be rejected as the other variables could not make a unique significant contribution.

For further analysis of this hypothesis, the ability of the dimensions of *leader emotional intelligence, transformational leadership, trust*, and *meaning* (as independent variables), to predict *intention to quit* (as dependent variable) was tested using Standard Multiple Regression. The following conclusions can be drawn from Table 4.58:

- The model (i.e. the dimensions of *leader emotional intelligence*, *transformational leadership, trust,* and *meaning*) could explain 46.6% of the variance in intention to quit.
- *Trust in the organisation* made the strongest unique contribution to all of the dimensions of *intention to quit* when the variance explained by all other variables in the model was controlled for.
- *Empathy* makes the second strongest unique contribution to *intention to quit*, followed by *fulfilling a purpose, self-awareness* and *trust in the leader* (in that order), when the variance explained by all other variables in the models was controlled for.

4.6.3 Results: Hypothesis 25:

Hypothesis 25 stated that *transformational leadership* and *leader emotional intelligence* could be used to predict *trust*. A Standard Multiple Regression was performed to test this hypothesis. The results of this procedure are presented in Table 4.59:

Table 4.59: Predicting Trust with Leader Emotional Intelligence and Transformational Leadership: Standard Multiple Regression

	Model Summary			ANOVA	Coefficients			$f^2 = \frac{R^2}{(1-R^2)}$
Model no. Predictor	**R**	**R Square**	**Adjusted R Square**	**F (df)**	**B**	**Beta**	**t**	
Dependent variable: Trust Total								
Constant	.700	.490	.488	236.806	55.208		14.519**	0.96
LEI				(2)	0.255	.297	5.314**	
TFL					0.553	.436	7.822**	
Dependent variable: Trust in the Organisation								
Constant	.576	.332	.325	48.756*	12.883		4.00**	0.50
TFL				(5)	0.160	.232	3.54**	
Empathy					0.203	.117	1.467	
Self-Reg					0.038	.037	0.607	
Self-Mot					0.729	.306	5.013**	
Self-Aware					0.005	.002	.040	
Dependent variable: Trust in the Co-worker								
Constant	.568	.323	.316	46.746	21.765		11.797**	0.48
TFL				(5)	0.046	.117	1.530	
Empathy					0.141	.143	1.780	
Self-Reg					0.095	.163	2.668	
Self-Mot					0.678	.500	8.137**	
Self-Aware					0.071	.054	0.902	
Dependent variable: Trust in the Leader								
Constant	.836	.700	.696	228.168*	3.772		3.128**	2.33
TFL				(5)	0.128	331	6.490**	
Empathy					0.352	.363	6.797**	
Self-Reg					0.100	.175	4.297**	
Self-Mot					0.152	.115	2.800**	
Self-Aware					0.103	.080	2.008**	
Dependent variable: Trust Total								
Constant	.730	.533	.529	111.977*	38.419		7.787**	1.14
TFL				(5)	0.334	.264	4.152**	
Empathy					0.696	.219	3.284**	
Self-Reg					0.033	.017	0.344	
Self-Mot					4.559	.357	7.00**	
Self-Aware					0.179	.042	0.854	

* Sig = .000 i.e. p<.005 ** Correlation is significant at the 0.01 level (2-tailed).

It is evident from Table 4.59 that the model (i.e. *leader emotional intelligence* and *transformational leadership*) could explain 49% of the variance in *trust*. *Transformational leadership*, followed by *leader emotional intelligence* (respectively), made the strongest unique contributions to the *trust* score, when the variance explained by all other variables in the models is controlled for. Both of these variables significantly contributed to the regression equation and based on this finding the hypothesis is accepted. For this equation, R is considered to be practically significant as well based on the f^2 criteria.

To analyse this hypothesis further, the ability of the dimensions of *leader emotional intelligence* and *transformational leadership* (as independent variables), to predict the

dimensions of *trust* (as dependent variables) were studied, using Standard Multiple Regression. The following conclusions can be drawn from Table 4.59:

- Between 32.3% and 70% of the variance in the dimensions of *trust*, and a composite score thereof, could be explained by the model (i.e. the dimensions of *leader emotional intelligence* and *transformational leadership*). The model explained the least amount of variance in *trust in the co-worker*, followed by *trust in the organisation* and the composite score of trust. The largest percentage of variance was explained in *trust in the leader*.
- All the dimensions in the model made a unique contribution to *trust in the leader*, when the variance explained by all other variables in the model are controlled for. The largest contribution was made by *empathy*, followed by *transformational leadership, self-regulation, self-motivation* and *self-awareness* (in the order).
- *Self-motivation* made the largest unique contribution to the dimensions of *trust in the co-worker, trust in the organisation* and the composite score of *trust*.

4.6.4 Results Hypothesis 33:

Hypothesis 33 stated that *transformational leadership* and *leader emotional intelligence* could be used to predict *meaning*. A Standard Multiple Regression was performed to test this hypothesis and the results of this procedure are presented in Table 4.60:

Table 4.60: Predicting Meaning with Leader Emotional Intelligence and Transformational Leadership: Standard Multiple Regression

	Model Summary			ANOVA	Coefficients			$f^2 = \frac{R^2}{(1-R^2)}$
Model no. Predictor	**R**	**R Square**	**Adjusted R Square**	**F (df)**	**B**	**Beta**	**t**	
Dependent variable: Meaning Total								
Constant LEI TFL	.299	.089	.086	241.230	57.276 0.022 0.149	 .078 .360	34.432** 1.050 4.825**	0.10
Dependent variable: Fulfilling a purpose								
Constant TFL Empathy Self-Reg Self-Mot Self-Aware	.349	.122	.113	13.596 (5)	41.672 0.163 0.345 0.026 0.200 0.171	 .419 .354 .045 .149 .131	20.071** 4.813** 3.872** 0.650 2.135** 1.940	0.14
Dependent variable: Having a purpose								
Constant TFL Empathy Self-Reg Self-Mot Self-Aware	.198	.039	.029	3.993 (5)	11.070 0.016 0.032 0.016 0.010 0.062	 .199 .160 .132 .035 .233	24.916** 2.183** 1.671 1.812 0.482 3.286**	0.041
Dependent variable: Meaning total								
Constant TFL Empathy Self-Reg Self-Mot Self-Aware	.355	.125	.117	14.137 (5)	52.741 0.179 0.377 0.042 0.191 0.233	 .431 .362 .068 .133 .168	23.859** 4.959** 3.972** 0.974 1.909 2.482**	0.14
* Sig = .000 i.e. p<.005 ** Correlation is significant at the 0.01 level (2-tailed).								

It is evident from Table 4.60 that the model (i.e. *leader emotional intelligence* and *transformational leadership*) could explain 8.9% of the variance in meaning. *Transformational leadership* was the only variable of the two that made a unique contribution to the *meaning* score, when the variance explained by all other variables in the model was controlled for. This model is not considered to have reached the threshold to point to practical significance when considering the criterion set for practical significance (i.e. f^2>0.30).. Based on these findings, the hypothesis is therefore not accepted.

To analyse this hypothesis further, the dimensions of *transformational leadership* and *emotional intelligence* (as independent variables) were used to predict meaning, as well as its dimensions. The following conclusions can be drawn from the results presented in Table 4.60:

- Between 3.9% and 12.5% of the variance in the dimensions of meaning, and a composite score thereof, could be explained by the model (i.e. the dimensions of

leader emotional intelligence and *transformational leadership*). The model explained the least amount of variance in *having a purpose*, followed by *fulfilling a purpose* and the composite score of *meaning*.

- In predicting *fulfilling a purpose* and the *meaning* composite score, *transformational leadership* made the largest unique contribution to the regression equation, followed by *empathy* and *self-motivation*.

4.6.5 Conclusions Research Question 4

Only one hypothesis could be accepted based on these results. That is that *transformational leadership and leader emotional intelligence* was found to predict *trust* in a practically significant manner. The remaining results did however also provide further insights into the role that the various dimensions play in predicting the latent variables.

4.7 Results Research Question 5

The fifth research question was concerned with whether the proposed theoretical model was consistent with the data obtained from the sample. This notion is reflected in Hypothesis 39, which stated that the conceptual model adequately fits the collected data. To be able to reach a meaningful conclusion regarding this hypothesis, Structural Equation Modelling was used.

4.7.1 Structural Equation Modelling: Testing the Structural Model

LISREL (ver 8.53) was used to do this analysis and it was done to get an indication of how consistent the data was with the proposed theoretical model. There are two areas to be examined when testing whether the model is consistent with the data: 1) model fit, and 2) the specific parameter coefficients (Lavee, 1988).

The data obtained on the indicator variables were read into PRELIS and normalised. Maximum likelihood estimation of structural equation models presumes a multivariate normal distribution (Kelloway, 1998). It was therefore decided that for the SEM analysis, the data should be normalised as suggested as this would increase the possibility of obtaining good model fit (Jöreskog & Sörbom, 1993). A covariance matrix was computed that would serve as input for the LISREL analysis (Jöreskog & Sörbom, 1996).

A structural model including all the constructs, as well as their underlying dimensions was thus drawn and studied by means of this statistical technique. The items were separated into their consecutive dimensions and each was used as an indicator variable for the various factors or dimensions. The structural model as depicted in Figure 3.1 was thus designed with the aid of the interactive facility of the LISREL programme. The conventional LISREL syntax was then derived from the path diagram and was used for the analysis. The maximum likelihood (ML) method was used in the present study as the method of parameter estimation. ML is a full information technique due to the fact that one is able to estimate all parameters (i.e. path values) simultaneously. It should be noted that chi-square and the standard errors need to be interpreted with caution when ML is used (Raykov, Tomer & Nesselroade, 1991). After submitting the syntax, the structural model converged and the results are summarised in Table 4.61.

Table 4.61: Assessment of Model Fit for the Complete Proposed Model Predicting OCB

Goodness of Fit Statistics

Degrees of Freedom = 261

Minimum Fit Function Chi-Square = 2056.2076 (p = .0)

Normal Theory Weighted Least Squares Chi-Square = 1938.0641 (p = .0)

Estimated Non-centrality Parameter (NCP) = 1677.0641

90 Percent Confidence Interval for NCP = (1540.8720; 1820.6882)

Minimum Fit Function Value = 4.1540

Population Discrepancy Function Value (F0) = 3.3880

90 Percent Confidence Interval for F0 = (3.1129; 3.6782)

Root Mean Square Error of Approximation (RMSEA) = 0.1139

90 Percent Confidence Interval for RMSEA = (0.1092; 0.1187)

P-Value for Test of Close Fit (RMSEA < 0.05) = 0.0000

Expected Cross-Validation Index (ECVI) = 4.1739

90 Percent Confidence Interval for ECVI = (3.8987; 4.4640)

ECVI for Saturated Model = 1.3131

ECVI for Independence Model = 49.6076

Chi-Square for Independence Model with 300 Degrees of Freedom = 24505.7773

Independence AIC = 24555.7773

Model AIC = 2066.0641

Saturated AIC = 650.0000

Independence CAIC = 24685.9417

Model CAIC = 2399.2850

Saturated CAIC = 2342.1372

Normed Fit Index (NFI) = 0.9161

Non-Normed Fit Index (NNFI) = 0.9148

Parsimony Normed Fit Index (PNFI) = 0.7970

Comparative Fit Index (CFI) = 0.9258

Incremental Fit Index (IFI) = 0.9260

Relative Fit Index (RFI) = 0.9036

Critical N (CN) = 77.3304

Root Mean Square Residual (RMR) = 4.2637

Standardized RMR = 0.09405

Goodness of Fit Index (GFI) = 0.7615

Adjusted Goodness of Fit Index (AGFI) = 0.7030

Parsimony Goodness of Fit Index (PGFI) = 0.6115

4.7.2 Assessing the Overall Goodness-of-Fit of the Structural Model

Assessment of overall model fit and the interpretation of the goodness-of-fit-indices were discussed in Chapter 3. An admissible final solution of parameter estimates for the proposed structural model was found after 152 iterations. The full spectrum of model fit indices provided by LISREL to assess absolute, comparative and parsimonious fit is presented in Table 4.61.

Results: Absolute Fit Measures

The significant Minimum Fit Chi-Square statistics demonstrates imperfect model fit and implies that the model may not be adequate and may possibly have to be rejected. The same picture is provided by the Normal Theory Weighted Least Chi-Square. As stated earlier in Chapter 3, the Chi-square statistic is sensitive for multivariate normality and sample size (Diamantopoulos & Signuaw, 2000). To counter this problem, Bollon and Long (1993) and Kelloway (1998) recommends that, for samples of more than 200, the ratio of chi-square and degrees of freedom (χ^2/df) rather be used. A value of between 2 and 5 is believed to indicate good fit (Bollon & Long, 1993; Kelloway, 1998). A value of 7.9 was obtained for the structural model and when evaluated against this standard, it would seem that the model does not fit the data well.

RMSEA is based on the analysis of residuals, with smaller values indicating a better fit to the data. Steiger (1990) contends that a value lower than 0.08 indicates acceptable fit, but the model only achieved a RMSEA value of 0.1139, which further points to poor model fit.

RMR was found to be 4.3, which is less than 5 and indicates good model fit. On the other hand the standardised RMR was found to be 0.09405. Generally it is accepted that the lower the index, the better the fit of the model to the data, with values less than 0.05 interpreted as indicating a good fit (Kelloway, 1998). Here, the model does not seem to indicate good fit contradicting the RMR result.

GFI directly assesses how well the covariances predicted from the parameter estimates reproduce the sample covariance (Kelloway, 1998). This was found to be .7615. The GFI ranges from 0 (poor fit) to 1 (perfect fit), with values exceeding .9 indicating a good fit to the data (Kelloway, 1998). The model did not reach the .9 level and therefore

it further affirms the fact that the model fits the data poorly. Kelloway (1998) does warn that the GFI has no known sampling distribution, which implies that the standards as to what constitutes good fit to the data are somewhat arbitrary.

The ECVI assesses whether a model is likely to cross-validate across samples of the same size from the same population and this was found to be 4.1739 (Diamantopoulos & Siguaw, 2000). ECVI is a useful indicator of a model's overall fit, but, there is no appropriate range of values for the ECVI index (Jöreskog, 1993). Smaller ECVI values indicate better fitting models and are believed to have the greatest potential for replication (Diamantopoulos & Siguaw, 2000). This model cannot be compared with another.

Results: Incremental Fit Measures

Comparative fit chooses a baseline model for comparison. Comparative fit is based on a comparison of the structural model with the independence model that provides the poorest fit possible to the data. All of these indices described in this group of indecies assume values between 0 and 1, where larger values indicate better fit and good fit is indicated by a value above 0.90.

Comparative fit measures reported are: the Normed-Fit Index (NFI) = .9161; the Non-Normed Fit Index (NNFI) (also known as the Tucker-Lewis Index) = .9148; the Incremental Fit Index (IFI) = .9260; the Comparative Fit Index (CFI) = .9258; the Relative Fit Index (RFI) = .9036; and Adjusted Goodness-of-Fit index (AGFI) = .7030. All but one of the indices did reach the .90 level indicating mediocre fit. AGFI (= 0.7030) however, did not reach the .90 level.

When using comparative fit indices to evaluate the fit, more positive results are revealed. For most, they provide evidence of good model fit. But, these indices only indicate that the model fits better than a null or totally no relationship model.

Results: Parasinious Fit Measures

The models do not achieve PNFI (=0.7970) and PGFI (+0.6115) indices >0.9 to indicate adequate fit.

Overall Assessment of Model Fit

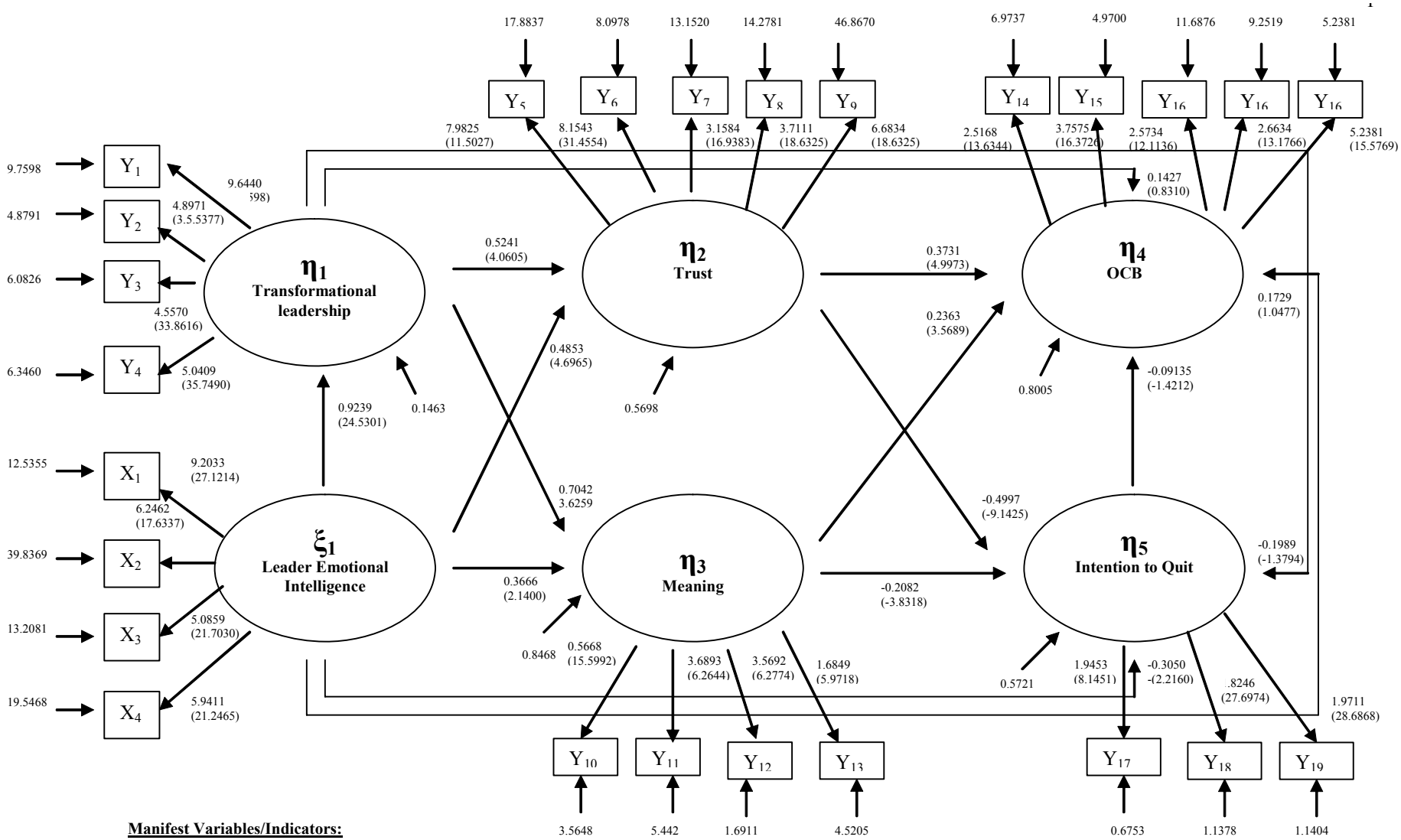
Based on the findings described above, it could be concluded that the model did not fit the data well. If the fit is poor, as is the case with this model, the model can be respecified (Kenny et al., 1998). Part of the evaluation of model fit is the determination of where the poor fit lies. The modification indices reported by LISREL provide a means to improve the fit to the data. A model is usually respecified on the basis of the analysis of the data and the modifications indices. The modification index provides a means to assess what changes in the model specification would improve its fit to the data and is indicated by an index larger than 5.0. In structural equation modelling, the researcher usually cycles through the four steps of 1) specification, 2) identification, 3) estimation, and 4) model fit many times.

This practice is controversial and being contested by several authors. Models that are respecified on that basis of the data are exploratory and not confirmatory (Kenny et al., 1998). Generally, the significance testing within structural equation modelling presumes that the model was specified without looking at the data. Capitalisation on chance is a serious problem when models are substantially altered on the basis of analysis of the data (MacCallum, Roznowski & Necowitz, 1992). Exclusive reliance on statistical and not theoretical criteria for respecifying it is therefore believed to lead to misleading models.

The next step was to examine the paths to determine whether the model's predictions were correct, to further test the hypotheses and to identify each path's contribution to the overall fit of the model.

4.7.3 Evaluation of the Structural Relationships of the Overall Model

The results of the SEM are reported in Tables 4.62 to 4.66 reported in Addendum D. The structural model, with its maximum likelihood parameter estimates, is presented in Figure 4.16. 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 ($p < 0.05$). The gamma (Γ) and beta (B) matrices illustrating the direct effects between the constructs are depicted in Tables 4.62 and 4.66, respectively.



Manifest Variables/Indicators:
X_1 = Empathy, X_2 = Self-Regulation1, X_3 = Self-Regulation2, X_4 = Self-Awareness, Y_1 = TFL(CH), Y_2 = TFL(IM), Y_3 = TFL(IS), Y_4 = TFL(IC), Y_5 = Trust in the organisation, Y_6 = Trust in the organisation, Y_7 = Trust in the co-worker1, Y_8 = Trust in the co-worker2, Y_9 = Trust in the leader, Y_{10} = Having a purpose, Y_{11} = Fulfilling a purpose1, Y_{12} = Fulfilling a purpose2, Y_{13} = Fulfilling a purpose3, Y_{14} = Altruism1, Y_{15} = Altruism2, Y_{16} = Civic virtue, Y_{17} = Conscientiousness1, Y_{18} = Conscientiousness2, Y_{17} = ItQ1, Y_{18} = ItQ2, and Y_{19} = ItQ3.
Y_{13} = Intention to Quit 1, Y_{14} = Intention to Quit 2, Y_{15} = Intention to Quit 3.

