

**THE RELATIONSHIP BETWEEN SERVANT LEADERSHIP,
ROLE STRESS AND COPING IN SUBORDINATE SERVICE ROLES**

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Psychology) at the University of Stellenbosch



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DECLARATION

By submitting this dissertation electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Date: 4 March 2009

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DEDICATION

To my Mom,
Margie,
who has had a radical impact on many more lives than most people ever will.
I love you!

ABSTRACT

A study of the literature revealed that the concept of servant leadership is still in need of further empirical research. It also became clear that the leadership style employed by the supervisors of certain boundary spanning employees may have a pivotal effect on the role stress they experience and the resulting coping mechanisms they are likely to employ. Evidently, further investigation into the relationship between the constructs of servant leadership, role stress and coping could be valuable. An exploratory study to investigate these relationships was therefore planned and executed. A correlative *ex post facto* study of non-experimental kind was followed making use of survey research. For this purpose a composite questionnaire was created and used as the means of data gathering. The questionnaires were directly administered by the researcher to the participants of a large national retail organisation where the survey was conducted. A total of 290 respondents from six different stores of this organisation participated in the study. The respondents occupying a specific type of boundary spanning role, known as the subordinate service role (SSR), completed the composite questionnaire which comprised of the rater version of the *Servant Leadership Questionnaire* of Barbuto and Wheeler (2006), the *role stress scale* based on the research work of Hartline and Ferrell (1996), and the *Ways of Coping Questionnaire* developed by Lazarus and Folkman (1984). The SSR incumbents assessed the level of servant leadership of their immediate supervisors, their own level of role stress and the coping mechanisms which they typically employ. Answers were sought to three research questions dealing with the content and configuration of the constructs as well as their interrelations.

The content and structure of the constructs that were measured by the questionnaire was investigated by means of confirmatory and exploratory factor analyses. These analyses indicated that the content and structure of the Barbuto and Wheeler (2006) instrument was the same as the structure proposed by the developers. In the case of both the Hartline and Ferrell (1996) instrument for role stress and the Lazarus and Folkman (1984) questionnaire for coping, it was found that the content as well as the configuration of these measures differed from the original authors' structures.

The relationships between the variables were determined using Pearson product-moment correlation and standard multiple regression. The unsatisfactory fit of the structures of the measures during the initial confirmatory factor analyses resulted in abandoning an attempt of fitting the proposed structural equation model. The results of the differing analyses indicated that only mediocre relationships existed between some of the variables. However, the findings showed some support for the propositions that servant leadership would reduce the role stress experienced by SSR incumbents while increasing the employment of some coping mechanisms deemed conducive to customer service. The expected mediating effect of role stress and coping respectively could not be established from the analyses of the results.

The contribution of the study to the existing theory lies mainly in assessing the portability of the constructs and their measuring instruments in the South African setting as well as in the findings regarding the relationships between servant leadership, role stress and coping for SSR incumbents. Recommendations are made in terms of cross validation of results and possible avenues for future research proposed.

OPSOMMING

'n Studie van die literatuur het daarop gedui dat die konsep van diensbare leierskap steeds verdere empiriese navorsing benodig. Dit het aan die lig gekom dat die leierskapstyl van toesighouers bydra tot die effek van rol gekoppelde spanningsdruk wat individue ervaar wanneer hulle kliëntediens oor organisatoriese grense heen lewer. In hierdie verband blyk dit dat verdere ondersoek na die verhouding tussen die konstrukte, diensbare leierskap, rol spanningsdruk en hanteringsmeganismes van waarde kan wees. 'n Ondersoekende studie om hierdie verhouding te bepaal is der halwe beplan en uitgevoer. 'n *Ex post faktor* korrelasie studie van 'n nie-eksperimentele aard is gevolg terwyl daar van vraelyste gebruik gemaak is. 'n Saamgestelde vraelys is gebruik as die primêre vorm van data insameling. Hierdie vraelys is saamgestel uit die beoordeelaars weergawe van Barbuto en Wheeler (2006) se *Servant Leadership Questionnaire*, die *rol spannings druk skaal* gebaseer op Hartline en Ferrel (1996) se navorsing, en Lazarus en Folkman (1984) se *Ways of coping questionnaire*. Hierdie vraelys is onder navorsertoesig aan die werknemers van 'n groot nasionale kleinhandelaar waar die studie uitgevoer is, geadministreer. 'n Totaal van 290 respondente van ses verskillende winkels binne hierdie organisasie het aan die studie deelgeneem. Hierdie respondente lewer tipies 'n kliëntediens oor organisatoriese grense heen, bekend as die *ondergeskikte diensrol (ODR)*. Diegene in die *ondergeskikte diensrol* het hul onmiddellike toesighouers se onderskeie vlakke van diensbare leierskap beoordeel, asook hulle eie rol se spanningsdrukvlakke en die hanteringsmeganismes wat hulle tipies toepas. In hierdie verband is daar gepoog om drie navorsingsvrae met betrekking tot die inhoud, konfigurasie en interverwantskappe tussen die konstrukte te beantwoord.

Die inhoud en struktuur van die konstrukte, soos gemeet deur die vraelys, is deur middel van bevestigende en ondersoekende faktorontleding gedoen. Die bevindinge van hierdie ontledings stem ooreen met dié van Barbuto en Wheeler (2006) wat die meetinstrument ontwikkel het. In die geval van beide die Hartline en Ferrel (1996) *instrument vir rol spanningsdruk* asook die Lazarus en Folkman (1984) *vraelys vir hanteringsmeganismes* is daar bevind dat die inhoud en konfigurasie van hierdie konstrukte verskil van die oorspronklike outeurs se bevindinge.

Die verhoudings tussen die veranderlikes is bepaal deur middel van die Pearson produk-moment korrelasie en standaard meervoudige regressie metodes. Vanweë die onbevredigende passing van die metingstrukture tydens die aanvanklike bevestigende faktorontleding, is daar besluit om nie die voorgestelde struktuurvergelykingsmodel toe te pas nie. Die onderskeie ontledings het slegs matige verhoudings tussen sekere veranderlikes aangedui. Die bevindinge het wel 'n mate van ondersteuning getoon vir die voorstel dat diensbare leierskap rol spanningsdruk vlakke van ODR werknemers kan verlaag terwyl dit ook die toepassing van sekere hanteringsmeganismes ter bevordering van kliëntediens kan verhoog. Die ontledings kon egter nie die verwagte onderlinge mediëringseffek van rol spanningsdruk en hanteringsmeganismes bevestig nie.

Die bydrae van hierdie studie tot die bestaande teorieë lê gesetel in die kritiese ontleding van die oordraagbaarheid van die konstruksie en hul metingsinstrumente na die Suid-Afrikaanse konteks, asook in die bevindinge rakende die verhoudings tussen diensbare leierskap, rol spanningsdruk en die hanteringsmeganismes van ODR werknemers. Sekere aanbevelings is gemaak met betrekking tot kruisvalidasie van die resultate asook moontlike rigtings vir toekomstige navorsing word voorgestel.

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“You know that the rulers of the Gentiles lord it over them, and their high officials exercise authority over them. Not so with you. Instead, whoever wants to become great among you must be your servant, and whoever wants to be first must be your slave – just as the Son of Man did not come to be served, but to serve, and to give his life as a ransom for many” (Mat 20: 25-28)

“Our attitude should be the same as that of Christ Jesus, Who being in very nature God, did not consider equality with God something to be grasped, but made himself nothing, taking the very nature of a servant...” Phil 2: 5-7

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ACRONYMS AND ABBREVIATIONS

CFA	Confirmatory Factor Analysis
DV	Dependent Variable
EFA	Exploratory Factor Analysis
IV	Independent Variable
MLQ	Multifactor Leadership Questionnaire
OCB	Organisational Citizenship Behaviour
PCA	Principal Component Analysis
RA	Role Ambiguity
RC	Role Conflict
RS	Role Stress
SEM	Structural Equation Modelling
SLQ	Servant Leadership Questionnaire
SSR	Subordinate Service Role
SSRS	Subordinate Service Role Stress
WCQ	Ways of Coping Questionnaire

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CHAPTER 1: THE PROBLEM AND ITS SETTING

1.1 Introduction and problem statement

The past fifty years has shown a radical move towards a form of leadership that is virtuous (Patterson, 2003), highly ethical (Wong & Page, 2003; Whetstone, 2002), and based on the premise that service to followers is at the heart of 21st century leadership (Sendjaya & Sarros, 2002; Spears, 1995, 1998, 2002). This has prompted a plethora of research on an approach which has become known as servant leadership. This approach places the good of those led above the needs of the leader (Laub, 2004).

Alongside this move towards a servant approach to leadership has been an increased competitiveness in the service industry in which the benchmark for service of customers is constantly increasing. The fact that the customer is seen as 'king' and that their needs are placed at the forefront of their interactions with service organisations is both appropriate and necessary in view of the function of service (Dorrian, 1996). It is generally accepted that human interaction is the vessel for most service delivery. The role of employees that directly interface with customers is therefore critical in terms of this service delivery because customers enter the service encounter with predetermined expectations of how the service provider should behave (Boshoff & Mels, 1995). However, the employees that work directly with customers, and must subordinate their needs for those of the customer, find themselves prey to a variety of seemingly unavoidable stressors. These stressors are common for individuals who occupy this specific position, known as the subordinate service role (Shamir, 1980).

The way in which such individuals respond to these stressors is known as coping (Cox, 1978) and has a pivotal effect on the perceived quality of service experienced by customers. Leadership, however, has a prevailing influence on both the stress experienced and the resulting coping strategies chosen by these employees (Shamir, 1980). This influence may be either catalytic or cathartic both in terms of the stress experienced and the resulting coping strategies that are adopted. Thus, the type of leadership approach employed in dealing with subordinate service role incumbents is paramount to the way in which they deal with customers.

The assumption for this study is that the characteristics of servant leadership are highly appropriate for the environment containing subordinate service role incumbents. This approach to leadership may purge some of the stressors believed to be inherent to these positions, whilst also promoting the use of coping strategies that enhance customer service. The proposed study therefore aims to investigate the possible impact of servant leadership on the stress and coping strategies of those employees that occupy the special boundary spanning role known as the subordinate service role.

1.2 The notion of leadership

The focus of the present study is on the effect of servant leadership on the stress and coping of subordinate service role workers. Therefore the conceptualisation of leadership, and specifically servant leadership, is the most appropriate point of departure.

Laub (2004) proffers that servant leadership suffers from the same limitation as leadership studies in general. This limitation is that authors have not taken the time or precision of effort to lucidly define the concepts they are working with. Antonakis, Cianciolo and Sternberg (2004) comment that although leadership is one of the most examined phenomena in the social sciences and is relatively easy to identify in specific situations, it is difficult to define it precisely. They argue that given the complex nature of leadership, a specific and widely accepted definition of leadership is non-existent and may perhaps never be found. Gill (2006) contests that the concept of leadership means different things to different people. However, Laub (2004, p.3), questions the effectiveness of researching, exploring and ultimately presenting concepts that remain vague and anecdotal and states that: “the only way out of this uncertainty is to do the challenging work of saying exactly what we mean by the terms that we use. We must define them.”

An issue that has been largely ignored specifically in the servant leadership literature is that of defining what is meant by the term ‘leadership’. Laub (2004) proffers that if servant leadership is an understanding and practice of leadership, then what is leadership? If servant leadership is a mindset or a way of viewing leadership, then how will the term leadership be defined that servant leadership is drawn from? Laub (2004) therefore explains that the terms leadership and servant leadership are not the same thing and definitions for both terms must be found before attempting further scholarly work on the subject.

1.2.1 The need to define leadership

Laub (2004) posits that the consequence of ill-defined conceptions of leadership and servant leadership is that non-definitions end up presenting themselves as definitions. Laub (2004, p.3) cites various examples from other authors who have made tenuous claims such as “leadership is relationship”, “leadership is loving others” or “leadership is influence – nothing more, nothing less”. These statements certainly say something important about leadership, but they are not definitions. Influence, for example, is undoubtedly involved in leadership, but leadership is more complex than influence alone. This kind of rudimentary thinking and writing is unsuitable for the kind of scholarly work that is now required for leadership and specifically servant leadership. Laub (2004, p.4) concludes that: “when we play loose with our words it is very easy for peripheral issues to become central and central issues to become peripheral, then leadership, or servant leadership, for that matter, becomes whatever one wants it to be. Eventually an incredibly valuable term means anything and everything, and then, it means nothing”.

Fundamental to this definitional problem inherent in the leadership literature is a confusion of terms. Laub (2004) shows that this confusion includes: talking about the words leader and leadership as if they are the same thing; the concept of positional leadership; the difference between the position of leadership and the function of leadership; the difference between management and leadership; and talking about servant leadership as if it *is* leadership. Some authors claim that these terms are indefinable, intrinsically vague and open to broad interpretation because they are attempts at defining human interaction (Antonakis et al., 2004). However, Laub (2004) urges that if scholarly work in servant leadership is to continue effectively, scholars must be able to define the terms they use clearly and effectively.

1.2.2 The leader defined

A common misconception in the understanding of leadership is the difference between the term “leader” and the “position” of leader. Laub (2004) highlights the importance of differentiating between these two terms since positional leaders do not necessarily lead. Therefore, the person that simply holds a position, that some people would call “the leader”, must be distinguished from the person that actually is the leader (Dannhauser,

2007). Lussier and Achua (2004) suggest that a leader always has the ability to influence people while a person with a formal title and authority, may not. They agree that the leader is not necessarily a person who holds some formal position such as a manager. In fact, they highlight the common occurrence of managers who are not effective leaders and non-managers who have great influence on managers and peers. In their view then, the leader is the person, irrespective of their title or position, who is able to influence others.

In response to this problem of positional leaders who do not in fact lead, Laub (2004) attempts to define the concept of a “leader” by focusing not on a positional role, but on what the leader does. The basis for the definition is that the person who “takes the lead” is the one who acts within a situation. This person, through their actions enters into the realm of leading. Therefore according to Laub (2004, p.5): “a leader is a person who sees a vision, takes action towards the vision, and mobilizes others to become partners in pursuing change.” This definition includes the essential elements of *vision, action, mobilisation and change* which are four key ingredients which must be present for a person to be called a leader, or to say that a person is leading.

1.2.3 Defining leadership

According to Laub (2004) the concept of leadership is different to that of “a leader” or the act of leading. This differentiation is somewhat challenging since these terms are often used interchangeably. This is seen in even the most recent text books on leadership which have neglected to differentiate between these terms and only offer a definition for the term leadership (e.g. DuBrin, 2007; Lussier & Achua, 2004). However, key to the definition of leadership is that it is the process that occurs once followers have responded to the action of the leader. Therefore, mobilisation is assumed because followers have already responded to the initiation of the leader. Leadership is thus referring to the *process* through which leaders and followers *engage* to produce change. Laub (2004, pp. 5-6) thus defines leadership as: “an intentional change process through which leaders and followers, joined by a shared purpose, initiate action to pursue a common vision”.

The above definition portrays leadership as a *process* in which *both leaders and followers* play an integral role. Antonakis et al. (2004) feel that this is largely agreed upon amongst scholars albeit the semantic differences posed in the plethora of definitions. Therefore they posit that: “Most leadership scholars probably would agree, *in principle*, that leadership

can be defined as the nature of the influencing process – and its resultant outcomes – that occurs between a leader and followers and how this influencing process is explained by the leader's dispositional characteristics and behaviours, follower perceptions and attributions on the leader, and the context in which the influencing process occurs.” (Antonakis et al., 2004, p.5).

1.2.4 Defining the follower(s)

The definition of follower is uncommonly found in the leadership literature, perhaps because leaders are more visible than followers (Lussier & Achua, 2004). However, it is evident that the term “follower” is essential to the definitions of leadership posed above. These definitions highlight that both the leader and the follower play a central role in the leadership process. Therefore, there can be no leaders without followers (Lussier & Achua, 2004). Laub (2004) explains that both leaders and followers are doing something different while overlapping their roles within the leadership process. Thus, a definition of the term follower is: “Followers voluntarily and actively engage in the leadership process by responding to the leader's initiative to identify shared purpose, vision and action towards change.” (Laub, 2004, p.7). This active engagement in the leadership process is what makes the interplay between leaders and followers more like a partnership. The role that followers play in the leadership process is thus vital to the ultimate success of leadership and therefore organisations (Lussier & Achua, 2004).

1.2.5 Defining management versus leadership

A common setback underlying the definitions pertaining to leadership is the ongoing confusion between 'management' and 'leadership' (Gill, 2006). Some of the confusion stems from classic management theory, which implies that leadership is a function of management (DuBrin, 2007). Dannhauser (2007, p.16) highlights this as a common mistake and argues that: “Leadership is not a part of management. It is a separate process altogether with different functions and outcomes”. Unfortunately, distinctions between management and leadership too often result in degrading management whilst promoting leadership (Dannhauser, 2007), whereas both are equally important for effective organisational functioning (DuBrin, 2002; 2007; Lussier & Achua, 2004).

Laub (2004) differentiates leadership from management by drawing attention to the

different outcomes envisioned from these two processes. Laub (2004) quotes the management definition of Daft (2005, p. 16) in stating that: "Management is the attainment of organisational goals in an effective and efficient manner through planning, organising, staffing, directing, and controlling organisational resources." Antonakis et al. (2004, p.5) posit that: "leadership – is purpose driven, resulting in change based on values, ideals, vision, symbols, and emotional exchanges. Management is objectives driven, resulting in stability based on rationality, bureaucratic means, and the fulfilment of contractual obligations." Dannhauser (2007) recapitulates that leadership is about action towards change while management is about making things run well and stabilising them to work more effectively. Neither one of these processes are more valuable than the other because both are essential processes in any organisation.

1.3 Towards a definition of servant leadership

The purpose of the discussion up to this point has been to create a clear understanding of leadership, which is a necessary precursor to properly understand servant leadership (Laub, 2004). Servant leadership is the specific approach to leadership that was followed in this study.

Laub (2004) questions whether the definitions accompanying servant leadership have been clear and concise enough to make for a firm foundation from which the increasing number of studies on servant leadership can germinate. In addressing this issue he posits that: "Servant Leadership is an understanding and practice of leadership that places the good of those led over the self interest of the leader" (Laub, 2004, p. 9). Thus, the primary focus of servant leaders is their followers (Sendjaya & Sarros, 2002), with their own needs and even the organisational concerns falling on the periphery (Patterson & Stone, 2004; Stone & Patterson, 2005). Servant leadership holds the belief that only if the general well-being and development of individuals is initially facilitated then the goals of the organisation will be achieved on a long term basis (Stone & Patterson, 2005).

As a result of this focus on followers many authors view servant leadership as an entirely new paradigm in our understanding of leadership theory (Greenleaf, 1977; Laub, 2004; Nwogu, 2004; Patterson, 2003; Sendjaya & Sarros, 2002; Stone & Patterson, 2005; Stone, Russell & Patterson, 2003; Whetstone, 2002). However, as a relatively new concept in the academic arena, more quantitative research is still needed in validating the construct

(Barbuto & Wheeler, 2006; Laub, 2004).

1.4 The notion of stress in subordinate service roles

One component of this study is to assess the impact of servant leadership on the role stress experienced by subordinate service role incumbents. A necessary precursor to this assessment, therefore, is the contextualisation and definition of role stress, subordinate service roles and their related constructs, to create a platform for the discussion of these terms. With role stress being one type of stress experienced by subordinate service role incumbents, albeit the most salient (Shamir, 1980), the definition of stress is an appropriate starting point.

1.4.1 Stress

The model of stress which has become most widely regarded today, and which was used in this study, is the transactional model (Parkes, 1996; Ross & Altmaier, 1994). The transactional model defines stress as: “any event in which environmental or internal demands (or both), tax or exceed the adaptive resources of an individual” (Lazarus & Launier, 1978, p. 296). The conceptual root of this approach is the relational meaning that individuals construct from the relationship between the person and their environment (Cox, 1978; Lazarus & Folkman, 1984; Lazarus & Launier, 1978, Lazarus, 1999; Lazarus 2000; Mcgrath, 1976). That relationship is the result of appraisals of the interplay of the social and physical environment and personal goals, beliefs about self and the world, and resources (Lazarus, 2000). From this understanding of stress the judgement (cognitive appraisal) and management (coping) of stress are seen as two central and interrelated processes (Bluen, 1986; Lazarus & Launier, 1978).

1.4.2 Stress at work

Four major job demands and stressors are highlighted in the literature: (1) *physical stressors*, composed of elements in one’s physical setting; (2) *task demands*, which are demands exerted from the task itself e.g. working hours, work overload, routine jobs or occupational category; (3) *role demands or stress*, resulting from an employee's particular role; and (4) *interpersonal demands*, resulting from interaction with colleagues, managers and customers (Cartwright & Cooper, 1997; Quick, Quick & Nelson, 1998; Quick, Quick,

Nelson & Hurrell, 1997). The salience of any one of these stressors varies depending on the nature of a particular job (Cartwright & Cooper, 1997). Role stress, interpersonal stress, and task demands are particularly acute for *subordinate service role* incumbents. The focus of the present study is on the role stress experienced by these employees.

1.4.3 Role stress (RS)

Role stress (RS) can be defined as all aspects of work related conflict and ambiguity associated with a particular role (Boles & Babin, 1994). Role ambiguity (RA) results from an employee's lack of clarity surrounding his/her role (Rizzo, House & Lirtzman, 1970; Siegall, 2000). Role conflict (RC) is the degree to which individuals see themselves to be confronted with incompatibilities in job requirements (Boles & Babin, 1994; Rizzo et al, 1970; Shamir, 1980; Siegall, 2000). Both RC and RA are separate factors inherent in RS (Boles & Babin, 1994; Rizzo et al., 1970).

There is an increasing amount of literature surrounding the construct of RS (Boles & Babin, 1994; Cartwright & Cooper, 1997; Siegall, 2000), which originates in the classical organisational theory principle of chain of command. This principle states that for any action undertaken by an employee, they should receive orders from only one superior to avoid being caught in the 'crossfire' of incompatible orders or expectations from superiors (Rizzo et al., 1970). Role theory expands on this and states that when there is inconsistency in the expected behaviours of an individual, he/she will experience (role) stress, become dissatisfied, and perform less effectively than if there was congruence in the expectations imposed on them (Rizzo et al., 1970). Despite the interest in this area Fried, Ben-David, Tiegs, Avital, and Yeverechyahu (1998) have called for more research on this construct. RS is particularly acute for employees occupying boundary roles.

1.4.4 The boundary role

Employees of an organisation that work at the point of contact between the organisation and the customers can be said to have a boundary role (Shamir, 1980). They are also called customer contact workers (Weatherly & Tansik, 1992). A boundary role is one which brings an organisation together with its environment, through interaction between a

member of the organisation and a non-member, i.e. a customer (Weatherly & Tansik, 1992; Shamir, 1980). These interactions are either low contact encounters (e.g. when a customer uses a bank teller) where technology acts as a mediator, or high contact encounters, where customer contact (boundary role) employees interface directly with the customers (Weatherly & Tansik, 1992). A high degree of RS is experienced by people who occupy boundary roles (or customer contact roles) as there are often conflicting demands placed on them from customers and managers simultaneously (Weatherly & Tansik, 1992; Shamir, 1980).

1.4.4 Subordinate service roles (SSR's)

Certain service employees that occupy a boundary role fall under a special category, called the subordinate service role (SSR) in which they are seen as being subordinate to the customers which they serve (Shamir, 1980). The literature highlights three characteristics apparent in service organisations with SSR employees: (1) the employees are commonly not considered to be professionals, (2) client participation is voluntary and thus they have to be motivated to use the service (Papadopoulou-Bayliss, Ineson & Wilkie, 2001; Shamir, 1980), and (3) the organisations have no intention of changing their relationship with their customers (Papadopoulou-Bayliss et al., 2001). Consequently, the status of the service providers is considered subordinate to that of the customer (Papadopoulou-Bayliss et al., 2001).

Employees that occupy SSR's engage in high contact service encounters as they deal directly with customers (Weatherly & Tansik, 1992). At the same time, however, they are interfacing directly with their managers or supervisors. Shamir (1980) posits the factors inherent in the SSR position (Some of which are inherent stressors, see Chapter 2), which makes RS amongst SSR incumbents inevitable. A major feature of this position is what Shamir (1980) terms "the two-bosses dilemma" in which the employees are literally 'caught' between the customer and their manager or supervisor. The leadership approach employed by their manager or supervisor is therefore a major causal facet of the precipitation of the RS which they experience and forms the focus of this study.

Examples of SSR employees include cashiers (Rafaeli, 1989), retail attendants (Belelie, 1999), hairdressers, secretaries, bus drivers (Carere, Evans, Palsane & Rivas, 1991; Shamir, 1980), cabin attendants (Tilley, 1989), waitrons (Butler & Snizek, 1976; Baker, 2003; Papadopoulou-Bayliss et al., 2001; Whyte, 1948), and call centre operators (Anton, 2000; Chung & Schneider, 2002). The focus of the present study is on the RS which is experienced by specifically SSR incumbents. Shamir (1980) refers to this as subordinate service role stress (SSRS). A review of the literature reveals a paucity of studies pertaining specifically to SSRS.

1.5 The history and notion of coping and its definitions

In the transactional model of stress (Lazarus & Launier, 1978), coping plays an integral role in the stress process (Bluen, 1986; Lazarus & Launier, 1978). The third component of the present study therefore is to assess the impact of servant leadership on the type of coping strategies employed by SSR incumbents. Unlike the concepts of leadership and stress, coping is somewhat easier to define within this study because it is a central and interrelated process within the transactional model of stress (Bluen, 1986; Lazarus & Launier, 1978). Though there have been various conceptualisations of coping (see discussion in Chapter 2), its definition within this context is contingent on the transactional model's conceptualisation of coping.

As a general term, coping can be understood as the methods used to respond to stress (Cox, 1978). In the transactional model of stress, coping is seen as the process of choosing a certain coping strategy to cope with a stressful situation, which has been appraised as stressful (Lazarus & Folkman, 1984; Lazarus & Launier, 1978). Included in this perception is the ongoing evaluation of these coping strategies (Bluen, 1986). Therefore, coping strategies may change over time as the outcomes of the chosen coping strategies are evaluated (Cooper, Drewe & O'Driscoll, 2001). Thus, according to the transactional model, coping may be defined as: "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p.141).

This approach acknowledges numerous variables that are involved in how people cope including: different kinds of stress; individual differences; interpersonal and cultural contexts; the diverse criteria necessary for evaluating coping outcomes such as subjective well-being, somatic health, and criteria based on social values (Lazarus, 2000). Therefore, the transactional approach to coping is highly appropriate to use in assessing the coping strategies used by SSR incumbents because of the specific elements attributed to their position within the organisation and the particular type of stress that they experience, namely RS.

1.6 The reason for, and contribution of, investigating the relationship between servant leadership, RS and coping in SSR's

The inevitable precipitation of RS in SSR's and the interrelated nature of stress and coping, according to the transactional model of stress (Bluen, 1986; Lazarus & Launier, 1978), links RS and coping as necessary avenues when exploring the behaviour of SSR incumbents. Leadership is also a major causal facet of RS in SSR's (Shamir, 1980). Therefore, investigating the impact of specifically servant leadership on the stress and coping of SSR incumbents will substantiate its appropriateness for these individuals. It seems unusual that there is an absence of literature linking servant leadership to service oriented organisations as this is a premier setting for this desperately needed paradigmatic approach. More specifically, the construct holds promise for those customer contact workers that do assume SSR's in terms of helping to alleviate some of the antecedents of their RS (See Chapter 2). Furthermore, the characteristics of servant leaders, such as emotional healing, listening, empathy and community building (see Chapter 2), may increase individuals' coping repertoires during secondary appraisal, thus enabling more 'customer friendly' coping mechanisms. The three variables in this study have thus been chosen because of the appropriateness and need of exploring their interrelationships.

As mentioned previously, many authors have put out an urgent call for further research in the field of servant leadership (Barbuto & Wheeler, 2006; Laub, 2004). The apparent paucity of literature surrounding SSRS highlights a similar need in this area. With the majority of research to date having been qualitative in nature, this study may add to the empirical literature on SSRS. Furthermore, it may also add to the burgeoning quantitative research being carried out on servant leadership, which is especially needed (Dennis &

Winston, 2003).

The current research is expected to add to the literature on servant leadership in terms of the following:

- No other previous research study has investigated these specific variables simultaneously.
- Quantitative methodological studies on servant leadership have been lacking. The current research will study servant leadership from a quantitative perspective.
- Previous research has focused mainly on what servant leaders do and what characteristics comprise servant leadership. This research will assess the impact of servant leadership in a particular work setting.

The expected relationships between the three variables used in this study are represented in the proposed model (Figure 1.1):

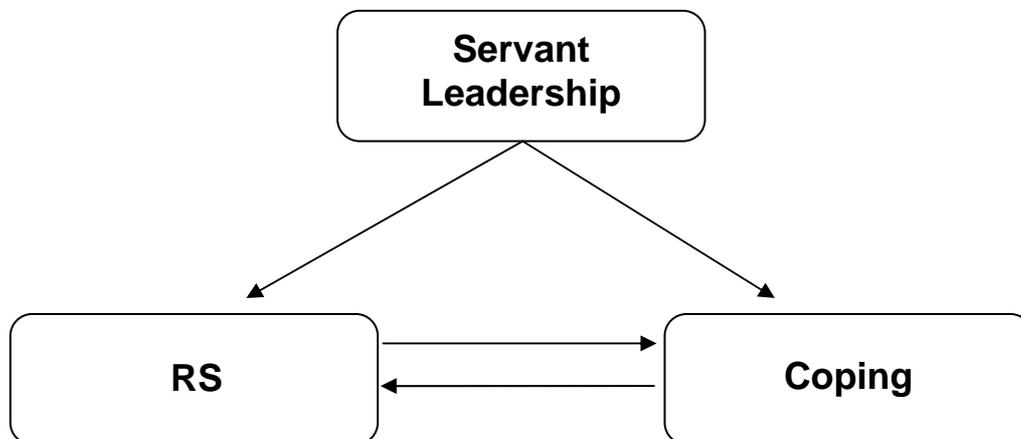


Figure 1.1: Proposed model representing the expected relationships between servant leadership, RS and coping in SSR's.

The present study is an attempt to validate this model by investigating the relationships between the constructs that form the focus of this study. The aim of this study can thus be described as follows:

1.6.1 Aim of the study

The aim of the present research study is to investigate the relationship between servant leadership, RS and coping in order to assess the influence of servant leadership on the RS and coping of SSR incumbents. This aim subsequently led to the formulation of the research questions and propositions used in this study, stated at the end of Chapter 2.

1.7 Structure of chapters

Chapter 1

In this chapter, a background to the variables of servant leadership, SSRS and coping was provided. The aim in this chapter was to conceptualise and define the constructs along with the terminology and concepts applying to each construct. This was necessary to create a clear conceptual base from which discussions of the three constructs can now proceed. Because of the highly specific nature of the constructs, especially servant leadership and SSRS, they were also briefly contextualised within their historical and conceptual frameworks. The reason for and contribution of the study, as well as the main research aim was also presented. Clarification and contextualisation were therefore addressed in Chapter 1, and a conceptual model presenting the relationships between the constructs was proposed.

Chapter 2

This study is primarily based on extensive secondary research, carried out through an interdisciplinary literature study. A large amount of literature and research exists surrounding the constructs that comprise the present study, and therefore, this body of literature is investigated in Chapter 2. In Chapter 2 the three constructs forming the focus of this study, that were introduced in Chapter 1 are elaborated on and discussed in depth. The focus is on the previous research carried out on these variables and includes various conceptualisations, models, antecedents and relationships reported in previous research. The objectives of the present study takes the form of three research questions, with seven resulting research propositions, presented at the end of Chapter 2.

Chapter 3

The methodology used in exploring the research propositions and answering the research questions is presented in Chapter 3. The chapter describes the organisation that was used for the purposes of the study as well as the participants comprising the sample (n = 290). The primary methodology was to directly administer multiple choice questionnaires. The construction of the questionnaires, the psychometric characteristics of the measuring instruments, the data gathering procedure, and various issues pertaining to survey research which had to be addressed are also discussed. Finally, the approaches used in the data analysis procedures (Chapter 4) are also outlined and justified in this chapter.

Chapter 4

The results of the data analyses and procedures are presented in Chapter 4. The various analyses were carried out in an attempt to prove or disprove the propositions stated in Chapter 2. Several of the research questions rendered results that were unclear and statistical support for many of the propositions was, at most, mediocre. However, the statistics were indicative of clear tendencies which provided some support for the propositions and research questions. These and other findings are detailed in Chapter 4.

Chapter 5

In this chapter the discussion and conclusions of the main findings are presented, specifically pertaining to the three research questions and seven propositions outlined in Chapter 2. The contributions and implications that the findings of the current study make toward the body of knowledge are also presented. Chapter 5 also discusses some limitations and shortcomings of the present study, both in terms of survey research in general, as well as potential problems specifically pertinent to this study. Finally, recommendations for future research, both theoretical and methodological, are made in Chapter 5 with retrospect to the present study.

CHAPTER 2: LITERATURE REVIEW

“Leadership’ is a word on everyone’s lips. The young attack it and the old grow wistful for it. Parents have lost it and the police seek it. Experts claim it and artists spurn it, while scholars want it. Philosophers reconcile it (as authority) with liberty and theologians demonstrate its compatibility with conscience. If bureaucrats pretend they have it, politicians wish they did. Everybody agrees that there is less of it than there used to be. The matter now stands as a certain Mr. Wildman thought it stood in 1648: ‘Leadership hath been broken into pieces’... If there was ever a moment in history when a comprehensive strategic view of leadership was needed... this is certainly it.” (Bennis & Nanus, 1985, pp. 1-2)

2.1 Introduction

Leadership is widely recognised as being crucial in any organisational setting as it is the guiding force which facilitates the attainment of organisational objectives (Lussier & Achua, 2004). For this reason leadership has been a focal point of the study of organisational psychology for many years. Yet the conceptualisation of leadership remains both an intricate and elusive problem (Daft, 2002; Lussier & Achua, 2006; Sadler, 2003). This is largely because the nature of leadership is itself complex (Daft, 2002). In fact, leadership is considered among the most multifaceted and intricate phenomena to which organisational and psychological research has been applied (Van Setters & Field, 1990). Since the 20th century a plethora of different leadership approaches have been developed, each with a different emphasis in terms of what constitutes good leadership (Gill, 2006). This collection of approaches appears heterogeneous and often contradictory and is frequently accompanied by an assortment of prescriptive advice on how to lead, assured to provide rationale for almost any approach to leadership (Dannhauser, 2007).

Despite the uncertainty much progress has been made in understanding the essential nature of leadership (Daft, 2002). This is most evident in the progression of diverse conceptions of leadership, through different paradigms, which have facilitated the growing knowledge. Only once there is an understanding of the nature of leadership and the paradigms which have contributed to this, can one understand the unique contribution of

the servant leadership paradigm to the effectiveness and ultimate success of the leadership process (Laub, 2004). For this reason the following section serves to contextualise servant leadership within the leadership literature by providing a synopsis of the varied approaches to leadership and the models which have accompanied these approaches.

2.2 Overview of major leadership theories: past, present, and emerging research on leadership studies

The following section will outline the development of leadership theory using the framework of Van Setters and Field (1990) and Dannhauser (2007). This amounts to an approximately chronological and historical overview of the progression of leadership theory. Each new era or period, which is usually concomitant with a particular paradigm, is considered to represent a higher stage of development in leadership thought process than the preceding ones (Van Setters & Field, 1990). Higgs (2003) maintains that it is important to be aware when presenting leadership in this way that the development of leadership theory is not entirely linear, with early frameworks remaining potential lenses for viewing leadership today. Some of the lines of thought on leadership have also occurred simultaneously (Van Setters and Field, 1990).

2.2.1 Past leadership theories based on: *Who the leader is*

The first formal leadership theories, which represent the beginning of the understanding of the leadership process, comprise what have been referred to as the personality era (Van Setters & Fields, 1990). This era was divided into two main types of theories namely the 'Great man' theories and the trait theories. The conceptualisation of leadership during this time was based on the trait theory paradigm (Lussier & Achua, 2006).

2.2.1.1 *Great man theory*

Early work on leadership focused on the leaders themselves. This work was rooted in the historical and persistent tendency to notice remarkable individuals (Harter, 2008). The widely held assumption, that whatever their particular merits, certain individuals have a disproportionate impact on events, led to questions about what it was about these

individuals that had such a disproportionate impact. It was thought that studying their lives and emulating their behaviour was the route to becoming an effective leader (Sadler, 2003). Therefore initial attempts at understanding leadership focused on activities of great men, with scholars attempting to unearth what makes leaders distinct (Harter, 2008).

This approach to the study of leadership was hindered by two main problems. Firstly, it became apparent that many effective leaders had widely differing personal qualities (Sadler, 2003; Van Setters & Fields, 1990). Secondly, personal characteristics are extremely difficult to imitate and therefore have limited value for practicing managers (Van Setters & Fields, 1990).

2.2.1.2 Trait Theories

Eventually scholars abandoned their attempts at linking leadership qualities with specific individuals in favour of listing a number of universal characteristics believed to be related to effective leadership (Sadler, 2003). This approach is known as the trait approach because it is based on the observation that leadership effectiveness depends on certain personal attributes, or traits (DuBrin, 1995; Yukl, 1994). An underlying assumption of the trait approach is that some people are natural leaders having been endowed with certain unique traits that are not possessed by other people (Yukl, 1994). Leadership skills were initially thought to be a matter of birth which led to the philosophy that leaders were born and not made. It was literally thought that those of the right breed could lead, all others must be led (Bennis & Nanus, 1985). However, many leadership writers now believe that leadership is not a gift of birth or parentage but rather a set of skills that can be taught and acquired (Conger, 1992; Lussier & Achua, 2004; Sadler, 2003).

Despite the trait approaches favourability amongst popular treatment of the subject of leadership (Sadler, 2003; Sorenson & Goethals, 2004), a major problem facing trait theorists has been the lack of consistency in the traits exhibited by various leaders. Leaders who do not possess the expected traits required for leadership, are often still effective, while others who possess many of them are not (Gill, 2006). Some authors do promote a measure of universality in certain traits which consistently differentiate leaders from others (Lussier & Achua, 2004), however, the search for the elusive 'leadership gene' continues (Gill, 2006). Empirical studies have unfortunately failed to provide a convincing

link between any single trait or group of traits and effective leadership (Sadler, 2003; Sorenson & Goethals, 2004).

2.2.2 Past leadership theories based on: What the leader does

2.2.2.1 Behavioural theories

The lack of a consistent set of leadership traits, focusing on 'who leaders are', stimulated a new way of thinking which focused on 'what effective leaders do' (Gill, 2006). By the 1950's, most of the leadership research had changed its focus to this behavioural leadership theory paradigm (Lussier & Achua, 2004). The operating hypothesis of this new approach to leadership was that the behaviours of effective leaders differed from those of ineffective leaders (Sorenson & Goethals, 2004) and researchers attempted to identify these differences. These behavioural theories therefore attempt to explain distinctive styles, or behaviour patterns, used by effective leaders or to define the way in which they carry out their work functions (Lussier & Achua, 2004). This approach assumes that leaders are relatively consistent in how they influence members in different situations (DuBrin, 2002).

Early behavioural approaches were in essence an extension of the trait approach, however, instead of focusing on personality traits, research focused on behavioural traits (Van Setters & Fields, 1990). A precursor to the behavioural approach were the results of studies done at the University of Iowa in the 1930's which identified two basic leadership styles: autocratic and democratic. Autocratic and democratic leadership styles were placed at opposite ends of a continuum. A leader's style was thought to fall somewhere along this continuum (Lussier & Achua, 2004). In the mid 1940's and 1950's the University of Michigan and the Ohio State University each conducted research to determine leadership effectiveness. The results of the Michigan studies produced a one dimensional model but with the two poles being labelled *job-centred* and *employee-centred*. The dominant finding of the Michigan studies was that employee-centred leaders were the most effective and had the most productive work groups (DuBrin, 2002). The Ohio State University research however, resulted in a two dimensional model. The two dimensions were called *initiating structure* (essentially the same as job-centred) and *consideration* (essentially the same as employee-centred) and a leader could be high or low on either or both of these dimensions

resulting in four different styles (Lussier & Achua, 2004).

Building on the Michigan and Ohio State University studies Blake and Mouton (1964) developed the Leadership Grid which is among the most well known and influential work in the field of leadership training and development (Sadler, 2003). The grid is derived from the same two dimensions as the Ohio State University model but which they called *concern for people* and *concern for production*. The grid is constructed by measuring each type of concern on a nine-point scale and by placing the scales at right-angles to each other. In theory this allows for 81 different styles combining varying degrees of *concern for people* with varying amounts of *concern for production* (Sadler, 2003). However, Blake and Mouton (1964) focused their attention on five main styles: (a) the *impoverished leader* has low concern for both production and people; (b) *the authority-compliance leader* has high concern for production and low concern for people; (c) *the country-club leader* has high concern for people and low concern for production; (d) *the middle-of-the-road leader* has balance, medium concern for both production and people; and (e) *the team leader* has high concern for both production and people. They also promoted the team leadership style as being most appropriate for use in all situations (Lussier & Achua, 2004).

Also prominent during this time was the work of McGregor (1960) who differentiated between two types of organisational leadership based on Theory X and Theory Y. Theory X holds that people need direction and motivation as they are assumed to be passive and resistant to organisational needs (Sadler, 2003). Leaders who hold these assumptions believe that people dislike work, are un-ambitious and seek to avoid responsibility. Therefore they are pessimistic about workers' capabilities and will supervise them closely (DuBrin, 2002). Theory Y holds that people are intrinsically motivated to achieve and all that they need is a supportive environment and opportunities to do so (Sadler, 2003). Leaders who hold Theory Y assumptions believe that people do accept responsibility, exercise self-control, have the capacity to innovate and consider work to be as natural as work or play (DuBrin, 2002).

The behavioural theories improved the understanding of leadership by recognising that organisations need both production and people focused leadership as well as introducing the possibility that these functions could be carried out by different individuals as co-leadership (Lussier & Achua, 2004). This research stream yielded questions about why

people who are leaders in certain situations are not necessarily leaders in others, which the next iteration of research helped to clarify (Sorenson & Goethals, 2004). Also, though the proponents of behavioural theories suggest one best style for all situations, critics suggest that different styles are more effective in different situations. Therefore, another contribution of behavioural research is that it led to the shift in paradigm to a situational and contingency leadership theory paradigm (Lussier & Achua, 2004).

2.2.3 Past leadership theories based on: Where the leadership takes place

2.2.3.1 Situational and Contingency theories

The early situationalists believed that leadership noticeably varies from situation to situation. They posited that the context and environment in which leadership emerges was a fundamental and unrecognised factor in leadership outcomes (Sorenson & Goethals, 2004). In antithesis to trait theorists, situational theorists “suggested that leadership is all a matter of situational demands, that is, situational factors determine who will emerge as the leader” (Bass, 1990, p.38). With the focus of research shifting to contextual variables, such as followership characteristics, work environment and group task, these so called moderator variables were found to have an influence on leader effectiveness (Sorenson & Goethals, 2004). Therefore, the kinds of leader traits, skills, influence and behaviours that are likely to cause effective leadership, are determined by those situational aspects (Van Setters & Fields, 1990). Whereas trait and behavioural approaches had focused on the leader and subordinates as the quintessence of leadership theory, situational theorists made a significant step forward in leadership theory by acknowledging the importance of factors beyond the leader and their subordinates (Van Setters & Fields, 1990). Thus, the situationalists advanced the view that aspects such as time, place and circumstance result in the emergence of a great leader (Bass, 1990).

Building on the questions posed by the situational theorists, the 1960's ushered in a contingency approach to leadership which explained leadership effectiveness by focusing on the impact of the situation (Sorenson & Goethals, 2004). This represented a major advance in the evolution of leadership theory. “For the first time it was recognised that leadership was not found in any of the pure, unidimensional forms discussed previously, but rather contained elements of them all. In essence, effective leadership was contingent

or dependent on one or more of the factors of behaviour, personality, influence and situation” (Van Setters & Fields, 1990, pp.34 – 35). Contingency theories thus suggest that there is no universal style of leadership that is best for all situations. Rather, effective leaders use different styles depending on the relationship between the characteristics of the leader, the situation and the followers. Furthermore, enduring leaders are able to adopt a different style for a different situation irrespective of how effective a certain style has been in the past (Gill, 2006).

Contingency Theory

Fiedler’s (1966) contingency theory was the first theory to indicate how situational variables interact with the personality and behaviour of the leader. Unlike other contingency theories, Fiedler believed that leadership styles are basically constant and are a reflection of personality and behaviour. Therefore he posited that effective leaders do not change their style, but rather, they change the situation (Lussier & Achua, 2004). Similar to the Michigan University model, Fiedler had a uni-dimensional conceptualization of leadership with the two poles being called relationship-oriented and task-oriented respectively (Daft, 2002). Fiedler developed a complex model in which the leader’s style is assessed using a questionnaire which deems the leader either task oriented or relationship oriented. The model then presents the leadership situation in terms of three key elements, namely leader-member relations, task structure and position power, which are either favourable or unfavourable. This yields a list of eight possible leadership situations, made up of a combination of the three variables (Daft, 2002). According to this theory, leaders must be placed in positions for which their leadership style is best suited (Bass, 1990) or the situation must be changed, according to the three key elements, to match the leader (Lussier & Achua, 2004).

Despite its groundbreaking start to contingency theory, Fiedler’s work has been much criticised for conceptual reasons and also because of inconsistent empirical findings. One of the major criticism’s stems from Fiedler’s unique view that the situation, rather than the leadership style should be changed. Other situational and contingency theories suggest changing the leadership style (Lussier & Achua, 2004).

Situational Theory

The Situational Leadership Model developed by Hersey and Blanchard (1988) is an extension of the Leadership Grid developed by Blake and Mouton (1964). The model is based on the premise that there is no one best way to influence group members and that the most effective leadership style is contingent on the level of readiness of the followers (DuBrin, 2002). Therefore the focus of the model is on the characteristics of the followers, called readiness, which is regarded as the most important element of the situation (Daft, 2002). Readiness is defined as, “the extent to which a group member has the ability and willingness or confidence to accomplish a specific task” (DuBrin, 2002, p.218). According to this model, the effectiveness of the leader is dependent on achieving a match between the task-oriented or relationship-oriented behaviour of the leader and the readiness of the subordinate (Bass, 1990).

The model's four basic leadership styles are called 'telling' (directive), 'selling' (consultative), 'participating' and 'delegating'. These four styles are used depending on the subordinates' readiness for them. For example, employees that are able and willing or confident are 'ready' for a leadership style that shares responsibility for decisions and implementation, so the best style in this situation is 'delegating'. Conversely, employees that are unable and unwilling or insecure need a style that provides specific instructions and closely supervises performance, so the best leadership style to adopt is 'telling' (Daft, 2002).

The Path-Goal model

The path goal model is rooted in the expectancy theory of motivation which proposes that a persons' motivation depends on their assessment of whether their effort would lead to good performance, whether this good performance would lead to a reward and whether this reward has value to them (Gill, 2006). In the path-goal model, the leader is responsible for increasing subordinates motivation to attain organisational and personal goals either by: (a) path clarification, in which case the leader works with the follower to ensure the follower is equipped to attain the reward; or by (b) increasing rewards, in which case the leader consults with the subordinate to learn which rewards are important to them (Daft, 2002). The leadership style appropriate to the situation is chosen to maximise both

performance and job satisfaction according to the four identified styles, namely directive, supportive, participative, or achievement oriented. The situational contingencies taken into account are the subordinate's need for authoritarianism, their locus of control and their ability as well as the environmental contingencies of task structure, formal authority and work group relations (Lussier & Achua, 2004).

Critics of the path goal model attribute its historically inadequate testing to the complexity of the model. Practicing managers have also criticised it for being difficult to judge which style to use when. However, it has contributed to the study of leadership by identifying relevant situational factors and providing a useful way for leaders to think about motivating followers (Lussier & Achua, 2004).

Normative Leadership model

The normative leadership model developed by Vroom and Yetton (1973) is essentially a decision-making model which was developed to answer the question of when a manager should take charge or let the group take the decision. Four models have emerged which are based on two factors: individual or group decisions and time-driven or development-driven decisions (Lussier & Achua, 2004). The model presents a time driven and developmental decision tree that enables leaders to choose one of five leadership styles appropriate for the situation to maximise decisions. The five possible leadership styles identified are: decide, consult individually, consult the group, facilitate, and delegate. The situation is assessed according to seven variables which include: decision significance, importance of follower commitment, leader expertise, likelihood of commitment, group support for objectives, group expertise, and team competence. The normative model is so called because it establishes *norms*, through these seven variables, which must be followed to determine the best leadership style for a given situation (Lussier & Achua, 2004).

The normative model is favoured in the academic community because it is based on research (Lussier & Achua, 2004). However, though it has been criticized by practicing managers for being cumbersome, it does provide a valuable service in decision-making situations and has been shown to increase managers' decision making effectiveness (DuBrin, 2002).

2.2.3.2 Dyadic Theory

The revitalisation in the study of leadership occurred when it was suggested that leadership resided not only in the leader or the situation, but also in the relationships and interactions between the leader and the followers including role differentiation and social interaction (Van Setters & Fields, 1990). These approaches became known as dyadic theories, with dyadic referring to the relationship between a leader and each follower in a work unit. This perspective concentrates on the heterogeneity of dyadic relationships and argues that a leader will have various different relationships with different followers. Dyadic theory is: “an approach to leadership that attempts to explain why leaders vary their behaviour with different followers” (Lussier & Achua, 2004, p. 222).

Leader-Member Exchange Theory (LMX)

Whilst most other leadership theories focus on the behaviour or traits of leaders or followers, the distinguishing feature of LMX theory is the focus on the quality of relationships between the leader and individual followers (Lussier & Achua, 2004). The differing quality of relationships leads to one sub-set of employees (the in-group) being given additional rewards, access to the leader, responsibility and trust in exchange for their loyalty and performance. In contrast, another sub-set of employees (the out-group) is not given the same level of trust and consideration and is treated according to a formalised supervisor-subordinate relationship (DuBrin, 2002). Leaders tend to develop in-group relationships with individuals that have similar characteristics, values, backgrounds, and interests to those of the leader and who show interest and high levels of competence in the job (Drury, 2004). By assessing how the leader-member exchange process develops over time LMX highlights the impact that each dyadic relationship has on outcomes (Drury, 2004).

High quality LMX relationships (experienced by the in-group) have been found to lead to positive outcomes for both leaders and followers, as well as their work units and the organisation (Drury, 2004). Research shows that high quality LMX relationships lead to more effective delegation which in turn leads to higher productivity and satisfaction (DuBrin, 2002). However, major problems occur when leaders become biased towards in-

group members in terms of promotions and other dysfunctional consequences can arise such as disunity within the team and discrimination against out-group followers (Lussier & Achua, 2004). It has also been found that out-group members receive less challenging assignments and are more likely to resign due to job dissatisfaction (DuBrin, 2002).

2.2.4 More recent leadership theories

A dramatic improvement in leadership theorising occurred with a shift from theories based on intrinsic, rather than extrinsic, motivation (Van Setters & Fields, 1990). This ushered in yet another shift in paradigm to an integrative leadership theory paradigm (Lussier & Achua, 2006). Prominent in this category of leadership have been charismatic leadership and transformational as opposed to transactional leadership. All three of these theories will be outlined here.

Charismatic leadership

The concept of Charismatic Leadership originated in the writings of Weber (1947) who saw charismatic leaders as being extraordinarily highly venerated people, gifted with exemplary qualities (Bass, 1990). Charismatic leaders have the unique ability to inspire and motivate followers, despite obstacles and personal sacrifice, to do more than they would normally do (Daft, 2002). So strong is this inspiration and motivation that followers respond to the leader with unquestioning loyalty and devotion without regard for their self interest (Bass, 1985). The focus in the theory of charismatic leadership is on the personal attribute of 'charisma', conceptualised by Weber (1947) as 'extraordinary gifts' and 'transcendent powers' (Sadler, 2003). Bass (1985) argues that charisma comes from the requisite abilities and personality of charismatic leaders which include a combination of self confidence, self determination, freedom from internal conflict, emotional expressiveness and insight into the needs, values, and hopes of their followers. Thus charismatic leaders have their source of influence in personal power as opposed to positional power (Daft, 2002).

Sadler (2003, p.31) summarises charismatic leaders as "people with a strong conviction in the essential rightness of their own convictions. They are radical, unconventional, risk taking, visionary, entrepreneurial and exemplary. There is an intense emotional

attachment to them on the part of their followers which goes beyond such things as trust, respect, or admiration to embrace awe, devotion and unswerving loyalty". This emotional attachment, however, depends as much on the followers as it does on the leaders (Bass, 1985). The extent to which followers are ready to bestow charisma on leaders is in part dependent on their personalities and the context in which the interaction takes place. Therefore a charismatic personality increases the likelihood of success of a leader but it does not necessitate leadership effectiveness (Bass, 1985).

Charismatic leadership has been correlated to improved net profit margins, but only under conditions of environmental uncertainty (Gill, 2006). In fact Sadler (2003) highlights the assertion that the only generally accepted condition necessary for the effective use of charismatic leadership is the anxiety related to some kind of crises or depression in the functioning of the organisation. Therefore a major critique of charismatic leadership is that it may be dysfunctional in predictable conditions by generating unnecessary change (Gill, 2006).

Transactional vs Transformational leadership

The distinction between transactional and transformational leadership was first made by Burns (1978) and is comparable to the distinction made between management and leadership (Sadler, 2003). Burns (1978) believed that transformational and transactional leadership are at opposite ends of a continuum. However, Bass (1985) posits that transformational leadership augments the effects, and is an expansion (Bass & Avolio, 1994), of transactional leadership and although the two approaches are conceptually distinct, the best leaders are likely to display both in different amounts and intensities (Bass, 1985; Bass & Avolio, 1994).

The emphasis in transactional leadership is on the transaction or exchange occurring amongst leaders, colleagues and followers. This exchange is based on discussions between the leader and others about what is required and what rewards are contingent on the fulfilment of these requirements (Bass & Avolio, 1994). Leaders thus take the initiative in highlighting an opportunity for some form of need satisfaction in return for something valued by employees (Sadler, 2003). Therefore, transactional leadership occurs when the leader either rewards or disciplines the follower in accordance with, or in exchange for

their performance (Bass & Avolio, 1994). Some leadership theorists argue that this type of transacting and exchange undergirds all leadership. However, transactional leadership should be distinguished from transformational leadership at a very fundamental level (Sorenson & Goethals, 2004). Whereas transactional leadership appeals to people's existing needs, desires and preferences, thus reflecting how they *are*, transformational leadership raises both leaders and followers to higher levels of motivation and higher purpose (Gill, 2006), thus reflecting how they *could be*.

With this focus on a higher purpose, transformational leaders “motivate others to do more than they originally intended and often even more than they thought possible. They set more challenging expectations and typically achieve higher performances” (Bass & Avolio, 1994, p.3). Transformational leadership is therefore an interaction in which leaders undertake a process of engaging the commitment of employees by appealing to common values and a shared vision (Sadler, 2003). Therefore transformational leadership involves more than setting up simple exchanges or agreements with followers. Bass and Avolio (1994) suggest that transformational leadership has four behavioural components:

First, *idealised influence* describes behaviours that result in the leader being a role model for their followers. The leaders are admired, respected and trusted as a result of such behaviours as considering the needs of others above their own, sharing risks, having a high standard of ethical and moral conduct and using power only when needed and not for personal gain.

Second, *inspirational motivation* entails providing meaning and challenge to their followers which inspires and motivates them. Team spirit is aroused by displaying enthusiasm and optimism while involving followers in envisioning attractive future states and being committed to clearly communicated goals and the shared vision.

Third, *intellectual stimulation* involves encouraging and stimulating creativity and innovation in followers by questioning assumptions, reframing problems, and approaching old situations in new ways. There is no public criticism of individual mistakes and followers are included in addressing problems and finding solutions.