Figure 4.16: The Structural Model with Maximum Likelihood Parameter Estimates

Table 4.67: Gamma Matrix: Structural Model

	Leader Emotional Intelligence
Trust	0.4853* (.1033) 4.6965
Meaning	0.3666* (0.1713) 2.1400
Transformational Leadership	0.9239* 0.03767 24.5301
OCB	0.1729 (0.1650) 1.0477
Intention to Quit	-0.3050* (0.1377) -2.2160

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

From the t-values in the matrix above (Table 4.84), it is evident that positive significant relationships (t>1.96) exist between *leader emotional intelligence* and *transformational leadership, meaning, trust.* Furthermore, a negative significant relationship exists between *leader emotional intelligence* and *intention to quit*. These relationships are significant at p<.05. For these statistical hypotheses, the Ho can thus be rejected in favour of Ha i.e. hypotheses 17, 22, 29 and 34. The results, which take the complete conceptual model and all its interactions into account, concurs with that obtained earlier with the path analysis.

However, in the case of the hypothesised relationship between leader emotional intelligence and organisational citizenship behaviour, no significant relationship was found when the complete model was tested. As a result, Hypothesis 9 is not corroborated here, indicating that Ho should probably be rejected. This differs from the result obtained earlier, when this path was found to be significant. This inconsistency is explained by the fact that the structural model tested on the complete conceptual model consists of additional latent variables and relationships not present in the path analyses.

The beta (B) matrix is reported below in Table 4.68.

Table 4.68: Beta matrix: Structural model

	Transformational Leadership	OCB	Intention to Quit
Trust	0.5241* (0.1291) 4.0605	0.3731* (0.0747) 4.9973	-0.4997* (0.0547) -9.1425
Meaning	0.7042* (0.1942 3.6259	0.2363* (0.0662) 3.5689	-0.2082* (0.0543) -3.8318
Transformational Leadership	-	0.1427 (0.1718) 0.8310	-0.1989 (0.1442) -1.3794
OCB		-	-0.0914 (0.0643) -1.4212

* t values greater that 1.96 indicate significant path coefficients on the .05 level for a two-tailed test

It can be argued, from the above matrix, that positive significant (t>1.96) relationships exist between:

- *transformational leadership* and two variables: 1) *trust* (t=4.0606) and 2), *meaning* (t=3.6259); and
- *organisational citizenship behaviour* and two variables: 1) *trust* (t=4.9973) and 2) *meaning* (t=3.5689).

From the above matrix, it can also be argued that negative significant (t>1.96) relationships exist between:

- *intention to quit* and two variables: 1) *trust* (t=-9.1425) and 2) *meaning* (t=-3.8318).

From the above matrix, it can further be found that no significant (t>1.96) relationship was present between:

- *intention to quit* and *transformational leadership* with *organisational citizenship behaviour,* and
- *transformational leadership* and *intention to quit*.

Regarding the direct relationships between the constructs the Ho for the statistical Hypotheses 8, 10, 13, 18, 20 and 26, can therefore be rejected in favour of Ha. This

result, which takes all the interaction effects of the total conceptual model into account, concurs with the previous results.

The direct statistical hypotheses on the other hand, that could not be corroborated were 7, 11 and 15. These results again are different from those obtained by the path analysis. The explanation for this anomaly is to be found in the fact that the previous statistical methods did not take the complete conceptual model into account when the significance of the paths were determined.

The following mediating relationship hypothesis could be corroborated, as all the relationships between the constructs and their mediators were found to be significant: 21, 23, 27, 30, 36 and 37. Due to relationships that could not be found to be significant when the complete conceptual model was taken into account, the following hypotheses could not be corroborated: 14, 16, 28, 31, 32, 35 and 38.

4.7.4 Conclusion Research Question 5

Examination of the goodness-of-fit indices led one to believe that the model did not seem to fit the data very well. By studying the path coefficients, it could be argued that positive significant relationships exist between:

- *leader emotional intelligence* and *transformational leadership;*
- *leader emotional intelligence* and *meaning;*
- *leader emotional intelligence* and *trust;*
- *transformational leadership* and *trust;*
- *transformational leadership* and *meaning;*
- *trust* and *organisational citizenship behaviour;* and
- *meaning* and *organisational citizenship behaviour.*

It could furthermore be argued that negative significant relationships exist between:

- *leader emotional intelligence* and *intention to quit*;
- *meaning* and *intention to quit;* and
- *trust* and *intention to quit*.

Based on the SEM results for the Structural model, the significant paths are summarised in Figure 4.17.

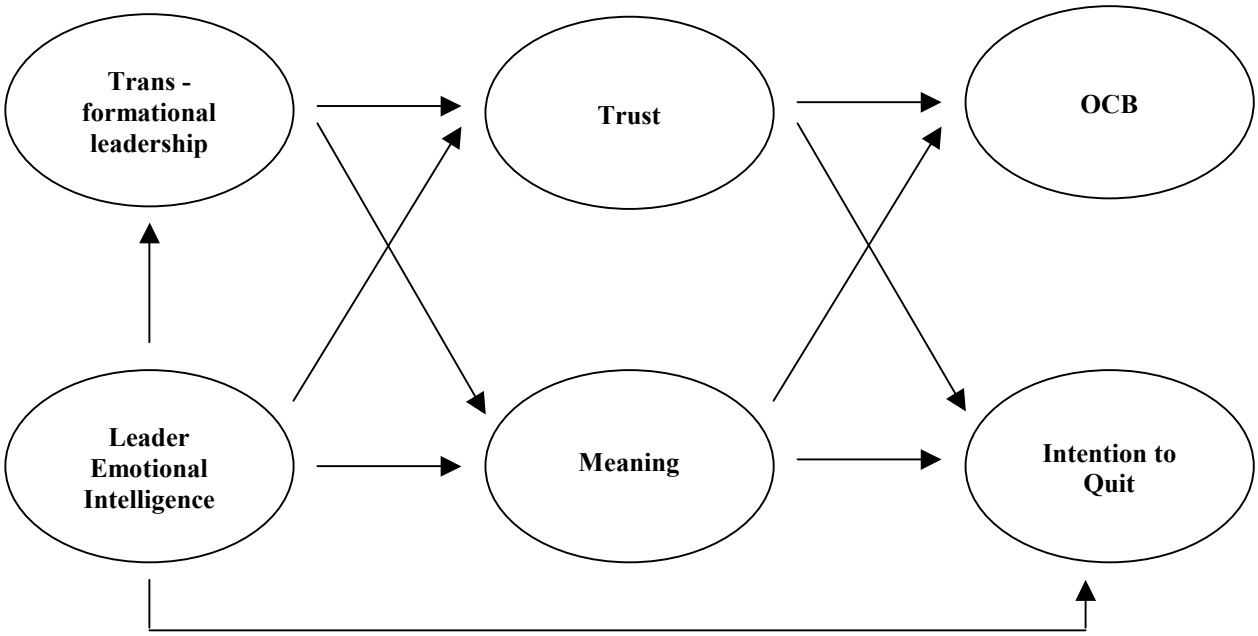


Figure 4.17: The conceptual model showing the significant relationships between transformational leadership, leader emotional intelligence, trust, meaning, intention to quit and organisational citizenship behaviour.

4.8 Summary of Research Results

The purpose of this chapter was to report on the results obtained from the study as described in the previous chapters. Though all the hypotheses were not supported by the results, the objectives of the study were nonetheless achieved.

The next chapter deals with the conclusions to be drawn from the results. These will be discussed in terms of the research questions that were posed by the present study. Theoretical as well as practical implications will be discussed further. The chapter will also offer recommendations for future research on this topic.

CHAPTER 5

DISCUSSION OF THE FINDINGS

5.1 Introduction

"Scientific research is [the] systematic, controlled, empirical, amoral, public, and critical investigation of natural phenomena. It is guided by theory and hypotheses about the presumed relations among such phenomena" (Kerlinger & Lee, 2000, p. 14). But the data produced by the scientific process are unorganised manifestations of the truths they represent and therefore need to be organised and analysed to reveal the underlying truths (Leedy, 1993). Leedy (1993), however, warns that the conclusions drawn from primary data can never be deemed as *truth absolute*, but merely provides an indication of what the truth might be. Even so, the data serves to bring a glimmer of truth to the inquisitive mind of the researcher, if adequately examined for the relationships that are represented. Kerlinger and Lee (2000, p. 218) had the following to say about scientific proof:

> Let us flatly assert that nothing can be 'proved' scientifically. All one can do is to bring evidence to bear that such-and-such a hypothesis is true. Proof is a deductive matter. Experimental methods of enquiry are not methods of proof, they are controlled methods of bringing evidence to bear on the probable truth or falsity of relational propositions.

The above words of Leedy (1993) and Kerlinger and Lee (2000) are descriptive of the approach and orientation that is followed in this chapter, and in the present study. The aim of this chapter is to examine and discuss the statistical results that were presented in the previous chapter. The conclusions drawn in this chapter are therefore presented as deductions that are considered valid in light of the obtained evidence, rather than irrefutable truth. In terms of making a significant contribution to the field of organisational psychology, it is considered essential to draw conclusions based on the insights gained during research, as well as from the results obtained from the data. It is preferable to incur the criticism that all conclusions are not clinically objective and proven by fact, rather than to lose the rich insights gained from the research. In the words of the law, the evidence for such conclusions is "such as to convince a reasonable

man beyond a reasonable doubt." Fortunately, this is adequate in terms of research. Kerlinger and Lee (2000, p. 218) have stated that "…evidence at satisfactory levels of probability is sufficient for scientific progress" and Hunt (1983, p. 126) says "Surely, no one would seriously propose that in order to explain anything, we must explain everything. Such nihilism would place ludicrous requirements on scientific explanation in the light of the admitted usefulness of explanations that involve potentially infinite regresses."

This chapter will present a discussion of the results obtained from the study as described in the previous chapter in terms of the research questions governing the study, after which the limitations of the study, as well as recommendations for future research will be discussed. The chapter will conclude with a discussion of the theoretical and practical implications of the present study in such a way as to answer the "So what?" question.

5.2 The Purpose of the Study

The purpose of the present study was to develop and evaluate an integrated conceptual model linking *leader emotional intelligence, transformational leadership, trust, meaning, intention to quit* and *organisational citizenship behaviour*. More specifically, the study aimed to understand how these factors could in any way influence organisational citizenship behaviour. To achieve this, the available literature was reviewed to discover what is known about the relationships between the chosen constructs. The research evidence found in the literature study was then used to build and propose the abovementioned conceptual model. This model, which formed the basis of the present study, was investigated as to obtain a better understanding of the organisational citizenship behaviour construct and its relationship with the chosen constructs.

It should be noted that the theoretical model was believed to be a causal one and the theoretical arguments were developed accordingly. On the other hand, the present study for all intents and purposes was a study of the relationships between the constructs. A study of relationships is believed to provide insight into the constructs, but the danger of confusing correlation with causality has to be born in mind.

5.2.1 Correlation vs. Causation

Correlation is a necessary but not sufficient condition to make causal inferences with reasonable confidence. Causality is a matter of research design, not statistical technique (Tabachnick & Fidell, 2001). To imply causality, an appropriate method of data collection is necessary. To make causal inferences one must gather the data by experimental means, while controlling extraneous variables that might confound the results. Having gathered the data in this fashion, and if one can establish that the experimentally manipulated variable is correlated with the dependent variable (the correlation does not need to be linear), one could be (reasonably) comfortable in making a causal inference (Tabachnick & Fidell, 2001). Therefore, when the data have been gathered by experimental means and confounds have been eliminated, correlation could imply causation.

A comprehensive series of statistical analyses underlie the present study. It should be noted that the research methodology and statistical analysis chosen for the present study dealt with relationships and therefore cannot strictly lead to any conclusions of causality. One statistical technique used in the present study, SEM, is believed by some authors to be a technique that can test causality. Many authors and researchers even go as far as to use the terms *causal modelling* or *causal paths,* when referring to structural equation modelling and the various paths that are represented between latent variables (Tabachnick & Fidell, 2001). To these authors, Tabachnick and Fidell (2001) direct the statement that "…there is nothing causal, in the sense of inferring causality, about the use of SEM." (p. 659).

It can be argued that correlation does at least imply (i.e. hints at) causation, even when the correlation is observed in data not collected by experimental means (as was the case in the present study). Of course, with non-experimental models, the potential causal explanations of the observed correlation between X and Y must include models that involve additional variables and which differ with respect to which events are causes and which are effects (Tabachnick & Fidell, 2001).

To be able to achieve the aim set for the present study, five research questions were proposed and described in Chapter 1. From these five research questions, 39 hypotheses were deduced that could be empirically investigated. They were formulated in Chapter 2

on the basis of the literature study provided. The results and findings of these hypotheses will be discussed in terms of these five questions.

5.3 Findings Regarding the Measurement Instruments

The dimensionality and factorial/configurational validity of each measurement instrument was first tested within the context of the present study, i.e. the South African business context before it was used to conduct any further analyses. This was done to determine the construct validity of each of the instruments as all of the measuring instruments had originally been developed in other countries and in cultures different from the one used in the present study. This first step aimed to ensure that, for the purposes of the present study, the measurement scales that were being utilised to study the relationships were construct valid and internally reliable. This step was further conducted to try and ensure the best possible result would be obtained when further analyses was conducted based on the data collected with these measurement instruments. To do this, a double cross-validation process using Exploratory and Confirmatory Factor Analysis was utilised. This process was discussed in detail in Chapter 3. The results of these statistical and methodological processes, as reported in Chapter 4, are summarised and discussed in relation to the literature study provided in Chapter 1 and 2.

5.3.1 Conclusions Regarding the Exploratory Factor Analysis Process

The first step in this process was to conduct Exploratory Factor Analysis (EFA), using the Statistical Package for the Social Sciences (SPSS) (version 13) program in such a way as to uncover the underlying latent variables within the data obtained from the sample. Factor Analysis is "…conceived of as a construct validity tool" (Kerlinger & Lee, 2000, p. 856). The Principal-Axis factoring extraction method employing Direct Oblimin rotation was used to conduct the EFA. The motivation for using this extraction method over the more traditionally used Principal Components method with Varimax rotation was discussed in Chapter 3. The results of this process are discussed in detail in Chapter 4. Some of the pertinent outcomes of this process is summarised in Table 5.1.

Table 5.1: Summary of EFA and Internal Reliability Results

	n_t=496 n_1=248 n_2=248	No. of items rejected	Factors	Items load on same factors	Percentage variance explained	Cronbach alphas (scale and subscales)
Leader EI	**Original Leader EI**	-	1) self-motivation 2) empathy 3) social skills 4) self-regulation 5) self-awareness	-	n/a	.84-.96
	n_t EFA Leader EI	13	1) self-motivation 2) empathy 3) self-regulation 4) self-awareness	Differed considerably	74.3%	.89-.97
	n_1 EFA Leader EI	10	1) self-motivation 2) self-regulation 3) self-awareness	Differed considerably		
	n_2 EFA Leader EI	15	1) self-motivation 2) self-regulation 3) self-awareness	Differed considerably		
Trans Lead	**Original TFL**	-	1) Idealised Influence 2) Inspirational Motivation 3) Intellectual Stimulation 4) Individualised Consideration	-	n/a	
	n_t EFA TFL	0	1) Transformational leadership	4 factors not replicated	59.9%	.97
	n_1 EFA TFL	0	1) Transformational leadership	4 factors not replicated		
	n_2 EFA TFL	0	1) Transformational leadership	4 factors not replicated		
Meaning	**Original Meaning**	-	1) framework 2) fulfilment	-	n/a	.79-.89
	n_t EFA Meaning	10	1) having a purpose 2) fulfilling a purpose	Differed considerably	47.41%	.85-.91
	n_1 EFA Meaning	5	1) having a purpose 2) fulfilling a purpose	Differed considerably		
	n_2 EFA Meaning	5	1) having a purpose 2) fulfilling a purpose	Differed considerably		
Trust	**Original Trust**	-	1) trust in leader, 2) trust in organisation 3) trust in co-worker	-	n/a	.84-.95
	n_t EFA Trust	2	1) trust in leader, 2) trust in organisation 3) trust in co-worker	All but 1 item	64.52%	.91-.96
	n_1 EFA Trust	4	1) trust in leader, 2) trust in organisation 3) trust in co-worker	All but 1 item		
	n_2 EFA Trust	2	1) trust in leader, 2) trust in organisation 3) trust in co-worker	All but 1 item		
ITQ	**Intent to Quit**	-	1) Intention to quit	-	n/a	.91
OCB	**Original OCB**	-	1) courtesy 2) civic virtue 3) conscientiousness 4) altruism 5) sportsmanship	-	n/a	.80-.91-
	n_t EFA OCB	8	1) altruism 2) civic virtue 3) conscientiousness	Differed Moderately	52.93%	.83-.92
	n_1 EFA OCB	9	1) altruism 2) civic virtue 3) conscientiousness	Differed Moderately		
	n_2 EFA OCB	9	1) altruism 2) civic virtue 3) conscientiousness	Differed Moderately		

It is evident from Table 5.1 that based on the data obtained from the sample, the configuration of several measurement instruments were not replicated in the present study. The four factors of *transformational leadership* could not be replicated. Instead, a single factor *transformational leadership* emerged and the respondents that made up the present sample therefore did not (or were unable to) differentiate between the four dimensions of transformational leadership. This scale can be considered to be *factorially pure* (Kerlinger & Lee, 2000). The fact that the (four-) dimensional configuration of the original measurement model was not replicated in the present sample is an interesting finding, as the MLQ is widely used in South African organisational research. This result should serve as some warning to researchers who indiscriminately use this measurement instrument when conducting research with South African samples. This result may never be replicated, but it at least serves to caution that it cannot be assumed that the postulated factorial configuration of this measurement model will always be the same across samples from different cultures.

Only three of the five dimensions of the Konovsy and Organ (1996) organisational citizenship behaviour scale were found. The original version of the Emotional Intelligence Index (EQI) (Rahim & Minors, personal communication, April 2001) was developed to assess Goleman's (1995) five dimensions of emotional intelligence. From the data of the total sample (n_t=496) only four dimensions of leader emotional intelligence emerged, while the two subsamples (n_1=248 and n_2=248) each produced only three factors. Recently, critics of the emotional intelligence construct have voiced their concern that it may not be as established a construct, as is often believed and this finding to some extent supports their views (Landy, 2005; Locke, 2005; Spector, 2005). This result further questions the extent to which the emotional intelligence construct is universal and manifests itself in the same manner across continents and cultures.

Battista and Almond's (1973) Life Regard Index (LRI) was developed to assess two dimensions of meaning (i.e. 1) *Framework* and 2) *Fulfilment*). Two factors emerged from the data obtained with this scale, but after studying the items that loaded on these factors and considering the original factorial structure, it was decided that they should be given different labels. They were called: 1) *Fulfilling a purpose*, and 2) *Having a purpose.* This was necessary as 10 items of the original 28 had to be rejected (EFA derived from the total sample) and the resulting factorial configuration differed

considerably from that of the original proposed by Battista and Almond's (1973). It is suggested that the meaning construct may not necessarily be conceptualised in the same manner within different cultures.

The three dimensions, as defined by the authors, of the trust instrument emerged based on the data collected with the Workplace Trust Survey (WTS) of Ferres and Travaglione (2003). The EFA-derived measurement models were very similar to those proposed by Ferres and Travalione (2003). Even so, two items did not meet the inclusion criteria and had to be rejected and one item shifted from one factor to another. For all intents and purposes though, this measurement scale can be considered as robust and stable, at least across the two cultures (i.e. Australia and South Africa). One could therefore assume that the trust construct may possibly be universal in that it is understood on different continents and in different cultures in very much the same way, although it should be noted that this statement is a generalisation and may even be an exaggeration.

The factors that emerged from the data collected with these measurement instruments are believed to reflect the underlying processes that have created the correlations among the variables (Tabachnick & Fidell, 2001). The emergence of most of the original factors in the South African sample provides some assurance that these underlying variables were being measured successfully (to some extent at least). The differences that were found can only be ascribed to the differences that are believed to exist between these samples.

According to Kerlinger and Lee (2000), differences in sex, education, social and cultural background, or anything else that introduces correlation between variables, can create or produce factors. The difference between the factors that emerged in the present South African sample and those that emerged in the standardisation sample used by the original authors could possibly be ascribed to these differences, i.e. differences in sex, education and social and cultural background. The different ways in which the items loaded on the factors is attributed to the same reasons.

One of the important cultural differences between the South African sample and the standardisation sample is that of language. South Africa has 11 official languages and

English is a second (or even third or fourth) language for many South Africans. Even though the business language is predominantly English, many of the respondents came from organisations in the Western Cape region. In this geographical area, Afrikaans is the home language of many people (the South African government's information website currently quotes the following percentages for the Western Cape region: Afrikaans 55,3%, isiXhosa 23,7%, and English 19,3%). Based on this information, one could question the average respondent's command of the English language and this may well have influenced the way in which scale items and the specific words that are used in them were understood and interpreted. Unfortunately, home language was not included as one of the biographical variables in the survey so this is left to speculation. There are of course other aspects of culture that may differ between these samples that can be offered as possible explanations for this outcome (e.g. customs, rituals, values, norms, world view).