Fourth, *individualised consideration* represents acting as a coach or mentor while

considering individual's needs for development. This is done by creating new learning opportunities within a supportive environment which acknowledges individual differences in terms of needs and desires. Individual differences are accepted and the leader responds to each individual accordingly. Interactions with followers are personalised and two-way exchange in communication is encouraged with the leader listening effectively and delegating tasks according to developmental needs of the followers. Ideally, followers feel supported while they do not feel they are being checked on.

Numerous research studies conducted in various different types of organisations and settings have all showed that transformational leaders are more effective and satisfying as leaders than transactional leaders (Bass & Avolio, 1994). An extensive survey of over 1500 leaders in different organisations showed that organisations with transformational leaders, as opposed to transactional leaders, were more effective, that the leaders' relationships with top end stakeholders were better, that the leaders made more of a contribution to the organisation, and that employees exerted a lot of extra effort for such leaders (Bass, 1990).

2.2.5 Present and emerging leadership theories: Leadership control versus service

2.2.5.1 Overview

Much of the change that has occurred in leadership theory has been influenced by the evolving nature of organisations (Sadler, 2003). The climate within which leadership is situated is one where emerging leadership theories are challenging, and being challenged by, the structure and design of organisations. Mechanistic models are being replaced by more organic and self organised systems and the inherent value of individuals is now also coming to the fore. Thus, hierarchical and bureaucratic styles of leadership are becoming obsolete and something of the past (Blanchard, 1998; Covey, 1998; Spears, 1995, 1998, 2002; Stone & Patterson, 2005; Wheatley, 1998). The philosophy of leadership underlying previous theories has therefore become inadequate for dealing with the complex problems inherent in organisations today and in the future. This philosophy implied that leadership competence resided in the ability of leaders who were able to inspire and influence others to solve problems and achieve goals. This approach was based on a deficient view of

followers, on assumptions of follower's powerlessness, lack of personal vision and their inability to deal with change (Sadler, 2003).

Traditional organisations were based on the idea that the leader is in charge of subordinates and the success of the organisation depends on the leader's control of followers. However, Daft (2002) posits that as the concept of leadership expands, assumptions about the relationship between leaders and followers are changing dramatically. Daft (2002) indicates that much of the thinking about leadership today has questioned the moral responsibility of leaders in helping individuals to grow and develop and become more autonomous. This moral approach to leadership "encourages change toward developing followers into leaders, thereby developing their potential rather than using a leadership position to control or limit followers" (Daft, 2002, p. 210). In response to this change in leadership thinking, Daft (2002) posits a continuum of leadership thinking and practice comprising four main stages, namely: Authoritarian manager, Participative manager, Stewardship and Servant leader (See Figure 2.1). The continuum ranges from control centred in the leader or organisation to control centred in the follower and from employees being passive to employees being active.

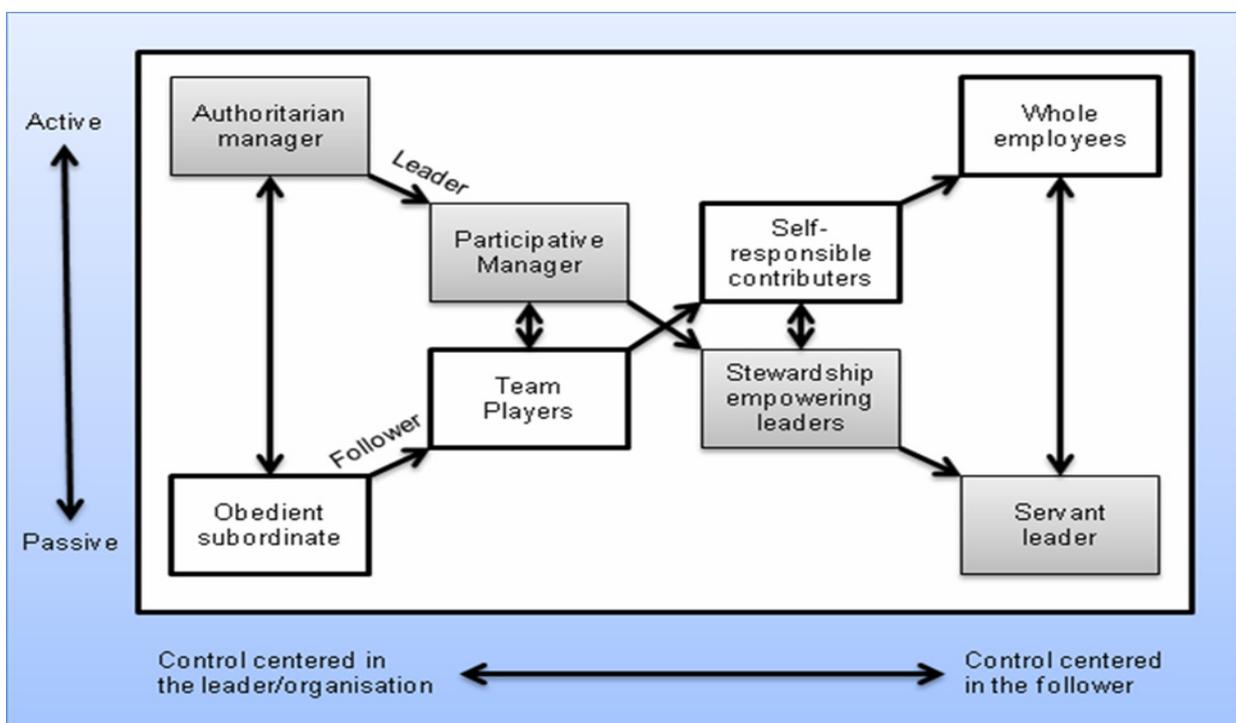


Figure 2.1 Continuum of leader-follower relationships through four stages: Authoritarian manager, Participative manager, Stewardship and Servant leader.

2.2.5.2 Authoritarian management

This first stage is rooted in the traditional view of leadership which implies that leaders are good managers who direct and control their subordinates. Subordinates are not expected to think for themselves but simply must do what they are told. Power, purpose and privilege reside with those at the top of the organisation with leaders setting the strategy and goals as well as the methods and rewards for attaining them. Subordinates are therefore passive, routinized, controlled and are given no voice in creating meaning and purpose for their work and no discretion as to how they carry out their jobs. Top-down, impersonal management governs (Daft, 2002).

2.2.5.3 Participative management/ shared leadership

The second stage involves taking steps towards allowing subordinates to become more actively involved in their work and in the organisation. Leaders thus attempt to increase employee participation through employee suggestion programmes, participation groups and quality circles. In this stage, teamwork becomes an important part of organisational functioning, however, the mind-set is still paternalistic with leaders maintaining control of purpose, goals, final decision, and rewards. Followers are expected to act as team players, offer suggestions for quality improvements and take greater responsibility for their own jobs while not being allowed to become partners in the organisation. Leaders may take on the role of mentors or coaches, but they are responsible for outcomes (Daft, 2002).

2.2.5.4 Stewardship

Daft (2002) highlights stewardship as being a pivotal shift in leadership thinking. In this third stage, responsibility and authority is moved from leaders to followers. Employees are empowered to make decisions and have control over their own jobs. Leaders give employees the power to influence structures, systems and goals and even become leaders themselves. Stewardship leaders guide the organisation without dominating it and facilitate followers without controlling them (Daft, 2002). In outlining the propositions of Block (1993), Sadler (2003) shows how stewardship does not go as far as anarchy. Some form of hierarchy is still needed, but those at the higher levels are responsible for clarity

rather than control.

Daft (2002) outlines four principles that provide the framework for stewardship. First, there is a *reorientation towards a partnership assumption* with power and control being shifted away from leaders towards core workers. Second, *decisions and power are localised to those closest to the work and the customer* so that they reside right at the point where the work gets done. Third, *the value of labour is recognised and rewarded* by tying everyone's fortunes to the success of the organisation so that those who make exceptional contributions can make significant gains. Fourth, *core work teams are expected to build the organisation* by defining goals, maintaining control, creating a nurturing environment, and organising themselves to respond to the changing market place they serve.

2.2.5.5 Servant Leadership

The fourth stage of the continuum is servant leadership which Daft (2002) asserts takes stewardship assumptions about leaders and followers one step further. Here leaders give up control and make a choice to serve employees. According to Daft (2002, p. 214), "servant leadership is leadership upside-down. Servant leaders transcend self interest to serve the needs of others, help others grow and develop, and provide opportunities for others to gain materially and emotionally. The fulfilment of others is the servant leader's principal aim." By having its primary focus on followers, servant leadership takes a long term view of organisational goal achievement and views this as being initiated by facilitating the general well-being and development of individuals (Stone & Patterson, 2005).

As a result of this focus on followers, many authors view servant leadership, not as a further step along the path of another leadership style, but as being a characteristically unique paradigmatic approach to leadership standing alone in terms of its focus (Greenleaf, 1977; Laub, 2004; Nwogu, 2004; Patterson, 2003; Sendjaya & Sarros, 2002; Stone & Patterson, 2005; Stone, Russell & Patterson, 2003; Whetstone, 2002). As Laub (2004, p.9) notes: "Servant Leadership is not a style of leadership though it is often portrayed that way in leadership theory texts. It is a paradigm that reshapes our understanding and practice of leadership."

2.3 Clarifying servant leadership

The purpose of the discussion up to this point has been to contextualise servant leadership within the leadership literature in order to clearly understand its place within the development of leadership theory. As the discussion has shown, emerging leadership approaches are the antithesis of the premise of old where followers were meant to serve their leaders, rather, leadership theorists are now promoting an approach based on the premise that at the core of leadership is service to followers (Sendjaya & Sarros, 2002; Spears, 1995, 1998, 2002). “Gone are the days of top-down, hard-nosed direction. Demonstrating flexibility and empathy, while remaining true to core values of the organisation and finding ways to circumvent unpredictable impediments, will be characteristic of tomorrow’s leaders. These will be people who are... devoted to service” (Sadler, 2003, p. 153).

The basis of the recent thinking around servant leadership has been the seminal work of Robert Greenleaf (1977). In an almost prophetic statement Greenleaf (1977, pp.23-24) posited that:

“A new moral principle is emerging which holds that the only authority deserving one's allegiance is that freely and knowingly granted by the led to the leader in response to, and in proportion to, the clearly evident servant nature of the leader... chosen as leaders because they are proven and trusted as servants. This approach to leadership has become known as servant leadership.”

Servant leadership is by no means a new concept, being traced back to ancient times and practised by many religious leaders of old (Sendjaya & Sarros, 2002) including Jesus Christ who most explicitly practised and promoted it as being the way to approach leadership (Blanchard, 1998; Ndoria, 2004; Russell, 2003; Sendjaya & Sarros, 2002). However, the concept has only recently burgeoned in the academic literature with the catalytic work of Greenleaf who coined the term 'servant leadership' more than thirty years ago. Being a highly respected businessman and writer his thoughts on leadership have provoked a new way of thinking for many prominent leadership writers and thinkers (Senge, 1995; Spears, 1995, 1998, 2002). Despite initial hesitations and lack of support for the concept, largely resulting from perceived paradoxes in, and misunderstandings of, the

terminology (Nwogu, 2004; Sendjaya & Sarros, 2002), servant leadership has gained support and momentum. Many well-known leadership authorities now promote it as one of the crowning leadership approaches for the twenty first century (Blanchard, 1998; Covey, 1998; Laub, 2004; Senge, 1995; Wong & Page, 2003).

At the heart of servant leadership is service. In what has become widely quoted as an encompassing 'definition' of servant leadership, Greenleaf (1977, p. 27) proffered:

“The servant leader is servant first. It begins with the natural feeling that one wants to serve, to serve first. Then conscious choice brings one to aspire to lead. It manifests itself in the care taken to make sure that other people's highest priority needs are being served. The best test, and difficult to administer, is: Do those served grow as persons? Do they, while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants? And what is the effect on the least privileged in society? Will they benefit or at least not be further deprived?”

Greenleaf made it clear that the initiating process for leadership was necessarily a sense of service for the good of others and that the needs of the leader were to be subordinate to those of the followers (Greenleaf, 1977). This was the same example set out by Jesus Christ in which he too made it clear that those who want to be first (leaders) were to take on the last position and become servants of all (Sendjaya & Sarros, 2002).

To this end it has been contrasted to Transformational Leadership (Barbuto & Wheeler, 2006; Stone, Russel & Patterson, 2003), Transactional Leadership theory (Patterson & Stone, 2004), Self-Sacrificial Leadership (Matteson & Irving, 2005, 2006) and discussed in terms of Leader Member Exchange Theory (Barbuto & Wheeler, 2006; Ndoria, 2004) which all share several similar attributes, but which lack the primary focus on followers that servant leadership presents.

With its focus on followers and premise of service, servant leadership is recognised as a virtuous (Patterson, 2003) and highly ethical (Wong & Page, 2003; Whetstone, 2002) approach to leadership. The recent surge of interest in servant leadership is explicable in light of the growing focus on human rights, the value of individual potential in organisations

and the resulting move towards more participatory and process oriented leadership approaches (Stone & Patterson, 2005; Wong & Page, 2003). Moreover, the surge of interest is timely in lieu of the recent plethora of corporate scandals (Wong & Page, 2003).

However, the increasing volume of literature on servant leadership has been largely anecdotal and theoretical (Irving, 2004), leaving it lacking concrete definition, characteristic clarity, and an agreed upon suitable measure (Barbuto & Wheeler, 2006; Laub, 2004; Sendjaya, 2003). Many authors have expressed an urgent call for more empirical research (Laub, 2004; Sendjaya & Sarros, 2002; Sendjaya, 2003). Researchers have responded to this call with a proliferation of literature appearing in various journals indicating that servant leadership is busy moving from an anecdotal phase into a validation phase through increased quantitative empirical research (Nwogu, 2004). However, more quantitative research is still needed (Barbuto & Wheeler, 2006; Laub, 2004).

2.3.1 Previous research on servant leadership: Antecedents, correlates, variables and models of servant leadership.

Previous research has focused on the potential influence of certain variables on servant leadership, the impact of this type of leadership on certain aspects of organisations as well as the basic tenets underlying the construct. Their value in confirming the merit of servant leadership and building a better foundation for further study is highlighted in this section. This section will first briefly discuss some of the antecedents and correlates previously examined and then provide an overview of studies examining the basic tenets of the construct.

2.3.1.1 Antecedents and correlates of servant leadership

Irving (2004) investigated the relationship between servant leadership and team effectiveness showing a highly significant and substantially positive relationship between the two constructs. In a more recent study Dannhauser (2007) investigated the respective relationships between servant leadership, follower trust, team commitment, team effectiveness and the influence of these variables on team performance. The study revealed significant positive relationships between aspects of servant leadership, trust and team commitment. However, contrary to expectations, the results failed to find a significant

relationship between team effectiveness and the other variables.

Parolini (2005) investigated the impact of leaders' emotional intelligence on followers' perception of servant leadership behaviours and servant leadership culture. The study found followers' perceptions of servant leadership behaviours in supervisors as a significant predictor of follower perceptions of servant leadership culture. Furthermore, the supervisor's ability to appraise the emotions of others and to use emotion in relating to others was significant and moderately significant respectively in predicting follower's perceptions of servant leadership culture. In another study, Winston and Hartsfield (2004) examined the four factors of the Mayer and Salovey (1997) model of emotional intelligence: (a) the ability to appraise and express emotion; (b) the use of emotion to enhance cognitive processes and decision making; (c) the ability to understand and analyse emotions; and (d) the reflective regulation of emotion in comparison to five servant leadership models: (a) Page and Wong (2000), (b) Patterson (2003), (c) Russell and Stone (2002), (d) Sendjaya and Sarros (2002), and Winston (2003). They found, with the exception of the ability to understand and analyse emotion, strong correlations between servant leadership and three of the four factors of emotional intelligence.

Herbert (2003) investigated the relationship between employees' perceptions of servant leadership characteristics in their organisations and their level of personal job satisfaction. The study indicated a significant relationship between perceptions of servant leadership and overall and intrinsic job satisfaction. Drury (2004) confirmed this relationship in a study which yielded a statistically significant and positive relationship between job satisfaction and servant leadership. Contrary to previous findings, a statistically significant inverse relationship between organisational commitment and servant leadership presented itself in this study. Another study by Ehrhart (2004), however, examined the relationship between servant leadership and organisational citizenship behaviour (OCB) at the individual level, with procedural justice climate hypothesised as being mediatory. The results generally supported the association of both servant leadership and procedural justice climate with unit-level OCB. Conceptual examinations, have highlighted the probability of relationships also existing between servant leadership and constructs such as burnout (Rude, 2003), business performance, financial performance and organisational effectiveness (Parolini, 2004).

Despite the highly promising effects of servant leadership, researchers are still plagued by issues of taxonomy. Laub (2004) has been critical of the path that servant leadership research has taken and highlights the lack of consensus over the basic constructs that underlie the construct, which Laub believes has resulted from a nebulous definition. Barbuto and Wheeler (2006, p. 301) concur with this lack of empirical operationalisation and state that: "Servant leadership has been hampered by a lack of theoretical underpinnings and no suitable measure". However, numerous attempts in creating frameworks for servant leadership, resulting from the work of Greenleaf (1977), have worked to distil various basic tenets that underlie the construct. These will be covered in the following section.

2.3.1.2 Variables and models of servant leadership

Patterson (2003) has introduced a theoretical model in an attempt to address phenomena previously left unexplained in other leadership theories. The model outlines seven virtuous constructs which Patterson believes encompass servant leadership. This work follows a processional pattern starting with (a) agapao love and progressing through (b) humility, (c) altruism, (d) vision, (e) trust, (f) empowerment, and (g) service. This model added to the literature on servant leadership in that it clarified how a servant leader interacts with followers (Winston, 2003). Winston (2003) believes this to be an improvement on the work of previous authors in that it describes how servant leadership works rather than describing attributes that accompany it. However, he extended Patterson's model by adding the response of the followers, and creating a circular model which results in a service focused response from followers (Winston, 2003).

Page and Wong (2003) promote the *Revised Servant Leadership Profile* which includes their *Opponent Process model*. Initially Page and Wong (2000) introduced a multi-dimensional conceptual framework which highlighted twelve factors, but they stopped short of doing factor analysis and scale reliability testing. Dennis and Winston (2003) set out to conduct a factor analysis on the initial 99-item scale, reducing it to just twenty items and yielding three factors: vision (0.97 Chronbach alpha), empowerment (0.89 Chronbach Alpha), and service (0.94 Chronbach Alpha). These three factors match three of the virtues presented in Patterson's (2003) theoretical model. Wong and Page (2003) then conducted their own factor analysis on a large sample of 1157 subjects. Eight attributes

emerged including (a) leading, (b) servanthood, (c) visioning, (d) developing others, (e) team-building, (f) empowering others, (g) shared decision making and (h) integrity. With these eight attributes, they presented the *Revised Servant Leadership Profile* which includes their *Opponent Process model* highlighting the necessity for an absence of authoritarian hierarchy and egotistical pride in confirming the presence of servant leadership (Wong & Page, 2003). These eight factors are similar to the characteristics presented by Barbuto and Wheeler (2006) which will be discussed next.

Barbuto and Wheeler (2006) were concerned by the lack of a consensus construct for empirical research on servant leadership and postulated that any attempt to operationalise the construct should begin with the major tenets of Spears (1995; 1998; 2002), which is the most accepted view driving the field. Spears (1995; 1998; 2002) distilled ten characteristics from the early work of Greenleaf (1977), to which Barbuto and Wheeler (2002) added the dimension calling, in their initial framework which highlighted these eleven characteristics: (a) calling, (b) listening, (c) empathy, (d) healing, (e) awareness, (f) persuasion, (g) conceptualisation, (h) foresight, (i) stewardship, (j) growth, and (k) community building.

Barbuto and Wheeler (2006) attempted to develop an instrument that captured these eleven characteristics of servant leadership. After developing conceptually consistent theoretical definitions of the eleven constructs guided by the work of Spears (1995) they factor analysed their initial 56-item scale, a rater and self version, which reduced it to twenty three items resulting in five factors yielding reliabilities ranging from .68 to .87 for the self version and from .82 to .92 for the rater version. They postulated that these five factors capture the essence of servant leadership, including: (a) altruistic calling, (b) emotional healing, (c) wisdom, (d) persuasive mapping, and (e) organisational stewardship. They promote these five factors as being conceptually and empirically distinct (Barbuto & Wheeler, 2006). The sub-scales that are absent from the final construct include listening, empathy, community building, and growth, which either added little to the construct empirically, or were inherent in other types of leadership (e.g. Leader Member Exchange) and thus not unique to servant leadership (Barbuto & Wheeler, 2006).

The previous section has served to position servant leadership within the broader leadership literature as well as to further delineate the construct in terms of definitions,

antecedents and proposed models. The appropriateness of a servant leadership approach in the general organisational environment has been shown. This study focuses on the need for a servant leadership approach in relation to the RS experienced by SSR incumbents, known as SSRS (Shamir, 1980). The subject of this stress is addressed in the following section.

2.4 Stress theory

2.4.1 Introduction

The purpose of the following section is threefold: Firstly, a brief history and synopsis of the prominent models of stress will be outlined, giving particular focus to the transactional model of stress which was used in this study. Secondly, the particular RS accompanying SSR's, namely SSRS, and its antecedents and correlates will be outlined. Finally, the importance of servant leadership for SSR incumbents and their RS is discussed.

2.4.2 Major Stress theories: Theoretical overview and models of stress

The concept of stress has not suffered from the same limitations of definition as leadership. However, in previous years three main variations on the concept of stress have emerged (Aldwin, 1994; Cartwright & Cooper, 1997; Cox, 1978; Lazarus, 1999; Lazarus & Folkman, 1984; Lazarus & Launier, 1978; McGrath, 1976). Stress has been regarded as: first, a response internal to the individual (Selye, 1956); second, a stimulus external to the individual (Cartwright & Cooper, 1997; Cox, 1978; Lazarus, 1993); and third, a transaction, between a person and the environment (Cox, 1978; Lazarus & Folkman, 1984; Lazarus & Launier, 1978, Lazarus, 1999; Lazarus 2000; McGrath, 1976).

Selye (1956) is generally considered to have produced the first major discussion of stress as a phenomenon in and of itself (Ross & Altmaier, 1994). Selye (1956) was interested in the response of the body to demands made upon it and believed that the response was universal to all people and to all stimuli. He proposed a three stage model of stress responsiveness starting with the alarm stage, which was followed by a stage of resistance to the stressor, finally leading to a stage of exhaustion (Selye, 1956). He called the entire non-specific response the *General Adaptation Syndrome (GAS)* (Selye, 1956). This model

describes stress as the internal response that individuals have to external stimuli, which are called stressors, and is thus referred to as a response approach to stress (Lazarus, 1993).

The second emergent theory of stress originated in the theory of engineering. Here stress is understood as the sum of the force exerted on an object by other objects (Cartwright & Cooper, 1997; Cox, 1978). This model of stress is based on the understanding that if a 'stress' or 'stressor', the load which is placed on a metal, is greater than the 'elastic limit', the limit to which a metal can be bent and still recoil, then there will be a resulting deformation or 'strain' (Cartwright & Cooper, 1997; Cox, 1978; Lazarus, 1993). This theory regards stress as being environmental (Ross & Altmaier, 1994) and external to the individual, and is therefore referred to as a stimulus approach to stress (Lazarus, 1999).

The transactional model of stress is a synthesis of the stimulus and response approaches (Cox, 1978). The transactional model of stress begins with *cognitive appraisal*, which can be understood as "the mental process of placing any event in one of a series of evaluative categories related either to its significance for the person's well-being (primary appraisal) or to the available coping resources and options (secondary appraisal)" (Lazarus & Launier, 1978, p. 302). *Primary appraisal* places events into categories of either: (1) harm-loss, in which damage has already taken place; (2) threat, in which there is the potential of harm or loss but it has not yet taken place; and (3) challenge, in which there is the possibility of a positive outcome in a stressful situation (Lazarus & Folkman, 1984; Lazarus & Launier, 1978).

From this appraisal one is able to identify possible coping resources and options that are available to the individual, called *secondary appraisal* (Lazarus & Folkman, 1984; Lazarus & Launier, 1978). However, it is important to note that secondary appraisal does not necessarily follow primary appraisal but that they both influence each other (Lazarus & Launier, 1978). After the process of primary and secondary appraisal, an individual adjusts his/her perceptions as a result of internal and external changes that have occurred in a process of *reappraisal* (Lazarus & Folkman, 1984; Lazarus & Launier, 1978). The primary and secondary appraisal of the RS inherent in SSR's is the focus of the present study.

2.4.3 Role stress and boundary spanning employees: antecedents and correlates

Chapter 1 served to define and situate SSR incumbents within their position as boundary spanning employees that are subordinate to both their managers and the customer. As a result of this position, Shamir (1980) posits that RS is most salient for these employees and that this RS results from stressors which are unique to their position (See section 2.4.4). This section first outlines the literature pertaining to the effects of RS on boundary spanning employees with special focus on the impact of leadership and then clarifies the stressors unique to specifically SSR positions.

The influence of RS on most job outcomes of boundary spanning employees is negative (Boshoff & Mels, 1995). The detrimental effects of RS, especially RA, on job performance has been confirmed in numerous studies (Babin & Boles, 1996; Dubinsky, Michaels, Kotabe, Chae & Hee-Cheol, 1992; Fried, Ben-David, Tiegs, Avital & Yeverechyahu, 1998; Tubre & Collins, 2000). Fried et al. (1998) found support for the belief that RC and RA are the most common causes of work stress adversely effecting job performance and confirmed the direct link between RC and RA. However, some mixed results have been found in terms of specifically RC and job performance (Babin & Boles, 1996; Tubre & Collins, 2000).

Of particular interest to this study is the impact of leadership on the experience of RS. Boshoff and Mels (1995) found that the way in which an employee will most likely perform when interacting with customers is largely determined by the job environment created by their supervisor. The results of the Boshoff and Mels (1995) study showed that a participative and considerate leadership style has a positive impact on the RS of employees. The study also showed that participative and considerate supervisors can cause employees to feel attached to and identify with the goals of the organisation and are therefore more likely exert themselves beyond the level expected by their supervisor. Therefore they will literally travel the extra mile for the customer because of the manner in which they are supervised.

Similarly, Babin and Boles (1996) found that the leader's support of a subordinate will impact positively on their performance, but that this impact is mediated by the RS experienced by the employee. Their study shows that increased supervisory support and

concern reduce the employee's experience of RS. Retail organisations trying to influence SSR employee behaviour and responsiveness to customers must therefore consider the RC and RA inherent in their position between the customer and supervisor (Babin & Boles, 1996). Moncrief, Babakus, Cravens and Johnston (1997) also found that the supervisor's opportunity for reducing job stress in general, leading to higher job satisfaction and organisational commitment, is concomitant with their reducing the employee's RC and RA.

Concurrently, in their study on retail attendants, Knight, Kim and Cruisinger (2007) found that both RC and RA had a negative and detrimental effect on the customer orientation (i.e. a focus on serving the needs of the customer rather than simply making a sale). This concurs with similar findings by Flaherty, Dahlstrom and Skinner (1999). They also confirmed the role of the supervisor in reducing both RC and RA. Their study also found that customer orientation was positively related to job performance. This means that the influence of the supervisor on employees may work to reduce their RS, promote customer orientation and ultimately improve their customer service performance.

Dale and Fox (2008) explored the mediating effect of RS between leadership and organisational commitment of employees. Their findings show that having a supervisor who is considerate and who provides structure, drastically reduces RS and therefore increases the organisational commitment. Ruyter, Wetzels and Feinberg (2001) also found that having supervisors who serve employees' empowerment needs also reduces RS. Jaramillo, Mulki, and Solomon (2006) also confirmed the crucial role of supervisors in reducing RS by creating and ethical climate.

The above studies confirm the positive impact that leadership has on the RS experienced by boundary spanning employees and show that supervisors or leaders who allow for participation in decision making, show consideration, support and concern as well as creating an ethical climate, may reduce the RS experienced by these employees. With servant leadership being a highly ethical approach to leadership (Wong & Page, 2003; Whetstone, 2002) and one which by its very nature is participative and considerate, these findings highlight the potential effectiveness of specifically servant leadership to naturally deal with RS, which is one of the hypotheses of the present study.

An important finding for the present study was highlighted by Fried et al. (1998). Their

study showed that individuals are able to perform reasonably well when only one role stressor is present, but when a number of concurrent role stressors are present, as is the case for many SSR incumbents performance begins to suffer. The plethora of articles pertaining to RS have failed to focus on the antecedents pertaining specifically to SSR incumbents. A review of the literature reveals a paucity of studies pertaining to specifically SSRS antecedents. However, the studies that were done highlighted various stressors, and antecedents, unique to this role, which is the focus of the following section.

2.4.4 Subordinate service role stress: Stressors and antecedents

The tension caused by the differing sets of expectations upon the focal role can be experienced as stressors (Tilley, 1989), which is the basis for RS (Rizzo et al., 1970). The stressors that are common to SSR incumbents are summarised in Table 1 along with the authors that have reported them. This table is included to summarise those stressors that have been reported in the literature so that the characteristics of servant leadership can be matched against these stressors to see which ones may become obsolete. The transactional model of stress (Lazarus & Launier, 1978), outlined earlier, enables a better understanding of the varied effects of the above mentioned stressors on SSR employees as highlighted in the literature (Belelie, 1999; Tilley, 1989; Rafaeli, 1989; Rafaeli & Sutton, 1990; Shamir, 1980). These differing effects can be attributed to the concept of appraisal (Lazarus & Launier, 1978).

For some SSR employees their primary appraisal of these stressors is that of challenge (Rafaeli, 1989; Tilley, 1989). This was seen to energize and motivate these employees to provide a better and more efficient service (Tilley, 1989). For other SSR employees they appraise these stressors as threats during primary appraisal. This leads to a situation where the service encounter is approached with a defensive attitude and coping strategies that these individuals employ may be antagonistic (Rafaeli, 1989; Tilley, 1989) (see 2.5). However, by definition of some of the characteristics of servant leadership, a servant leader that supervises a SSR incumbent may have an impact on the situation and individual such that a radical change may take place at the primary appraisal level.

Table 2.1 Stressors common to SSR incumbents

<u>Stressor</u>	<u>Description</u>
Person Role Conflict	Occurs when the expectations of the role are in conflict with the focal person's orientations, internal standards or values (Belelie, 1999; Korczynski, 2003; Shamir, 1980; Tilley, 1989). There three types: inequality dilemmas; feelings vs behaviors; and conflict over territory.
Inequality dilemmas	The SSR incumbent is expected to maintain their lower level position in relation to the customer whilst building the customer up (Belelie, 1999; Korczynski, 2003; Shamir, 1980; Tilley, 1989)
Feelings versus Behaviors	The SSR incumbent has to give the customer the impression that they enjoy serving them irrespective of their internalized feelings (Butler & Snizek, 1976; Shamir, 1980; Tilley, 1989)
Conflict over territory	Results from the interplay between the customers rights into the territory of the SSR incumbent and their subordinate position (Belelie, 1999; Rafaeli, 1989; Shamir, 1980; Tilley, 1989).
Inter-sender Conflicts	Occurs when role expectations from one source (role sender) oppose those from other sources (Belelie, 1999; Rafaeli, 1989; Shamir, 1980; Tilley, 1989). This results from two scenarios: the two-bosses dilemma; and demands made by different customers.
The two-bosses dilemma	Simultaneously needing to fulfil the needs of the manager and the customer (Belelie, 1999; Rafaeli, 1989; Shamir, 1980; Tilley, 1989)
Demands made by different customers	Demands made by different customers act as a stressor when they conflict with each other (Belelie, 1999; Shamir, 1980; Tilley, 1989).
Intra-role (multiple-role) conflict	Occurs when conflicting demands on the job, posed by different aspects of the job, are consistently present (Jones & Lockwood, 1999; Papadopoulou-Bayliss et al, 2001).
Struggle for control	Both the customer and the employee feel that they have the right to control the relationship in the service encounter (Rafaeli, 1989)
Limited relationship	When their role restricts or constrains them from developing a relationship with customers in some way (Carere et al., 1991; Rafaeli, 1989; Shamir, 1980).
Restricted social network	Results from a limited ability to develop a sense of social connectedness or a network with fellow workers (Korczynski, 2003; Rafaeli, 1989)

2.4.5 The importance of servant leadership for SSRS

When looking at some of the antecedents of SSRS, in light of servant leadership, one can see that a manager/leader employing this approach would render many of these redundant. The litmus test of servant leadership is whether: "...those served grow as persons? Do they, while being served, become healthier, wiser, freer, more autonomous, *more likely themselves to become servants?*" (Greenleaf, 1977, p. 27). With individuals functioning out of the same paradigm of being 'servants' for all, the primary appraisal of

person-role conflicts would be vastly different. The occurrence of person role conflict is rooted in the conflict between the internal standards, orientations or values of the individual and what is required by their role (Belelie, 1999; Korczynski, 2003; Shamir, 1980; Tilley, 1989). However, servant leadership promotes a mindset of service for employees as well as leaders (Winston, 2003). The organisational pyramid is inverted with customers being at the top of the service chain and management being at the bottom - serving the needs of their 'subordinates' who are 'above' them (Blanchard, 1998).

With the internal values and standards of individuals being that of service, the primary appraisal of "person-role conflicts" should no longer be conflictual, but rather, the correct order of things in an environment where the good of another is placed above oneself. The present author views struggle for control, as defined by Rafaeli (1989) as being rooted in a sense of insecurity within oneself. However, with employees growing as persons and becoming healthier, wiser, freer, and more autonomous, it is probable that individual insecurities would be remedied to some extent, making it easier for them to relinquish control of interactions.

In this regard it could be added that servant leaders serve the needs of their employees, rather than expecting the employees to serve their needs (Blanchard, 1998). The concept of the "two-bosses dilemma" in which an employee must simultaneously fulfil the needs of a manager and the customer (Belelie, 1999; Rafaeli, 1989; Shamir, 1980; Tilley, 1989) is in opposition to this premise of the leader serving followers. Instead, with servant leadership, the employee's needs are being served by the leader, leaving them free to focus on serving the needs of the customer.

Finally, authors have highlighted community building as being a primary tenet of servant leadership (Barbutto & Wheeler, 2006; Spears, 1995, 1998, 2002). This means that a servant leader would constantly be working to reduce the stressors of a restricted social network (Korczynski, 2003; Rafaeli, 1989). This stressor was particularly reported by SSR incumbents who had managers that opposed their efforts to maintain a sense of community whilst on the job, viewing it as distracting employees from their work (Baker, 2003; Rafaeli, 1989). However, the servant leader may in fact promote community building for the purpose of allowing for 'communities of coping' (Korczynski, 2003).

It seems likely from the above discussion that servant leadership is a much needed approach in service organisations containing SSR's. This study aims at testing this proposition empirically and may confirm the value of this approach to leadership in these types of organisations which may promote further research and implementation of servant leadership principles. The previous section has outlined various models of stress, with focus on the transactional model used in this research. It has also outlined the position occupied by SSR incumbents and the resulting stress inherent in these positions. Finally the value of servant leadership for SSRS was briefly discussed. However, according to the transactional model of stress, secondary appraisal is integral to the stress process. Secondary appraisal has to do with options available to individuals in responding to stress, which leads to coping (Lazarus & Folkman, 1984). Coping is the focus of the following section.

2.5 Coping construct

The way in which SSR incumbents respond to stress is pivotal in the presentation of customer service considering the direct nature of their interaction with customers (Boshoff & Mels, 1995). The coping mechanisms employed by these individuals in response to SSRS is the focus of this section. The section begins by presenting an overview of the history of coping including various models and taxonomic approaches to the construct. The antecedents and mechanisms specific to coping in SSR's, as well as the importance of choosing appropriate coping mechanisms in the light of customer service, is then discussed. Finally, the possible impact and importance of servant leadership for coping in SSR's is discussed.

2.5.1 Major coping theories and conceptualisations of coping

The subject of coping has been important in both lay and academic arenas for well over fifty years and is as much a colloquial term as a scientific one (Lazarus & Folkman, 1991). However, whilst stress and its detrimental effects have been studied extensively, less attention has been given to the methods used to respond to stress (Monat & Lazarus, 1991) which are referred to as coping (Cox, 1978). More recently there has been a clear

and rapid growth in curiosity and concern regarding coping (Dewe, 2000; Monat & Lazarus, 1991). What is less clear is the extent of the progress that has been made (Dewe, 2000) with coping generating much debate in the literature specifically regarding issues of taxonomy, measurement and the role of coping in the stress process (Cooper, Dewe & O'Driscoll, 2001; Dewe, 2000). Contemporary coping research has its origin in traditional models of coping.

Traditional approaches to the concept of coping are found in two very different groups of literature, one derived from animal experimentation, the other from psychoanalytic ego psychology (Lazarus & Folkman, 1984; Lazarus & Folkman, 1991). The animal experimentation literature is heavily influenced by Darwinian thought which presumes that survival hinges on the animal discovering what is predictable and controllable in the environment in an attempt to respond to noxious agents. The response is a survival related discrimination, which is dependent on the animal's nervous system. Central to the animal model is the uni-dimensional concept of drive or arousal with research focusing on avoidance and escape behaviour (Lazarus & Folkman, 1991).

The uni-dimensional approach of the animal model is too simplistic and lacks the cognitive-emotional richness and complexity that is intrinsic to human functioning (Lazarus & Folkman, 1984). Approaches that deal with coping according to human functioning have been divided into person-based and environment-based approaches both of which have their roots in the person-based psychoanalytic ego psychology model (Aldwin, 1994; McNamara, 2000). In this model coping can be defined as, "realistic and flexible thoughts and acts that solve problems and thereby reduce stress" (Lazarus & Folkman, 1991, p.190). The major difference in this model is the shift in focus towards the way in which a person perceives and thinks about their relationship with the environment. Behaviour is not ignored, but it is treated as secondary to cognition (Lazarus & Folkman, 1984).

Coping mechanisms in the psychoanalytic ego psychology model were initially explored as defense mechanisms aimed at resolving internal conflict (McNamara, 2000). Forerunners in this approach, notably Menninger (1963), Haan (1977) and Vaillant (1977), differentiated amongst various strategies that people use to handle person-environment relationships

placing them in hierarchies of ego functioning, with coping being the highest and most advanced form of ego processes, followed by defenses and finally by ego failure (Lazarus & Folkman, 1991). The traditional approaches are embedded in a person-based (Aldwin, 1994) or person-centred (McNamara, 2000) view of coping which spawned a body of theory on coping traits and styles (Lazarus & Folkman, 1984). Once created, these styles are thought to operate as stable dispositions to cope in certain ways (Lazarus & Folkman, 1991).

Approaches to coping based on coping traits or styles are often used by researchers interested in personality (Monat & Lazarus, 1991). The emphasis here is on “trait-like combinations of cognitions and behaviors brought into play as a result of the experience of stress and expressed somewhat independently of the nature of the situation” (Cox & Ferguson, 1991, p. 19). This type of approach focuses more on how individuals deal with information rather than on how they deal with emotion (Aldwin, 1994) and attempts to classify individuals according to dichotomous categories (Lazarus & Folkman, 1984). Strict personality approaches such as this assume that an individual will adopt similar coping strategies in most situations (Monat & Lazarus, 1991).

However, the evidence for coping traits or styles as accurate behavioural predictors is rather moderate (Lazarus & Folkman, 1984; Lazarus & Folkman, 1991). They disregard situational elements which may shape an individual’s behaviour (Aldwin, 1994). These more traditional and personality based approaches also portray coping as an automatic rather than a conscious response and view the effectiveness of coping mechanisms as contingent on outcomes (Lazarus & Folkman, 1984). In responding to these issues Lazarus and Folkman (1984) propose a process-oriented approach which is an environmental-based (Aldwin, 1994) or situational (McNamara, 2000) approach. The process-oriented definition offered by Cox and Ferguson (1991, p.23) is an appropriate juxtaposition and starting point:

“Coping may now be defined as cognitions and behaviors which, following a stressful transaction and defined independently of outcome, have the primary function, consciously decided, of dealing with the emotion caused by the transaction

and developing a sense of personal control. This is achieved by those cognitions and behaviors combining into strategies which perform a mixture of functions: problem solving, reappraisal and avoidance. Any particular option or strategy may perform any one or a number of these functions in the space of dealing with one stressful transaction.”

The schema presented by Lazarus and Folkman (1984) is in accordance with their transactional model of stress and is the basis for the conceptualisation of coping in this research. According to their model, secondary appraisal is the process of choosing a possible coping strategy to cope with the stressful situation, deemed stressful through primary appraisal (Lazarus & Folkman, 1984; Lazarus & Launier, 1978). Part of this process is that these coping strategies are evaluated on an ongoing basis (Bluen, 1986). Thus, the consequence of primary and secondary appraisal is the initiation of coping behaviours, which change over time as efforts are reappraised and outcomes evaluated (Cooper, Drewe & O'Driscoll, 2001). The definition posited in Chapter 1 indicates that coping behaviours are constantly changing because of the dynamic process of primary and secondary appraisal coupled with the coping mechanisms employed (Lazarus & Folkman, 1984). This approach is appropriate to the present research because it acknowledges numerous variables that are involved in how people cope depending on their particular environmental setting (Lazarus, 2000).

Three main features accompany the process model of coping (Lazarus & Folkman, 1984) which contrasts it to the more traditional approaches. First, it is concerned with what a person *actually* does, as opposed to what they usually do, would do, or should do. Secondly, what a person actually thinks or does is examined within a *specific context*. The more narrowly defined the context, the more possible it is to link a coping strategy to a contextual demand. Thirdly, speaking of a process implies *change over time*. Coping mechanisms change over time in accordance with changes in primary appraisal, secondary appraisal and re-appraisal. Evidently this approach is based on the presumption that individuals have a repertoire of options available to them from which they can formulate what they perceive to be the most effective coping strategy, depending on the situation (Cox & Ferguson, 1991). The categorisation of these coping strategies has

received much attention in the literature in attempts to build taxonomies of coping.

Taxonomic research on the functional architecture of coping has resulted in a lack of consensus over classification (Cox & Ferguson, 1991; Cooper, Drewe & O'Driscoll, 2001). The most popular and widely used view is that of Lazarus and Folkman (1984) which promotes two broad functions of coping, namely problem focused and emotion focused (Cox & Ferguson, 1991; McNamara, 2000). Problem focused coping centers on dealing with the demands of the encounter, while emotion focused coping attempts to deal with the emotions resulting from those demands (Cooper, Drewe & O'Driscoll, 2001; Cox & Ferguson, 1991). Various meta-analysis of taxonomic approaches to coping result in attempts at alternative proposals (Cox & Ferguson, 1991). However, these models appear to simply create sub-categories of emotion or problem focused coping which leaves the emotion/problem dichotomy somewhat intact. For example, Cox and Ferguson (1991) deduce a tri-functional model of coping which includes problem solving, reappraisal, and avoidance. Reappraisal and avoidance however, are arguably sub-categories of emotion focused coping.

Attempts at re-classifying coping do not seem to satisfactorily encapsulate the differing functions or range of potential coping responses (Cooper, Dewe & O'Driscoll, 2001) which may be the reason some authors still hold on to the broad categories of problem and emotion focused coping as being useful groupings (Cohen, 1987; McNamara, 2000). Coping research has tended to compare the respective efficacy of problem and emotion focused coping by setting them against one another (Lazarus, 2000). However, "it is misleading to separate these two functions of coping and compare their efficacy because although conceptually distinguishable, both strategies are interdependent and work together, one supplementing the other in the overall coping process" (Lazarus, 2000, p.669). Specific contextual factors are effectual as to which coping style is most appropriate with no singular coping function being universally adaptive across all situations (Bonner, 2004, Cox & Ferguson, 1991). Successful outcomes are contingent on fitting the right strategy to the situation (Cox & Ferguson, 1991). In the case of employees, coping strategies are often confined to those that will bring about least dysfunction and disruption in dealing with the demands of a particular job (Sommerfield & McCrae, 2000).

The above discussion has outlined some of the previous approaches and issues involved in the study of coping and has served to highlight the importance of contextual factors as antecedent to coping. The known context accompanying certain occupational roles, and the coping options available to those individuals promotes particular coping strategies that are commonly employed (Monat & Lazarus, 1991). This is particularly true for those employees occupying SSR's.

2.5.2 Coping in SSR's: Antecedents, correlates and strategies

In subscribing to the transactional model of coping, the interplay of primary and secondary appraisal made by the individual is antecedental to the eventual coping strategy that is employed (Lazarus & Folkman, 1984). Coping strategies are always aimed at particular conditions and are linked to contextual demands. The more narrowly defined the context, the more possible it is to link a coping strategy to a contextual demand (Lazarus & Folkman, 1984). Secondary appraisal, which addresses the question "What can I do?", is a key determinant of what the person will actually do (Lazarus & Folkman, 1984). It is concerned with the availability of coping resources for dealing with stressful encounters which are highly situation specific (Cooper, Dewe & O'Driscoll, 2001).

Part of the situational component includes individual differences, which have received much attention in the literature. Dunahoo, Hobfoll, Monnier, Hulsizer and Johnson (1998) examined coping according to a multi-axial approach which included both individual as well as social aspects of coping. The study showed that women tend to be as active as men in their approach to coping, whilst employing more pro-social coping strategies. Men were found to be more anti-social in their coping. In another study, Monnier, Hobfoll, Dunnahoo and Johnson (1998) confirmed these conclusions whilst adding that pro-social coping related to better emotional outcomes for both men and women. Burke (1998) found a positive relationship between active coping and job satisfaction in a study of well-being amongst police officers.

In their meta-analysis of gender differences in coping, Tamres, Janicki and Helgeson (2002) conclude that women are more likely than men to engage in most coping strategies. The strongest outcome showed a tendency for women to use strategies that involve verbal expressions to others or the self including seeking emotional support, ruminating about problems and the use of positive self talk. Torkelson and Muhonen (2004) investigated the relationship between coping and health problems in the context of gender and the level of seniority in the organisation. The results showed that coping was at least partly related to level of seniority. At the managerial level similar coping strategies were used across sexes whereas at the non-managerial level, traditionally conceived coping strategies were evident.

The particular position occupied by SSR incumbents, and the accompanying stressors common to these employees provides a narrowly defined context, and an array of consequential and common stressors, which are the antecedents of certain coping strategies. The coping strategies discussed in the literature are described in Table 2 along with the authors that reported on them. The purpose of including this table is to delineate the coping strategies commonly used by SSR incumbents so that the outcomes for customer service and the possible impact that servant leadership could have on the coping strategies employed can be assessed. By looking at each coping strategy juxtaposed to the characteristics of servant leadership will highlight the possible impact of servant leadership on SSR behaviour.

Table 2.2 Coping strategies employed by SSR incumbents.

<u>Coping mechanism</u>	<u>Description</u>
Direct action	Involves coping by dealing directly with the stressor (Bluen, 1986; Lazarus & Launier, 1978).
Action inhibition	People choose not to do anything as the most appropriate coping strategy (Bluen, 1986; Lazarus & Launier, 1978).
Information Seeking	Trying to find information to justify the source of the stress in order to understand it better (Lazarus & Launier, 1978).
Intra-psychoic modes	Cognitive processes that a person employs such as using phrases that motivate or lower anxiety (Lazarus and Launier, 1978).
Avoiding contact	Various behaviours used to avoid customers (Belelie, 1999; Bigus, 1972; Shamir, 1980; Tilley, 1989; Weatherly & Tansik, 1992).
Mindlessness	Psychological withdrawal or autonomic behaviour (Shamir, 1980; Weatherly & Tansik, 1992).

Overacting	Keeping oneself busy in an attempt to reduce person role conflict (Shamir, 1980; Weatherly & Tansik, 1992).
Controlling the interaction	Attempts to control interactions with customers (Belelie, 1999; Bigus, 1972; Butler & Snizek, 1976; Rafaeli & Sutton, 1990; Shamir, 1980; Tilley, 1989; Weatherly & Tansik, 1992; Whyte, 1948).
Educating the customer	Attempts to educate customers according to the rules of the organisation (Shamir, 1980; Tilley, 1989; Weatherly & Tansik, 1992) or personal difficulty (Belelie, 1999).
Ignoring the customer	Acting as if the customer has no involvement in the employee-customer interaction (Belelie, 1999; Butler & Snizek, 1976; Rafaeli, 1989; Tilley, 1989).
Rejecting the customer	Blatant rejection of requests made by customers (Rafaeli, 1989).
Reacting to the customer	Talking back to or reprimanding customers by allowing true feelings to emerge (Rafaeli, 1989; Rafaeli, 1989a; Rafaeli & Sutton, 1990; Weatherly & Tansik, 1992; Whyte, 1948)
Engaging the customer	Keeping a customer occupied or included in an activity involved in the customer-employee interaction (Bigus, 1972; Rafaeli, 1989; Whyte, 1948).
Relationships with Colleagues	Developing meaningful relationships with colleagues (Korczynski, 2003; Tilley, 1989) for venting emotions (Whyte, 1948) or creating communities of coping (Korczynski, 2003).
Acting out	Behaviours occurring as a direct result of stress which are not aimed at the actual stressor (Tilley, 1989; Whyte, 1948).
External Stimulation	Methods used to cope that occur outside of the work environment (Tilley, 1989).
Cultivating the relationship	Performing courting and wooing activities in relation to those whom they serve (Bigus, 1972)

The importance of the SSR employees' behaviour in the service encounter is apparent in the light of the increased competition in the service industry (Blem, 1997). The cost of losing customers is too high in such a competitive environment to provide anything other than impeccable service (Dorrian, 1996). This is particularly important in South Africa where service organisations, that have only recently started to compete in the international arena, face competition from well established multinational organisations from other countries (Venter, 2003). In the service quality and customer satisfaction literature, customers have expectations in the service encounter (Boshoff & Mels, 1995). These expectations are based on previous experience, which provides the customer with a view of what should happen, and is linked to what customers forecast in predicting what will happen (Dean, 2004). SSR incumbents must employ coping strategies that meet these expectations, thus enhancing customer service, rather than those that may drive customers away. This is imperative if a service organisation wishes to keep customers returning.

Coping includes any efforts made to manage stressful demands, regardless of outcomes (Cooper, Dewe & O'Driscoll, 2001; Lazarus & Folkman, 1984; Lazarus & Folkman, 1991). However, it is possible to consider which coping strategies are most conducive to customer service by taking into consideration the domain of the outcome, the point in time and the context, implying a value judgement in determining which outcome is most important (Cohen, 1987). In the service encounter this value judgement has already been made with the satisfaction of customer needs being the benchmark for impeccable service (Dorrian, 1996), thus placing the customer's needs at the forefront of the transaction and as a necessary outcome. The coping strategies employed by SSR incumbents are thus deemed conducive to customer service if they promote good service (hence satisfying customer needs) and non-conducive if they do not.

Available options for coping are evaluated in terms of accessible social, personal, and organisational resources and level of perceived control that individuals have over the situation (Cooper, Dewe & O'Driscoll, 2001). Leaders need to find ways of increasing the resources available to SSR incumbents to allow for more options during secondary appraisal. One of the aims of this study is to assess the impact of servant leadership in terms of promoting coping strategies that are conducive to the customer service encounter.

2.5.3 The importance of servant leadership for coping

Research on the effects of leadership on coping of subordinates is minimal. However, one study on transformational leadership showed a positive relationship between perceptions of transformational leadership and appraisal of stressors as challenge. The study also found that this was positively related to problem focused coping and positive affect (Ben-Zur, Yagil & Oz, 2005). No such studies have been conducted with regards to servant leadership.

A result of servant leadership is whether those being served become servants themselves (Greenleaf, 1977). Thus, many of the coping mechanisms described in the literature, chosen by SSR incumbents, would be in contradiction of this new internalised approach to

being servants. Coping strategies such as avoiding (Belelie, 1999; Bigus, 1972; Shamir, 1980; Tilley, 1989; Weatherly & Tansik, 1992), ignoring (Belelie, 1999; Butler & Snizek, 1976; Rafaeli, 1989; Tilley, 1989), rejecting (Rafaeli, 1989), or reacting to the customer (Rafaeli, 1989; Rafaeli, 1989a; Rafaeli & Sutton, 1990; Weatherly & Tansik, 1992; Whyte, 1948) would probably not be chosen as a means of coping with stressful encounters from individuals who have internalised the concept of being a servant which is the result of servant leadership (Winston, 2003). Furthermore, with perceptions of transformational leadership positively impacting the coping of individuals (Ben-Zur, Yagil & Oz, 2005), it is highly likely that servant leadership would promote similar positive outcomes.

Also with the probability of the primary appraisal of many of the stressors inherent in SSR's being changed, with some of them becoming redundant, the ways of coping of these employees may be radically changed. Along with this is the concept of emotional healing which is recognised as being a tenet of servant leadership (Barbuto & Wheeler, 2006; Spears, 1995, 1998, 2002). With leaders interested in the emotional healing of individuals they may find appropriate means of venting their emotions with the help of the leader rather than reacting to the customer in a way which may negatively impact on customer service.

The above section has outlined the concept of coping by reviewing various approaches, definitions and unresolved issues inherent in this complex construct. The antecedents of coping with SSRS were also outlined along with coping mechanisms found in the literature to be used by SSR incumbents. Finally, the usefulness of servant leadership for coping with SSRS was discussed. Having reviewed the three constructs which comprise this study, namely servant leadership, RS and coping, the following section outlines the reason for, and contribution of, choosing to investigate the relationships between them.

2.6 Conclusions and theoretical support based on the literature

From the preceding discussions on the respective constructs, it appears that servant leadership is highly appropriate to the environment within which SSR incumbents find themselves. Moreover, it appears that the characteristics of servant leadership are

conducive to negating some antecedents of RS experienced by SSR incumbents. Thus, it is expected that the RS of SSR incumbents would be lower if the level of servant leadership is higher. Not only so, but the repercussions and influence which servant leadership appears to have on followers, implies that the coping mechanisms employed by individuals will also be effected. Therefore, it can be expected that the coping mechanisms that are conducive to customer service would be more prominent in the presence of servant leadership. The discussions have also shown the associated link between stress and coping and thus it is expected that servant leadership would indirectly affect coping with stress acting as a mediator and *visa versa*.

With the discussed theoretical foundation and instrumentation acting as a base, the present study was guided by specific research questions. Therefore, the purpose of this study was to answer these questions.

2.7 Research questions and propositions

In accordance with the aim of the study and the proposed relationships that are believed to exist between the constructs, as stated in Chapter 1, the following research questions and propositions were formulated.

1. What are the factor structures and content of each of the construct measures, and to what degree are the measures portable considering their origin in a culturally different setting? (Proposition 1)
2. What is the relationship between servant leadership, RS and coping? i.e. Does servant leadership provide a support base for SSR incumbents such that their RS decreases and the coping mechanisms which they employ are conducive to customer service? (Propositions 2,3,4,5 & 6)
3. Can a model of sequential relationships among the variables SL, RS and coping be built successfully? (Proposition 7)

To answer these three questions, several propositions have been developed which must be tested. This study tested these propositions by using a correlative *ex post facto*

research design with multiple measures. The reason for using this type of design is to determine the causal relationships that exist between servant leadership, SSRS and coping. Understanding these causal relationships will make it possible to further understand the impact of servant leadership on, and the value of servant leadership for, RS and coping in SSR's. In accordance with the aim of the study, the findings of previous research and the proposed model, the following research propositions were formulated, and used to empirically investigate the research questions.

Propositions one

1. The content of the constructs will be intelligible/comprehensible to the original content identified by the measuring instrument developers.
2. Factor structures for each of the measures will be interpretable and understandable in a cultural setting different from the culture of origin.

Proposition two

A significant negative relationship exists between servant leadership and RS of SSR incumbents.

Proposition three

A significant positive relationship exists between servant leadership and coping strategies deemed conducive to customer service.

Proposition four

A significant negative relationship exists between servant leadership and coping strategies deemed non-conducive to customer service.

Proposition five

Servant leadership will influence coping indirectly with RS acting as a mediating variable.