In conducting the EFA, the amount of explained variance was determined for each of the derived measurement models. It was found that the various measurement models explained between 47% and 74% of the variance in the data. The fact that in most instances only little more than half of the variance was explained is expected to impact on the results of further analyses. For example, the observed strength of the relationships between two constructs can be incorrectly assessed if the measures of the constructs being correlated are incomplete. It is thus evident that a significant proportion of the constructs have not been measured and one will not know exactly what influence this would have on further results that are based on this measure of the construct.

5.3.2 Conclusions Regarding the Internal Reliability

In all instances (i.e. the EFA-derived and original measurement models, including their underlying dimensions or subscales) the Cronbach alphas indicated acceptable levels of internal reliability. It was also found that in practically all instances, the EFA-derived measurement models obtained numerically higher Cronbach alpha coefficients on the subscales and total scales when compared to those obtained from the data collected with the original measurement models.

5.3.3 Conclusions Regarding the Confirmatory Factor Analysis Process

When the goodness-of-fit indices obtained from the Confirmatory Factor Analyses were compared for the EFA-derived and original measurement models, it was found that the measurement models derived from the responses of the present sample fitted the obtained data more closely than the original measurement models. This was based on a numerical comparison of these indices and is discussed in detail in Chapter 4.

In the split-sample approach, an EFA was conducted on each subsample to obtain a derived measurement model. CFA was used to see how well this measurement model fitted that and the other subsample (from which it was not derived). This was a rudimentary numerical comparison and should be treated with caution. It did however give an indication that the EFA-derived measurement models were relatively stable and robust across samples that it was not derived from.

Table 5.2 summarises the goodness-of-fit indices obtained from the Confirmatory Factor Analyses for the EFA-derived measurement models obtained from the data of the total sample (n_t=496) and therefore the measurement models that were used for further analyses.

Table 5.2: Confirmatory Factor Analysis: Model Fit Indices for the n_t EFA Derived Scales					
	OCB	**Trust**	**LRI**	**LEI**	**TFL**
Model derived from:-	**Total Group**	**Total Group**	**Total Group**	**Total Group**	**Total Group**
Data obtained from:-	**Total Group**	**Total Group**	**Total Group**	**Total Group**	**Total Group**
Absolute Fit Measures					
Degrees of Freedom	249	773	134	318	164
Minimum Fit Function Chi-Square	1294.0039 p=.0	4206.7781 p=.0	645.8193 p=.0	1918.0272 p=.0	960.3970 (p=.0)
Normal Theory Weighted Least Chi-Square	1309.8328 p=.0	4461.3790 p=.0	660.2627 p=.0	2066.8308 p=.0	1133.7275 (p=.0)
χ^2/df	5.20	5.44	4.82	6.03	5.86
Root Mean Square Error of Approx. (RMSEA)	0.09259	0.09818	0.08889	0.1052	0.1093
90% Confidence Interval for RMSEA	(0.08768; 0.09756)	(0.09539; 0.1010)	(0.08219; 0.09572)	(0.1009; 0.1095)	(0.1033, 0.1154)
Expected Cross-validation index (ECVI)	2.8407	9.3684	1.4774	4.4001	2.4762
90% Confidence interval for ECVI	(2.6203; 3.0762)	(8.9515; 9.8003)	(1.3237; 1.6463)	(4.1183; 4.6968)	(2.2682; 2.6994)
Chi-square for independence Model for Degrees of Freedom (df)	16736.7345 (276)	68752.1369 (820)	9287.0734 (153)	54974.1786 (351)	31688.9887 (190)
Root Mean Square Residual (RMR)	0.09726	0.2109	0.08450	0.2108	0.1161
Standardised RMR	0.07925	0.07742	0.07761	0.06851	0.04477
Goodness of Fit Index (GFI)	0.8199	0.6946	0.8714	0.7645	0.8136
Incremental Fit Measures					
Normed Fit Index (NFI)	0.9227	0.9388	0.9305	0.9651	0.9697
Non-Normed Fit Index (NNFI)	0.9296	0.9464	0.9360	0.9677	0.9707
Adjusted Goodness of fit (AGFI)	0.7830	0.6598	0.8359	0.7201	0.7614
Comparative Fit Index (CFI)	0.9365	0.9495	0.9440	0.9707	0.9747
Incremental Fit Index (IFI)	0.9366	0.9496	0.9441	0.9707	0.9747
Relative Fit Index (RFI)	0.9143	0.9351	0.9206	0.9615	0.9649
Parsimonious Fit Measures					
Parsimony Normed Fit Index (PNFI)	0.8324	0.8853	0.8149	0.8744	0.8370
Parsimony Goodness of fit (PGFI)	0.6805	0.6236	0.6828	0.6432	0.6354

Comparison: Absolute Fit Measures

The obtained significant Minimum Fit Chi-Square statistics demonstrates imperfect model fit and implies that the all of the models are not adequate and should possibly have been rejected. The same picture was provided by the Normal Theory Weighted Least Chi-Square. As stated in Chapter 3, the Chi-square statistic is, however, sensitive for multivariate normality and sample size (Diamantopoulos & Signuaw, 2000). It is therefore suggested to use the χ^2/df ratio where values between 2 and 5 indicate good fit with the data (Diamantopoulos & Signuaw, 2000). The LRI is the only measurement model that was able to achieve this level and may show to acceptable fit (χ^2/df = 4.82). The measurement models for *organisational citizenship behaviour* and *trust* comes close to this requirement (χ^2/df = 5.20 and 5.44 respectively).

RMSEA for the EFA-derived LRI measurement model comes the closest to the 0.08 level that indicates acceptable fit (RMSEA = 0.09), followed by the EFA-derived measurement models for *organisational citizenship behaviour, trust*, *leader emotional intelligence* and *transformational leadership* respectively. ECVI has no appropriate range, but when the ECVI values are compared it can be seen that the LRI EFA-derived measurement model has a smaller ECVI value and therefore is believed to have the greatest potential for replication. The GFI value for the LRI EFA-derived measurement model, which is an indication of overall fit, comes the closest to 1.0 (=0.87) and further just reaches the >0.90 level required to indicate good fit. It is followed by *organisational citizenship behaviour*, *transformational leadership*, *leader emotional intelligence* and *trust*. The RMR and standardised RMR values all exceeds the 0.08 and 0.05 thresholds respectively, raising doubts regarding the fit of the models.

When assessing overall fit using the absolute measures of fit, it would seem that the quality of fit is generally poor. The EFA-derived model for *meaning* (LRI) based on the total sample (n_t=496) obtains indices that come the closest to pointing to acceptable model fit. The second best fit was demonstrated by the measure of *organisational citizenship behaviour*. The remaining measurement models seem to fit the data rather poorly when using these same criteria.

Comparison: Incremental Fit Measures

When compared to a baseline model, all the models achieve NFI, NNFI, IFI, and CFI indices that are >0.9, which represents good fit. On the other hand, no model achieves the >0.9 criteria when it comes to the AGFI values.

This pattern is repeated through the CFA analyses conducted in the present study. That is, the absolute fit and parsimonious measures point to poor fit, while the incremental fit indices all, but for AGFI, point to acceptable fit. Kelloway (1998) indicates that tests for absolute fit are concerned with the ability of the fitted model to reproduce the observed correlation/covariance matrix, while tests of comparative fit indicate the success with which the model explains the observed correlation/covariance matrix compared to a baseline model, which also is referred to as the null model. Comparative fit chooses a baseline model for comparison and it is expected that this null model should be exceeded. This seems to indicate that the measurement models are at least better than

mere chance (i.e. no relationship). Furthermore, the EFA-derived measurement models do come numerically closer to the "rules of thumb" for the incremental indices than the original measurement models.

Comparison: Parsimonious Fit Measures

None of the models achieve PNFI and PGFI indices >0.9 to indicate adequate fit. Parsimonious measures "adjust" the measures of fit to provide a comparison between models with differing numbers of estimated coefficients, the purpose being to determine the amount of fit achieved by each estimated coefficient (Hair et al., 1998). Hair et al. (1998) further state that there use in absolute sense is limited in most instances to comparison between models. The models are therefore not possibly more parsimonious than the alternate models.

Overall Comparison: Goodness-of-Fit

Examination of the various model fit indices summarised in Table 5.2 leads one to believe that the quality of the fit of the EFA-derived measurement models based on the data from the total sample (n_t=496) is not good, but may be seen as mediocre. The incremental fit indices provides the most positive results and do indicate that the measurement models are better than the null model or a model based on chance alone.

5.3.4 Conclusions Regarding the Construct Validity and Internal Reliability of the Measures

On the basis of the EFA, CFA and internal reliability results, it was decided that it would be appropriate to use the EFA derived measurement models in the present study as measures of the various latent variables instead of the original measurement instruments. The EFA derived measurement models were believed to be have achieved higher levels of construct validity and internal reliability within the present sample. It should be noted that the results of present study cannot suggest that the derived measurement models are more valid or reliable measures of the constructs in general and this claim is not made.

The fact that the exact configuration of the original measurement models were not replicated in the present sample, and in all cases it was not the measurement model that achieved the highest level of construct validity and internal reliability within the present

sample, should serve as a warning to researchers who indiscriminately use measurement instruments developed outside South Africa for conducting research on South African samples. It cannot be presumed that the factorial configuration of measurement instruments will be the same across continents and cultures, due to the differences that exist between human beings from different parts of the world. One should most probably therefore, always establish construct validity, using the most appropriate methodology available, before drawing inferences based on the outcomes of the measures that are used. If this is not done, doubt may be cast on the results of further analyses.

5.4 The Findings of the Present Research

Once it was established that each of the measuring instruments being used was the most suited for the purposes of the present study, the data collected from them was further analysed in such a manner as to answer the remaining four research questions that had been posed. The second research question investigated the direct relationships between the constructs, while the third research question investigated the mediated relationships between them. The fourth research question was concerned with predicting several of the latent variables. The fifth research question was concerned with the manner in which the conceptual model fitted the obtained data. The structural model was further used to study the hypothesised relationships. All of these steps were followed with one aim in mind, which was to better understand how these five constructs are related to organisational citizenship behaviour using various strategies and methodologies that would provide different levels of insight. These methods consisted of Pearson Correlation Coefficients, Standard Multiple Regression, Path Analysis and SEM.

These research questions all serve the aim and objectives of the present study, which in essence was to investigate the plausibility of the proposed integrated conceptual model and its implied relationships (see Figure 2.1). Furthermore, this model was studied in such a way as to gain insights into the manner in which these constructs possibly influence organisational citizenship behaviour. This model converged on the data obtained from the sample and the path coefficients obtained from the structural model was indicative of the significant relationships that exist between the latent variables when the complete model was taken into consideration. This section will present a discussion of the various results reported in Chapter 4.

5.4.1 Which factors were found to be related to Organisational Citizenship Behaviour?

As stated above, the primary goal of the present study was to gain further insight into factors that may create conditions in the workplace that are conducive for displaying organisational citizenship behaviour. The postulated integrated model was built conceptually using causal notions, but this is essentially a correlative study and therefore causality can not be automatically assumed based on the results reported here. The difference between causality and correlation was discussed above. The present study seems to provide the following insights into these relationships and they may shed some light on ways in which organisational citizenship and its antecedents can hopefully be influenced. The relationships were evaluated according to the guidelines provided in Chapter 3 that was based on Cohen (1988), Guilford (cited in Tredoux & Durrheim, 2002) and Steyn (1999).

5.4.1.1 Trust was found to be related to Organisational Citizenship Behaviour

It was postulated that a positive relationship exists between *trust* and *organisational citizenship behaviour* and support for this notion was found in the present study. Firstly, when considering the above bivariate relationship, the Correlation Coefficient showed to a *substantial* (based on the guideline discussed in Chapter 3 and 4) positive relationship between *trust* and *organisational citizenship behaviour*. The Multiple Regression analyses further showed that *trust* was a practically significant predictor of *organisational citizenship behaviour* (based on f^2>0.35 (Steyn, 1999)). Based on Guilford's guideline (cited in Tredoux & Durrheim, 2002) this relationship could also be referred to as being substantial. More specifically it was *trust in the co-worker* that was associated with and could meaningfully predict *organisational citizenship behaviour*. When the postulated model consisting of the six latent variables was subjected to SEM, this path was found to be significant in the structural model. This led to the rejection of the null hypothesis. Therefore, this positive relationship between *trust* and *organisational citizenship behaviour* was confirmed on various levels using different techniques (i.e. some only taking bivariate relationships into account and others taking multiple DV and IV's into account, as is the case with SEM).

This result confirms the arguments and empirical evidence for the positive relationship between trust and organisational citizenship behaviour found in several studies (Debats

& Drost, 1995; Deluga, 1994; Engelbrecht & Chamberlain, 2005; Greenburg, 1993; Konovsky & Organ, 1996; Konovsky & Pugh, 1994; Pillai et al., 1999; Podsakoff et al., 1990; Robbins et al., 2003; Settoon et al., 1996; Van Yperen & Van den Berg, 1999; Wagner & Rush, 2000; Wech, 2002). The particular importance of *trust in the co-worker* had to be rationalised and the following explanation is tendered.

Organisational citizenship behaviour occurs mostly where social exchange and not economic exchange characterises the quality of the relationship (Konovsky & Pugh, 1994; Organ & Konovsky, 1989). It can thus be argued that the relationships between the employee and 1) the supervisor/manager, and 2) the organisation, could be regarded as essentially characterised by economic exchange. These relationships are most often governed by contracts of employment and performance contracts in very clear terms. Even though transformational leaders are seen to rely on social exchange (Bass, 1995), they still fulfil this contractual function, as many leaders are also managers. On the other hand the relationship between the employee and his/her co-workers in most cases can be characterised by social exchange and this relationship is usually governed by a psychological contract, at most. As trust is a manifestation of social exchange, it would seem that participants when entering into non-contractual exchanges with one another, base these exchanges on trust. Robinson and Morrison (1995) confirmed this when it was found that trust is an important factor in the relationship between psychological contracts and organisational citizenship behaviour. Psychological contract fulfilment and the maintenance of trust within relationships is positively related to the performance of organisational citizenship behaviour (Turnley et al., 2003). These arguments contribute to the notion that trust is a necessary precondition for employees to display organisational citizenship behaviours. The results from the present study seem to emphasise that trust in the fellow worker may be important in increasing the tendency to engage in organisational citizenship behaviour. This emphasis of trust in the co-worker as precursor of organisational citizenship behaviour over that of trust in the supervisor/manager, may be one explanation why transformational leadership in the manager was not found to be related to organisational citizenship behaviour.

Deluga (1994, 1995), Pillai et al. (1999) and Yukl (2002) have stated that, when followers experience feelings of trust and respect towards the supervisor/manager, they are motivated to do more than they are expected to do and thus to engage in

organisational citizenship behaviour. Trust may lead to an "…unspecified obligation that may be manifested in citizenship behaviour" (Pillai et al., 1999, p. 905). The present study did find support for this and in particular that trust in the supervisor/manager more specifically predicted *altruism*, which is a key aspect or dimension of organisational citizenship behaviour. A problem in these explanations is the interchangeable use of managers and leaders. Managers are usually leaders, but all leaders are not managers. In the present study, leaders and managers were used synonymously, while the term management was used to refer to the leadership of the organisation. Even though clear instructions were given, one is not always so sure how the respondent approached these different entities when responding to the questionnaire.

5.4.1.2 Meaning was found to be related to Organisational Citizenship Behaviour

It was postulated that a positive relationship exists between meaning and organisational citizenship behaviour and support for this notion was found. When studying the bivariate relationship, statistically significant positive Correlation coefficients were found between *meaning* and *organisational citizenship behaviour*, but these were assessed as not being of conceptual or even practical significance ($r<0.30$ or medium effect according to the guideline of Cohen (1988)). From the Correlation and Standard Multiple Regression analyses, *having a purpose* was not found to be associated with or able to predict *organisational citizenship behaviour* or any of its dimensions. On the other hand, the *fulfilling a purpose* dimension was found to be substantially related to *organisational citizenship behaviour* according to the guideline used throughout. In the SEM analysis of the integrated model, this path was found to be significant in the structural model and the null hypothesis (H_0) could therefore be rejected (see Figure 4.16). Based on these different levels of analysis, it is believed that a positive relationship exists between *meaning* and *organisational citizenship behaviour*.

The distinction between meaning in work, meaning in life and meaning in general was discussed in Chapter 2, but should be mentioned here again. The present study considered the presence of meaning without distinguishing where it comes from. This will be put forward as a shortcoming of the present study, as well as a recommendation for future study. Meaning may be derived from work. On the other hand, as described in Chapter 2, meaning may also be derived from other (non-work) activities that may lead to the experience of meaning in life. These processes may be mutually exclusive. For

the present, the source of meaning is not considered, but rather the effect of the presence of meaning (wherever it may come from). The result shows that the presence of meaning is positively related to the presence of organisational citizenship behaviour. Furthermore, as this study falls in the domain of organisational psychology, the role that work plays in creating meaning and the resulting effects will be given precedence in the discussion below. Even though it may not be entirely correct to make these deductions from the present analyses, the explanation is provided in such a manner that it is believed that meaning in work can lead to organisational citizenship behaviour at work (i.e. voluntary additional effort). It is more likely that a person experiencing more meaning in work will display organisational citizenship behaviour at work, than a person experiencing meaning in life displaying organisational citizenship behaviour at work. Such a person would most probably display organisational citizenship behaviour in activities outside of the work context (i.e. in life). The following explanation is provided to describe the relationship between meaning in work and employees displaying organisational citizenship behaviour at work.

Motivating job characteristics like meaningful work, autonomy and feedback are believed to "…maximise the possibility for internal motivation" (Hackman & Oldham, 1976, p. 273). Wrzeniewski (2003) has suggested that individuals can hold different orientations toward their work and that they may structure their work behaviour differently in ways that would either help to create or even undermine the level of meaning that they experience. By *crafting* their jobs in this way, employees are able to change the way they approach tasks, thus either increasing or decreasing the number and kinds of tasks they do as part of their job, and change the number and nature of the relationships they have with others they encounter in the work environment (Wrzesniewski, 2003). An employee who therefore chooses to engage in organisational citizenship behaviour is a good example of job crafting in action (Wrzesniewski, 2003). Choosing to engage in organisational citizenship behaviour, and thus job crafting, opens new possibilities for the establishment of meaning in work by allowing for the creation of meaning in any job by the way in which the individual constructs it. Through job crafting, one can thus realise an orientation towards a calling by reshaping the task and relationship boundaries of the job in ways that allow one to view the work as making a more significant contribution to the wider world. Wrzeniewski et al. (1997) further

found that people with a sense of calling do tend to put more time and effort into their work.

A possible explanation for the Pearson correlation and Standard Multiple Regression results is that one has to be in the process of *fulfilling a purpose* to, in fact, experience a sense of meaning. It would seem that merely having a purpose is not enough to encourage people to engage in organisational citizenship behaviour. A person who is in the process of fulfilling a given purpose experiences a sense of meaning, which is believed to increase an employees' sense of responsibility, accountability, attachment and embeddedness in the organisation (Salancik, 1977). Proactive behaviour such as citizenship behaviour is therefore likely to follow this heightened sense of responsibility and embeddedness in the organisation (Van Dyne et al., 1994).

It follows logically that one would have to *have a purpose* before one could fulfil a purpose. As stated above, organisational citizenship behaviour will then follow. When individuals display these organisational citizenship behaviours, they begin to fulfil their purpose and feel good about what they are achieving. These feelings may lead to a greater sense of *meaning*. It is therefore postulated that this is a cyclical process that can more specifically be described either as an upward or as a downward spiral beginning, or being "kicked-started" with having a purpose. The cycle, on the other hand, is sustained only by *fulfilling a purpose* (see Figure 5.1). Therefore, once a certain level of meaning is achieved, having a purpose is no longer a necessary condition. It is suggested, further, that organisational citizenship behaviour in turn is related to many other positive organisational behaviours and attitudes that will lead to desirable organisational outcomes and performance. These could possibly lead to a further sense of *fulfilling a purpose* and *meaning*. These in turn can lead to a further increase in organisational citizenship behaviour, and the process will thus repeat itself in spiralling processes.

The present study, due to its focus on organisational citizenship behaviour did not investigate this further possibility, but it is suggested that a future study may do this.

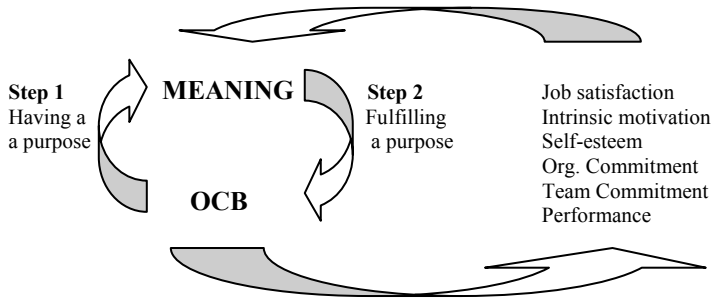


Figure 5.1: A Postulated Meaning-OCB cycle

5.4.2 Which factors were not found to be related to Organisational Citizenship Behaviour?

The discussion above describes the outcome of the present study that trust and meaning were both found to be related to organisational citizenship behaviour. The following relationships were postulated, but evidence was not found to support these notions. These are provided as they may provide some additional insights into understanding the integrated model.