Proposition six

Servant leadership will influence RS indirectly with coping acting as a mediating variable.

Proposition seven

The conceptual model proposed in Figure 2.2 describing the relationships between servant leadership, RS and coping will produce a good fit with the data.

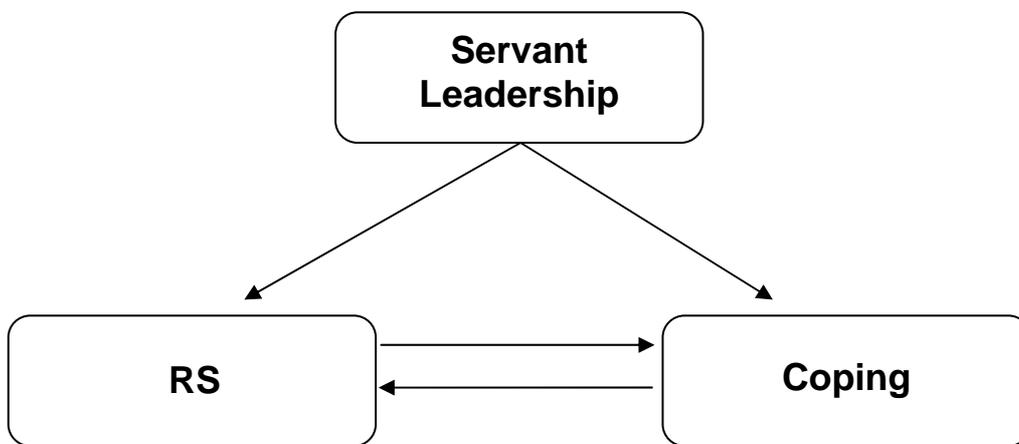


Figure 2.2: Proposed model representing the expected relationships between servant leadership, RS and coping in SSR's.

The methodology used in carrying out the empirical work done in this study is discussed in Chapter 3.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents an outline of the research methodology employed in this study - specifically pertaining to the constructs of:

- Servant leadership, based on the research work of Barbuto and Wheeler (2006),
- Role stress, based on the research work of Hartline and Ferrell (1996),
- Coping, based on the work of Lazarus and Folkman (1984)

situating it within a South African context, specifically in a large national retail organisation.

3.2 Overview of research design

The aim of the study was to explore the relationships between servant leadership, RS and coping of SSR incumbents. A correlative *ex post facto* study of non-experimental kind was followed. This approach was chosen to facilitate accurate empirical testing of whether the propositions could be confidently accepted or rejected. In this kind of study there is no control or manipulation of the independent variable (non-experimental) using *ex post facto* data (Terre Blanche & Durrheim, 1999). The ultimate aim is to discover what happens to one variable when the other variables change (Murray-Thomas, 2003). Servant leadership will act as the independent variable, with RS and coping acting as dependent variables. Thus the study employed a mainly quantitative research approach using multiple measures.

Another reason for using this approach is that it allows the researcher to take advantage of naturally occurring variation in the independent variable (in this case servant leadership) with the focus being on the relationship between variables rather than on the comparison between groups (Punch, 2005). A fundamentally empirical methodological approach was thus employed in this study, with the researcher physically distributing questionnaires to obtain the data. Due to the nature of the study bi-variate and multivariate correlational procedures were also employed. The researcher thus chose to use correlational survey research in the form of cross-sectional questionnaires to test the proposed model of servant leadership, RS and coping. Cross-sectional questionnaires employ a single stage

of data collection assessing the climate in a population at a certain point in time (Bethlehem, 1999) and are ideal when the objective is to assess co-variance of certain variables (Aldridge & Levine, 2001).

3.3 Sample design and participants

3.3.1 Research Participants

The research was conducted in a large discount retail chain organisation found throughout Southern Africa. With the first store opening in 1970, the organisation has grown rapidly to 74 stores in total with 62 stores in South Africa and a further 12 stores in other Southern African countries. Approximately 2 million customers pass through their check-out points each month. The organisation focuses on expansion and development planners estimate a growth in store numbers to over 130 by the year 2010, making it Africa's most dynamic discount group.

The organisation aims to provide a unique shopping experience, by offering quality branded goods at unique value for money price. The organisation developed out of the belief that shopping should take place in a “fun” environment. The outlook on customer service is that “our customers will always come first in our business and therefore all our efforts will be aimed at ensuring total customer satisfaction” (quote from the organisations web site). This is seen in their pricing strategy, which guarantees lowest prices and sparsely limited return for credit, as well as in their focus on customer service within the stores. However, there is also an obvious drive within the organisation to create a caring community type focus amongst the employees within each of the stores. This is evident various annual social functions which are organised, sports teams that employees are encouraged to participate in, and a team ethos that is evident in their working vocabulary. The unit of analysis for the present research was individuals occupying SSR's. The majority of the employees within this retail chain constitute employees that fit the criteria of boundary spanning SSR workers. This makes it an ideal choice for the research setting.

The literature highlighted certain characteristics apparent in organisations which house SSR employees (Papadopoulou-Bayliss et al., 2001; Shamir, 1980), which were used for choosing this organisation as the research site. These criteria included:

- The employees are commonly not considered to be professionals;
- Client participation in or use of the service or product is voluntary and thus they have to be motivated to use the service;
- The organisation has no intention of changing their relationship with their customers;
- The status of the service providers is considered subordinate to that of the customer.

Liaisons with the store managers when setting up the logistics for the research confirmed that these criteria were met by the large majority of individuals working at most levels within this specific retail store making it an excellent research site.

For the purposes of this study the servant leader referred to in the questionnaires was seen as the 'supervisor'. This was deemed necessary as it is the supervisor of a particular department, rather than the store manager, who works directly with the SSR worker as their immediate supervisor. This particular organisation has chosen to refer to them as supervisors whilst their function is really the same as that of the manager. It is only the store manager who is referred to as the manager, but many of the SSR employees make contact with their supervisor rather than the store manager, with the supervisors reporting directly to the manager.

The research sample comprised a total of 290 respondents occupying various different SSRs in six different stores within the Western Cape area. The present study used a probability random sampling strategy (Terre Blanch & Durrheim, 1999). Respondents were identified based on the particular shift that they worked with the majority being those that were able to attend the team meeting before the start of trading hours. This enabled the completion of questionnaires outside of the stores' trading hours, but within the employees working hours, so as not to prejudice the employees financially for partaking. All of the respondents were people who work directly with customers on a daily basis and who fulfil the criteria needed to occupy boundary spanning SSRs even though not all of them occupied the same position within the organisation.

3.3.2 The sample of SSR employees

The sample of SSR incumbents consisted of 139 (47.9%) females and 135 (46.5%) males, with 16 (5%) not reporting on their gender, totalling 290 SSR workers. The mean age of

the sample was 27.55 ranging from 18 - 52 years with 232 (80%) being between 18 and 33 years. In terms of their level of education 24 (8.2%) hold a post school certificate/diploma or degree, 184 (63.5%) had completed standard 10/ grade 12 (Matric) and 61 (21%) had not completed high school. The respondents' median job tenure in their current positions was 2.69 years. The sample was ethnically distributed as follows; 70% Coloured; 23% Black; 4% White; and 2% Indian. Seventy seven per cent described themselves as Christians, 48% indicating Protestant or other Christian affiliation and 29% Catholic with 12% being Islamic. Forty three per cent used Afrikaans as their current home language; 34% English; and 19% Xhosa.

3.3.3 General sample comments

- Sampling refers to taking a subset or segment of the population and using it as representative of that population (Bryman & Bell, 2003). Therefore, a major concern in sampling is the size of the sample (Terre Blanch & Durrheim, 1999). The sample size must be adequate to allow inferences to be made about the population from the research findings. Bryman and Bell (2003) contend that the absolute rather than the relative size of a sample is what increases validity and therefore the sample must be as large as possible. For a given design the larger a sample the more one reduces possible sampling error and increases accuracy of generalisation. Therefore the larger the sample the better (Burns, 2000).
- When conducting factor analysis the sample size must be large enough to allow for reliable estimations of correlations (Tabachnick & Fidell, 1989). To do this, reports show that for most purposes a sample size of 100 to 200 is good enough and that it is comforting to have at least five cases for each observed variable (Tabachnick & Fidell, 1989). Other research suggests a ratio of 7:1, suggesting that when the variable-to-factor ratio exceeds 6 the sample size begins to stabilise regardless of the number of factors (Mundfrom, Shaw & Lu Ke, 2005). Guadagnoli and Velicer (1988) recommend 150 as a sufficient sample size to obtain an accurate solution in exploratory factor analysis. Exploratory factor analysis is used to gather information about the inter-relationships among a set of variables (Pallant, 2001). Confirmatory factor analysis is used to confirm already established structures of constructs (Pallant, 2001). Thus in the case of the Servant Leadership Questionnaire, for example, exploratory and confirmatory factor analysis would test whether the scale presented the same factors

as those proposed by Barbuto and Wheeler (2006). In confirmatory factor analysis sample sizes of more than 150 are less likely to yield improper solutions (Kline, 2005).

- The sample size of 290 in the present study is seen as sufficient for attaining credible results when conducting structural equation modelling (SEM). SEM is considered a large sample technique, with a sample size of greater than 200 considered to be 'large' (Kline, 2005). Also, for the purposes of multiple regression, Tabachnick and Fidell (1989) recommend that one would like to have 20 times more cases than independent variables. That is, if the researcher intends to use 5 independent variables in a multiple regression analysis, then an appropriate number of cases would be 100. Therefore, the sample in the present study is seen as being more than adequate for use in a validation study.
- However, the main concern in sampling is representativeness because increased sample size does not reduce bias in selection procedure (Burns, 2000; Durrheim, 1999) and therefore does not necessarily increase generalisability. A distinguishing characteristic of survey research is the care which is taken in selecting the sample of respondents with the goal of being able to generalise from the sample group to the target group or population (Krathwohl, 1993). To this end an attempt was made to ensure adequate demographic representation of the population with the sample being inclusive of all staff members in each store irrespective of race, age, gender or level of education.

3.4 Measuring instruments

Following the recommendation of Bourque and Fiedler (2003) and Punch (2005) the present study adopted questionnaires that had already been used and tested in previous survey research. To this end the 118 item self-administered composite questionnaire used in the study comprised of the:

- Servant Leadership Questionnaire (SLQ) developed by Barbuto & Wheeler (2006);
- Role Stress Scale including both a Role Conflict and a Role Ambiguity scale developed by Hartline and Ferrell (1996), based on the Role Stress Scale developed by Chonko, Howell and Bellenger (1986); and
- Ways of Coping Scale developed by Lazarus and Folkman (1984).

Krathwohl (1993) suggests adapting certain language and phrases in questionnaires to be understood by the individuals being tested as well as making them contextually specific, referred to as harmonisation (Harkness, Pennell & Schoua-Glusberg, 2004). This can be vitally important in conveying the same meaning in different contexts (Braun, 2003). For the purposes of this study therefore certain words were adapted to make the questionnaires appropriate to the particular context of a retail service environment. For example, the word manager in both the SLQ, RA and RC scales was replaced with the word supervisor. This was done to keep the questionnaire in line with the language used in the particular organisation which assigns the word supervisor rather than manager to the individual that would otherwise have been called a manager. The instructions for the ways of Coping Scale were also adapted by asking respondents to think specifically about coping behaviours used when dealing with the stress of a customer. This was done to maintain the focus of the study on the appropriate context of stressful customers and is in line with the recommendation of Lazarus and Folkman (1984) when prescribing the appropriate use of this scale.

The composite questionnaire was handed directly to each SSR employee to complete. Thus, respondents had to assess the level of:

- servant leadership of their supervisor/manager
- their own levels of role stress, comprising role ambiguity and role conflict; and
- the methods they used to cope in a particularly stressful encounter with a customer.

Apart from these instruments, the composite questionnaire also contained demographic and organisational questions which included questions relating to:

- job title;
- age;
- gender;
- mother tongue;
- current home language;
- ethnic group;
- religious orientation;
- time employed in his/her current position

The appearance and arrangement of the composite questionnaire was in accord with guidelines given by Burns (2000). Hence the demographic questions, acting as an easy lead in to the questionnaire, were placed first followed respectively by the SLQ, RC & RA scales and finally the Way of Coping scale. Each scale included in the questionnaire was preceded by specific instructions as well as a clear worked example of how to respond to each item. The researcher was also present during the completion of the questionnaires to clarify any areas of ambiguity or misunderstanding and answer any questions.

Unfortunately, all three of the scales used were only available in English in their original format. Due to the high number of Afrikaans speaking individuals in the geographic regions within which particular stores were situated, it was necessary to translate the composite questionnaire into Afrikaans. Accurate translation is fundamental to maintaining validity and fairness of a measure and is thus vitally important in the research process (Harkness, 2003). The translation was done via a team approach according to the framework recommended by Harkness et al. (2004), which incorporates procedures of translation, review, and translation approval. The translation was done by a group of 3 post graduate bi-lingual first language Afrikaans speaking students with the assistance of a professional translator. The translated questionnaire was then reviewed to ensure translation accuracy and to detect any translation errors. A pilot study was also conducted to highlight the applicability of the items to the participants as well as to check any further problems in adaptation or translation. The final translation approval was made by the researcher after the pilot study. The researcher remained involved throughout the translation process to keep the focus of the translation on the meaning of the questions rather than on the meaning of the words. This is one of the main pitfalls in translation (Harkness et al., 2004).

The portability of the scales in the present research was another major challenge with all of the scales being generated outside of South Africa. Smith (2004), Harkness, Van de Vijver and Johnson (2003), Johnson et al. (1997), Smith (2003) and Van de Vijver, (2003) discuss the challenges arising in the portability of scales when using questionnaires developed in other countries highlighting their potential invalidity when used in a different cultural context. For the present study, this means that with the scales being developed in America, their use in the South African context may render them invalid. Braun (2003) discusses the importance of translation and adaptation in the formulation of the questionnaires used cross-culturally. However, Harkness et al. (2004) propose that textual

assessment does not suffice when attempting to use measures cross culturally and that additional statistical analyses are imperative to test portability. Therefore, the data obtained from the sample was used to test the general portability of the measuring instruments to the South African context, testing internal consistency and confirming factor structures. These tests were of fundamental importance in measurement with regard to validity and thus generalisability. Reise, Widaman and Pugh (1993) indicate that once measurement invariance has been statistically established, additional theoretically important questions can be addressed.

More information on the scales used in the present study follows.

3.4.1 *Servant Leadership Questionnaire (SLQ)*

Servant leadership was measured with the Servant Leadership Questionnaire (SLQ), developed by Barbuto and Wheeler (2006). Despite attempts at creating measuring instruments for servant leadership, including the (Servant) Organizational Leadership Assessment (SOLA) (Laub, 1999), Servant Leadership Profile (Page & Wong, 2000), Revised Servant Leadership Profile (Wong & Page, 2003), and Servant Leadership Assessment Instrument (Dennis & Bocarnea, 2005) there is as yet no consensus regarding the construct with much differentiation, rather than integration, in the literature (Barbuto & Wheeler, 2006). The theoretical grounding for the use of the SLQ comes as a result of it being based on the major tenets of the most accepted views in the field, namely that of Greenleaf (1977) and Spears (1995; 1998; 2002).

The SLQ was formulated in an attempt to develop a scale that captures the eleven characteristics of servant leadership (Barbuto & Wheeler, 2002). After creating conceptually consistent definitions of the characteristics, they developed five to seven items for each of the eleven characteristics. Fifty six items were tested for face validity with a panel of eleven experts (six leadership faculty from three universities and five doctoral students of leadership), after which four items were re-written and then retested wherein all the items were correctly categorised 80% of the time, indicating face validity (Barbuto & Wheeler, 2006). Both a “self” and a “rater” version of the test were formulated.

The original test was administered to a sample of 80 community leaders, who completed the “self” version, and 388 raters, who completed the “rater” version, from counties in the

Midwest United States. A varimax rotation and Kaiser normalisation was used in exploratory factor analysis resulting in the extraction of only five factors (23 items) with strong and unique loadings. Reliabilities for the self and rater version of the scale ranged from .68 to .87 and .82 to .92 respectively with no more items improving the coefficient alpha when deleted. Sub-scales in the rater version of the scale yielded the following coefficient alpha's: altruistic calling ($\alpha = .82$), emotional healing ($\alpha = .91$), wisdom ($\alpha = .92$), persuasive mapping ($\alpha = .83$) and organisational stewardship ($\alpha = .83$). Convergent and divergent validity were tested by simultaneously administering tests for transformational leadership and leader-member exchange. Transformational leadership and servant leadership show strong and consistent patterns between them with low effect sizes indicating their measurement of different phenomena. LMX also shared variance with each of the five sub-scales. Finally predictive validity was evident from correlations with several outcome variables including extra effort, satisfaction and organisational effectiveness, measured with the Multi-leadership Behaviour Questionnaire (Barbuto & Wheeler, 2006).

3.4.2 Role stress

Role conflict and ambiguity was measured with the scale developed by Hartline and Ferrell (1996), which was an adapted version of the scales developed by Chonko, Howell & Bellenger (1986). From the original 30-item role conflict and 36-item role ambiguity scale (designed for use in a sales context) they selected items that could apply to any boundary spanning employee (employees that interface directly with customers). They omitted items pertaining to expense accounts, extending credit and/or sales commissions (Hartline & Ferrell, 1996).

The final 12-item role conflict scale (Cronbach's alpha = .83) asks employees to indicate their agreement between themselves and their job, supervisors and customers on a scale ranging from "no agreement" to "complete agreement". The final 17-item role ambiguity scale (Cronbach's alpha = .91) asks employee's to rate their certainty about various aspects of their jobs ranging from "not at all certain" to "completely certain" (See Appendix B).

3.4.3 Coping

Coping was measured using the Revised Ways of Coping Scale developed by Lazarus

and Folkman (1984). Although the factor structure of this scale has come under much scrutiny in the past, with various authors finding fewer factors or labelling them differently (see for example Aldwin, Folkman, Shaefer, Coyn & Lazarus, 1980; Vitaliano, Russo, Carr, Maiui & Becker, 1984), the main substance of the original questionnaire has been robust, continues to be useful and is among the most widely used scales to measure coping (Lazarus, 1999).

The 66-item scale (See Appendix B) used by Folkman et al. (1986) asks subjects to respond on a 4-point Likert scale (0 = does not apply and/or not used; 3 = used a great deal). Folkman et al. (1986) found eight sub-scales inherent in the questionnaire: confrontive coping ($\alpha = .70$), distancing ($\alpha = .61$), self-controlling ($\alpha = .70$), seeking social support ($\alpha = .76$), accepting responsibility ($\alpha = .66$), escape avoidance ($\alpha = .72$), planful problem solving ($\alpha = .68$) and positive reappraisal ($\alpha = .79$) (Folkman et al, 1986).

3.5 Procedure

3.5.1 Pre-test and pilot survey

Pilot testing is commonly disregarded by many survey researchers (De Vaus, 1996). In this study a pre-test and a pilot study were both conducted prior to the survey proper. After the completion of the initial adaptation and translation of the composite questionnaire a short pre-test was done using 3 candidates from each language group. The candidates were asked to fill out the questionnaire in the presence of the researcher and asked to comment on each scale and each item of the questionnaire. Various changes were suggested and made to the layout of the questionnaire and a few adaptations made to specific items. These pre-tests were done using SSR employees who did not work in the same environment as the targeted population for the present study, the purpose being to check the clarity of the layout on the questionnaire and specific questions. This pre-test preceded a small pilot study.

Pilot surveys are dummy runs of the survey proper and are considered to be an essential part of survey research methodology (Aldridge & Levine, 2001; Bourque & Fiedler, 2003; de Vaus, 1996; Krathwohl, 1993). The pilot survey in the current study was done on a sample of 20 SSR employees that occupied similar positions in a similar setting to those in

the focus population. Matching the respondents in the pilot study with those in the sample of the research proper is essential in maximising the value of any pilot study (Bourque & Fiedler, 2003; de Vaus, 1996). Following the suggestion made by Krathwohl (1993) each respondent in the pilot study was also interviewed after completing each questionnaire regarding their views about the appropriateness, applicability and length of the questionnaire as well as the clarity of specific items. Access to this sample was gained through the supervisors of various stores who chose employees that were able to take a 'time out' from their current work duties during normal working hours. The sample was representative of age, race, gender and educational differentials.

The pilot survey enabled the researcher to see the problem area of having both supervisors and managers within one store and the wording referring to supervisors and managers was changed accordingly on various items. The majority of the respondents felt that the questionnaire was highly appropriate to their position and easily understandable. The major problem area revealed in the pilot study was the practicality of completing the questionnaire (118 items taking approximately half an hour to complete) whilst being at work. The researcher concluded that the managers and supervisors involved in the research proper would have to agree to giving the respondents an appropriate 'time out' for them to fill out the questionnaire whilst still having them being 'clocked in' at work so that they would not be financially prejudiced by partaking in the research.

3.5.2 Data collection

Access to the members of the sample was obtained via direct group administration by the researcher. This approach is preferable to mailing the questionnaires so that the researcher can stay in control of the data (Punch, 2005). The respondents also did not have access to email forcing the researcher to make use of hard copies of the questionnaires which would be filled out manually. The organisation allowed the researcher to make use of their morning meeting times to do the survey. The majority of employees of the various stores attend these morning meetings on a regular basis which happen for a half hour before the doors of the store are opened for customers. The employees are paid to attend these meetings and are required to clock in before the meetings start making these a perfect setting for the gathering of data.

The store manager of each store received an email from the human resources (HR)

manager of the company in the Western Cape briefing them about the survey of the present study and requesting that they allow their staff to participate. The researcher then contacted the managers of the respective stores telephonically to clarify any questions pertaining to the study and to negotiate which day would work best for them to allow the researcher to collect the data. All the employees of the various stores were informed of the study a day or two in advance and requested to arrive at their shift punctually, especially for those arriving for the morning meeting. The researcher then personally met with each store manager for approximately half an hour before each morning meeting to clarify the practicalities of the research, take them through the questionnaire and answer any further questions that they might have had.

At the morning meetings all of the morning shift staff from each store were called together by the store manager in a large area at the front of the store. The store manager briefly introduced the researcher to the group and then allowed the researcher to speak. The researcher gave an introduction to himself and the questionnaire and informed the individuals of the implications of the study as well as individual's rights to refuse participation to ensure informed consent. Each individual was handed a questionnaire in the language of their choice (either English or Afrikaans). The researcher then talked the whole group through the questionnaire section by section giving instructions on how it should be filled out and clarifying the layout. An opportunity was given for participants to ask questions regarding the study before they began to complete the questionnaires. They were reassured that the researcher would be present while the questionnaires were completed if there were any further questions or areas of uncertainty.

In line with the views of Bryman and Bell (2003) and Burns (2000) the researcher aimed to get as many respondents as possible. When negotiating access to the employees with the store managers the researcher requested assistance in gaining access to as many of the employees as possible in each store. Employees who worked a later shift, therefore missing the morning meeting time, were allowed by the store managers to meet with the researcher soon after clocking in to work to fill out the questionnaires before they started work on the shop floor. In this way all the employees within each store were given the opportunity to fill out the questionnaire. The same procedure was used in these smaller group settings as in the larger morning meeting setting.

The researcher exercised control, in order to lower error variance, and attempted to benefit

from the strengths and avoid the pitfalls of this kind of research by accounting for the following aspects of self-administered questionnaire survey research:

- The researcher was physically present for the duration of the administration of all questionnaires in this study. This is recommended as a superior method of data collection (Newman & McNeil; 1998) as it allows the researcher to take full advantage of the strengths of self-administered survey techniques while avoiding the downfalls of completely unsupervised approaches such as mail surveys.
- The ability to access large samples is one of the main strengths of self-administered questionnaires (Bourgue & Fiedler, 2003). The questionnaires were administered during the employees meeting time before the opening of the store in the morning. This meant that the large majority of the employees within each store were able to take part in the research. The self-administering nature of the questionnaires facilitated the process by allowing for all those staff that wanted to partake in the research to do so.
- Self-administered questionnaires are also effective in handling sensitive topics (Aldridge & Levine, 2001; Bourgue & Fiedler, 2003). This was a particularly important factor in this study with the questionnaire asking respondents to honestly rate the behaviour of their superiors as well as reporting on certain ways of coping which are contrary to effective customer service and even against the rules of the organisation. Many surveyors believe that respondents are more likely to give truthful information on sensitive topics in self-administered questionnaires (Bourque & Fiedler, 2003). This is particularly true if their responses are anonymous (Aldridge & Levine, 2001). The anonymous nature of the questionnaires was therefore stressed by the researcher in the verbal as well as the written instructions. Anonymity was further enhanced through multiple choice type answers, making hand writing recognition almost impossible. Respondents were also asked to hand their questionnaires directly back to the researcher and with such a large group having questionnaires administered simultaneously (up to 40 respondents at one time) matching particular respondents to their questionnaires was virtually impossible.
- Two of the major considerations of research, namely the time taken and cost involved in gathering data, are most favourably addressed through the use of self administered questionnaires (Aldridge & Levine, 2001; Bourgue & Fiedler, 2003; Newman & McNeil,

1998). That the questionnaires were administered to large groups at one time allowed for a huge time saving and with the questionnaires being handled directly, no postage costs were involved. Other benefits include consistency in instructions to respondents (Bourgue & Fiedler, 2003) and prevention of interviewer bias and effect (Aldridge & Levine, 2001).

However, self-administered questionnaires do pose some problems

- One of the most widely reported problems of self-administered questionnaires is their low response rate (Aldridge & Levine, 2001; Bourgue & Fiedler, 2003). This is particularly true of mail surveys which can receive response rates of as little as 20% unless there is some incentive scheme included (Bourgue & Fiedler, 2003). With face-to-face type surveys traditionally yielding the best response rates (de Vaus, 1996) and return rates in directly administered surveys generally being non-problematic (Newman & McNeil, 1998) the researcher decided not to mail the questionnaires but rather to administer the questionnaires personally. As a result the present study experienced an exceptional response rate of greater than 90%.
- Another problem is that self-administered questionnaires must be short and also appear short to prevent low response rates (Aldridge & Levine, 2001). With the 66 item Ways of Coping scale included in the study the composite questionnaire comprised 118 items which took approximately 30 minutes to complete. Literature suggests that surveys containing more than 125 items start to experience a drop in the response rates, often because of boredom, but that with the researcher being present the length of time and number of items may increase substantially without much effect (de Vaus, 1996). This was another motivating factor for the researcher to be present.
- A related problem is item non-response which proved problematic in this research. De Vaus (1996) recommends that the researcher check through questionnaires to decrease item non-response. In the present study, the researcher was able to scan through the questionnaires while they were being handed back and ask respondents to complete questions they may have missed out. However, even after scanning through as many questionnaires as possible and asking each individual before returning their questionnaires to personally check that they had responded to each item, numerous items were left out or had double responses rendering them invalid. A practical problem

in this area was the fact that the store within which the research was conducted had to open its doors to customers at a set time so asking respondents to wait whilst carefully checking through every questionnaire was not always possible.

- The decision for the researcher to directly administer the questionnaires addressed various other issues involved in self-administered questionnaires. The researcher had control over who actually fills out the questionnaire and the spirit in which they did so (Aldridge & Levin, 2001). The researcher was also able to monitor communication between respondents which may have impact on the responses and led to skewed results (Bourque & Fiedler, 2003). In this study, the researcher asked that individuals sit a short distance from each other whilst filling out the questionnaires and not to discuss their answers with anyone other than the researcher. Despite this however, communication between respondents proved difficult to control. The context within which respondents complete questionnaires is problematic in self-administered questionnaires (Aldridge & Levin, 2001) and these incidents highlighted this despite the presence of the researcher. Bourque and Fiedler (2003) also highlight that consistency in instruction as well as the researcher being able to answer any questions which may arise can add to the validity of the results.

According to Newman and McNeil (1998) directly administering surveys are in almost all respects the preferable approach when making use of self-administered questionnaires especially with regards to increasing return rates and decreasing the time and costs involved in survey research.