5.4.2.1 Transformational Leadership was not found to be related to Organisational Citizenship Behaviour

A positive relationship between transformational leadership and organisational citizenship behaviour was postulated. From the SEM results of the integrated model, it was evident that this path was not found to be significant in the structural model and the null hypothesis (H_0) could thus not be rejected (see Figure 4.16). When only considering the bivariate relationship, a statistically significant Pearson Correlation coefficient was found for this relationship, but it was not considered to be conceptually or practically significant when compared to the guideline decided upon ($r<.03$ or medium effect (Cohen, 1988)). In Chapter 4 various explanations for such an outcome were provided. These included amongst others that statistically significant Pearson correlations could be the result of the sample size ($N>200$) and/or due to mono-method bias.

Transformational leaders are those who develop their followers, raise their need levels, and model behaviours such as optimism, enthusiasm and transcendence of own interest. These leaders are believed to be capable of eliciting extraordinary levels of motivation and performance from employees, beyond what is normally expected or the minimum

specified by the organisation (Bass, 1985). Transformational leadership is therefore believed to have a strong influence on an employee's willingness to engage in organisational citizenship behaviour (Avolio et al., 1991; Bass, 1985; Bass & Avolio, 1994; Podsakoff et al., 1990). Unlike the present study, several other studies were able to find stronger empirical evidence for this linkage (Bycio et al., 1995; Chen & Farh, 1999; Ferres et al., 2002; Gerstner & Day, 1997; Koh et al., 1995; MacKenzie et al., 2001; Podsakoff et al., 1996; Podsakoff et al., 1990; Podsakoff et al., 2000; Shore & Wayne, 1993; Smith et al., 1983; Tang & Ibrahim, 1998).

Wang et al. (2005) found that Leader-Member-Exchange mediated the relationship between transformational leadership and organisational citizenship behaviour, while trust was found by several authors to mediate the relationship between these two concepts (Boal & Bryson, 1988; Kouzes & Posner, 1990; Mackenzie et al., 2001; Pillai et al., 1999; Podsakoff et al. 1990) (a result which was replicated in the present study). It would thus seem that this direct linkage is more difficult to replicate and that mediating variables are most probably needed. This seems to suggest that the processes and interactions that take place within the dyadic relationship between leaders and followers, and the outcomes thereof, are complex phenomena that may not be explained quite as simply as this.

5.4.2.2 Leader Emotional Intelligence was not found to be related to Organisational Citizenship Behaviour

A positive relationship was postulated between leader emotional intelligence and organisational citizenship behaviour. No support for this relationship was found from the various analyses that were conducted. In terms of the bivariate relationship the statically significant results obtained with the Pearson Correlations, as well as the Multiple Regression analyses were not considered to be of conceptual or practical use when using the guidelines decided upon. From the SEM results of the integrated model, this path was further not found to be significant in the structural model (see Figure 4.16). The null hypothesis (H_0) could therefore not be rejected.

Unlike Carmeli (2003), the present study therefore could not find support for the model proposed by Spector and Fox (2002) which postulates a positive relationship between

the various aspects of emotional intelligence and the increased likelihood of organisational citizenship behaviour.

On the other hand, leader emotional intelligence was found to be significantly related to both meaning and trust, which in turn were both found to be significantly related to organisational citizenship behaviour. Considering this result in light of the arguments that are presented to link these two constructs directly, it may be that leader emotional intelligence on its own cannot affect citizenship behaviour, but rather that it is an important aspect of leadership that indirectly may lead to desirable outcomes like organisational citizenship behaviour.

It would again seem that these direct relationships postulated between leader effectiveness (i.e. transformational leadership and leader emotional intelligence) and behavioural outcomes like organisational citizenship behaviour, are too simplistic and that other variables probably mediate (or even moderate) these relationships.

5.4.2.3 Intention to Quit was not found to be related to Organisational Citizenship Behaviour

It was postulated that a negative relationship exists between *intention to quit* and *organisational citizenship behaviour*. When considering the complete integrated model SEM support could not be found for this linkage. This path was not found to be significant in the structural model and the null hypothesis (H_0) could therefore not be rejected (see Figure 4.16). When investigating the bivariate relationship between these two variables, statistical significant negative correlations were found, but they were not believed to be of conceptual or practical significance as they were found to be smaller than .30 (medium effect (Cohen, 1998)). The same could be said of the Multiple Regression results. It should be noted that not being able to find a significant relationship between *intention to quit* and *organisational citizenship behaviour* further impacted on several of the mediating hypotheses that included this relationship.

In contrast to the present study, several other studies have investigated and found empirical support for the relationship between turnover intentions and organisational citizenship behaviour (Chen et al., 1998; MacKenzie et al., 1998; Paré et al., 2001). These studies suggested that withdrawal from the organisation and an intention to quit

may explain the lack of willingness to exhibit helping or extra-role behaviour. The *intention to quit* scale consisted of only three items and the amount of explained variance in this construct, is not known. A large portion of the variance in organisational citizenship behaviour also is not measured by the instrument used to measure this construct for the purposes of the present study. These two facts may have had some impact on this result.

There may be further variables that either moderate or mediate this relationship and a direct relationship may not adequately describe its true nature. It may also be that these two constructs are not related to one another, but that they may both be related to the same outcome variables (e.g. performance, job satisfaction, and commitment).

5.4.3 Which factors were found to be related to Trust?

As stated above, it was found that trust and meaning are both related to organisational citizenship behaviour. The first question then needs to be answered then is "What is significantly related to trust?"

5.4.3.1 Transformational leadership was found to be related to Trust

The hypothesis stated that a positive relationship existed between *transformational leadership* and *trust* and support for this notion was found in the present study. When the complete conceptual model was subjected to SEM, this path was found to be significant in the structural model and the null hypothesis (H_0) could thus be rejected (see Figure 4.16). When considering the bivariate relationships, *substantial* positive correlations were found between transformational leadership and trust, as well as between the dimensions thereof. Furthermore, a *marked* (according to the guidelines proposed in Chapters 3 and 4) relationship was found between *transformational leadership* and *trust in the leader*. Substantial relationships were also found between *transformational leadership* and *trust in the organisation,* and *trust in the co-worker*. It is evident that transformational leadership plays a more important role in the trust that exists between the leader and the follower. Similarly, at the collective level, transformational leadership has a more important effect on the level of trust that exists between the employee and the management of the organisation. It could most probably have been expected that trust between co-workers would be less affected by the leader's style of leadership, as was found in the results of the present study.

This direct relationship between transformational leadership and trust was not found in previous South African studies by Engelbrecht and Chamberlain (2005) and a study by Krafft et al. (2004) that was conducted in Namibia. This could be due to differences in the samples that were used in these studies, as well as the different measures that were used to measure the variables. Providing further reasons for this result would be purely speculative.

The present study confirmed the direct relationship between transformational leadership and trust that has been shown by several authors (Arnold & Feldman, 1982; Dirks & Ferrin, 2002; Pillai et al., 1999). Some of these authors have even found that transformational leadership is strongly predictive of trust. Ferres et al. (2002, 2003) showed empirically that trust in management, trust in peers and dispositional trust significantly influenced ratings of transformational leadership. Transformational leadership behaviours, such as providing an appropriate model, individualised support, and fostering acceptance of group goals, are consistently positively associated with trust in the leader (Butler et al., 1999; MacKenzie et al., 2001; Podsakoff et al., 1996; Podsakoff et al., 1990). Several researchers have also argued that leadership effectiveness depends on the ability of the leader to gain the trust of his/her followers (Bennis & Nanus, 1985; Brockner et al., 1997).

The relationship between trust and transformational leadership can possibly be explained in the following way. By stimulating their followers intellectually, transformational leaders try to motivate them to take risks, and by setting a personal example, they try to gain the trust of their followers (Pillai et al., 1999). It is evident that the transformational leader practices consideration, in which the leader diagnoses the individual needs and capacities of his/her followers in order to be able to attend to them. The leader makes a concerted effort to provide his/her followers with direction, attention, structure, advice and feedback in accordance with their needs and developmental level. Such understanding of followers' needs is analogous to identification-based trust.

Butler et al. (1999) found that the team leader's demonstration of transformational leadership behaviours is positively associated with the team members' trust in the leader. By communicating and role-modelling important values and a shared sense of

purpose, team leaders demonstrate their integrity, competence, and, hence, trustworthiness. By confidently communicating attractive and attainable goals to the team, leaders inspire, motivate and focus team members' efforts towards a set of shared goals, which, in turn, facilitate trust (Bennis & Nanus, 1985; Fairholm, 1994; Sashkin & Fulmer, 1988). The alignment of leader's and team members' goals helps team members to predict their leader's future behaviour and suggests that the leader will act in mutually beneficial ways. By communicating their willingness to understand the individual needs and capabilities of followers, and to put effort into developing their individual strengths and serving their needs, leaders further demonstrate that they value and care about their team members and hence can be trusted (Conger et al., 2000; Fairholm, 1994; Jung & Avolio, 2000). As Bass (1985) noted, the more supportive leaders are perceived to be, the deeper and more enduring their followers' trust in them. Leaders who encourage and teach their team members to approach problems in new ways and critically re-examine assumptions, essentially are coaching and developing their members. Such behaviour reinforces the leader's commitment to the development of team members, as well as to rigorous scientific thinking in the team, and hence builds trust. Finally, when leaders act in ways that build the respect, pride and confidence of their team members, they will be trusted (Bass, 1985).

5.4.3.2 Leader Emotional Intelligence was found to be related to Trust

It was postulated that a positive relationship exists between *leader emotional intelligence* and *trust*. From the SEM analysis of the conceptual model, this path was found to be significant in the structural model and the null hypothesis (H_0) could thus be rejected (see Figure 4.16). From the Correlation results that only took the bivariate relationships into account, *substantial* positive relationships were found between leader emotional intelligence and trust, as well as between the dimensions thereof. The relationship between leader emotional intelligence and trust in the leader was found to be *marked* (according to the guideline used for the purposes of the present study). This result confirmed the notion that emotionally intelligent leaders are thought to use emotions to improve their decision making and instil a sense of enthusiasm, trust and co-operation in other employees through more effective interpersonal relationships (George, 2000).

Barling et al. (2000) proposed that leaders who are able to understand and manage their own emotions, display self-control and are self-motivated act as role models for followers, enhancing the followers' trust and respect for the leader. The ability to control emotions experienced at work is integral to effective leadership (Gardner & Stough, 2002). It is believed that emotional intelligence not only provides the leader with the ability to maintain a positive appearance to subordinates, but also an ability to be empathetic to the followers' needs and their situation. The sensitive and considerate manner in which the leader treats the follower may instil feelings of security, trust and satisfaction within subordinates and thus maintain an effective relationship (Gardner & Stough, 2002). This corresponds to the social exchange argument on which leadership is based (Bass, 1985). The interaction between the leader and the follower is the focal point in achieving trust and being emotionally intelligent allows for better relationships and greater levels of trust (Pillai et al., 1999).

5.4.3.3 Transformational leadership and Organisational Citizenship Behaviour was found to be Mediated by Trust

The previous sections proposing the two relationships between: 1) *transformational leadership* and *trust*, and 2) *trust* and *organisational citizenship behaviour*, led to the postulation of the relationship between *transformational leadership* and *organisational citizenship behaviour* may be mediated by *trust*. It was thus hypothesised that the relationship between *transformational leadership* and *organisational citizenship behaviour* is mediated by *trust*. To test this, these three variables were subjected to Path Analysis to test support for the hypothesis. Both paths were found to be significant in the structural model of the Path Analysis and the null hypothesis (H_0) could thus be rejected (see Figure 4.4). From the SEM results of the integrated model, the two paths were also found both to be significant in the structural model of the complete conceptual model (see Figure 4.16). It is therefore suggested that, besides the direct relationship described above, this indirect relationship also exists. This result further underlines the central role that *trust* played in the present study.

This result is in line with and supports the notion that posits trust as a central feature of the relationship that transformational leaders have with their followers, and postulate that it is through followers' trust in and respect for their leader that they are, in fact, motivated to perform beyond expectations (Bennis & Nanus, 1985; Bryman, 1992;

Conger & Kanungo, 1998; House, 1977; Podsakoff et al., 1990; Sashkin, 1988; Shamir et al., 1994; Yukl, 2002). Further support was therefore found for the existing empirical evidence that indicated that transformational leadership influences organisational citizenship behaviour indirectly, with trust playing a mediating role between these two concepts (Boal & Bryson, 1988; Kouzes & Posner, 1990; Mackenzie et al., 2001; Pillai et al., 1999; Podsakoff et al. 1990). Engelbrecht and Chamberlain (2005) also found that procedural justice and trust in the leader mediated the relationship between transformational leadership and organisational citizenship behaviour. Leadership effectiveness is believed to depend on the ability to gain the trust of followers (Bennis & Nanus, 1985; Brockner & Siegel, 1996; Robbins et al., 2003). Pillai et al. (1999), Deluga (1994, 1995) and Yukl (2002) have stated that when followers feel trust and respect toward the leader, they are motivated to do more than they are expected to do and thus to engage in organisational citizenship behaviour.

It would seem that the positive effects of transformational leadership (i.e. the consideration and inspiration) might come to fruition if the follower trusts the intent of the leader. It could be argued that trust may not only mediate the relationship between transformational leadership and organisational citizenship behaviour, but may moderate it as well. This was not investigated in the present study, but such a study could be suggested for future research.

5.4.4 Which factors were found to be related to Meaning?

As stated above, it was found that trust and meaning are both related to organisational citizenship behaviour. It was further found that *transformational leadership* and *leader emotional intelligence* was related to *trust*. The next question then needs to be answered was “What was significantly related to meaning?”

5.4.4.1 Transformational leadership was found to be related to Meaning

It was postulated that a positive relationship exists between *transformational leadership* and *meaning* and some support was found for this notion. When conducting a SEM analysis of the complete conceptual mode, this path was found to be significant in the structural model and the null hypothesis (H_0) could thus be rejected (see Figure 4.16). When considering only the bivariate relationship, the correlation coefficients that describe this relationship were not found to be practical ($r<.30$) though. Of the two

dimensions, it was again *fulfilling a purpose* that correlated numerically stronger with transformational leadership than *having a purpose* (i.e. based on a numerically comparison of the r-values). Due to the inconsistency of these results they require further investigation.

The present study found a relationship between transformational leadership and meaning. Various authors have provided arguments for the fact that transformational leaders can create meaning. Pratt and Ashforth (2003) stressed the fact that fostering meaningfulness may involve the practice of visionary and inspirational leadership. Visionary leadership creates "…a general transcendent ideal that represents shared values" (Kirkpatrick & Locke, 1996, p. 37), which is closely associated with transformational leadership (Pratt & Ashforth, 2003). Inspirational motivation, a dimension of transformational leadership, involves the leader's ability to motivate and inspire followers to achieve organisational goals (Bass & Avolio, 1994). This is done through symbols and emotional appeals; a meaningful, appealing and inspiring vision; and an optimistic and enthusiastic approach. Transformational leaders further provide meaning and challenge through the work of their followers and try to get followers involved in envisioning attractive future outcomes, while also clearly communicating expectations concerning the commitment to a shared vision (Bass & Avolio, 1994). Organisations that can articulate how work serves a valued purpose can foster a sense of calling (Pratt & Ashforth, 2003).

It would seem that the individual still first has to have a sense of purpose. Transformational leadership in particular, may help employees frame what they do as a special part of the organisation by espousing identified goals, values and beliefs through such means as visionary leadership and culture-building. Emmons (1999) has argued that seemingly small tasks can have a tremendous personal meaning if they are framed as connecting to something larger like a clear and appealing vision. In this way transformational leaders seem to assist people in fulfilling a purpose and in so doing experience meaningfulness. In hindsight, this distinction should have been made.

5.4.4.1 Leader Emotional Intelligence was found to be related to Meaning

Support was found for the postulated positive relationship between *leader emotional intelligence* and *meaning*. From the SEM results of the integrated model, this path was

found to be significant in the structural model and the null hypothesis (H_0) could thus be rejected (see Figure 4.16). From the Correlational analyses of the bivariate relationships, *leader emotional intelligence* was found to be statistically significantly positively correlated with *meaning,* but this relationship could not be described as being conceptually or practically useful ($r<0.30$ or medium effect (Cohen, 1988)). The dimensions of leader emotional intelligence were found to be statistically significantly positively correlated with *fulfilling a purpose,* but not with *having a purpose.* Still considering the bivariate relationships, the Multiple Regression results showed that *self-motivation* was found to predict *fulfilling a purpose,* while *self-motivation* and *self-aware*ness could predict *meaning*.

This result confirmed the notion that leaders can create meaningfulness at work by employing practices that build organisational communities that emphasise family-like dynamics at work, and have a mission focused on goals and values that go beyond simple profit (Pratt & Ashforth, 2003). Frost et al. (2000, p. 26) have described how organisations create an "…emotional ecology where care and human connection are enabled or disabled". This kind of ecology involves recognising that, beneath the work roles, employees are human beings struggling for meaningfulness through personal connection. Leaders may signal a caring orientation through different approaches, e.g. encouraging trust and openness, demonstrating personalised attention and humour, self-disclosing, displaying inclusiveness and compassion, tolerating honest mistakes, proving instrumental and expressing support, and engaging in social rituals that are either celebratory or commemorative (Frost et al., 2000). These are characteristics and behaviours believed to be associated with leaders that have a high level of emotional intelligence (Goleman, 1998a, 1998b; Mayer, 1995).

5.4.5 Which factors were found to be related to Transformational leadership?

As stated above, it was found that transformational leadership and leader emotional intelligence are both related to trust and meaning. The next question to be asked was "What is then significantly related to transformational leadership?" It was postulated that leader emotional intelligence underlies effective leadership and more specifically transformational leadership. Support was found for this notion.

5.4.5.1 Leader Emotional Intelligence was found to be related to Transformational Leadership

It was postulated that a positive relationship exists between *leader emotional intelligence* and *transformational leadership* and support was found for this notion. From the SEM results based on the complete conceptual model, it was evident that this path was found to be significant in the structural model and the null hypothesis (H_0) could thus be rejected (see Figure 4.16). When considering the bivariate relationships, some *marked* and some *substantial* positive correlations were found between *leader emotional intelligence*, as well as its dimensions and *transformational leadership*. The strongest relationship was found between *empathy* and *transformational leadership.* From the Standard Multiple Regression results it was evident that all the dimensions of leader emotional intelligence, except *self-regulation* could significantly predict *transformational leadership*.

This finding corroborated established evidence that emotional intelligence is related to effective leadership (Ashforth & Humphrey, 1995; Dulewicz et al., 2003; George, 2000; Goleman, 1995; Goleman, 1998b; Kobe et al., 2001; Miller, 1999; Watkin, 2000), as well as the more specific positive link between a leader's emotional intelligence and transformational leadership (Barling et al., 2000; Duckett & Macfarlane, 2003; Gardner & Stough, 2002; Goleman, 1995, 1998a; Goleman, 1998b; Higgs, 2001; Higgs, 2003; Johnson & Indvik, 1999; Leban & Zulauf, 2004; Palmer et al., 2001; Sivanathan & Fekken, 2002; Sosik & Megerian, 1999).

Fisher and Ashkanasy (2000) found that transformational leaders possess high levels of emotional intelligence and that emotional intelligence is related to successful change behaviours, behaviours typically exhibited by transformational leaders. Higgs (2002) and Huy (1999) also found that emotional intelligence played a significant part in the effectiveness of leadership within change contexts. A study by Sosik and Megerian (1999) demonstrated that many emotional intelligence dimensions correlated with transformational leadership. Palmer et al. (2001) predicted that, because transformational leadership is considered to be more emotion based (involving heightened emotional levels) (Yammarino and Dubinsky, 1994), there should be a significant relationship between emotional intelligence and transformational leadership.

Barling et al. (2000) proposed that, consistent with the conceptualisation of idealised influence (a dimension of transformational leadership), leaders who are able to understand and manage their emotions and display self-control act as role models for followers, enhancing the followers' trust and respect for the leader. Similarly, Sosik and Megerain (1999) suggested that a leader may to the extent that he/she is self-aware and emotionally intelligent, demonstrate foresight, strong beliefs and consider the needs of others. These traits are required for subordinates to rate leaders as having idealised influence. Secondly, they suggested that leaders rated higher in the emotional intelligence component of understanding emotions were more likely to accurately perceive the extent to which followers' expectations can be raised, and this is related to the transformational sub-component of inspirational motivation. The ability to manage emotions and relationships permits the emotionally intelligent leader to understand followers' needs and to react accordingly (related to the component of individualised consideration).

5.4.6 Which factors were found to be related to Intention to Quit?

A consequence of the fact that the relationship between *intention to quit* and *organisational citizenship behaviour* was not found to be significantly related was that the model in effect now has two outcome variables, instead of only one (i.e. organisational citizenship behaviour and intention to quit) (see Figure 4.17). The next question was then posed, which was "What is related to intention to quit?"