3.5.3 Nature of the response format

Likert-type scales generally ask respondents to indicate some level of agreement, frequency of behaviour, or apparent degree or extent of a characteristic with regards to a declarative statement (Netemeyer, Bearden & Sharma, 2003). This type of response mode was relevant to the scales comprising this survey and consequently a Likert-type response mode was chosen. Investigations of cross-sectional reliability suggest that between 5 and 7 points is the optimum number of scale points in unipolar scales (Krosnick & Fabrigar, 1997). Krosnick and Fabrigar (1997) state that a refined scale, including more points, will permit respondents to identify with their responses more precisely and comfortably. Netemeyer et al. (2003) concur and add that scale reliability and validity will not be

enhanced by providing more than 7 response alternatives. Discussions on the use of midpoints in scales highlights compelling reasons both for and against their use with authors concluding that the use of a midpoint can be both appropriate (Netemeyer et al., 2003) and sensible (Krosnick & Fabrigar, 1997). Using a midpoint is recommended by de Vaus (1996) and Aldrige and Levine (2001) unless there are compelling reasons for not doing so. Aldrige & Levine (2001) further indicate that the middle category in itself is a worthwhile finding especially when the questionnaires are well designed (as was thought to be the case in the present study). Consequently, the researcher chose to use a seven point Likert scale format throughout the composite questionnaire.

The composite questionnaire in the present research study asked SSR employees to assess the perceived servant leadership behaviour of their direct supervisor, their own levels of RS (comprising RC and RA) and to report on the different ways in which they cope with the stress of dealing with a customer.

For the SLQ section, SSR employees were asked to rate their supervisor by indicating the degree to which certain behavioural statements reflected the perceived behaviour of their supervisors. This was done by responding to various statements according to a seven-point Likert type scale ranging from the lowest rating of one, "Never", to the highest rating of seven, "Always". Typical items contained in the SLQ were: "My supervisor puts my interests ahead of his/her own"; and "My supervisor does everything s/he can to serve me". All 23 items from the original SLQ were retained.

The role stress section of the composite questionnaire comprised a role conflict and role ambiguity section. For the role conflict scale SSR employees were asked to indicate how much agreement there was between them and (section 1) their jobs; (section 2) their supervisor; and (section 3) their customers according to various elements of their job which promote a conflict of interests for these three parties. Scores on the role conflict scale were also based on a seven-point Likert response scale, with the lowest rating being one, "None", and the highest rating being seven, "Complete". Typical items from the different sections of the scale were: (Section 1) "How much agreement is there between you and your job about the amount of work you are expected to do and the amount of work you actually do?"; (Section 2) "how much agreement is there between you and your supervisor about how often you should report to your supervisor?"; and (Section 3) "How much agreement is there between you and your customers about how far you should bend

the rules to satisfy customers?”.

Regarding the role ambiguity scale, SSR employees were asked to indicate their level of certainty about various aspects of their jobs by responding to questions pertaining to their jobs. Scores for role ambiguity were based on a seven point Likert scale, with one being the lowest, “Not at all”, to seven being the highest, “Completely”. Typical items contained in the RA scale were: “How certain are you about how to resolve customer complaints?”; and “How certain are you about how best to serve customers?”. Five of the original 29 items failed to load sufficiently onto a single factor and were deleted leaving a final 24 item scale (see Chapter 4).

For the Ways of Coping scale the SSR employees were asked to bring to mind a situation in which they experienced a particularly stressful encounter with a customer and then to indicate the extent to which they used various coping strategies. The scale thus contained an initial statement, “In the stressful encounter with the customer I...”, and then 66 different coping strategies which respondents were required to reflect on in light of the statement. Scores for the various ways of coping were based on a seven-point Likert scale, with one being the lowest, “Not at all”, to seven being the highest, “Completely”. Typical items contained in the scale were: “I just concentrated on what I had to do next – the next step”; “I expressed anger to the customer”; “I tried to keep my feelings to myself”; and “I got help”. Twenty eight of the original 66 items failed to load sufficiently onto a single factor and were deleted resulting in a final 38 item scale (see Chapter 4).

The following aspects were taken into account by the researcher:

- Jenkins and Dillman (1997) discuss the importance of questionnaire layout including various principles which were adhered to in the design of the composite questionnaire used in this study. These included: (1) using visual elements of brightness, colour, shape and location in a consistent manner; (2) presenting information in a manner that does not require respondents to connect information from separate locations for accurate comprehension; and (3) asking respondents to answer only one question at a time (See Appendix B).
- Aldridge and Levine (2001) suggest dividing fairly long questionnaires into sections with a brief introduction to each section while Bourque and Fiedler, (2003) recommend

using both transitional and question answering instructions. Consequently, the composite questionnaire was divided into 5 sections beginning with instructions for each new section including further instructions and an example on how to answer the questions in each section.

- Labelling of all scale points can increase the ease and precision with which respondents can make reports (Krosnick & Fabrigar, 1997) and give the respondent a better idea of the endorsement he or she is making (Netemeyer, 2003). Various studies have also shown that including labels on all scale points positively influence the validity and reliability of results (Krosnick & Fabrigar, 1997). Consequently, all the scale points were labelled in the present study.

The scales comprising the composite questionnaire were therefore, taking the stated views into consideration, administered to the respondents with direct involvement of the researcher. Respondents took part in the research on a voluntary basis with informed consent during working hours, with various measures as outlined being taken to optimise confidentiality.

3.5.4 Data analysis

The data was analysed using quantitative techniques. The correlational design of this research required the use of bivariate and multivariate correlational analyses since the relationship between both two and multiple variables had to be determined (Babbie & Mouton, 2001; Tabacknick & Fidell, 1989). The four kinds of multivariate analyses used in this research were: (1) standard multiple regression analysis (using SPSS version 15.0 for Windows); (2) exploratory factor analysis [EFA] (using SPSS version 15.0 for Windows); (3) confirmatory factor analysis [CFA] (using LISREL Version 8.54); and (4) structural equation modelling [SEM] (using LISREL Version 8.54).

Before conducting the various multivariate statistical analyses, the researcher took measures to account for missing values which is one of the most pervasive problems in data analysis (Tabachnick & Fidell, 1989). The current data showed a small number of missing values with the highest percentage per item being a mere 3%. The pattern of missing values, however, is more important than the number that is missing. Missing values scattered at random throughout the data set seldom pose any serious threat to the

results. Non-random missing values on the other hand can seriously affect the generalisability of results causing serious problems to the outcomes of the research (Tabachnick & Fidell, 1989; 1996; 2001). Analyses of the missing values in the data set, using SPSS version 15.0, showed no definite patterns of missing values. However, due to the limited sample size (N=290), deleting the items with missing values, an approach that is recommended when possible, in some cases led to a drop in sample size of almost 30%. The researcher decided to replace the missing values to maximise the sample size. The missing values were thus replaced with the mean responses in accordance with the recommendations of Tabachnick & Fidell (1989; 1996; 2001).

Having dealt with the issue of missing data, the next step was to conduct a reliability and item analyses on the data to assess the overall reliability of the scales and the items that presented as unreliable. Item analysis was conducted using SPSS Version 15 for Windows. According to the suggestion of Tabachnick & Fidell (1989) reliability analyses were carried out for the overall scales as well as their individual factors. The most common measure for scale reliability is the Chronbach alpha (Field, 2005) which was used to measure reliability of the original scales (see Chapter 4). Item analyses was done according to the recommendations and specifications of Field (2005) and Pallant (2001) taking into account the overall Chronbach alpha of the scale (> 0.7 is good), the alpha if item deleted (items considered for deletion if this shows an increase above overall alpha) and the corrected item total correlations (items < 0.3 are considered for deletion). Very few items were flagged as problematic in the initial analyses and none of the offending items were considered poor enough to be dropped. The overall Chronbach alphas, calculated on the responses of the present sample, for the three scales were:

- SLQ = .946
- Role Stress scale = .839
- WCQ = .935

With all three of the questionnaires used in this research having been developed outside of South Africa it was imperative to re-assess each of their portability to this new context. This was done by means of a series of confirmatory and exploratory factor analyses to assess the structural composition of the measures when applied to the specific research context. The interrelationships between the different variables and their respective dimensions were assessed by means of regression and multiple regression. The fit

between the proposed model and the data was assessed using SEM, which is ideal for this type of analyses (Kline, 2005).

The existence of bi-variate relationships was tested by means of the Pearson product moment correlation coefficient (r), which is the prototypical bivariate statistic and is used to measure the size and direction of the association between two variables (Tabachnick & Fidell, 1989). The correlation coefficient is a point on the scale between -1.00 and 1.00 with values closer to either of these limits indicating a stronger relationship between the two variables (Howell, 1999). Pallant (2001) indicates the importance of preliminary analyses of the scatter plots to ensure that there are no violations of the assumptions of normality, linearity and homoscedasticity as these may severely confound the values of the correlation coefficients. When interpreting the correlation coefficients in samples larger than $N=100$, small correlations may still reach statistical significance. Therefore many authors recommend focusing on the coefficient of determination and only reporting the statistical significance when $N=100+$ (Pallant, 2001). The coefficient of determination is the amount of shared variance between the two variables, calculated by squaring the value of r , which can easily be converting it into a percentage by multiplying it by 100. The interpretation of the correlational analyses was based on the scales offered by Guilford (1950), which describe the strength of relationship for various r 's as follows:

- $< .20$ ($< 4\%$) = slight; almost negligible relationship
- $.20 - .40$ ($4\% - 16\%$) = low correlation; definite but small relationship
- $.40 - .70$ ($16\% - 49\%$) = Moderate correlation; substantial relationship
- $.70 - .90$ ($49\% - 81\%$) = High correlation; marked relationship
- $.90 - 1.00$ ($81\% - 100\%$) = Very high correlation; very dependable relationship

Whereas the intention of correlation is to measure the degree of association between variables, regression on the other hand is used when the intention is prediction (Tabachnick & Fidell, 2001). In multiple regression the researcher attempts to assess the relationship between one dependant variable (DV) and several independant variables (IV) to assess how well the IV's can predict the DV (Tabachnick & Fidell, 2001).

Included in the multivariate analyses of the data were a series of exploratory and confirmatory factor analyses as well as the testing of a structural equation model. Exploratory factor analysis (EFA) and principal component analysis (PCA) allows the

researcher to explore the inter-relationships amongst the variables in a set to assess which variables form coherent subsets which are relatively independent of one another. These subsets, called factors in EFA or components in PCA, are thought to reflect underlying processes which are the cause of the correlations (Tabachnick & Fidell, 2001). EFA and PCA are often used interchangeably (Pallant, 2001) because their processes are similar, however, in PCA all the variance in the observed variance is analysed whilst only shared variance is analysed in EFA (Tabachnick & Fidell, 2001).

Structural equation modelling (SEM), sometimes referred to as causal modelling or covariance structure modelling, refers to a family of related statistical procedures (Kline, 2005) which allow the set of relationships between multiple dependent and independent variables, both continuous and discrete, to be examined (Blaikie, 2003; Tabachnick & Fidell, 2001). SEM is a priori and requires the researcher to formulate models which are then tested in terms of the data (Kline, 2005). It is used, "to evaluate a substantive theory with empirical data through a hypothesised model" (Chou & Bentler, 1995, p. 42). CFA is a special type of SEM technique which analyses the fit of a priori measurement models to evaluate whether the assumed covariance amongst factors is plausible (Kline, 2005). In other words CFA approaches examine whether or not the data is consistent with a highly constrained a priori structure that meets conditions of model identification (Blaikie, 2003; Maruyama, 1998). CFA was used in assessing the usability of the original structural composition of the imported questionnaires and also for assessing the usability of new found structures after EFA. In addressing the other research question(s), SEM was used to test the antecedent relationships between multiple variables simultaneously to see how well the hypothesised model fitted the data produced by the sample.

Having developed any hypothesised model, the next step is to assess the extent to which this a priori model is consistent with the data, known as a model's 'fit' (Diamantopoulous & Siguaw, 2000). To this end a plethora of different fit indices have presented themselves in recent literature (Diamantopoulous & Siguaw, 2000; Gerbing & Anderson, 1993; Kelloway, 1998) almost to the point of saturation. It is questionable whether the development of any further fit indices are needed (Tanaka, 1993). However, individual fit indices only measure a particular aspect of model fit (Kline, 2005) and therefore there is no single 'best' or 'magic' index which provides a gold standard for all models (Gerbing & Anderson, 1993; Kline, 2005). The persistent disagreement about what constitutes "good fit" (Tanaka, 1993) has resulted in consensus that relying exclusively on one measure is imprudent, and that

model fit should be judged from multiple criteria using several indices (Bollen & Long, 1993; Diamantopoulous & Siguaw, 2000; Gerbing & Anderson, 1993; Kelloway, 1998; Kline, 2005). Therefore, “good fitting models produce consistent results on many different indices, in many, if not most cases” (Tabachnick & Fidell, 2001, p.702).

Bollen and Long (1993) suggest utilising indices representing different families of measures. Kelloway (1998, p.40) concurs that, “at a minimum, researchers would want to consider the issues of absolute fit, comparative fit, and parsimonious fit for each model tested. Fit indices therefore should be chosen to reflect these concerns (i.e. choosing one or two indices of each type of fit).” In this regard, the researcher decided to make use of numerous fit indices, including absolute, comparative and parsimonious fit indices, to assess the consistency of the hypothesised model with the data. The following indices were thus used in the study:

- The Chi-square statistic χ^2 (Setorra-Bentler) (Bollen & Long, 1993; Kelloway, 1998);
- the Chi-square/df (Kelloway, 1998)
- the standardised Root Mean Residual (SRMR; Kline, 2005)
- the Root Mean Square Error of Approximation (RMSEA; Brown & Cudeck, 1993)
- the Goodness of Fit Index (GFI; Kelloway, 1998)
- the Non-Normed Fit Index (NNFI, also called the Tucker-Lewis index; Kelloway, 1998)
- the Comparative Fit Index (CFI; Kline, 2005)
- the Expected Cross Validation Index (ECVI; Brown & Cudeck, 1993)
- the Akaika Information Criterion (AIC, Kelloway, 1998)
- the Consistent Akaika Information Criterion (CAIC, Kelloway, 1998)

Tests of *absolute fit* assess the ability of the model to reproduce the actual covariance matrix, by calculating the implied covariance matrix and comparing it with the observed matrix, and include χ^2 , RMR, RMSEA, GFI, and AGFI (Kelloway, 1998). The primary index of fit is the χ^2 goodness-of-fit test (Hoyle, 1995), which evaluates the magnitude of the difference between the sample and the fitted covariance matrix (Hu & Bentler, 1995). A non-significant χ^2 , meaning that the model can reproduce the population covariance matrix, thus indicates that the model shows a good fit with the obtained data (Bollen & Long, 1993; Kelloway, 1998; Kline, 2005). It is in reality a badness-of-fit index with smaller values indicating better fit and a value of zero indicating a perfect fit (Hoyle, 1995; Joreskog, 1993; Kline, 2005). Initial researchers proposed also using the χ^2/df ratio in

assessing model fit with values between 2 and 5 indicating good fit and values lower than 2 representing over-fit (Theron, Spangenburg & Henning, 2004). However, various issues regarding the interpretation of this ratio have caused a decline in its use with authors cautioning against it (Kelloway, 1998). Problems associated with the χ^2 goodness-of-fit test (including sample size, estimation effects and effects of violation of normality and independence), led to the creation of other supplementary (Hu & Bentler, 1995) and adjunct (Hoyle, 1995) fit indices.

The root mean square residual (RMR) provided in LISREL and other computer programmes has a lower bound of 0 with low values taken as indicating good fit (Kline, 2005). However, this measure is sensitive to scale measurement, making it difficult to interpret a given value of RMR (Kelloway, 1998; Kline, 2005). The standardised RMR (SRMR) is therefore often used as the more accurate measure with a lower bound of 0 and an upper bound of 1. As a rule of thumb, values less than 0.10 are considered favourable (Kline, 2005) and values below 0.05 being indicative of a good fit of the model to the data (Diamantopoulous & Siguaw, 2000; Kelloway, 1998).

The RMSEA is generally regarded as one of the most informative fit indices (Diamantopoulous & Siguaw, 2000) being inclusive of confidence intervals and formal hypothesis testing (Kelloway, 1998). The RMSEA has a lower bound of 0 with values of less than 0.05 indicating a close fit, values between 0.05 and 0.08 indicating reasonable fit and values greater than 0.1 indicating models that should not be employed (Brown & Cudeck, 1993).

The goodness-of-fit index (GFI) and the adjusted goodness-of-fit index (AGFI) “do not depend on sample size explicitly and measure how much *better* the model fits compared with no model at all” (Joreskog, 1993, p. 309). The GFI and AGFI range from 0 to 1 and values exceeding 0.9 indicate a good fit to the data (Kelloway, 1998). With the GFI having no known sampling distribution, as is the case with many of the fit indices, 'rules' about what constitutes a good fit should be treated with caution (Kelloway, 1998). The AGFI adjusts the GFI by accounting for degrees of freedom (Kelloway, 1998), but in most circumstances the GFI is recommended as more reliable than the AGFI (Diamantopoulous & Siguaw, 2000; Kline, 2005).

The assessment of *comparative fit* is concerned with comparing the model under

consideration with some competing model, to assess which model provides the better fit to the data (Kelloway, 1998). This is also known as incremental fit (Hu & Bentler, 1995). These indices include the NFI, NNFI, IFI, CFI, RFI and ECVI (Kelloway, 1998). The NFI, IFI, CFI, and RFI range between 0 and 1 with values exceeding 0.90 indicating a good fit to the data (Hoyle, 1995; Kelloway, 1998). The NNFI, however, may present values that are > 1, but it also commonly uses the 0.90 rule to indicate a good fitting model (Kelloway, 1998). The literature recommends relying more on the NNFI and CFI than on the NFI, IFI and RFI (Diamantopoulous & Siguaw, 2000).

Somewhat different is the ECVI which has a lower bound of 0 but no upper bound and with lower values representing better fit (Kelloway, 1998). To assess the models fit, the ECVI must be compared to the ECVI for the independence and the saturated models, with the lowest value representing the model with the greatest potential for replication (Diamantopoulous & Siguaw, 2000; Kline, 2005).

Parsimonious fit indices, a sub-type of comparative fit, result from the premise that better fitting models can be found by estimating more parameters. Therefore these fit indices account for the known effects of estimating more parameters (Kelloway, 1998). The indices that account for model parsimony include the parsimonious goodness-of-fit index (PGFI), the parsimonious normed fit index (PNFI), the Akaika information criterion (AIC) and the consistent Akaika information criterion (CAIC). The PGFI and PNFI range from 0 to 1 with higher values, when compared to that of a competing model, indicating a more parsimonious fit (Kelloway, 1998). Diamantopoulous and Siguaw (2000), however, downplay the PGFI and the PNFI, recommending that the use of their non-parsimonious counterparts present more reliable measures of fit. For the AIC and CAIC, the values must also be compared with a competing model, however, in this case smaller values represent a more parsimonious model (Kline, 2005) and neither are scaled between 0 and 1 (Kelloway, 1998).

With a plethora of different fit indices available and varying reports on their validity and reliability Diamantopoulous & Siguaw (2000, p. 88) suggest that “for practical purposes, the results of the chi-square test used in conjunction with the RMSEA, ECVI, standardised RMR, GFI and CFI indices should be more than sufficient to reach an informed decision concerning the models overall fit”. Hu and Bentler (1995) add to this recommendation by suggesting the inclusion of elements of model parsimony when selecting the best model

from a set of alternatives. With these suggestions in mind, the array of fit indices used in this research were more than adequate to assess the overall fit of the various models.

As a final word of caution it must be noted that despite the vast elaboration on fit indices in the literature Browne and Cudeck (1993, p.157) state that “Fit indices should not be regarded as measures of usefulness of a model. They contain some information about the lack of fit of a model, but none about plausibility... Consequently, they should not be used in a mechanical decision process for selecting a model. Model selection has to be a subjective process involving the use of judgement”. The fitting process thus serves only to disconfirm (it does not fit) or fail to disconfirm (it fits) a particular model and thus show only whether or not data are consistent with that theoretical model (Maruyama, 1998). The analyses for the SEM and CFA analyses were carried out using LISREL. Each of the hypothesized models that were tested in the study as well as their corresponding fit indices are presented in detail in Chapter 4.

3.5.5 Model Equivalence

Increased application of SEM has been matched by an increase in the awareness of the problems associated with this general method of testing structural relations amongst variables (Lee & Hershberger, 1990). The results that are distilled from the measurement of both structural and measurement models should be treated with caution. One particular problem which has eluded the attention of numerous authors is model equivalence (Lee & Hershberger, 1990). A broad definition of model equivalence is when two models are identical in fit to the data, but differ in their causal structure (Hershberger, 2006; MacCallum, 1995). Thus equivalent models are mathematically equivalent, yet they have different path diagrams and provide distinct interpretations (Lee & Hershberger, 1990). Model equivalence is thus methodologically significant because it dramatically exposes the limitations of SEM in testing theories (Hershberger, 2006).

In empirical research, according to Lee & Hershberger (1990) a best fitting model among alternative models may be interpreted as a plausible model if model equivalence is not seriously considered. In *this* case, the term *optimal* model refers to *this* best fitting model. However, there is a need to distinguish the optimal model from the best fitting model, because many distinct models can fit the data equally well (Lee & Hershberger, 1990). Therefore “The existence of multiple, equally good fitting models or equivalent models

rules out the use of the term *best fitting model*. The term *optimal model* will be defined as the most theoretically plausible model of the equivalent models which could have generated the data. The optimal model will show a very good fit with large sample data, however, there will be many implausible models showing this same degree of fit.” (Lee & Hershberger, 1990, p. 313). Thus researchers should expect to find many equivalent variations to their models and should explain why the model that is finally chosen is preferred over mathematically identical ones (Kline, 2005). The rules developed by Lee and Hershberger (1990) are recommended by MacCallum (1995) for constructing and considering the substantive meaningfulness of alternative equivalent models.

3.5.6 Item parcelling in structural equation models for optimum solutions

The use of item parcels has become relatively common in recent years (Bandalos, 2002; Hau & Marsh 2004). The practice of item parcelling involves summing or taking the mean of several items that purportedly measure the same construct (Bandalos, 2002; West, Finch & Curran, 1995). In other words it involves combining items, in scales or subscales, into smaller groups of items. Findings suggest advantages of using parcelling for both normal and non-normally distributions, as long as not less than three item parcels accompanied each factor (Hau & Marsh, 2004). One of the benefits of using item parcelling is that the parcels will typically exhibit distributions that more closely approach a normal distribution than the original items (West et al., 1995). Another benefit (particularly in this research where the scales contain a large number of items and the sample size is unimpressive) is that with item parcelling fewer parameters need to be estimated in the measurement model, implying that the estimates will be more stable in small samples with the ratio of N to the number of variables being optimised (Hau & Marsh, 2004; West et al., 1995). Other advantages of item parcelling include: increased reliability of item parcel responses, more definitive rotational results, more stable parameter estimates, reduction in idiosyncratic characteristics of items, and simplification of model interpretation (Hau & Marsh, 2004).

However, despite these advantages, the use of item parcelling is not without controversy. An assumption that is often not tested is that the use of item parcelling depends on the uni-dimensionality of the items being combined (Bandalos, 2002). Thus the construction of item parcels may obscure the fact that more than one factor may underlie any given item parcel (West et al., 1995). This problem leads to obvious complications in the

interpretation of relationships and structure in models using parcelling (West et al., 1995). Also, because the use of item parcels reduces the number of data points that must be fitted, solutions based on parcels will not yield as stringent a test of SEM models as would analyses based on individual items (Bandalos, 2002; West et al., 1995). Therefore, in the current research, the researcher tried to use analyses based on individual items where possible. However, with the size of some of the measuring instruments, the relatively small sample size, and the distribution make up of the data, the benefits of item parcelling were tapped.

3.6 Summary

In Chapter 3 the research design used in this study was outlined and the composition and nature of the sample were described. The characteristics of the measuring instruments were delineated and information was given on the data collection procedure. Finally, the approaches used in analysing the data were also outlined in Chapter 3. The results of the data analyses are presented in Chapter 4.

CHAPTER 4: PRESENTATION OF RESULTS

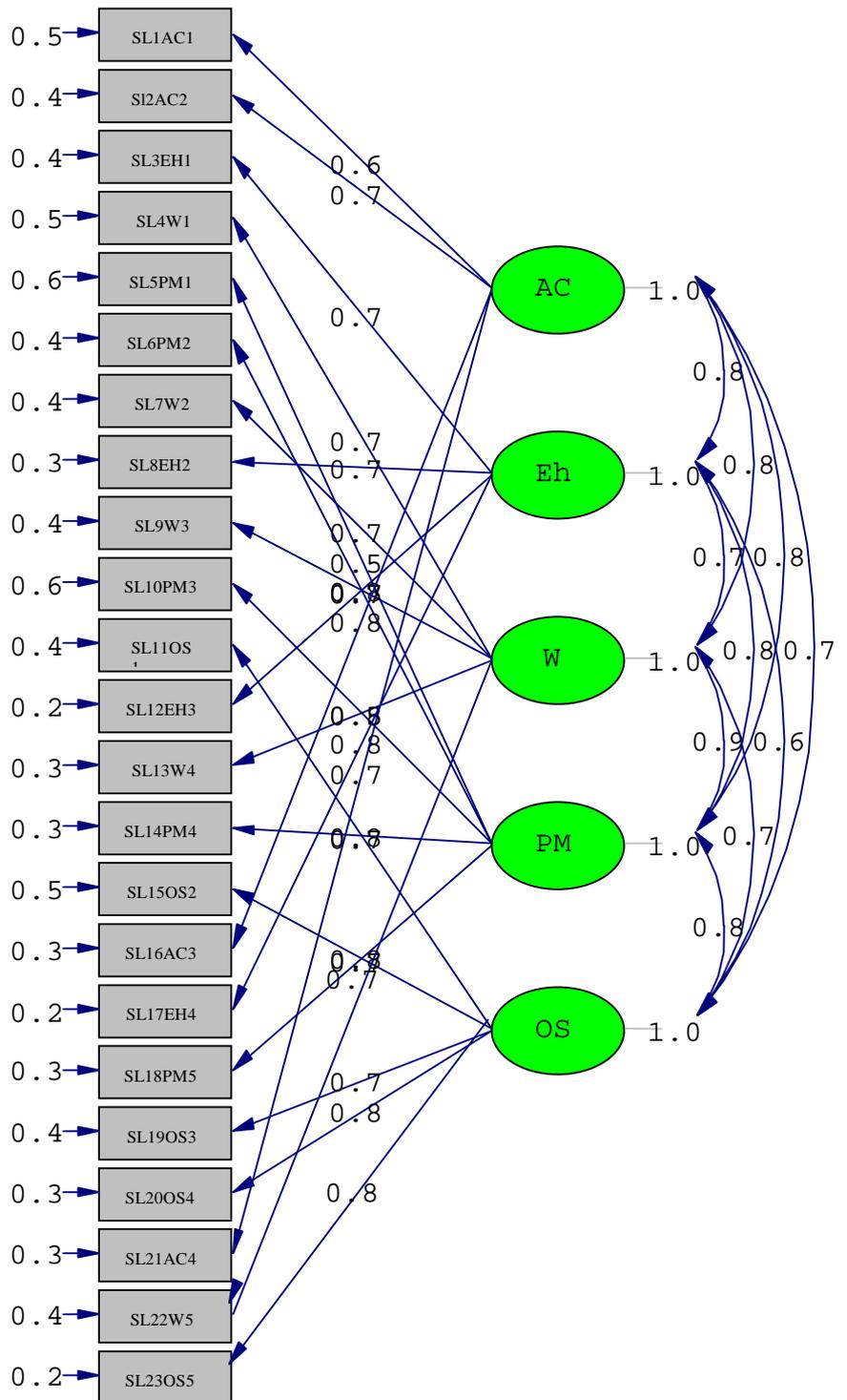
4.1 Introduction

The analyses that were carried out on the data were aimed at answering the research questions and testing the propositions outlined in Chapter 2. These questions and propositions were derived from the literature pertaining to the constructs that made up the present study which were measured by their respective measuring instruments.