5.4.6.1 Trust was found to be related to Intention to Quit

The present study postulated a negative relationship between *trust* and *intention to quit* and support for this notion was found in the present study. In the SEM analysis of the conceptual model, this path was found to be significant in the structural model and the null hypothesis (H_0) could thus be rejected (see figure 4.16). From the Correlation study of the bivariate relationship, substantially significant positive correlations were found between *trust*, as well as with two of its dimensions (*trust in the organisation* and *trust in the leader*), and *intention to quit*. From the Multiple Regression results it was evident that *trust in the organisation* and *trust in the leader* was able to predict *intention to quit* at a practically conceptual or significant level (according the chosen guideline). These two dimensions of trust were also found to be more strongly associated with *intention to quit* than *trust in the co-worker*. *Trust in the co-worker* was found to have a small

relationship with *intention to quit.* This differs from the result obtained by Ferres et al. (2004) who found that co-worker trust more specifically was a significant predictor of lowered turnover intention.

The present study thus further confirmed the results of a number of studies conducted in a variety of settings which also found support for the relationship between trust and intention to quit (Albrecht & Travaglione, 2003; Costigan et al., 1998; Cunningham & MacGregor, 2000; Ferres et al., 2004; Ferres et al., 2002; Mishra & Morrisey, 1990; Tan & Tan, 2000). It has been found that, when high levels of trust exist within organisations and in the relationships between members of organisations, employees tend to feel more supported and more attached and are usually more willing to stay in the organisation (Tan & Tan, 2000). Trust has further links to a number of attitudinal outcomes that are related to turnover intentions, e.g. organisational commitment and job satisfaction (Dirks & Ferrin, 2001; Ferres et al., 2002; Paré et al., 2001; Pillai et al., 1999). General job satisfaction, general job happiness, satisfaction with salary and promotion have proved to be significant predictors of intention to quit (Tzeng, 2002).

Rich (1997) recognised that managers and the management of the organisation, by virtue of their position, are responsible for many duties that have a major effect on employees' job satisfaction. Dirks and Ferrin (2001) suggested that trust-related concerns about a leader's character are important because the leader may have authority to make decisions that have a significant impact on a follower and the follower's ability to achieve his or her own goals. Individuals are likely to feel more safe, and more positive, about the manager making decisions that affect them when they believe that the leader is trustworthy (Dirks & Ferrin, 2001). The implication of this is that trust in leadership should be associated with higher levels of job satisfaction, higher organisational commitment and lower intention of quitting (Dirks & Ferrin, 2001). When individuals do not trust their leaders, it would follow that they are more likely to consider quitting, because they may be concerned and fearful about decisions that the leaders might make (due to perceptions of lack of integrity, fairness, honesty, or competence). They would most probably not want to put themselves at risk to the leader (Dirks & Ferrin, 2001). This would also true in terms of the broader leadership of the organisation, if considered at a collective leadership or management level. Co-workers, on the other hand, do not possess the authority to impact a person's organisational life

in the same way as the leader or the leadership of the organisation. This may explain why trust in the co-worker could not predict intention to quit. This is speculative, but this result does point to the fact that other factors other than trust in co-workers are important in reaching the decision of intending to quit.

5.4.6.2 Meaning was found to be related to Intention to Quit

The hypothesis stated that a negative relationship existed between meaning and intention to quit. The path was found to be significant in the structural model and the null hypothesis (H_0) could thus be rejected (see Figure 4.16). Support for the hypothesis was therefore found. Considering the bivariate results, a definite, but small negative correlation was found between these two variables, as well as between *fulfilling a purpose* and *intention to quit.* From the Multiple Regression results it was found that *fulfilling a purpose* could predict scores on *intention to quit,* while *having a purpose* could not.

The present study confirmed the assumption that the presence of meaning influences various job and organisational attitudes, which include motivation, performance and satisfaction with one's job (Pratt & Ashforth, 2003; Roberson, 1990). The lack of job satisfaction, on the other hand, is the single most important antecedent of turnover (Arnold & Feldman, 1982; Farkas & Tetrick, 1989; Williams & Hazer, 1986). Once again, it would seem that *having a purpose* is not enough, but that employees in fact need to feel that they are fulfilling a purpose. It can thus be expected that an employee who experiences meaning, in terms of fulfilling some meaningful purpose, would most probably feel more satisfied, committed and embedded in the organisation and thus not foster intentions of quitting. On the other hand, to have a purpose is a prerequisite for fulfilling one and is seen as the originator of meaning. When considering the notion of meaning in work, it would seem that much the same processes linking meaning to organisational citizenship behaviour, also links it to the intention to quit (or, at least, the lack thereof).

5.4.7.3 Leader Emotional Intelligence was found to be related to Intention to Quit

It was postulated that a negative relationship exists between *leader emotional intelligence* and *intention to quit*. From the SEM of the conceptual model, it was found that this path was significant in the structural model and the null hypothesis (H_0) could

thus be rejected (see Figure 4.16). Considering the bivariate evidence, it was found that *intention to quit* correlated substantially negatively with leader emotional intelligence, as well as with all its dimensions, thereby corroborating this finding. Of the dimensions of leader emotional intelligence, *empathy* was found to be the strongest predictor of intention to quit. *Self-motivation* and *self-awareness* were also found to be significant predictors of intention to quit. The present study confirms the evidence of the negative relationship between emotional intelligence and turnover intention found in several other studies (e.g. Carmeli, 2003; Wong & Law, 2002).

Leaders who show empathy towards their followers or employees should have a better relationship with them and they may feel more valued and understood by the leaders. The presence of a positive emotional state within the leader will also lead to positive affection towards employees, the work environment and the organisation. As a result, the positive experience on the job and positive affective emotions that become established should make employees more committed to the organisation, more satisfied and less likely to want to leave their jobs (Ashkanasy & Hooper, 1999a, 1999b; Goleman, 1998a). It was also found that supervisors who practised higher emotion management skills had subordinates who displayed higher organisational commitment and commitment to the vision (Giles, 2001).

5.4.7 What was not found to be related to Intention to Quit?

In understanding this second outcome variable of the present study, the question is then posed "What is not related to intention to quit?" It was postulated that transformational leadership is related to intention to quit, but support for this could not be found.

5.4.7.1 Transformational leadership is not related to Intention to Quit

A negative relationship between *transformational leadership* and *intention to quit* was postulated and a substantial negative relationship was found between these two constructs. In the SEM of the complete model, this path was not found to be significant in the structural model and the null hypothesis (H_0) could thus not be rejected. When considering the bivariate relationship, a substantial relationship was found between these two constructs. This relationship requires further investigation.

This result could not corroborate that which was found by Bycio et al. (1995), Connel et al. (2003) and Ferres et al. (2002). These authors found that transformational leadership was negatively related to turnover intention, and a significant predictor of turnover intention.

Transformational leadership has been empirically linked to such constructs as increased employee satisfaction (Podsakoff et al., 1990), organisational commitment (Bycio et al., 1995) and satisfaction with supervision (Podsakoff et al., 1990). These are constructs that have been shown to be strongly negatively related to turnover intention. Transformational leadership was further found to be a predictor of psychological empowerment, which also is a major predictor of job satisfaction (Larrabee et al., 2003). Similarly, it has been found that transformational leaders reduce role conflict and role ambiguity among their followers and subordinates and may in that way reduce intention to quit (King & King, 1990). Therefore, it may be that other latent variables (e.g. employee satisfaction, satisfaction with supervision and organisational commitment) should be added to the model as moderating or mediating variables in this relationship to get a more decisive answer. As before, this may be a too simplistic answer to a complex phenomenon. Further study of this relationship is therefore suggested.

5.5 Can Organisational Citizenship Behaviour be Predicted using the chosen constructs?

The fourth research question was concerned with the possibility that any combination of the constructs could be used as independent variables to predict dependent constructs or variables.

5.5.1 Predicting organisational citizenship behaviour with leader emotional intelligence, transformational leadership, trust, meaning and intention to quit

Of the five constructs, it was found that only *trust* and *meaning* could predict *organisational citizenship behaviour*. The lack of significant paths in the structural model between organisational citizenship behaviour and 1) leader emotional intelligence, 2) transformational leadership and 3) intention to quit, is in line with this finding (see Figure 4.16). The SEM result and the Standard Multiple Regression results therefore corroborated one another. It would therefore seem that leaders influence organisational citizenship behaviour through intermediate variables and not directly.

The composite score of *organisational citizenship behaviour*, as well as the dimensions of organisational citizenship behaviour, was further best predicted by *trust in the co-worker*. This second most important predictor was *trust in the leader*. The importance of *trust* in eliciting organisational citizenship behaviour was established in the previous section and is further supported here. The same is true for *meaning*, and more specifically for *fulfilling a purpose*. This was another important predictor that was found to predict all of the dimensions of organisational citizenship behaviour, which underlies the importance of meaning in extra-role and discretionary behaviour and supports the theories presented above. *Intention to quit* was the only other dimension that could predict *altruism.*

Altruism was best predicted by *trust in the co-worker,* followed by trust in the leader. This is a fitting result, as *altruism* is described to include all discretionary behaviours that have the effect of helping a specific other person with an organisationally relevant task or preventing the occurrence of work-related problems (Organ, 1988). *Trust in the organisation* was only predictive of *civic virtue,* which is described as responsible participation in the political life of the organisation. It can thus be argued that an individual will not take part in such activities within the broader organisation if he/she does not trust the organisation and its leadership.

It would seem that *leader emotional intelligence* was unsuccessful with regard to predicting *organisational citizenship behaviour*. It would seem that the emphasis on emotional intelligence with regard to leading directly to organisational outcomes is in question. This finding, as well as the SEM findings, seemed to point to a more complex mediated and/or moderated relationship between leader emotional intelligence and organisational citizenship behaviour. This direct connection may be too simplistic, given the intricacies of the leader-follower relationships and the outcomes thereof.

5.5.2 Predicting Intention to quit with meaning, trust, leader emotional intelligence and transformational leadership

A similar result was obtained here. Of these independent variables, only *trust* and *meaning* were able to predict *intention to quit*. The absence of transformational leadership as a predictor of intention to quit is interesting, considering the emphasis placed on this style of leadership. Again, it would seem that leaders are able to influence

variables that lead to desirable organisational outcomes, but the postulated direct influences may be too simplistic.

Intention to quit was best predicted by *trust in the organisation*, with *trust in the leader* also being able to predict intention to quit (revealed by the smallest contribution to intention to quit). Lack of trust seems to be a central force in the intention to quit. Other important predictors of intention to quit were *empathy* (second largest predictor); *fulfilling a purpose* (third largest predictor); and *self-awareness* (fourth largest predictor). These are believed to be aspects that were described above as important for job satisfaction, organisational commitment and lowering of intention to quit.

5.5.3 Predicting trust with transformational leadership and leader emotional intelligence

Trust was found to be predicted by *transformational leadership* and *leader emotional intelligence,* underlining the importance of these aspects of leadership in creating trust in the organisation.

Trust was predicted by *self-motivation*, *transformational leadership* and *empathy* (in this order). It is interesting to note that all the dimensions of leader emotional intelligence, as well as transformational leadership, could significantly predict trust in the leader. Therefore it (understandably) would seem that leader emotional intelligence and transformational leadership (both being aspects of the leader), are able to foster trust in the leader. *Trust in the organisation* was predicted by *transformational leadership* and *self-motivation* (in this order). *Trust in the co-worker,* on the other hand, could only be predicted by self-motivation. This only strengthened the previous result, i.e. the linkage between aspects of leadership and trust in the leader.

5.5.4 Predicting meaning with transformational leadership and leader emotional intelligence

Only *transformational leadership* was found to predict *meaning* in this Multiple Regression model. This further underlies the role that inspirational leadership play in creating meaning for followers as described above. *Meaning* was best predicted by *transformational leadership*, followed by *empathy* and *self-motivation* (in this order). Similarly, *fulfilling a purpose* was also best predicted by *transformational leadership*,

followed by *empathy* and *self-motivation* (in this order). *Having a purpose* was predicted by *transformational leadership* and self-awareness. These results are explained on the basis of the theoretical arguments provided above.

5.6 Limitations of the Present Study

Even though there is confidence in the results obtained through the present study, these results need to be presented within the required perspective of the study's known limitations. All studies in the social sciences are plagued, to a greater or lesser degree, by limitations. The present study was not exempt and the most pertinent of these limitations are discussed below.

A non-probability sampling procedure, as well as an *ex post facto* research design, were used in the present study. This may have reduced the ability to generalise the results and findings of the study. A related issue to the data collection process and one that is relevant to the present study is that of *mono-method bias* or *common method variance*. The problem derives from the fact that the source of the data for the predictors was not separated from the source of their outcomes. All the latent variables were measured from a single source (i.e. the employee) at a given time, therefore any relationship that existed could be attributed to a response bias on the part of the respondent (Moorman, 1991). As a convenient sample was used, it is furthermore possible that subjects who volunteered to participate in the study may have differed, with regard to the variables included in the present study, from those that did not volunteer to participate. Employees who display organisational citizenship behaviours have more positive work attitudes (e.g. conscientiousness and civic virtue) concerning the organisation and may be more willing to participate in an activity that may benefit the organisation. It may thus be possible that the respondents were not characteristic of all employees and that they primarily comprised the type of respondent who engages in organisational citizenship behaviours.

A related issue concerns the cross-sectional (correlational) nature of the data, which represents a threat to internal validity in that it prohibits casual direction inferences. Causal inferences made from cross-sectional designs are never more than inferences (Moorman, 1991). Longitudinal designs are better for testing causality and are therefore suggested as a superior alternative to cross-sectional designs (Moorman, 1991).

Furthermore, due to the fact that the study was non-experimental, statements of causality based on the results of even sophisticated statistical techniques for making causal inferences, like SEM, have to be treated with caution given the non-experimental design used here. Even when the results that are found are consistent with the proposed causal model, it must be noted that causal inferences are unwarranted (Settoon, et al. 1996).

It was found that the data was not normally distributed, as is the case with most research in the social sciences (Tabachnick & Fidell, 2001). Parametric statistics are based on the assumption of normality and this may have had an effect on the results obtained from the statistical procedures. As explained above, it was decided not to transform the data to do the Pearson correlation and Multiple Regressions analyses. The data was, however, transformed in an attempt to improve model fit as suggested when conducting the SEM analysis. The model was still found to fit the data rather poorly.

For the present study, a conscious decision was made to only focus on the influence that a small number of leader and follower variables have on organisational citizenship behaviour. Each of these variables were also viewed from a particular point of reference. There are many other variables that could influence organisational citizenship behaviour, also in different ways not studied here (e.g. employee attitudes, individual differences, employee role perceptions, task characteristics and organisational characteristics).

Inevitably, research further suffers from error. A major source of error variance is the current shortcomings of measurement scales designed to assess organisational behaviour constructs. A further source of error, as described above, may have been the many moderating variables that affect the relationships between the variables under investigation in this study e.g. the economy, government regulations, the existence of competitors, organisational culture, task characteristics and personality and biographical variables. The presence of these confounding variables, sometimes called *correlated biases,* have hidden influences of unknown size on the results (Oppenheim, 1992). Therefore knowledge and understanding of the organisational citizenship behaviour phenomenon is still incomplete in important ways as there are variables other than the ones that were part of the present study, but compounded with them, that can affect the

results and hence produce serious misinterpretations (Mouton, 1998).

Organisational citizenship behaviour is a construct that is often clouded by social desirability. It has further been shown that supervisors/managers take organisational citizenship behaviour into account when appraising the performance of an employee (Mackenzie et al., 1993). This leads to a question being raised regarding the honest reporting of organisational citizenship behaviour. Employees that know that their supervisors will take these kinds of behaviours into account will most probably perform them to be able to obtain a reward.

The role of emotional intelligence was only studied from the framework of leader emotional intelligence and not emotional intelligence in a broader sense, therefore the role that emotional intelligence plays with regard to employees was not taken into account.

5.7 Recommendations for Future Research

Hopefully this study will serve as a stimulus for more such studies that will explore these relationships further, using other measurement models to validate or reject these findings. Several further recommendations that flow from the present study are made for future research in this field of organisational psychology.

On the conceptual level, greater refining of the conceptual links or relationship between these constructs is needed. The meaning-organisational citizenship behaviour cyclical processes model, as described above and illustrated in Figure 5.1, could be investigated in another study. Future studies should further explore the exact origin of meaning (i.e. meaning in work vs. meaning in life). This distinction would allow for more accurate explanations of how meaning in work is created and how positive organisational outcomes can be obtained from meaning in the workplace.

There are several recommendations regarding the methodology that should be used in future studies. The complete proposed integrated model needs to be empirically tested on other samples. To be able to make more convincing casual inferences, it is also suggested that a longitudinal study of the proposed conceptual model should be undertaken. Furthermore, when selecting respondents, future studies should attempt not

to make use of a convenient sample, but one that is chosen on the basis of greater probability and randomness. This will ensure that the sample is more representative of the general organisational population. Future studies should also not use the same person as the source of the data for all of the predictors i.e. an attempt should be made to reduce mono-method bias.

Support could not be found, in the present study, for the relationships between transformational leadership and organisational citizenship behaviour, and with intention to quit. Related to this, is the relationship between leader emotional intelligence and organisational citizenship behaviour, as well as between intention to quit and organisational citizenship behaviour. A different study, using different measurement models to measure these constructs, may obtain other results when investigating these various direct relationships.

Many of these constructs seem to work through other constructs (e.g. organisational commitment, job satisfaction, and job involvement) and future studies should include these. Future studies may also use organisational citizenship behaviour and intention to quit to predict organisational performance variables. The addition of performance variables would greatly enhance the present model and confirm (or refute) the importance that is attached to these outcome variables.

Taking the results obtained in the present study into account, an alternative model is proposed (see Figure 5.2). Intention to quit and organisational citizenship behaviour are both believed to have (at least) a direct effect on the performance of the organisation and is therefore placed as a further variable linking them together. Alternatively, other variables could be placed in that position e.g. commitment, job satisfaction, and unit performance. As this alternative model emerged from the data of the present sample it is suggested that this model be tested empirically using data from a different sample to either confirm or refute the notions suggested by it (Hair et al., 1998).

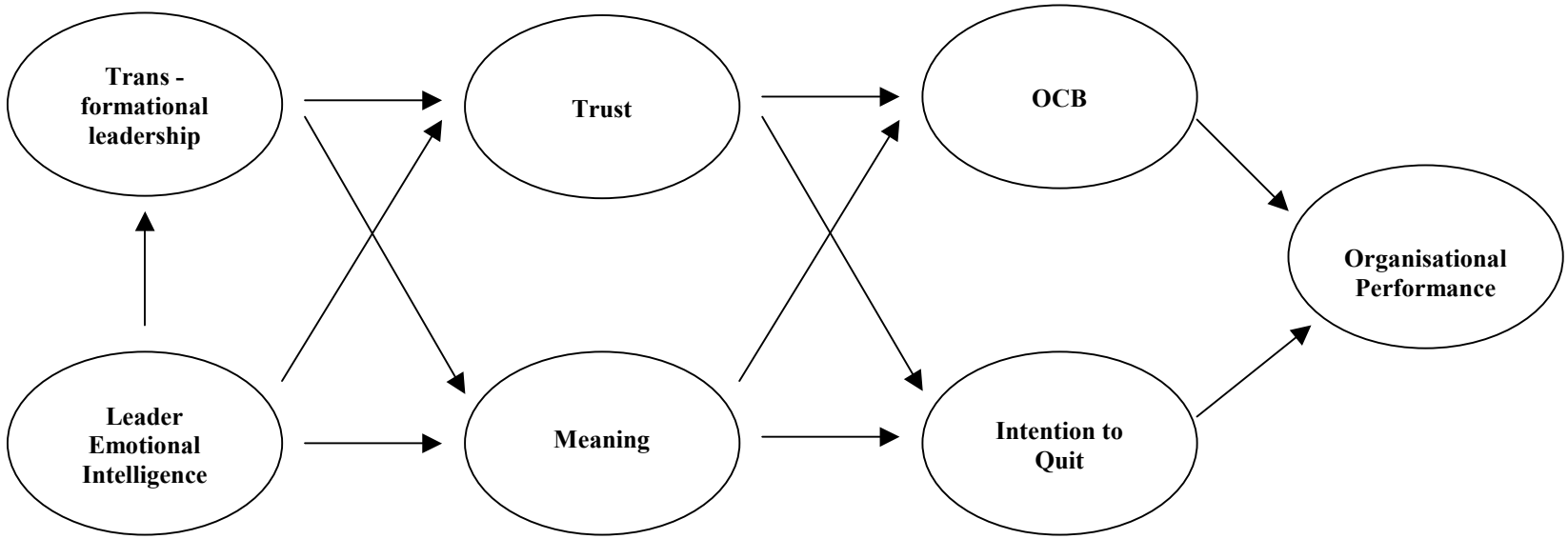


Figure 5.2: The proposed alternative conceptual model.

5.8 Theoretical Implications of the Present Study

The synthesised results of the present study make several contributions to the research literature.

The findings regarding Research Question 1 led to several general conclusions being made. The first was based on the fact that, in all cases, the exact configuration of the original measurement model was not replicated in the present sample. Exploratory Factor Analysis is a "harsh" procedure and most researchers will argue that one will never obtain exact replication of factors and item loadings when using two samples. In some cases the configurations differed considerably from those proposed by the original author/s. When subjecting the original measurement models and the EFA-derived measurement models to Confirmatory Factor Analyses, the original measurement models in all cases failed to achieve the highest level of construct validity. The same was found to be true for internal reliability. This should at least serve as a word of warning to researchers who indiscriminately use measurement instruments developed outside of South Africa when conducting research within South African samples. It cannot be presumed, given the differences that exist in education, social, and cultural background, that the factorial configuration will be the same across continents and cultures. It would therefore be prudent to establish construct validity, using the most appropriate methodology available, before inferences are drawn on the basis of the outcomes of the measures that are used. Care should further be taken to assess the respondent's comprehension of the items to ensure that language is not a complicating factor.