With the measuring instruments being imported from outside of South Africa, a necessary first step, and the first research question, was to test the portability of the measures to assess whether they had structural equivalence or coherence in the new context. Therefore, to determine the contents, validity and reliability of the various measuring instruments, it was decided to investigate the data further by performing confirmatory and exploratory factor analysis on the responses of the participants to the various items in each measure.

4.2 Investigation of the servant leadership construct and questionnaire (SLQ)

Confirmatory factor analysis (CFA) was firstly carried out on the participants responses to the 23 items comprising the Barbuto and Wheeler (2006) Servant Leadership Questionnaire (SLQ). In order to do this, the factor structure presented by Barbuto and Wheeler (2006) was imposed on the participants responses of the present study. The responses of the present sample yielded a Cronbach alpha coefficient of .946. The CFA was carried out with the individual items in each of the factors of the SLQ as manifest variables. The results are shown in Figure 4.1 and the obtained indices in Table 4.1.



Chi-Square=403.16, df=220, P-value=0.00, RMSEA=0.054

Figure 4.1 Measurement model: SLQ original structure on the 23 individual items of Barbuto and Wheeler (2006)

Table 4.1 FIT INDICES obtained from CFA of original structure on the 23 individual items of the SLQ (N= 290)

Goodness of Fit Statistics
Degrees of Freedom = 220
Normal Theory Weighted Least Squares Chi-Square = 753.40 (P = 0.0)
Satorra-Bentler Scaled Chi-Square = 403.16 (P = 0.00)
Chi-Square Corrected for Non-Normality = 1483.21 (P = 0.0)
Estimated Non-centrality Parameter (NCP) = 183.16
90 Percent Confidence Interval for NCP = (130.71 ; 243.44)
Minimum Fit Function Value = 0.83
Population Discrepancy Function Value (F0) = 0.63
90 Percent Confidence Interval for F0 = (0.45 ; 0.84)
Root Mean Square Error of Approximation (RMSEA) = 0.054
90 Percent Confidence Interval for RMSEA = (0.045 ; 0.062)
P-Value for Test of Close Fit (RMSEA < 0.05) = 0.23
Expected Cross-Validation Index (ECVI) = 1.78
90 Percent Confidence Interval for ECVI = (1.60 ; 1.99)
ECVI for Saturated Model = 1.91
ECVI for Independence Model = 59.00
Chi-Square for Independence Model with 253 Degrees of Freedom = 17004.60
Independence AIC = 17050.60
Model AIC = 515.16
Saturated AIC = 552.00
Independence CAIC = 17158.01
Model CAIC = 776.67
Saturated CAIC = 1840.89
Normed Fit Index (NFI) = 0.98
Non-Normed Fit Index (NNFI) = 0.99
Parsimony Normed Fit Index (PNFI) = 0.85
Comparative Fit Index (CFI) = 0.99
Incremental Fit Index (IFI) = 0.99
Relative Fit Index (RFI) = 0.97
Critical N (CN) = 195.78
Root Mean Square Residual (RMR) = 0.049
Standardized RMR = 0.049
Goodness of Fit Index (GFI) = 0.99
Adjusted Goodness of Fit Index (AGFI) = 0.99
Parsimony Goodness of Fit Index (PGFI) = 0.79

The indices shown in Table 4.1, represent a reasonably good fit between the data of the present study and the original SLQ structure proposed by Barbuto and Wheeler (2006)

[See discussion on Indices in Chapter 3]. Most notably the values of the χ^2/df (3.42), RMSEA (0.054), NNFI (0.99), CFI (0.99), standardised RMR (0.049) and GFI (0.99) were all indicative of a good fit whilst the ECVI (1.78), model AIC (515.16), and model CAIC (776.67) all showed a more parsimonious fit than their respective values for the independence and saturated models.

However, Dannhauser (2007) highlighted the high degree of correlation between the original factors as being indicative of the presence of fewer than five factors and found the measure to be uni-dimensional when used in a South African context. The very high value of the Cronbach alpha (.946) in the present data set was a further indication that the measure may be uni-dimensional. Thus with the instrument having been developed outside of South Africa, and as far as is known having only been used in two other studies within South Africa (cf. Dannhauser, 2007 and Van Staden, 2007), the researcher decided to further explore the data through EFA and CFA.

In order to facilitate comparison between findings, it was decided to align the present data analysis and the rules pertaining to it with the study done by Dannhauser (2007). Therefore EFA using principal factor analysis with direct oblimin rotation was performed on the data set for the SLQ. Also, the decision rules for determining the number of factors to be extracted and the items associating with each factor were:

- According to Kaiser's (1961) criteria, the number of factors to be extracted should not be more than the number of eigenvalues > 1.00 (Pallant, 2001).
- Items will be excluded if their factor loadings are not $> .30$ on any factor (Field, 2005; Pallant, 2001; Tabachnick & Fidell, 2001).
- An item will be excluded if it loads $> .30$ on more than one factor and the difference between the two loadings is < 0.25 (Tabachnick & Fidell, 1996).
- Items will be excluded if their loadings display conceptual incoherence with the meaning of the factor, thus decreasing the scientific utility of the final solution (Tabachnick & Fidell, 2001).

Before performing the EFA the suitability of the data for factor analyses was assessed. Inspection of the correlation matrix revealed numerous coefficients above .3, indicative of the matrix being factor analysable (Tabachnick & Fidell, 2001). The calculation of the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO index) yielded a value of .943 and the Bartlett's test of sphericity yielded a Chi-square of 3743.361 (df = 253; sig. = 0.000). When the KMO value approaches unity and is > 0.6 one can assume that the correlation matrix is factor analysable (Pallant, 2001). The Bartlett test further showed that the scale is factor analysable with the significance level being $p < 0.05$ showing that the factor analysis would be considered appropriate (Pallant, 2001). Finally, all the KMO values for the individual items in the anti-image correlation matrix were above .5, also supporting the factorability of the correlation matrix.

When applying the above rules in the first round of EFA the decision was taken to initially extract three factors. The basis of this decision resulted from the obtained eigen values and a scree plot shown as Figure 4.2. Three eigenvalues greater > 1.00 i.e. 10.645, 1.627 and 1.212 were obtained.

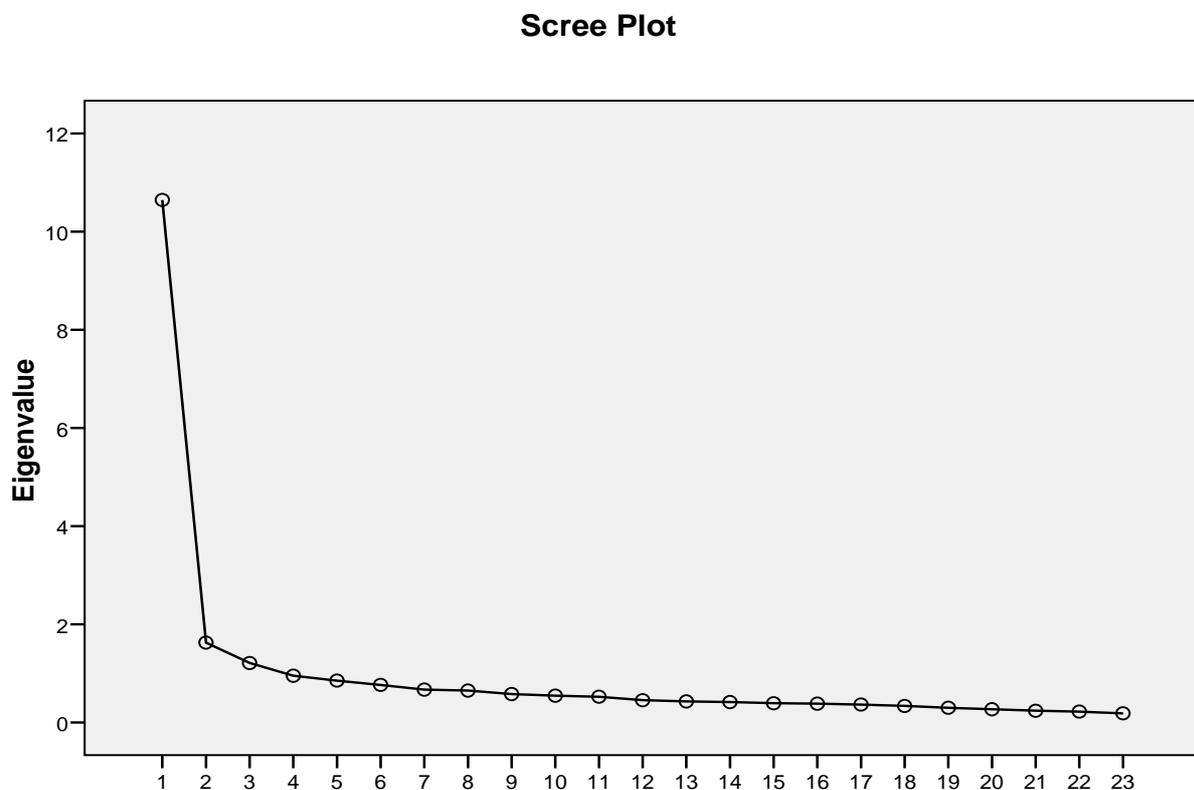


Figure 4.2 Scree plot of eigenvalues: Servant leadership (N=290)

From figure 4.2 it can be seen that 3 eigenvalues >1.00 were obtained. Thus it seemed possible according to Kaiser's criterion, or the eigenvalue rule, that a 3 factor structure could be obtained. However, Kaisers criterion has been criticized for resulting in too many factors being retained (Pallant, 2001). The large gap between the first and second eigenvalues seemed to indicate a uni-dimensional nature of the measure and thus it seemed unlikely that more than one factor was in fact present. The scree test (see Catell, 1966) recommends retaining all the factors to the left of the elbow (Pallant, 2001), which in this case would be one. However, for the purpose of exploration it was decided to initially extract three factors, the structure matrix of which is shown in Table 4.2.

Table 4.2 Structure matrix

	Factor		
	1	2	3
SL1AC1	.600	.364	.580
SI2AC2	.670	.377	.581
SL3EH1	.708	.321	.526
SL4W1	.509	.402	.727
SL5PM1	.366	.401	.535
SL6PM2	.603	.525	.534
SL7W2	.564	.544	.705
SL8EH2	.785	.311	.520
SL9W3	.550	.457	.787
SL10PM3	.403	.390	.609
SL11OS1	.386	.692	.468
SL12EH3	.816	.512	.510
SL13W4	.655	.572	.716
SL14PM4	.539	.638	.688
SL15OS2	.384	.708	.427
SL16AC3	.730	.562	.546
SL17EH4	.825	.530	.563
SL18PM5	.656	.603	.652
SL19OS3	.407	.753	.451
SL20OS4	.523	.734	.555
SL21AC4	.675	.521	.551
SL22W5	.563	.493	.598
SL23OS5	.565	.737	.609

Extraction Method: Principal Axis Factoring.
 Rotation Method: Oblimin with Kaiser Normalization.

From Table 4.2 it can be seen that all the items loaded > .30 on all three factors. This was further indicative of the possible uni-dimensionality of the scale. Factors one, two and three explained 46.28%, 7.07% and 5.27% of the variance respectively. A mere 14% of

the non-redundant residuals had values > 0.05. The factor matrix yielded from extracting three factors also promoted a possible uni-dimensional solution. Table 4.3 shows the factor matrix.

Table 4.3 Factor Matrix

	Factor		
	1	2	3
SL1AC1	.613	-.177	.099
SL2AC2	.650	-.237	.035
SL3EH1	.630	-.340	-.034
SL4W1	.636	-.022	.355
SL5PM1	.499	.101	.196
SL6PM2	.650	-.020	-.077
SL7W2	.701	.063	.184
SL8EH2	.661	-.432	-.097
SL9W3	.695	.000	.369
SL10PM3	.539	.061	.280
SL11OS1	.579	.368	-.113
SL12EH3	.737	-.259	-.272
SL13W4	.756	-.002	.107
SL14PM4	.714	.183	.115
SL15OS2	.569	.383	-.179
SL16AC3	.727	-.114	-.186
SL17EH4	.767	-.244	-.217
SL18PM5	.744	.020	-.006
SL19OS3	.603	.407	-.194
SL20OS4	.689	.280	-.126
SL21AC4	.689	-.098	-.108
SL22W5	.644	-.003	.067
SL23OS5	.729	.247	-.084

Extraction Method: Principal Axis Factoring.
a 3 factors extracted. 5 iterations required.

Table 4.3 shows the loading of each of the items on the three components. It is evident from this table that all of the items load quite strongly (above .5) on the first component with very few items loading adequately on components 2 and 3.

These results indicate that a three factor solution would not be satisfactory and supports the conclusion from the scree plot to retain only one factor for further exploration. Dannhauser (2007) initially extracted two factors and also found that a two factor solution was unsatisfactory. Dannhauser (2007) then decided to emulate the analysis of Barbuto

and Wheeler (2006) by using Principle Component Analysis with an orthogonal rotation of the axes extracting only one factor. It was decided to repeat this procedure. The result is shown in Table 4.4.

Table 4.4 Principle component matrix

	Component
	1
SL1AC1	.634
SL2AC2	.669
SL3EH1	.645
SL4W1	.651
SL5PM1	.523
SL6PM2	.672
SL7W2	.717
SL8EH2	.669
SL9W3	.705
SL10PM3	.561
SL11OS1	.595
SL12EH3	.743
SL13W4	.770
SL14PM4	.728
SL15OS2	.583
SL16AC3	.740
SL17EH4	.772
SL18PM5	.759
SL19OS3	.615
SL20OS4	.703
SL21AC4	.708
SL22W5	.667
SL23OS5	.741

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

From Table 4.4 it can be seen that all the items loaded > 0.3 on a single factor when using principal component extraction. Again only three eigenvalues > 1.0 were present with a large gap between the values of the first and second eigenvalue and a small gap between the second and third. This makes it possible that, when using the same extraction and rotation procedures as the original authors, the one factor structure found by Dannhauser (2007) could possibly be better replicated on the data of the present sample than the five factor structure initially found by Barbuto and Wheeler (2006). However, 52% of the non-redundant residuals had values > 0.05 , which is usually indicative of the presence of more

factors in the solution.

It was decided to follow the study of Dannhauser (2007), by running a final EFA using principle axis factoring and extracting only one factor to see if the percentage of non-redundant residuals with absolute values > 0.05 would decrease to below the acceptable 50%. One factor was therefore extracted in the final EFA, the results of which are shown in Table 4.5.

Table 4.5 Factor Matrix^a

	Wording of items	Factor
	My supervisor:	1
SL13W4	seems very in touch with what is going on	.613
SL17EH4	is one that could help me mend my hard feelings	.649
SL18PM5	is gifted when it comes to persuading me	.625
SL23OS5	is preparing the organization to make a positive difference in the future	.631
SL16AC3	sacrifices their own interests to meet my needs	.499
SL14PM4	is good at convincing me to do things	.652
SL12EH3	is talented at helping me to heal emotionally	.701
SL7W2	is good at anticipating the consequences of decisions	.650
SL9W3	has great awareness of what is going on	.688
SL21AC4	goes above and beyond the call of duty to meet my needs	.537
SL20OS4	encourages me to have a community spirit in the workplace	.572
SI2AC2	does everything they can to serve me	.729
SL22W5	seems to know what's going to happen	.759
SL8EH2	is good at helping me with my emotional issues	.713
SL6PM2	encourages me to dream "big dreams" about the organization	.560
SL4W1	seems alert to what's happening	.726
SL3EH1	is one I would turn to if I had a personal trauma	.761
SL1AC1	puts my interests ahead of their own	.747
SL19OS3	sees the organization for its potential to contribute to society	.592
SL15OS2	believes that our organization needs to function as a community	.685
SL11OS1	believes that the organization needs to play a moral role in society	.691
SL10PM3	is very persuasive	.647
SL5PM1	offers compelling reasons to get me to do things	.727

Extraction Method: Principal Axis Factoring.

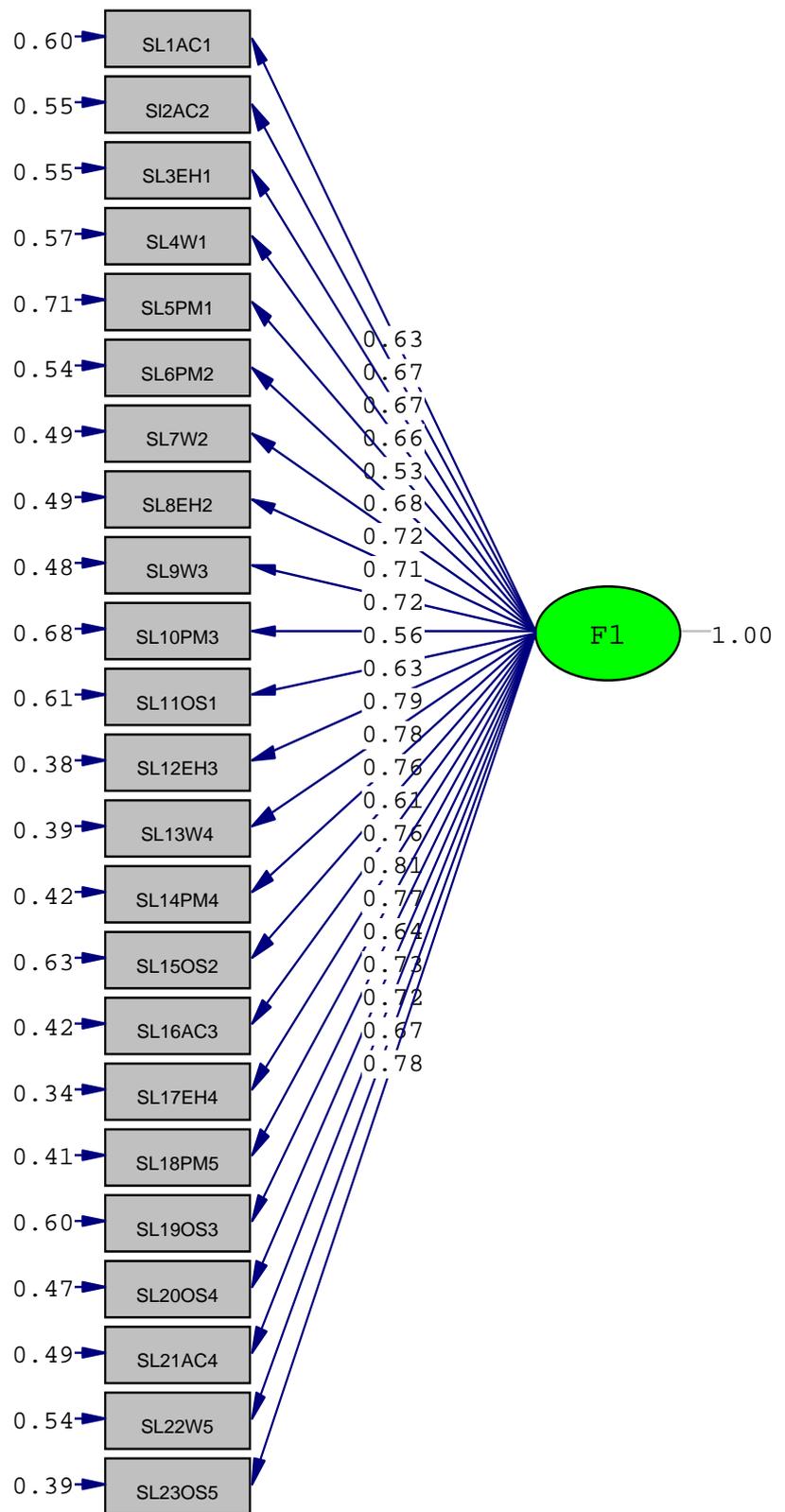
a 1 factors extracted. 3 iterations required.

From Table 4.5 it can be seen that all the items loaded > .499 on the one factor extracted.

The Cronbach alpha of the uni-dimensional scale was .951. An acceptable 46% of the non-redundant residuals had absolute values > 0.05 . Thus it seemed possible that, similar to the findings of Dannhauser (2007), the measure on the current data set consisted of only one dimension. However, contrary to Dannhauser's (2007) study in which the single dimension explained a high 71.67% of the total variance, the single factor in this data set explained only 46.28% of the variance. A single factor structure thus seemed somewhat less satisfactory on the present data set.

The following step in these analyses was to carry out a CFA on the possible uni-dimensional structure. This was done in an attempt to assess the fit of the new structure on the present data and to compare it to the fit of the original structure on the current data. However, the results from a CFA done on the same data set as the EFA will lead to results that are slightly inflated and must be treated with caution (Hastie, Tibshirani & Friedman, 2001). Optimally this CFA should be carried out on another data set and the relative fit of the measurement models assessed. This can be done by splitting the data set into two separate samples or by collecting another set of data and running the analyses again (Hastie et al., 2001). However, the current sample size of 290 rendered split samples too small to carry out CFA and collecting a second set of data was beyond the practical scope of this study (See recommendations in Chapter 5). The researcher thus decided to proceed with a CFA on the same sample whilst recognizing the possibility of the results being somewhat optimistic.

The CFA was carried out on the 23 items as the observed variables. The measurement model of the uni-dimensional structure is shown in Figure 4.3 and the indices obtained from this analysis are shown in Table 4.6.



Chi-Square=861.60, df=230, P-value=0.00000, RMSEA=0.097

Figure 4.3 Measurement Model: SLQ uni-dimensional structure

Table 4.6 Indices obtained from CFA on uni-dimensional SLQ structure (N=290)

Degrees of Freedom = 230
Normal Theory Weighted Least Squares Chi-Square = 1541.175 (P = 0.0)
Satorra-Bentler Scaled Chi-Square = 861.599 (P = 0.0)
Chi-Square Corrected for Non-Normality = 1734.261 (P = 0.0)
Estimated Non-centrality Parameter (NCP) = 631.599
90 Percent Confidence Interval for NCP = (545.455 ; 725.305)
Minimum Fit Function Value = 1.857
Population Discrepancy Function Value (F0) = 2.185
90 Percent Confidence Interval for F0 = (1.887 ; 2.510)
Root Mean Square Error of Approximation (RMSEA) = 0.0975
90 Percent Confidence Interval for RMSEA = (0.0906 ; 0.104)
P-Value for Test of Close Fit (RMSEA < 0.05) = 0.000
Expected Cross-Validation Index (ECVI) = 3.300
90 Percent Confidence Interval for ECVI = (3.002 ; 3.624)
ECVI for Saturated Model = 1.910
ECVI for Independence Model = 58.999
Chi-Square for Independence Model with 253 Degrees of Freedom = 17004.601
Independence AIC = 17050.601
Model AIC = 953.599
Saturated AIC = 552.000
Independence CAIC = 17158.008
Model CAIC = 1168.413
Saturated CAIC = 1840.887
Normed Fit Index (NFI) = 0.949
Non-Normed Fit Index (NNFI) = 0.959
Parsimony Normed Fit Index (PNFI) = 0.863
Comparative Fit Index (CFI) = 0.962
Incremental Fit Index (IFI) = 0.962
Relative Fit Index (RFI) = 0.944
Critical N (CN) = 95.863
Root Mean Square Residual (RMR) = 0.0723
Standardized RMR = 0.0723
Goodness of Fit Index (GFI) = 0.979
Adjusted Goodness of Fit Index (AGFI) = 0.975
Parsimony Goodness of Fit Index (PGFI) = 0.816

The indices in Table 4.6 indicate that only a few of the fit indices are indicative of a good fitting model. The RMSEA (0.0975) indicates a not reasonably good and almost poor fit, the χ^2/df (6.7) indicated a poor fit, whilst the standardised RMR (0.0723) is only favourable

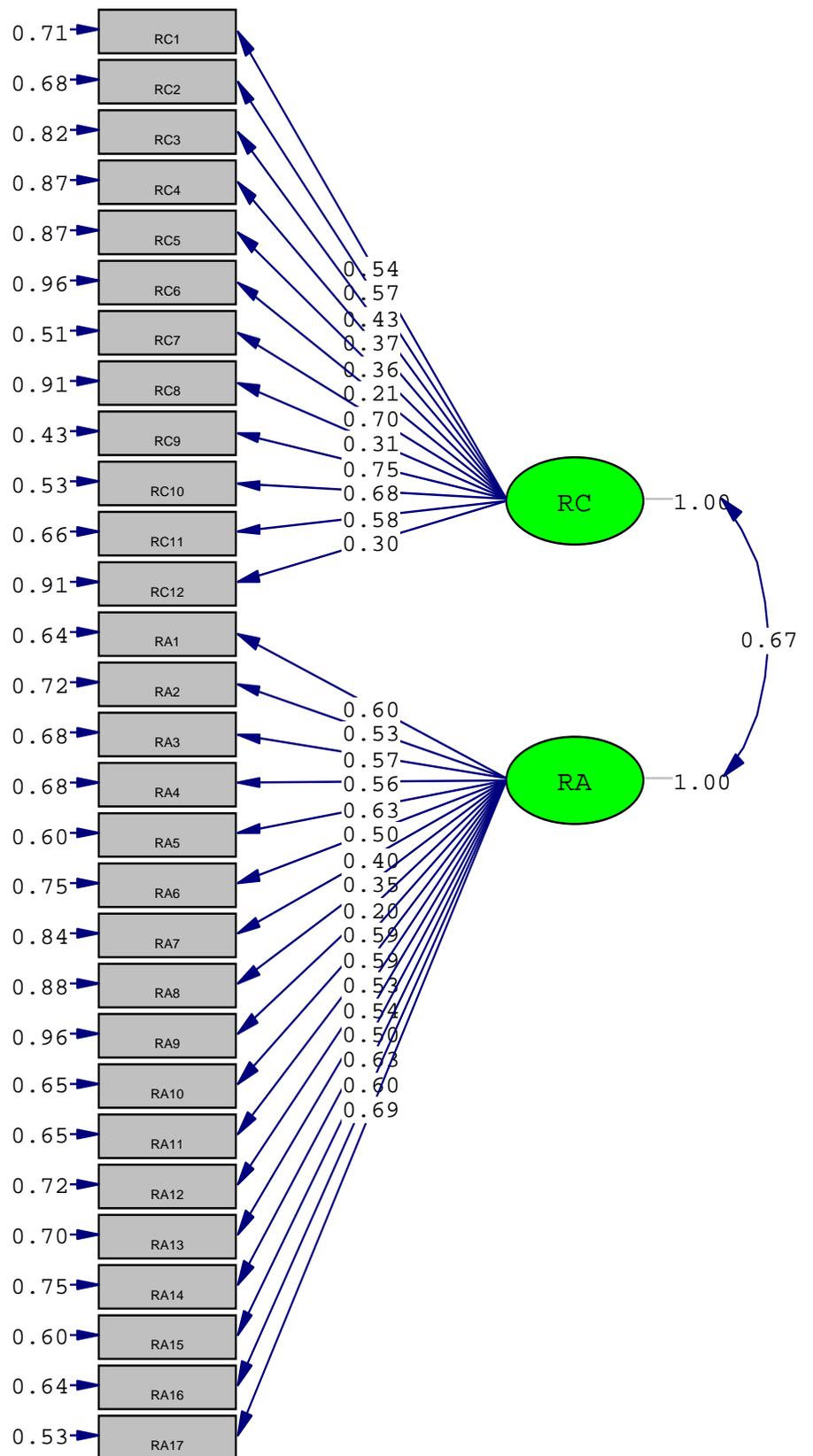
but not good. Only the model CAIC (1168.413) revealed a more parsimonious fit than both the saturated and independence models. Though, NNFI (0.959), CFI (0.962), and GFI (0.979) did indicate good fit, a comparison of the indices in Table 4.1 (original structure) and Table 4.6 (new uni-dimensional structure) indicates that the original structure defined by Barbuto and Wheeler (2006) achieved a better fit than the uni-dimensional structure. This distinction is further supported when considering that the results of the CFA on the uni-dimensional structure are possibly somewhat optimistic having been carried out on the same sample as the EFA. The original five dimensional structure was therefore used in further analyses.