It furthermore is interesting to note that it would seem that some measurement instruments are more sensitive for these individual and cultural differences than others. This result seems to point to the importance of further study concerning *measurement invariance* and *metric equivalence* of measurement scales. It is therefore suggested that this study should in the future act, to some extent, as an impetus for these kinds of studies.

Secondly, by looking at the extent to which the original and derived configurations differ, it would seem that some constructs, for example trust, are much less affected by differences in the samples, as described above. The more abstract constructs (for

example transformational leadership, emotional intelligence and meaning) possibly seem to be affected more than others. The explanation for this may lie in the fact that some constructs are less universal and stable across continents and cultures than others. People from different cultures may therefore not conceptualise a construct in the same way as was intended by the original author. There may also be another reason. It could be that the theories that we hold on to within organisational psychology and the instruments that we have developed to measure them, have reached a level of sophistication far beyond the general employee in South Africa. This was could explain why a single transformational leadership factor only could be found. It may be that the so-called "layman" could identify with transformational leadership, but not identify its theoretical underpinnings as suggested by the proponents of this theory. On the other hand, the four I's have been replicated in various studies in South Africa and abroad, casting serious doubt on this (rather controversial) statement. This underlines the importance of further investigation of our understanding of the constructs and even the importance of training and development within organisations.

Thirdly, the amount of variance explained by each of the measurement models was rather limited in most cases. It is therefore evident that large portions of constructs were not being measured in many cases and one will not know exactly what influence this would have had on the results that were based on these measures of the constructs. This underlines the importance of first ensuring that the measurement instruments that are used in organisational psychology research are able to explain as much of the variance in the constructs under investigation as possible.

The fourth contribution that the study has made was realised in a way that is not often seen in studies of this kind. The relationships in this model was studied in various forms, beginning by first looking at the bivariate correlations between two variables and ending with fitting the complete conceptual model to the data using SEM. During each step, new and different insights were gained. One of the most important insights that were gained concerned the role that interaction effects have on the relationships between the latent variables. When bivariate relationships were tested, therefore without taking other constructs into account, relationships that were found to be significant were not found to be significant when SEM was used to fit the model to the data. It could be that studies in which two or three variables are investigated at a time are not taking all

the complexities into account and this may place a question mark on the results that are deduced from them. This study therefore emphasises the need in organisational psychology to test even bigger and more complex models that attempt to understand the way in which several constructs affect one another when they are given the opportunity to interact with one another. This is believed to provide a closer approximation of the reality.

Among all of the dimensions investigated in the present study, two seemed to emerge as being of particular importance. The first was *trust* and the second was *meaning*. The present study, like others that have preceded it, strengthens and further underlines the importance ascribed to these two constructs in organisations. Hopefully, the present study will serve as an impetus for future studies into these constructs, particularly into meaning, which has not received the same amount of research attention as trust.

It is interesting to note that leader emotional intelligence, given all the interest in it, did not live up to expectations. Based on the hype surrounding this construct, it was thought that it may have found to be related more strongly with the other constructs. Recent criticism by various authors concerning this construct and the research that is being done on it seems to corroborate this finding (e.g. Landy. 2005; Locke, 2005; Spector, 2005).

The further emergence of the role of *trust in the co-worker* seems to suggest that more emphasis needs to be placed on relationships among employees, in addition to that given to the relationship between leaders/managers and employees, when it comes to instilling trust, encouraging organisational citizenship behaviour and reducing intention to quit. This may be a product of the evolution that is taking place in organisations where flatter organisational structures; the greater use of self-directed teams; giving employees greater autonomy and responsibility; and greater employee empowerment has reduced the direct effect of leaders/managers and has increased the importance of network relationships in creating trust and effective work relationships.

5.9 Practical Implications of the Present Study

The strongest practical implication for the present study has to do with the fact that managers/supervisors can influence or at least encourage their employees to display organisational citizenship behaviours, as well as reduce their intention to quit by increasing the levels of trust and meaning in the organisation.

Trust is an important ingredient in the success of a leader and of the organisation in general and therefore cannot be ignored. The organisational success and more effective relationships that are obtained with trust do not just go away and become replaced with a neutral stance when there is no trust. In a situation of mistrust or when there is a lack of trust, managers will find themselves not in a neutral situation, but rather in a very hostile, negative and destructive relationship that is very time and energy consuming. The implication of this study is that leaders should realise that their leadership style and the way they react towards employees has an impact on their perceived trustworthiness and thus the amount of trust they obtain from their subordinates. By focusing on the way their behaviour is perceived by followers, they can gain the trust of their subordinates. The further implication for organisations is that they should provide managers with adequate opportunities for education, training and development in transformational leadership and emotional intelligence. This type of development could enhance their trustworthiness, which in turn may be translated into trust within their subordinates. Not only in them as the leader, but also in the organisation as a whole.

Similarly, and as important as trust, is the need for encouraging and assisting employees to craft their jobs so that they may experience higher levels of meaningfulness. It is therefore suggested that organisations give attention to these aspects of organisational life as it is related to important outcomes, like organisational citizenship behaviour. Organisations should therefore make a concerted effort to encourage managers/leaders to through their actions and behaviours create an organisational culture and climate where employees are intrinsically motivated and their attempts of find meaning are supported.

It is heartening to note that the dimensions in question can be increased in all people, i.e. men, woman, black or white, old or young, as well as in all sectors of the economy within all kinds of organisations. Bass (1985) asserted that the overall level of

transformational leadership in an organisation could be increased substantially in leaders at all levels and in all sectors, irrespective of race, age or gender. This is true of the other constructs as well. The benefits are there to be reaped by all who choose to follow this route.

5.10 Conclusion

Positive relationships were found between transformational leadership and leader emotional intelligence, as well as between each of these two variables and trust and meaning. Trust and meaning were found to be positively related to organisational citizenship behaviour and negatively related to intention to quit. Leader emotional intelligence was further found to be negatively related to intention to quit. This result and therefore the present study, is believed to have contributed to the field of organisational psychology and Industrial Psychology in general, on both the academic and the practioner level. These relationships are insightful and they show that effective leaders can positively influence trust and meaning within followers and in turn so motivate them to display organisational citizenship behaviour and reduce their intention to quit. These are believed to positively influence organisational effectiveness and performance.

Something that has not received nearly as much attention as it should in the field of organisational psychology is the aspect of meaning. This construct has proven to be valuable and important in encouraging organisational citizenship behaviour and thereby promoting organisational effectiveness. Recent tragic events like the 9/11 destruction and the even more recent bombings in London have forcefully brought home the message that life is precious and short. These events have forced many people to reappraise their priorities and what they are doing with their lives and how much energy and passion they are prepared to put into what they do. As we move into a new millennium characterised by existential philosophy and spiritualism, meaning can only become more important in the lives of people. The world, and it would seem organisations, too, would be a better place if filled with people who, in the words of Andrew Bramley “Do what they love and love what they do.”

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ADDENDUM A:

HYPOTHESES PRESENTED CHRONOLOGICALLY

Hypothesis 1:

H_1 The original measurement model of organisational citizenship behaviour proposed by Konovsy and Organ (1996) more closely fits the obtained data and is more internally reliable than the measurement model of the organisational citizenship behaviour construct derived from the responses of the present sample.

Hypothesis 2:

H_2 The Intention to Quit scale of Cohen (1993) is an internally reliable measure of the intention to quit construct in the present sample.

Hypothesis 3:

H_3 The original measurement model of the Workplace Trust Survey proposed by Ferres and Travaglione (2003) more closely fits the obtained data and is more internally reliable than the measurement model of the trust construct derived from the responses of the present sample.

Hypothesis 4:

H_4 The original measurement model of the Life Regard Index proposed by Battista and Almond (1973) more closely fits the obtained data and is more internally reliable than the measurement model of the meaning construct derived from the responses of the present sample.

Hypothesis 5:

H_5 The original measurement model of the Emotional Intelligence Index (EQI) proposed by Rahim and Minors (2002) more closely fits the data and is more internally reliable than the measurement model of the leader emotional intelligence derived from the responses of the present sample.

Hypothesis 6:

H_6 The original measurement model of the transformational leadership subscale of the Multifactor Leadership Questionnaire (MLQ) proposed by Bass and Avolio (1995) more closely fits the data and is more internally reliable than the measurement model of the transformational leadership construct derived from the responses of the present sample.

Hypothesis 7:

H_7 A positive relationship exists between transformational leadership and organisational citizenship behaviour.

Hypothesis 8:

H_8 A positive relationship exists between trust and organisational citizenship behaviour.

Hypothesis 9:

H_9 A positive relationship exists between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 10:

H_{10} A positive relationship exists between meaning and organisational citizenship behaviour.

Hypothesis 11:

H_{11} A negative relationship exists between intention to quit and organisational citizenship behaviour.

Hypothesis 12:

H_{12}. Leader emotional intelligence, transformational leadership, trust, meaning and intention to quit can be used to predict organisational citizenship behaviour.

Hypothesis 13:

H_{13} A negative relationship exists between trust and intention to quit.

Hypothesis 14:

H_{14} Intention to quit exerts a mediating effect on the relationship between trust and organisational citizenship behaviour.

Hypothesis 15:

H_{15} A negative relationship exists between transformational leadership and intention to quit.

Hypothesis 16:

H_{16} Intention to quit exerts a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour.

Hypothesis 17:

H_{17} A negative relationship exists between leader emotional intelligence and intention to quit.

Hypothesis 18:

H_{18} A negative relationship exists between meaning and intention to quit.

Hypothesis 19:

H_{19} Meaning, trust, leader emotional intelligence and transformational leadership can be used to predict intention to quit.

Hypothesis 20:

H_{20} A positive relationship exists between transformational leadership and trust.

Hypothesis 21:

H_{8} Trust exerts a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour.

Hypothesis 22:

H_{22} A positive relationship exists between leader emotional intelligence and trust.

Hypothesis 23:

H_{23} Trust exerts a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 24:

H_{24} Trust and intention to quit exert a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour.

Hypothesis 25:

H_{25} Transformational leadership and leader emotional intelligence can be used to predict trust.

Hypothesis 26:

H_{26} A positive relationship exists between transformational leadership and meaning.

Hypothesis 27:

H_{27} Meaning exerts a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour.

Hypothesis 28:

H_{28} Meaning and intention to quit exerts a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour.

Hypothesis 29:

H_{29} A positive relationship exists between leader emotional intelligence and meaning.

Hypothesis 30:

H_{30} Meaning exerts a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 31:

H_{31} Intention to quit exerts a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 32:

H_{32} Meaning and intention to quit exerts a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 33:

H_{33} Transformational leadership and leader emotional intelligence can be used to predict meaning.

Hypothesis 34:

H_{34} A positive relationship exists between leader emotional intelligence and transformational leadership.

Hypothesis 35 :

H_{35} Transformational leadership exert a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 36 :

H_{36} Transformational leadership and trust exert a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 37 :

H_{37} Transformational leadership and meaning exert a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 38 :

H_{38} Transformational leadership, meaning and intention to quit exert a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 39 :

H_{39}. The proposed conceptual model adequately fits the collected data.

ADDENDUM B:

HYPOTHESES SORTED BY RESEARCH QUESTION

Research question 1:

Do the original measurement models as proposed by the authors thereof more closely fit the obtained data and are they more internally reliable than the measurement models derived from the responses of the present sample?

Hypothesis 1:

H_1 The original measurement model of organisational citizenship behaviour proposed by Konovsy and Organ (1996) more closely fits the obtained data and is more internally reliable than the measurement model of the organisational citizenship behaviour construct derived from the responses of the present sample.

Hypothesis 2:

H_2 The Intention to Quit scale of Cohen (1993) is an internally reliable measure of the intention to quit construct in the present sample.

Hypothesis 3:

H_3 The original measurement model of the Workplace Trust Survey proposed by Ferres and Travaglione (2003) more closely fits the obtained data and is more internally reliable than the measurement model of the trust construct derived from the responses of the present sample.

Hypothesis 4:

H_4 The original measurement model of the Life Regard Index proposed by Battista and Almond (1973) more closely fits the obtained data and is more internally reliable than the measurement model of the meaning construct derived from the responses of the present sample.

Hypothesis 5:

H_5 The original measurement model of the Emotional Intelligence Index (EQI) proposed by Rahim and Minors (2002) more closely fits the data and is more internally reliable than the measurement model of the leader emotional intelligence derived from the responses of the present sample.

Hypothesis 6:

H_6 The original measurement model of the transformational leadership subscale of the Multifactor Leadership Questionnaire (MLQ) proposed by Bass and Avolio (1995) more closely fist the data and is more internally reliable than the measurement model of the transformational leadership construct derived from the responses of the present sample.

Research Question 2

What direct relationships exist between the six organisational behaviour constructs and their underlying dimensions?

Hypothesis 7:

H_7 A positive relationship exists between transformational leadership and organisational citizenship behaviour.

Hypothesis 8:

H_8 A positive relationship exists between trust and organisational citizenship behaviour.

Hypothesis 9:

H_9 A positive relationship exists between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 10:

H_{10} A positive relationship exists between meaning and organisational citizenship behaviour.

Hypothesis 11:

H_{11} A negative relationship exists between intention to quit and organisational citizenship behaviour.

Hypothesis 13:

H_{13} A negative relationship exists between trust and intention to quit.

Hypothesis 15:

H_{15} A negative relationship exists between transformational leadership and intention to quit.

Hypothesis 17:

H_{17} A negative relationship exists between leader emotional intelligence and intention to quit.

Hypothesis 18:

H_{18} A negative relationship exists between meaning and intention to quit.

Hypothesis 20:

H_{20} A positive relationship exists between transformational leadership and trust.

Hypothesis 22:

H_{22} A positive relationship exists between leader emotional intelligence and trust.

Hypothesis 26:

H_{26} A positive relationship exists between transformational leadership and meaning.

Hypothesis 29:

H_{29} A positive relationship exists between leader emotional intelligence and meaning.

Hypothesis 34:

H_{34} A positive relationship exists between leader emotional intelligence and transformational leadership.

Research Question 3:

What indirect relationships exist between the six organisational behaviour constructs and their underlying dimensions?

Hypothesis 14:

H_{14} Intention to quit exerts a mediating effect on the relationship between trust and organisational citizenship behaviour.

Hypothesis 16:

H_{16} Intention to quit exerts a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour.

Hypothesis 21:

H_{21} Trust exerts a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour.

Hypothesis 23:

H_{23} Trust exerts a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 24:

H_{24} Trust and intention to quit exert a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour.

Hypothesis 27:

H_{27} Meaning exerts a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour.

Hypothesis 28:

H_{28} Meaning and intention to quit exerts a mediating effect on the relationship between transformational leadership and organisational citizenship behaviour.

Hypothesis 30:

H_{30} Meaning exerts a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 31:

H_{31} Intention to quit exerts a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 32:

H_{32} Meaning and intention to quit exerts a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 35 :

H_{35} Transformational leadership exert a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 36 :

H_{36} Transformational leadership and trust exert a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 37 :

H_{37} Transformational leadership and meaning exert a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Hypothesis 38 :

H_{38} Transformational leadership, meaning and intention to quit exert a mediating effect on the relationship between leader emotional intelligence and organisational citizenship behaviour.

Research Question 4:

Can any combination of the constructs be used as independent variables to predict dependent constructs or variables?

Hypothesis 12:

H_{13}. Leader emotional intelligence, transformational leadership, trust, meaning and intention to quit can be used to predict organisational citizenship behaviour.

Hypothesis 19:

H_{20} Meaning, trust, leader emotional intelligence and transformational leadership can be used to predict intention to quit.

Hypothesis 25:

H_{25} Transformational leadership and leader emotional intelligence can be used to predict trust.

Hypothesis 33:

H_{33} Transformational leadership and leader emotional intelligence can be used to predict meaning.

Research Question 5:

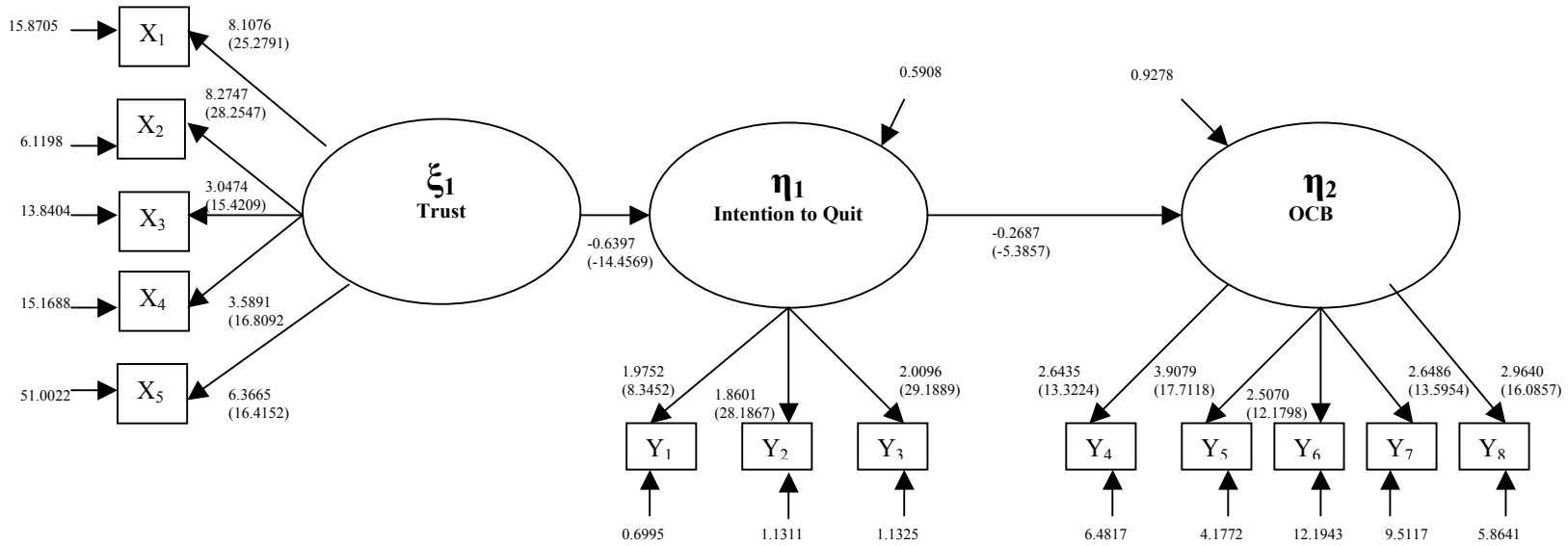
Can a conceptual model, that integrates all of these constructs and their interrelationships, be tested and be found to be valid?

Hypothesis 39:

H_{39}. The proposed conceptual model adequately fits the collected data.

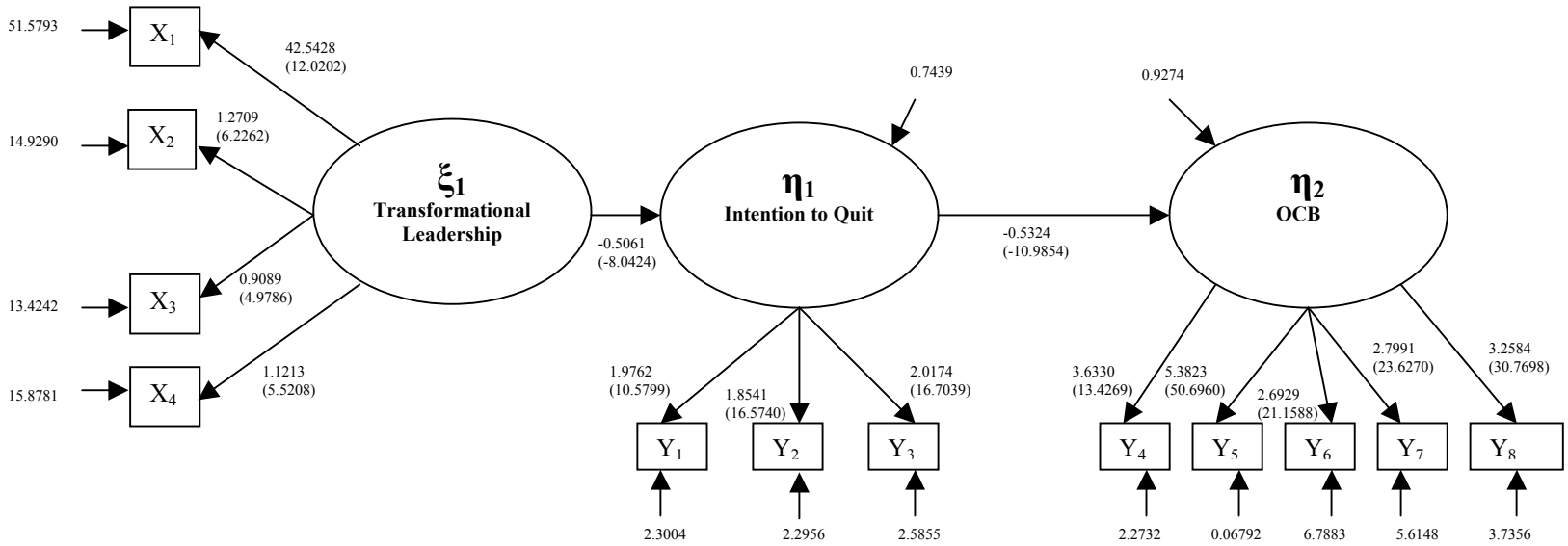
ADDENDUM C:

STRUCTURAL MODELS WITH MAXIMUM LIKELIHOOD PARAMETER ESTIMATES FOR THE MEDIATING HYPOTHESES



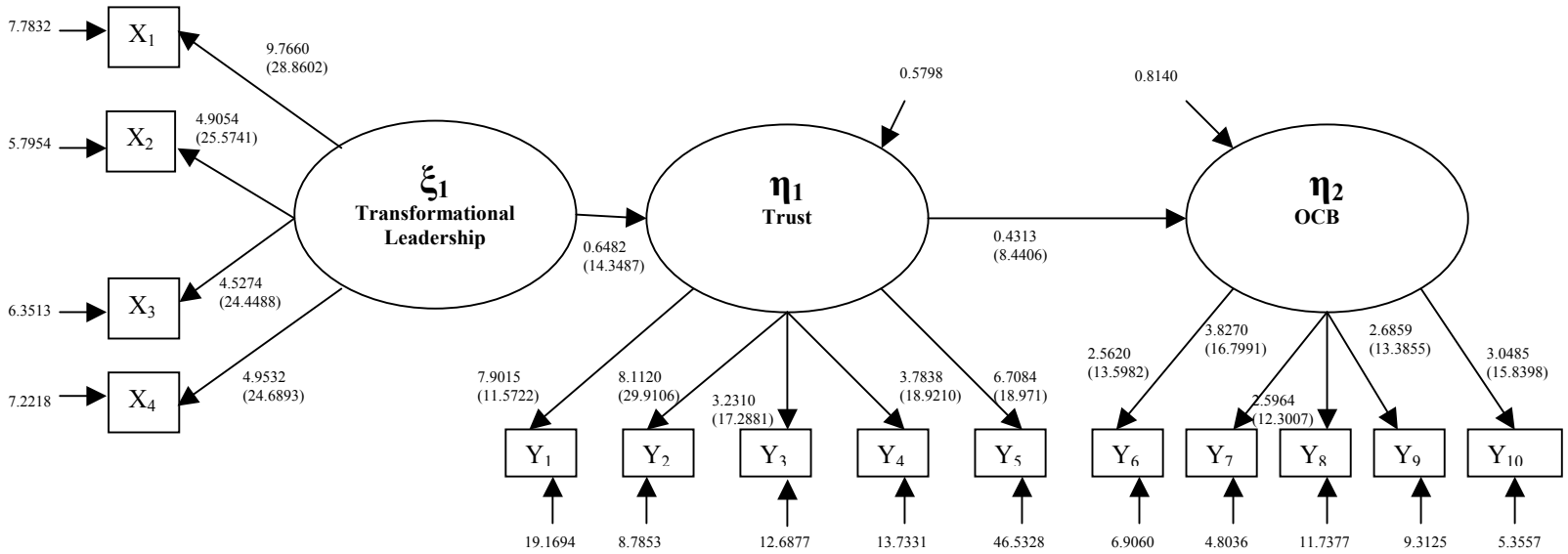
Manifest Variables/Indicators:
X_1 = TrustOrg1, X_2 = TrustOrg2, X_3 = TrustCW1, X_4 = TrustCW2, X_4 = TrustLead ,Y_1 = ItQ1, Y_2 = ItQ2, Y_3 = ItQ3, Y_4 = Altruism1, Y_5 = Altruism2, Y_6 = Civic Virtue, Y_7 = Conscientiousness1, and Y_8 = Conscientiousness2.

Figure 4.2: Structural Model with Maximum Likelihood Parameter Estimates for Trust and Organisational Citizenship Behaviour Mediated by Intention to Quit.



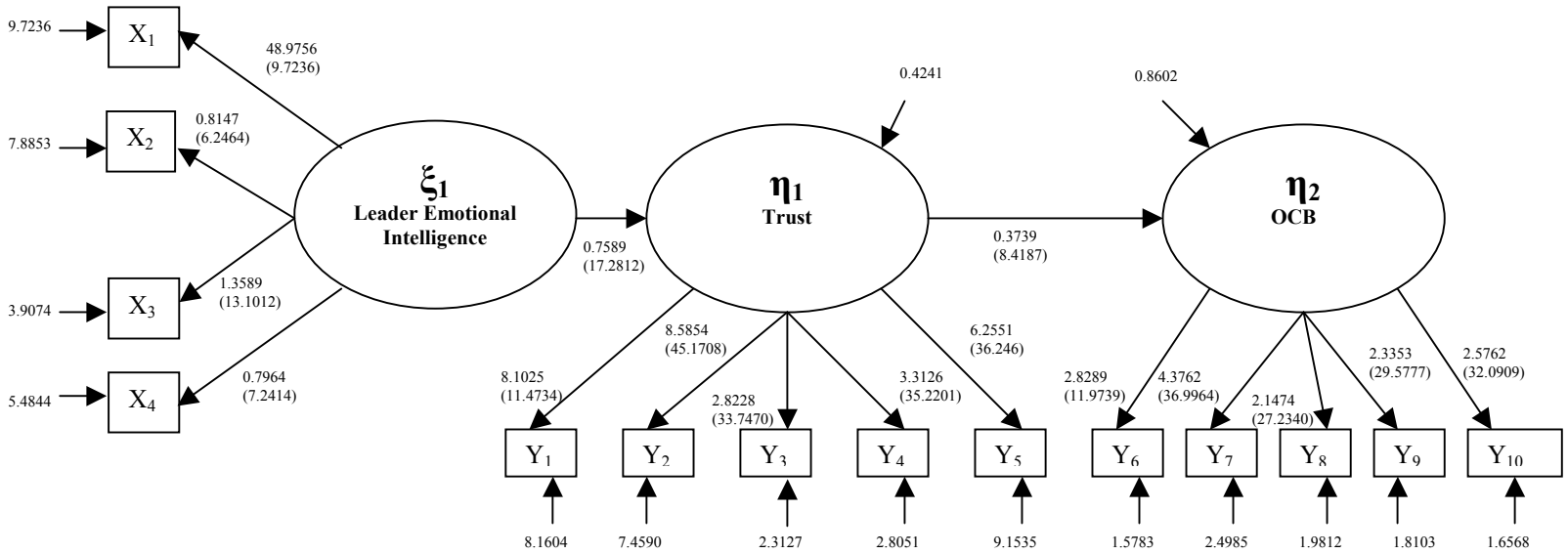
Manifest Variables/Indicators:
X_1 = TFL1, X_2 = TFL2, X_3 = TFL3, X_4 = TFL4, Y_1 = ITQ1, Y_2 = ITQ2, Y_3 = ITQ3, Y_4 = Altruism1, Y_5 = Altruism2, Y_6= Civic Virtue, Y_7 = Conscientiousness1, and Y_8 = Conscientiousness2.

Figure 4.3: Structural Model with Maximum Likelihood Parameter Estimates for Transformational Leadership and Organisational Citizenship Behaviour Mediated by Intention to Quit.



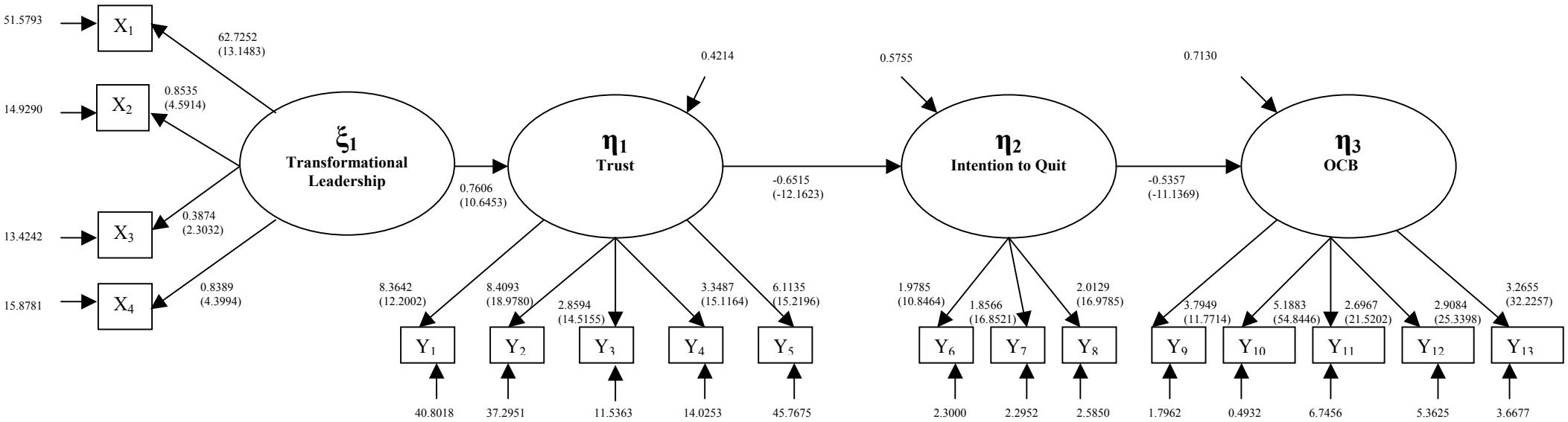
Manifest Variables/Indicators:
X_1 = TFL1, X_2 = TFL2, X_3 = TFL3, X_4 = TFL4, Y_1 = TrustOrg1, Y_2 = TrustOrg2, Y_3 = TrustCW1, Y_4 = TrustCW2, Y_5 = TrustLead, Y_6 = Altruism1, Y_7 = Altruism2, Y_8= Civic Virtue, Y_9 = Conscientiousness1, and Y_{10} = Conscientiousness2.

Figure 4.4: Structural Model with Maximum Likelihood Parameter Estimates for Transformational Leadership and Organisational Citizenship Behaviour Mediated by Trust.



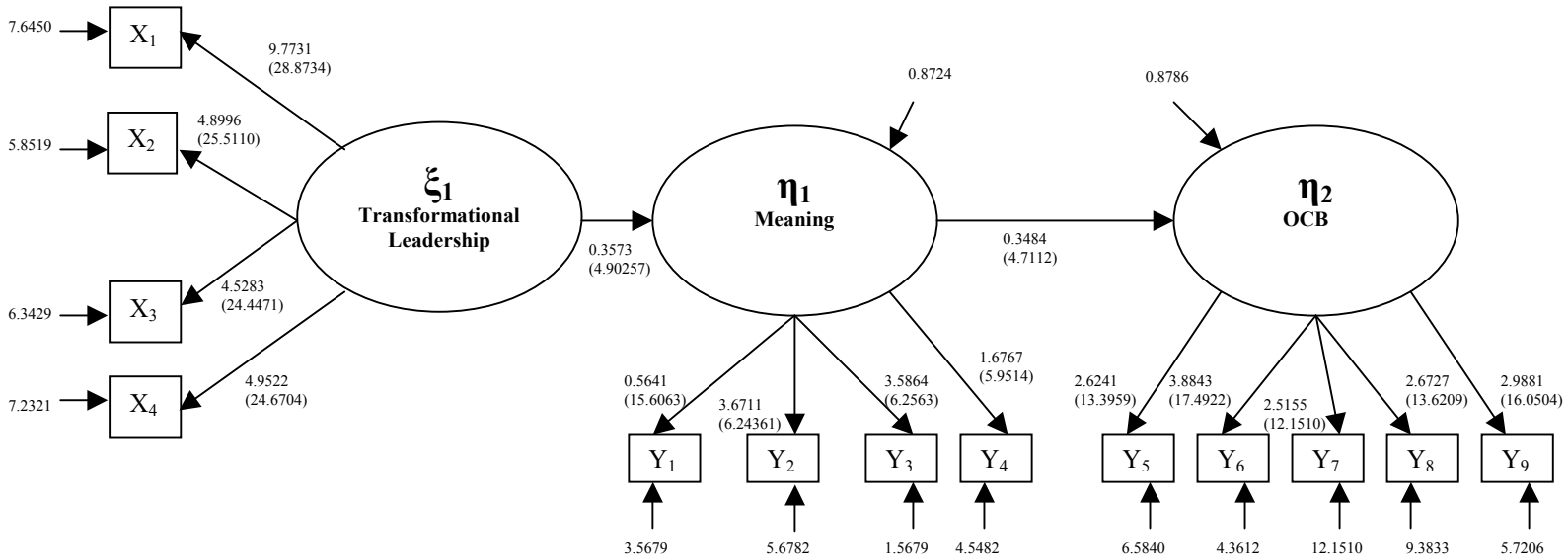
Manifest Variables/Indicators:
X_1 = Empathy, X_2 = Self-Reg1, X_3 = Self-Reg2, X_4 = Self-Awareness, Y_1 = TrustOrg1, Y_2 = TrustOrg2, Y_3 = TrustCW1, Y_4 = TrustCW2, Y_5 = TrustLead, Y_6 = Altruism1, Y_7 = Altruism2, Y_8 = Civic Virtue, Y_9 = Conscientiousness1, and Y_{10} = Conscientiousness2.

Figure 4.5: Structural Model with Maximum Likelihood Parameter Estimates for Leader Emotional Intelligence and Organisational Citizenship Behaviour mediated by Trust.



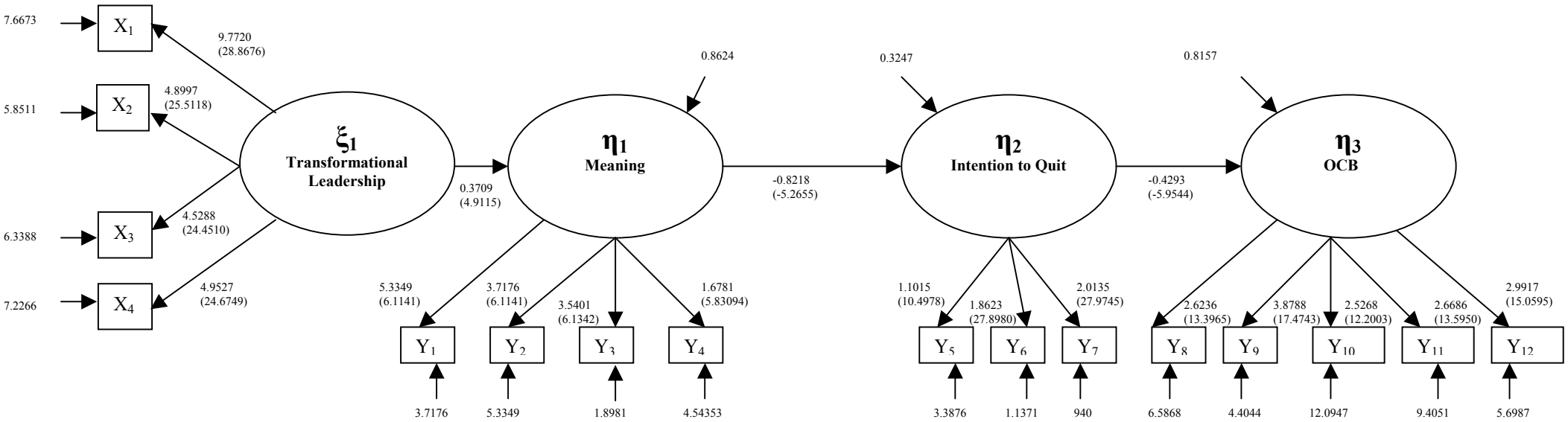
Manifest Variables/Indicators:
X_1 = TFL1, X_2 = TFL2, X_3 = TFL3, X_4 = TFL4, Y_1 = TrustOrg1, Y_2 = TrustOrg2, Y_3 = TrustCW1, Y_4 = TrustCW2, Y_5 = TrustLead, Y_6 = ItQ1, Y_7 = ItQ2. Y_8= ItQ3, Y_9 = Altruism1, Y_{10} = Altruism2, Y_{11}= Civic Virtue, Y_{12} = Conscientiousness1, and Y_{13} = Conscientiousness2.

Figure 4.6: Structural Model with Maximum Likelihood Parameter Estimates for Transformational Leadership and Organisational Citizenship Behaviour Mediated by Trust and Intention to Quit



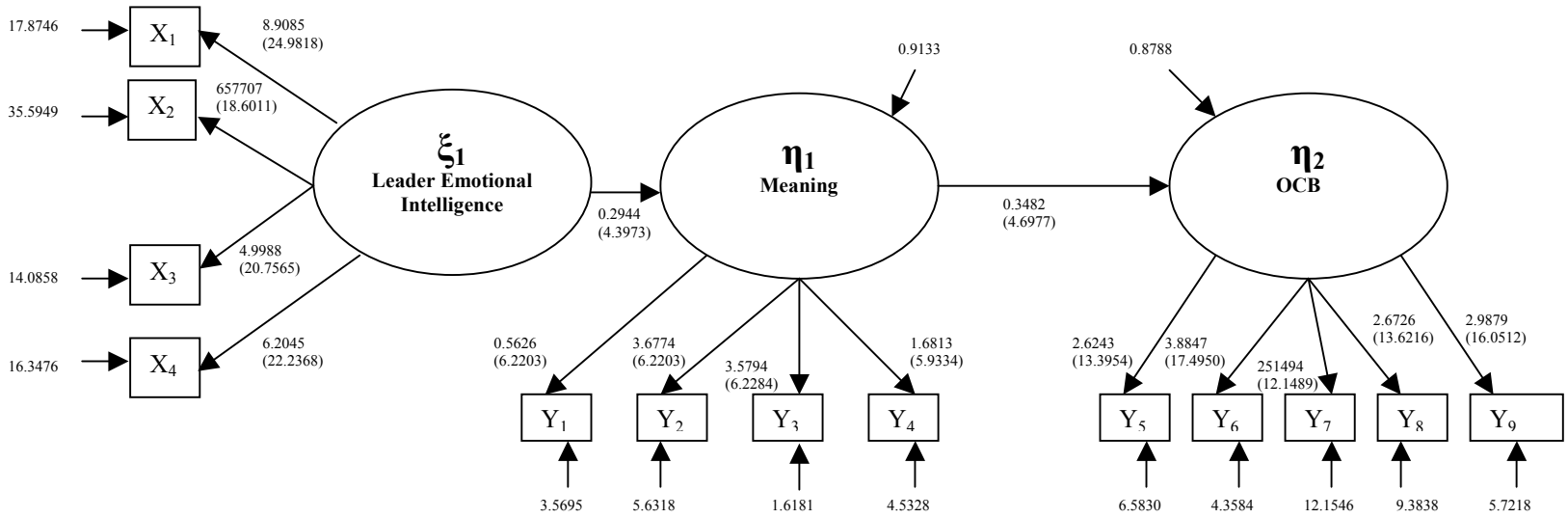
Manifest Variables/Indicators:
X_1 = TFL1, X_2 = TFL2, X_3 = TFL3, X_4 = TFL4, Y_1 = Hav a Pur, Y_2 = FullaPur1, Y_3 = FullaPur2, Y_4 = FullaPur3, Y_5 = Altruism1, Y_6 = Altruism2, Y_7= Civic Virtue, Y_8 = Conscientiousness1, and Y_9 = Conscientiousness2.

Figure 4.7: Structural Model with Maximum Likelihood Parameter Estimates for Transformational Leadership and Organisational Citizenship Behaviour Mediated by Meaning.



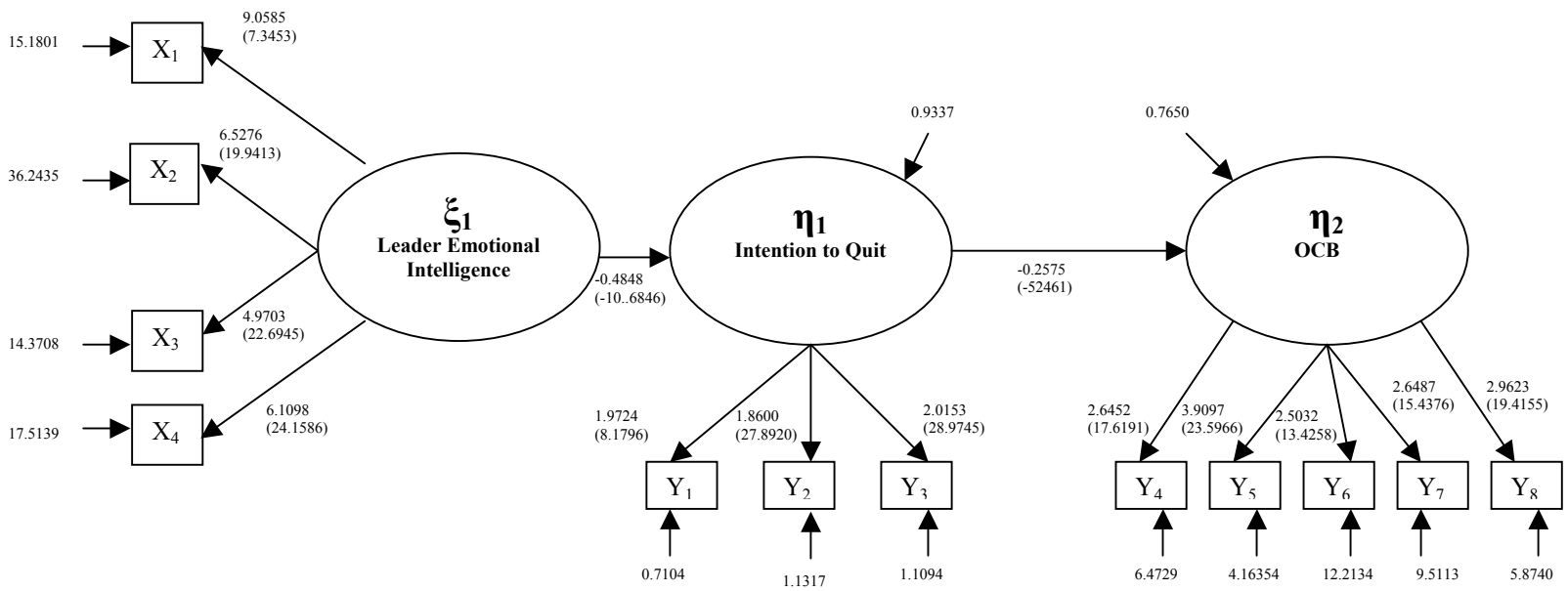
Manifest Variables/Indicators:
X_1 = TFL1, X_2 = TFL2, X_3 = TFL3, X_4 = TFL4, Y_1 = Hav a Pur, Y_2 = FullaPur1, Y_3 = FullaPur2, Y_4 = FullaPur3, Y_5= ItQ1, Y_6 = ItQ2, Y_7 = IQ3, Y_8 = Altruism1, Y_9 = Altruism2, Y_{10}= Civic Virtue, Y_{11} = Conscientiousness1, and Y_{12} = Conscientiousness2.

Figure 4.8: Structural Model with Maximum Likelihood Parameter Estimates for Transformational Leadership and Organisational Citizenship Behaviour Mediated by Meaning and Intention to Quit



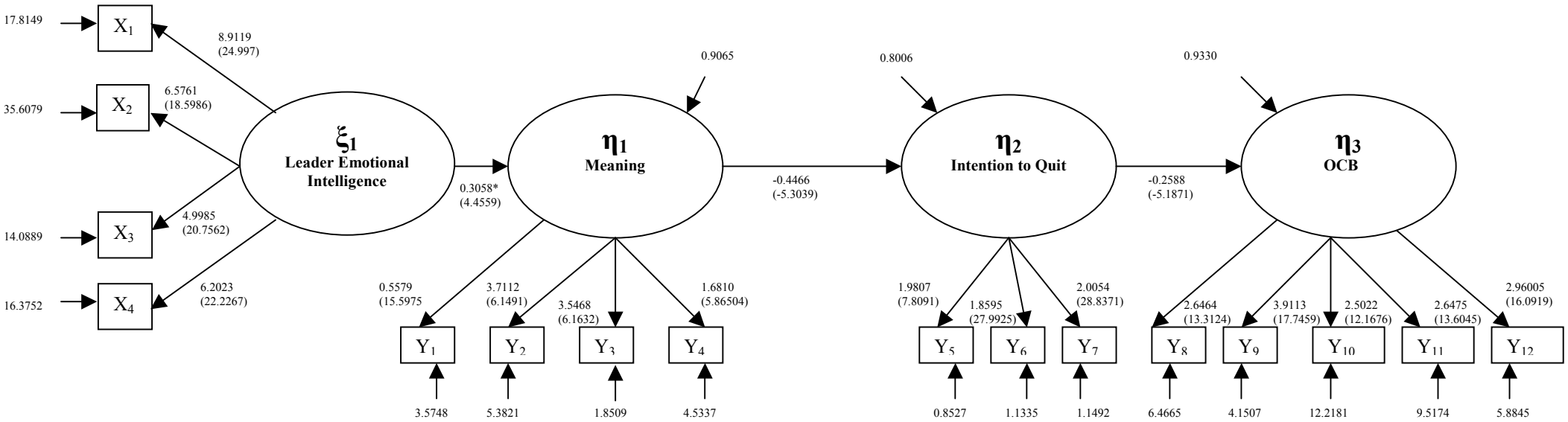
Manifest Variables/Indicators:
X_1 = Empathy, X_2 = Self-Reg1, X_3 = Self-Reg2, X_4 = Self-Awareness, Y_1 = Hav a Pur, Y_2 = FullaPur1, Y_3 = FullaPur2, Y_4 = FullaPur3, Y_5 = Altruism1, Y_6 = Altruism2, Y_7 = Civic Virtue, Y_8 = Conscientiousness1, and Y_9 = Conscientiousness2.

Figure: 4.9: Structural Model with Maximum Likelihood Parameter Estimates for Leader Emotional Intelligence and Organisational Citizenship Behaviour Mediated by Meaning.



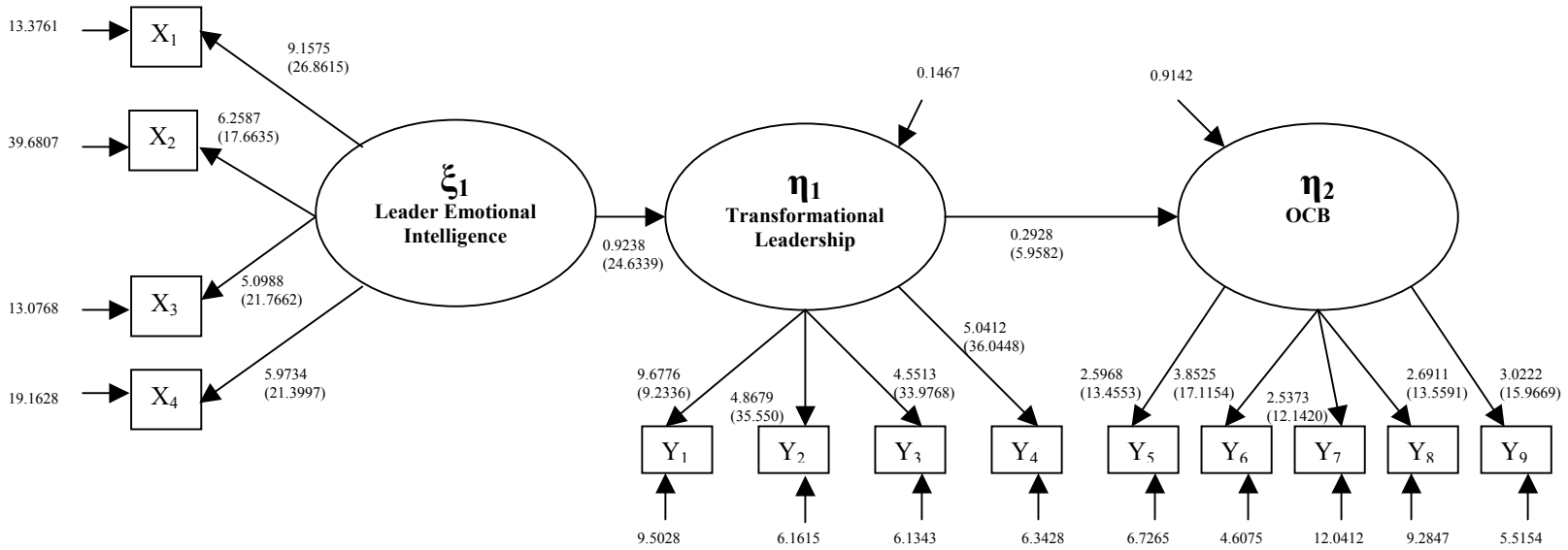
Manifest Variables/Indicators:
X_1 = Empathy, X_2 = Self-Reg1, X_3 = Self-Reg2, X_4 = Self-Awareness, Y_1 = ITQ1, Y_2= ITQ2, Y_3= ITQ3, Y_4 = Altruism1, Y_5 = Altruism2, Y_6= Civic Virtue, Y_7 = Conscientiousness1, and Y_8 = Conscientiousness2.

Figure: 4.10: Structural Model with Maximum Likelihood Parameter Estimates for Leader Emotional Intelligence and Organisational Citizenship Behaviour Mediated by Intention to Quit.



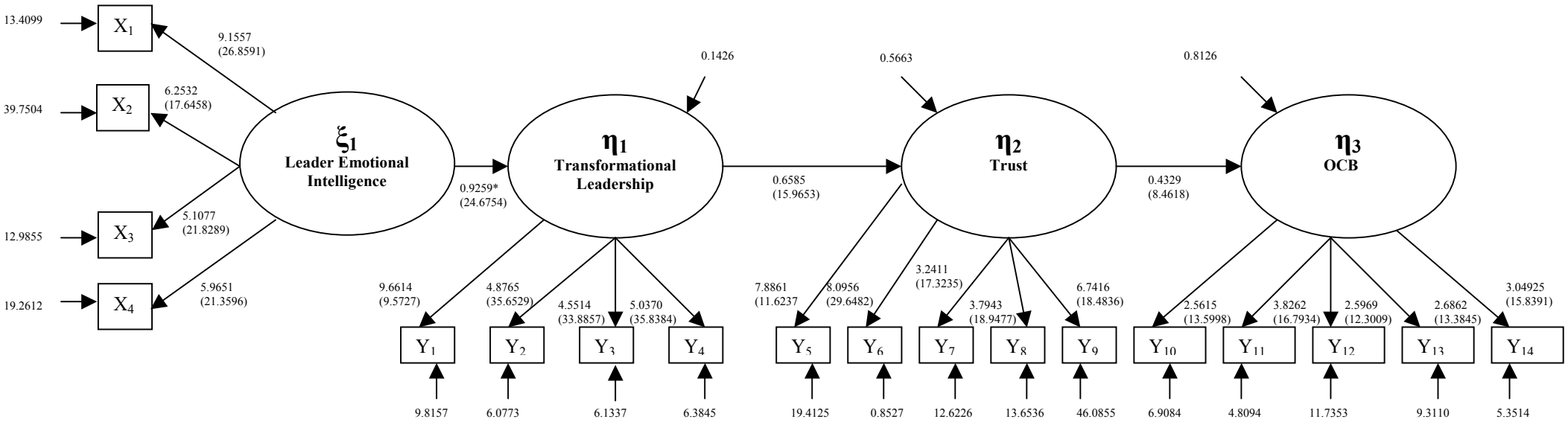
Manifest Variables/Indicators:
X_1 = Empathy, X_2 = SelfReg1, X_3 = SelfReg2, X_4 = SELFAW, Y_1 = Hav a Pur, Y_2 = FullaPur1, Y_3 = FullaPur2, Y_4 = FullaPur3, Y_5= ItQ1, Y_6 = ItQ2, Y_7 = IQ3, Y_8 = Altruism1, Y_9 = Altruism2, Y_{10}= Civic Virtue, Y_{11} = Conscientiousness1, and Y_{12} = Conscientiousness2.

Figure 4.11: Structural Model with Maximum Likelihood Parameter Estimates for Leader Emotional Intelligence and Organisational Citizenship Behaviour Mediated by Meaning and Intention to Quit



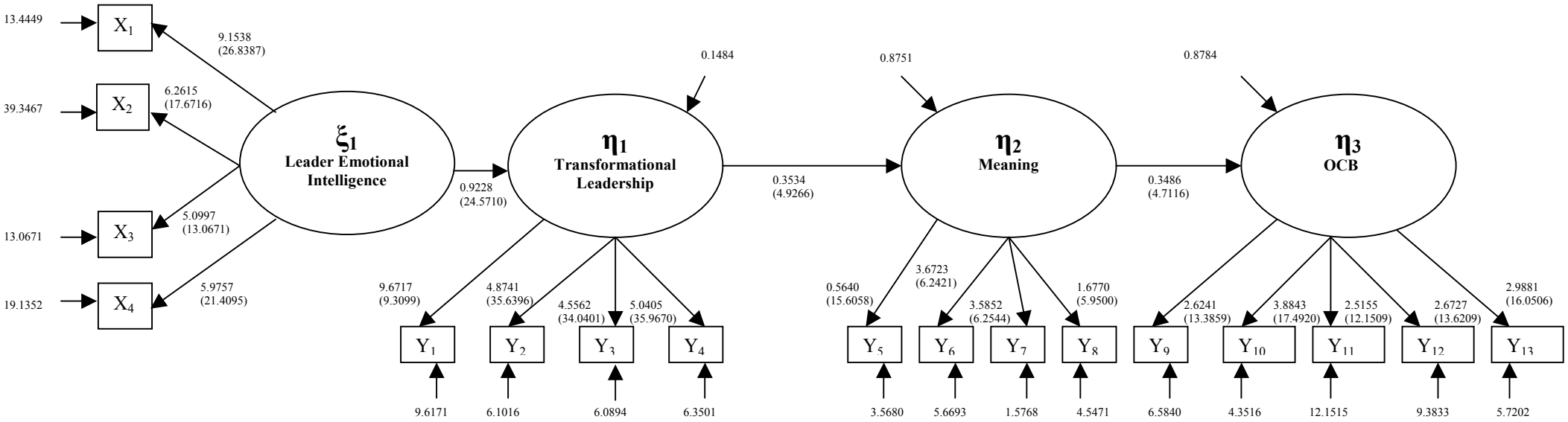
Manifest Variables/Indicators:
X_1 = Empathy, X_2 = SelfReg1, X_3 = SelfReg2, X_4 = SelfAw, Y_1 = TFL1, Y_2 = TFL2, Y_3 = TFL3, Y_4 = TFL4, Y_5 = Altruism1, Y_6 = Altruism2, Y_7= Civic Virtue, Y_8 = Conscientiousness1, and Y_9 = Conscientiousness2.

Figure 4.12: Structural Model with Maximum Likelihood Parameter Estimates for Leader Emotional Intelligence and Organisational Citizenship Behaviour Mediated by Transformational Leadership.



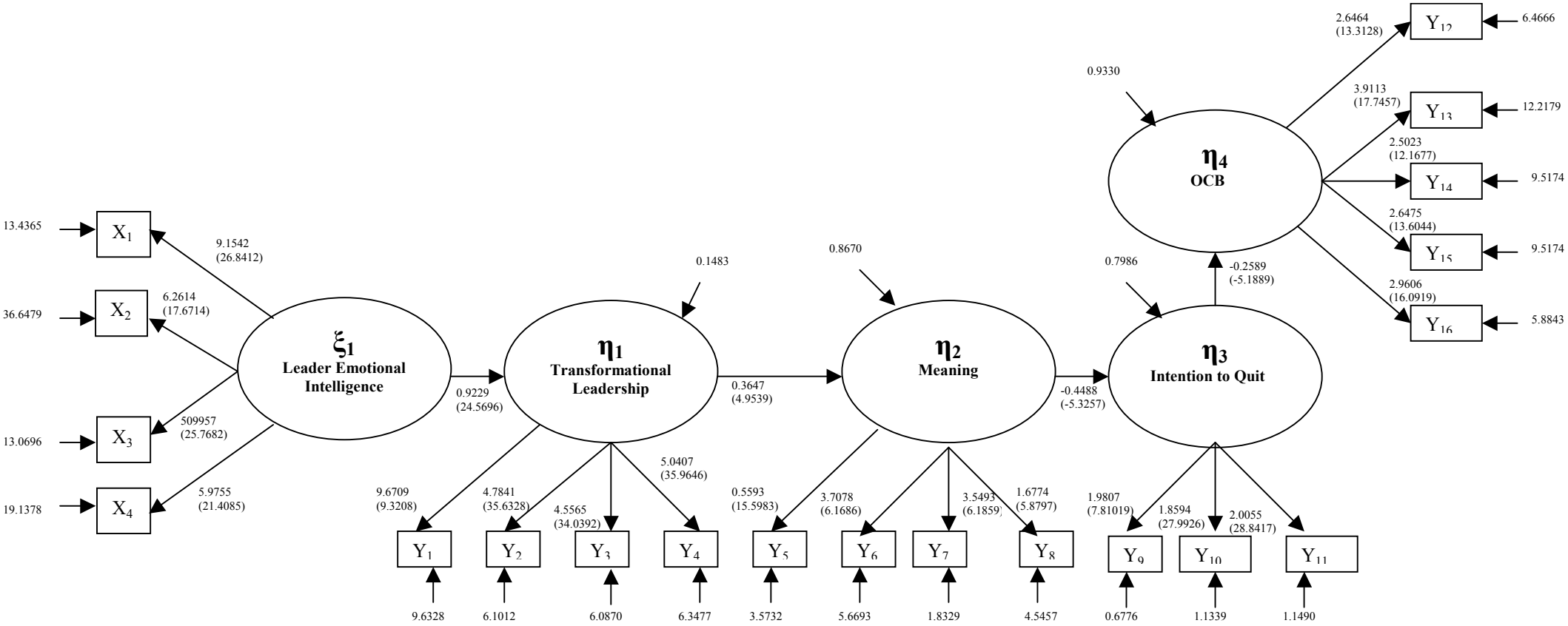
Manifest Variables/Indicators:
X_1 = Empathy, X_2 = SelfReg1, X_3 = SelfReg2, X_4 = SELFAW, Y_1 = TFL1, Y_2 = TFL2, Y_3 = TFL3, Y_4 = TFL4, Y_5= TrustOrg1, Y_6 = TrustOrg2, Y_7 = TrustCW1, Y_8 = Trust CW2, Y_9 = TrustLead, Y_{10} = Altruism1, Y_{11} = Altruism2, Y_{12}= Civic Virtue, Y_{13} = Conscientiousness1, and Y_{14} = Conscientiousness2.

Figure 4.13: Structural Model with Maximum Likelihood Parameter Estimates for Leader Emotional Intelligence and Organisational Citizenship Behaviour Mediated by Transformational Leadership and Trust



Manifest Variables/Indicators:
X_1 = Empathy, X_2 = SelfReg1, X_3 = SelfReg2, X_4 = SELFAW, Y_1 = TFL1, Y_2 = TFL2, Y_3 = TFL3, Y_4 = TFL4, Y_5= HAV, Y_6 = FuL1, Y_7 = Ful2, Y_8 = Ful3, Y_9 = Altruism1, Y_{10} = Altruism2, Y_{11}= Civic Virtue, Y_{12} = Conscientiousness1, and Y_{13} = Conscientiousness2.

Figure 4.14: Structural Model with Maximum Likelihood Parameter Estimates for Leader Emotional Intelligence and Organisational Citizenship Behaviour Mediated by Transformational Leadership and Meaning



Manifest Variables/Indicators:
X_1 = Empathy, X_2 = SelfReg1, X_3 = SelfReg2, X_4 = SELFAW, Y_1 = TFL1, Y_2 = TFL2, Y_3 = TFL3, Y_4 = TFL4, Y_5= HAV, Y_6 = FuL1, Y_7 = Ful2, Y_8 = Ful3, Y_9 = ITQ1, Y_{10} = ITQ2Ful2, Y_{11} = ITQ3, Y_{12} = Altruism1, Y_{13} = Altruism2, Y_{14} = Civic Virtue, Y_{15} = Conscientiousness1, and Y_{16} = Conscientiousness2.

Figure 4.15: Structural Model with Maximum Likelihood Parameter Estimates for Leader Emotional Intelligence and Organisational Citizenship Behaviour Mediated by Transformational Leadership, Meaning and Intention to Quit

ADDENDUM D:

RESULTS OF STRUCTURAL EQUATIONS MODEL

Table 4.62: Phi Matrix of Leader Emotional Intelligence

	Leader Emotional Intelligence
Leader Emotional Intelligence	1.00

Table 4.63: Psi matrix of Transformational Leadership, Meaning, Trust, OCB and Intention to Quit

	Meaning	Intention to Quit	OCB	Transformational Leadership	Trust	Leader Emotional Intelligence
Meaning	1					
Intention to Quit	-0.3378	1				
OCB	0.2887	-0.2313	1			
Transformational Leadership	0.3654	-0.4857	0.3029	1		
Trust	0.2314	-0.6083	0.3869	0.6537	1	
Leader Emotional Intelligence	0.2840	-0.4925	0.2962	0.9239	0.6245	1

Table 4.64: Theta-delta for Leader Emotional intelligence

Observed Variables	Theta-delta
Empathy	12.5355
Self-Regulation	39.8369
Self-Motivation	13.2081
Self-Awareness	19.5468

Table 4.65: Theta-epsilon for Transformational Leadership, Meaning, Trust, OCB and Intention to Quit

Observed Variables	Theta-epsilon
Intention to Quit	
Item 1	0.6753
Item 2	1.1378
Item 3	1.1404
Meaning	
Fulfilling a Purpose	3.5648
Having a Purpose	1.6911
Organisational Citizenship Behaviour	
Altruism	4.9700
Civic virtue	11.6879
Conscientiousness	5.2381
Trust	
Trust in the organisation	17.8837
Trust in the co-worker	13.1520
Trust in the leader	14.2781
Transformational Leadership	
TFL1	9.7598
TFL2	4.8791
TFL3	6.0826
TFL4	6.0826

Table 4.66: Squared Multiple Correlation Coefficients for Y-variables

Observed Variables	Squared Multiple Correlation coefficients
Intention to Quit	
Item 1	0.8486
Item 2	0.7453
Item 3	0.7731
Meaning	
Fulfilling a Purpose	0.8828
Having a Purpose	0.08268
Organisational Citizenship Behaviour	
Altruism	0.4760
Civic virtue	0.3617
Conscientiousness	0.4340
Trust	
Trust in the organisation	0.8914
Trust in the co-worker	0.4313
Trust in the leader	0.4880
Transformational Leadership	
TFL1	0.9016
TFL2	0.7973
TFL3	0.7734
TFL4	0.8002
Leader Emotional Intelligence	
Empathy	0.8711
Self-Regulation	0.4948
Self-Motivation	0.6620
Self-Awareness	0.6436