The Cronbach alpha coefficients for the 23-item scale were:

Scale:	.946 (23 items)
Altruistic calling:	.815 (4 items)
Emotional healing:	.869 (4 items)
Wisdom:	.849 (5 items)
Persuasive mapping:	.798 (5 items)
Organisational stewardship:	.851 (5 items)

4.3 Examination of the role stress construct and the role conflict and ambiguity questionnaires.

Confirmatory factor analysis was carried out on the participants responses to the 12 item Role Conflict Scale and the 17 item Role Ambiguity Scale developed by Hartline and Ferrell (1996) and based on the Role Conflict and Ambiguity Scales developed by Chonko, Howell and Bellenger (1986). The responses of the present sample yielded a Cronbach alpha coefficient of .839. The factor structure of the questionnaire was initially imposed on the responses of the participants (N = 290) by carrying out CFA. The measurement model (Figure 4.4) and the corresponding fit indices (Table 4.7) from the CFA are presented below.



Chi-Square=1149.81, df=376, P-value=0.00000, RMSEA=0.084

Figure 4.4 Measurement model of the original Role Stress bi-dimensional model (N = 290).

Table 4.7 Indices obtained from CFA on bi-dimensional Role Stress scale

Degrees of Freedom = 376
Normal Theory Weighted Least Squares Chi-Square = 1847.429 (P = 0.0)
Satorra-Bentler Scaled Chi-Square = 1149.812 (P = 0.0)
Estimated Non-centrality Parameter (NCP) = 773.812
90 Percent Confidence Interval for NCP = (675.556 ; 879.674)
Minimum Fit Function Value = 3.300
Population Discrepancy Function Value (F0) = 2.678
90 Percent Confidence Interval for F0 = (2.338 ; 3.044)
Root Mean Square Error of Approximation (RMSEA) = 0.0844
90 Percent Confidence Interval for RMSEA = (0.0788 ; 0.0900)
P-Value for Test of Close Fit (RMSEA < 0.05) = 0.000
Expected Cross-Validation Index (ECVI) = 4.387
90 Percent Confidence Interval for ECVI = (4.047 ; 4.753)
ECVI for Saturated Model = 3.010
ECVI for Independence Model = 26.047
Chi-Square for Independence Model with 406 Degrees of Freedom = 7469.682
Independence AIC = 7527.682
Model AIC = 1267.812
Saturated AIC = 870.000
Independence CAIC = 7663.109
Model CAIC = 1543.335
Saturated CAIC = 2901.398
Normed Fit Index (NFI) = 0.846
Non-Normed Fit Index (NNFI) = 0.882
Parsimony Normed Fit Index (PNFI) = 0.784
Comparative Fit Index (CFI) = 0.890
Incremental Fit Index (IFI) = 0.891
Relative Fit Index (RFI) = 0.834
Critical N (CN) = 112.277
Root Mean Square Residual (RMR) = 0.0938
Standardized RMR = 0.0938
Goodness of Fit Index (GFI) = 0.911
Adjusted Goodness of Fit Index (AGFI) = 0.897
Parsimony Goodness of Fit Index (PGFI) = 0.787

The indices shown in Table 4.7 do not represent a good fit between the role conflict and role ambiguity structure as determined by the instrument's authors and the responses of

the present sample. Most notably the RMSEA (0.084), NNFI (0.88), CFI (0.89) and standardised RMR (0.0938) did not achieve values indicative of a close or good fitting model and values in comparison to the independence and saturated models, ECVI (4.387) and model AIC (1267.812) were only better for the independence models. Thus, whilst the GFI (0.911), χ^2/df (4.91) and the model CAIC (1543.335) values were indicative of a good and more parsimonious fit respectively, these values alone are not enough motivation for accepting the model. From this, it was concluded that a not satisfactory fit between the original structure and the responses of the present sample exist.

The unsatisfactory fit between the data and the two dimensional structure of the Role Stress scale determined by Hartline and Ferrell (1996) led to a decision to explore the responses of the present sample further using EFA. The 12 items of the Role Conflict scale and the 17 items of the Role Ambiguity scale were subjected to factor analysis using SPSS. The same rules as those used for the SLQ were applied to the EFA for the present scale. Chonko et al. (1986) originally used Principal Factor Analysis when doing their EFA with an orthogonal rotation. Tabachnick and Fidell (2001) however suggest that oblique rotation be used when the underlying processes are believed to be correlated, which is the case with the current scales. Thus the first round of EFA used principal axis factoring with direct oblimin rotation.

Before performing the EFA the suitability of the data for factor analyses was assessed. Inspection of the correlation matrix revealed numerous coefficients above .3. The KMO value was .80, exceeding the recommended value of .6 and the Bartlett's Test of Sphericity reached statistical significance having a value of 0.000 (Approx. Chi Square = 2471.365; df = 406). Finally, the anti-image correlation matrix also presented all the KMO values for the individual items as being above the critical value of .5. These values support the factorability of the correlation matrix.

The first round of factor analysis revealed the presence of nine components with eigenvalues exceeding 1. This number of factors seemed unlikely considering the literature surrounding the factor structure of Role Stress and considering that only 29 items comprised the scale. An inspection of the scree plot, however, shown in Figure 4.5,

revealed a clear break after the first and fourth factors.

Scree Plot

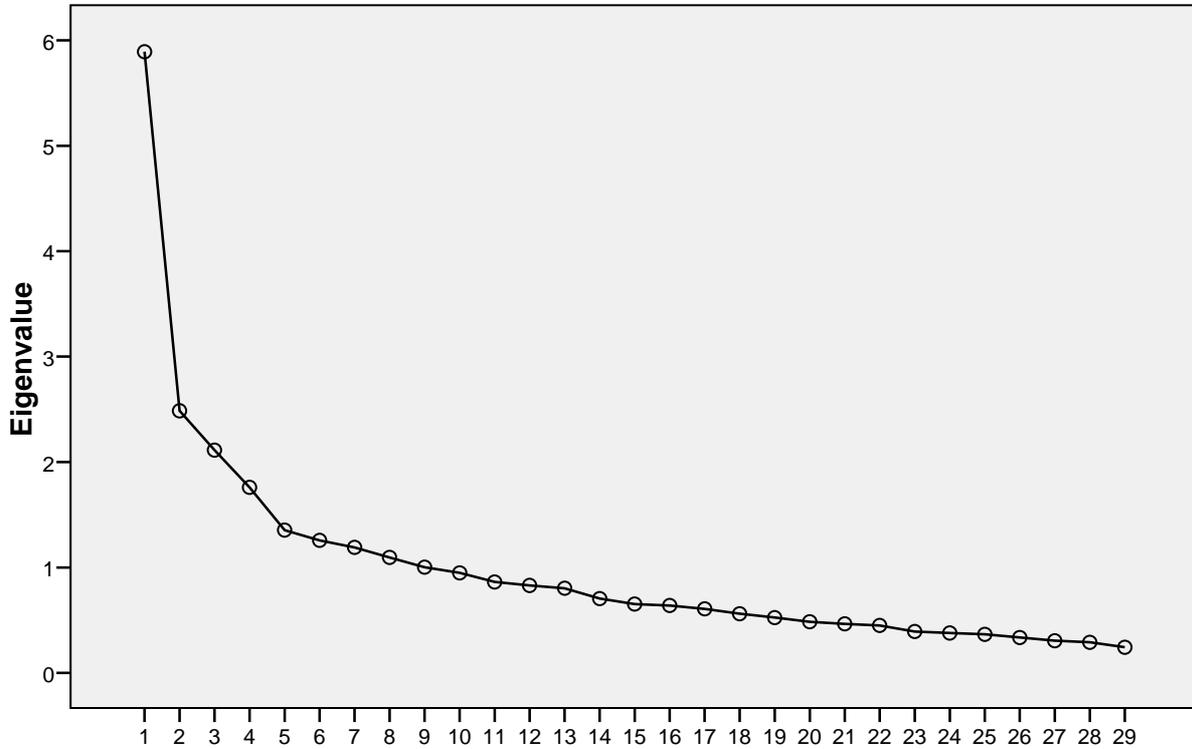


Figure 4.5 Scree plot of eigenvalues: Role Conflict and Ambiguity (N = 290)

From Figure 4.5 it is clear that there is a marked change in direction of the scree plot after the first factor as well as after the fourth factor. From the scree test, it therefore seems likely that there will be between 1 and 4 components in the final solution. Thus a four factor solution was chosen in the first round of EFA, the Pattern Matrix is shown below in Table 4.8.

Table 4.8 Pattern Matrix

	Factor			
	1	2	3	4
RC1_WORK_ACTUALLY	.519	-.127	-.110	.051
RC2_SERVE_ACTUALLY	.544	-.113	-.068	-.019

RC3_NONWORK_ACTUALLY	.364	-.059	.096	.007
RC4_LEISURE_ACTUALLY	.274	-.170	.145	.090
RC5_REPORT	.311	-.078	-.018	-.016
RC6_BEND_RULES	.116	.015	.630	.229
RC7_SERVIC_QUANT	.446	.041	.099	-.222
RC8_AUTHORITY	.127	-.104	.413	.005
RC9_PERF	.604	.101	.205	-.141
RC10_SERVIC_QUANT	.643	.160	.110	-.136
RC11_RESOLVE	.291	.133	.189	-.389
RC12BEND_RULES	.119	.190	.716	-.023
RA1_CUST_SERV	.158	.005	-.007	-.440
RA2_TIME	.131	-.177	.068	-.257
RA3_COMPLAINTS	-.045	.024	.051	-.705
RA4_PAPERWORK	.129	-.005	-.126	-.491
RA5_ACTIVITIES	.074	-.214	-.119	-.488
RA6_PROBLEMS	.022	-.007	.095	-.510
RA7_ASSISTANCE	-.108	-.180	.018	-.327
RA8_BEND_RULES	-.160	-.075	.656	-.194
RA9_DECISIONS	-.245	-.201	.332	-.152
RA10_RULES	-.009	-.365	-.007	-.271
RA11_HOW_PA	-.006	-.698	-.045	-.049
RA12_PA_SCORE	.010	-.611	.092	.008
RA13_TRAINING	.072	-.596	-.046	-.019
RA14_PROMOTION	.040	-.595	.058	-.012
RA15_TIME	.209	-.657	-.029	.009
RA16_CUST_PA	.395	-.134	-.122	-.190
RA17_CUST_EXP	.376	-.078	.001	-.311

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a Rotation converged in 12 iterations.

From table 4.8 it can be seen that the variables loaded quite neatly onto the four factors with no items loading greater than .3 on more than one factor. However, items RC4 and RA2 failed to load higher than .3 on any of the factors. The four factors explained 20.32%, 8.57%, 7.29% and 6.07% of the variance respectively, all well above the critical value of 1.00, cumulatively accounting for only 42.24% of the variance. This solution produced 30% non-redundant residuals with absolute values greater than 0.05. The correlation matrix revealed correlations ranging from .112 to .359 indicating that independence between factors cannot be assumed. It was decided to carry out another round of factor analysis this time extracting 3 factors to see if the situation could be somewhat improved.

In the second round of EFA principal axis factoring with direct oblimin rotation was again used to allow for comparison with the results of the first round. The pattern matrix yielded

by this analysis is presented in Table 4.9 below.

Table 4.9 Pattern Matrix

	Factor		
	1	2	3
RC1_WORK_ACTUALLY	.465	-.027	-.142
RC2_SERVE_ACTUALLY	.529	-.038	-.101
RC3_NONWORK_ACTUALLY	.354	.000	.070
RC4_LEISURE_ACTUALLY	.219	-.089	.114
RC5_REPORT	.309	-.035	-.038
RC6_BEND_RULES	.039	.124	.575
RC7_SERVIC_QUANT	.559	.022	.086
RC8_AUTHORITY	.133	-.082	.396
RC9_PERF	.686	.139	.178
RC10_SERVIC_QUANT	.725	.207	.084
RC11_RESOLVE	.487	.014	.199
RC12BEND_RULES	.176	.200	.714
RA1_CUST_SERV	.356	-.155	.015
RA2_TIME	.238	-.263	.071
RA3_COMPLAINTS	.277	-.264	.097
RA4_PAPERWORK	.342	-.189	-.091
RA5_ACTIVITIES	.274	-.400	-.090
RA6_PROBLEMS	.257	-.214	.124
RA7_ASSISTANCE	.031	-.331	.043
RA8_BEND_RULES	-.050	-.183	.670
RA9_DECISIONS	-.179	-.305	.349
RA10_RULES	.085	-.480	.001
RA11_HOW_PA	-.041	-.711	-.065
RA12_PA_SCORE	-.036	-.596	.067
RA13_TRAINING	.032	-.584	-.069
RA14_PROMOTION	.001	-.585	.035
RA15_TIME	.152	-.601	-.062
RA16_CUST_PA	.468	-.149	-.139
RA17_CUST_EXP	.516	-.147	-.005

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a Rotation converged in 11 iterations.

Table 4.9 reveals that only 10 of the 29 items increased their loading value when choosing a three factor structure, items RC7, RC10, RC11, RA2, RA7, RA8, RA10, RA11, RA16 and RA17. Items RA3 and RA6 which both loaded relatively high, .705 and .510 respectively, on the fourth factor did not load higher than .3 on any factor after choosing a 3 factor solution. RA9 now loads on two factors and items RA4 and RA1, being role ambiguity items, now load onto the factor containing a majority of Role Conflict items, making them

conceptually invalid. The three factors explained 36.17% of the cumulative variance. The percentage of non-redundant residuals has also now increased to 38%.

For the purposes of further exploration and comparability, the researcher decided to conduct another round of EFA, this time extracting 2 factors. The pattern matrix of the analysis is shown in Table 4.10 below.

Table 4.10 Pattern Matrix

	Factor	
	1	2
RC1_WORK_ACTUALLY	.200	.260
RC2_SERVE_ACTUALLY	.218	.338
RC3_NONWORK_ACTUALLY	.088	.325
RC4_LEISURE_ACTUALLY	.127	.239
RC5_REPORT	.138	.212
RC6_BEND_RULES	-.219	.387
RC7_SERVIC_QUANT	.121	.501
RC8_AUTHORITY	.024	.357
RC9_PERF	.012	.683
RC10_SERVIC_QUANT	-.013	.642
RC11_RESOLVE	.070	.533
RC12BEND_RULES	-.268	.566
RA1_CUST_SERV	.256	.275
RA2_TIME	.322	.203
RA3_COMPLAINTS	.320	.259
RA4_PAPERWORK	.311	.189
RA5_ACTIVITIES	.506	.111
RA6_PROBLEMS	.258	.265
RA7_ASSISTANCE	.330	.016
RA8_BEND_RULES	.026	.342
RA9_DECISIONS	.156	.065
RA10_RULES	.510	.010
RA11_HOW_PA	.717	-.156
RA12_PA_SCORE	.564	-.048
RA13_TRAINING	.622	-.096
RA14_PROMOTION	.577	-.043
RA15_TIME	.674	.001
RA16_CUST_PA	.319	.255
RA17_CUST_EXP	.300	.385

Extraction Method: Principal Axis Factoring.
 Rotation Method: Oblimin with Kaiser Normalization.
 a Rotation converged in 17 iterations.

Table 4.10 shows that all of the items that loaded > .3, except for items RA8 and RA17,

loaded on a two factor solution resembling that found in (Hartline & Ferrell, 1996). This is encouraging, as it demonstrates that the measure is measuring role conflict and ambiguity as separate factors in RS in agreement with the literature (Hartline & Ferrell, 1996; Rizzo et al, 1970). However, the percentage of non-redundant residuals increased to 49%, a meagre 1% below the recommended maximum of 50% which indicates that there should probably be more factors. Many of the loadings have also become considerably weakened and numerous items failed to achieve a .3 loading. When conducting further rounds of EFA with a two factor solution, after eliminating the items that fell outside of the specified rules for offending items, the researcher found it not possible to attain a solution with all items loading $> .3$ on a single factor. After the extraction of items at each new round, at least one or two more new items kept falling below a .3 loading. The two factor solution was therefore abandoned and the researcher decided to return to and remain with the four factor solution.

From Table 4.8, five items were deleted in the final round of EFA. Items RC4 and RA2 did not present sufficient loadings on any of the four factors. RC11, RA16 and RA17 were deemed to be loading on factors which made them conceptually incoherent and were thus also deleted.

Before performing the final EFA the suitability of the new 24 item scale for factor analysis was assessed. The correlation matrix revealed numerous coefficients above .3. The KMO value was .766 and the value of the Bartlett's test of sphericity achieved significance at 0.00 (Approx. Chi-square = 1916.822; df. = 276). All of the KMO values for the individual items in the anti-image correlation matrix were also below the critical value of .5. Thus the correlation matrix of the 24 items was found to be factorable. The scree plot of the new 24 item scale is shown in Figure 4.6 below.

Scree Plot

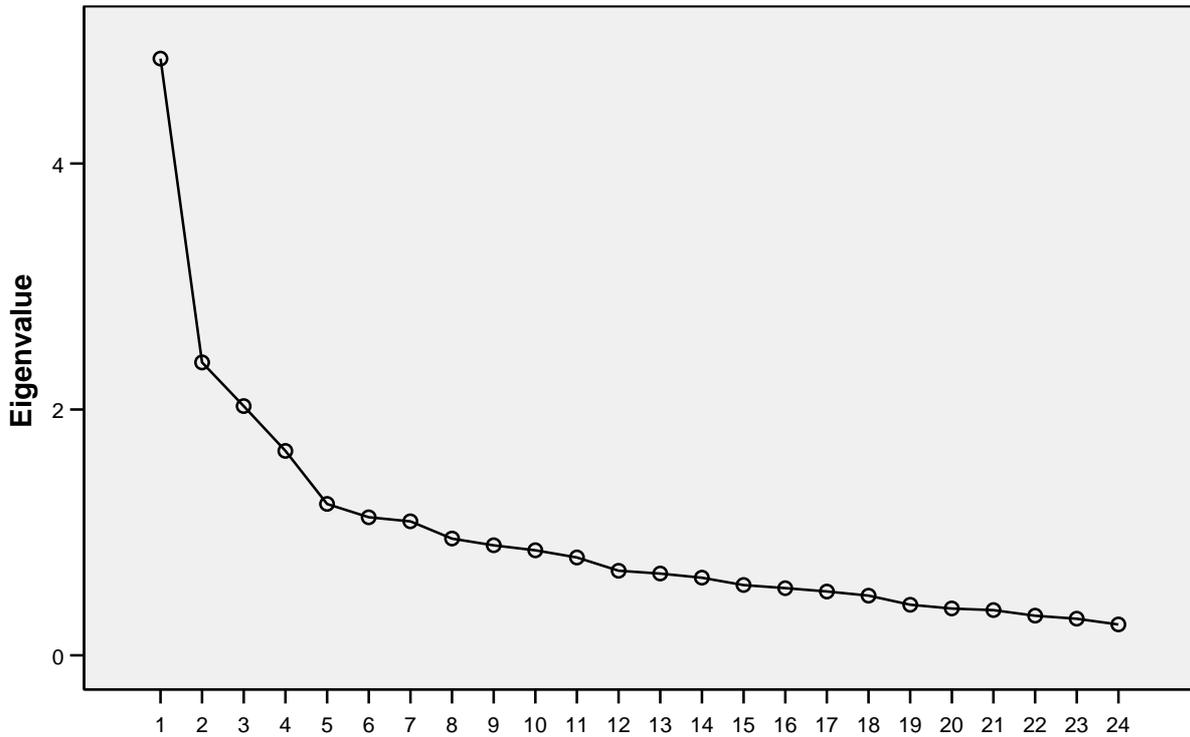


Figure 4.6 Scree plot of eigenvalues: Role Conflict and Ambiguity (N = 290)

The scree plot in figure 4.6 is remarkably similar to the original scree plot of the 29 item scale. The break in the line after the fourth factor shows that a four factor solution is likely. The final EFA (the second on the four factor solution) was thus conducted on the 24 item scale extracting four factors and using Principal axis factoring with oblique rotation. The pattern matrix is presented in Table 4.11.

Table 4.11 Pattern Matrix

	Factor			
	1	2	3	4
RC1_WORK_ACTUALLY	.102	-.109	-.517	.016
RC2_SERVE_ACTUALLY	.116	-.054	-.489	.052
RC3_NONWORK_ACTUALLY	.042	.094	-.314	.041
RC5_REPORT	.103	-.026	-.354	.001
RC6_BEND_RULES	-.015	.628	-.137	-.210
RC7_SERVIC_QUANT	-.012	.102	-.495	.182

RC8_AUTHORITY	.127	.384	-.132	-.012
RC9_PERF	-.021	.202	-.611	.064
RC10_SERVIC_QUANT	-.091	.126	-.661	.060
RC12BEND_RULES	-.193	.734	-.139	.022
RA1_CUST_SERV	-.044	.008	-.150	.460
RA3_COMPLAINTS	-.058	.058	.017	.704
RA4_PAPERWORK	-.024	-.128	-.147	.494
RA5_ACTIVITIES	.154	-.139	-.108	.534
RA6_PROBLEMS	-.013	.104	-.023	.511
RA7_ASSISTANCE	.148	.017	.077	.344
RA8_BEND_RULES	.061	.669	.142	.203
RA9_DECISIONS	.196	.309	.245	.163
RA10_RULES	.343	-.005	-.009	.275
RA11_HOW_PA	.734	-.056	.006	.015
RA12_PA_SCORE	.656	.087	.006	-.042
RA13_TRAINING	.589	-.056	-.091	.020
RA14_PROMOTION	.610	.044	-.025	-.006
RA15_TIME	.645	-.019	-.167	-.006

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a Rotation converged in 11 iterations.

The above 24-item factor structure in Table 4.11 complied with all of the specified decision rules. The four factors respectively explained 20.22% (Factor 1), 9.93% (Factor 2), 8.45% (Factor 3) and 6.93% (Factor 4) accounting for 45.52% of the variance cumulatively. The solution presented a mere 26% non-redundant residuals with absolute values greater than .5. The correlations between the four factors is presented in Table 4.12 below and is of particular interest for conceptualisation of the four factors.

Table 4.12 Factor Correlation Matrix

Factor	1	2	3	4
1	1.000	.112	-.207	.410
2	.112	1.000	-.110	.152
3	-.207	-.110	1.000	-.273
4	.410	.152	-.273	1.000

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

Table 4.12 shows the correlations between the factors. It appears that all of the factors are interrelated to some degree though the correlation coefficients for factor 2 are the lowest. Despite the low common variances, the most notable correlation exists between factor 1 and factor 4. This is expected from a theoretical perspective as the items that load on

these two factors all originate from the initial RA scale.

The Cronbach alpha coefficients for the final 24-item four factor solution were:

Scale: .807 (24 items)

Factor 1: .795 (6 items)

Factor 2: .675 (5 items)

Factor 3: .713 (7 items)

Factor 4: .689 (6 items)

Inspection of the conceptual meaning of the items in the four factors led to the decision to identify the factors as follows:

Factor one: management role ambiguity;

Factor two: authoritative deficiency

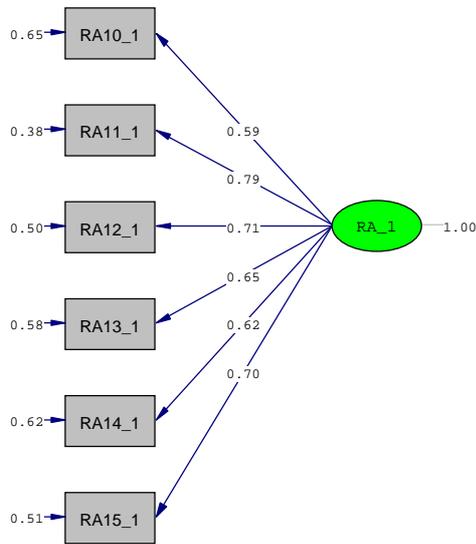
Factor three: role conflict

Factor four: functional role ambiguity

The current Role Conflict and Role Ambiguity scales were not originally developed with the use of Principal component analysis, and therefore this procedure was not employed on the data of the present sample.

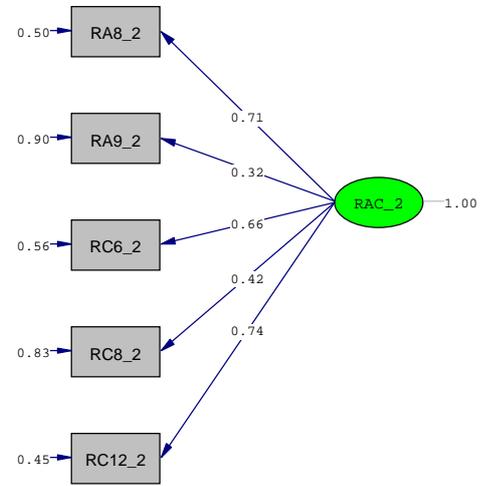
The final step in the analysis was to carry out a CFA on the new proposed four-factor structure. This CFA process was carried out separately on each of the four sub scales to assess their individual fit with the data. This was done to accommodate the sample size which was too small to fit only one model onto the data because of the high number of parameters relative to the number of respondents. Item parcelling was considered, however, the number of items per scale was not enough to justify item parcelling. Also, because the models were being fitted on the same data used for the EFA it was decided to go the less complicated route and carry out the CFA's on the separate EFA factors.

The respective measurement models for the four sub-scales are shown in Figures 4.7 – 4.10 and their respective fit indices are shown in Table 4.13.



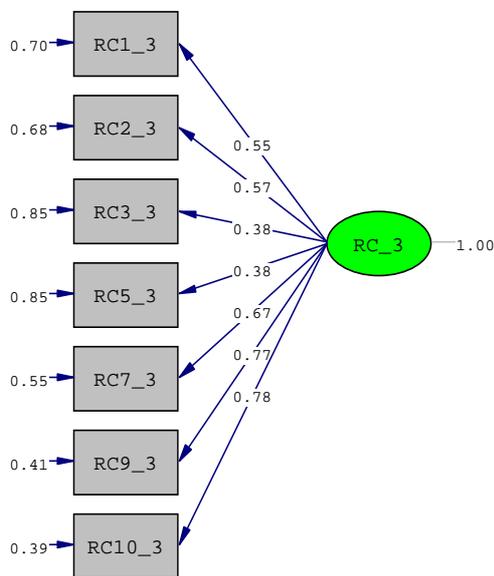
Chi-Square=27.14, df=9, P-value=0.00132, RMSEA=0.084

Figure 4.7 Measurement model of sub-scale 1



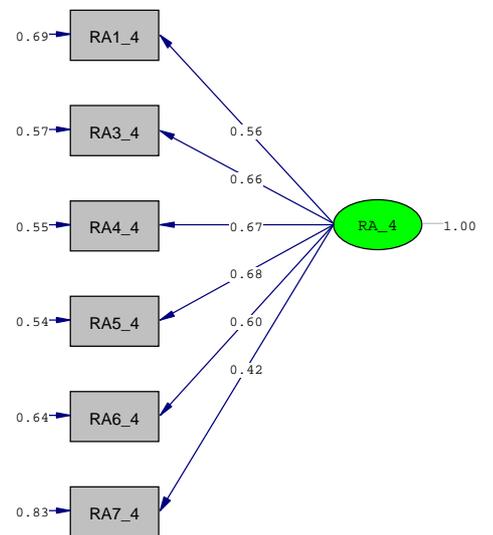
Chi-Square=61.18, df=5, P-value=0.00000, RMSEA=0.197

Figure 4.8 Measurement model of sub-scale 2



Chi-Square=85.69, df=14, P-value=0.00000, RMSEA=0.133

Figure 4.9 Measurement model of sub-scale 3



Chi-Square=9.83, df=9, P-value=0.36405, RMSEA=0.018

Figure 4.10 Measurement model of sub-scale 4.

Table 4.13 FIT INDICES obtained from independent CFA's 4 new sub-scales of RC and RA Scale (N=290)

Statistic	Scale 1	Scale 2	Scale 3	Scale 4
DoF	9	5	14	9
NTWLS χ^2	50.656 (P = 0.000)	92.258 (P = 0.0)	157.538 (P = 0.0)	20.629 (P = 0.0144)
Sat-Bent	27.143 (P = 0.00132)	61.181 (P = 0.00)	85.686 (P = 0.00)	9.835 (P = 0.364)
χ^2 Corrected	15.397 (P = 0.0806)	54.854 (P = 0.00)	42.977 (P = 0.00)	9.485 (P = 0.394)
Est NCP	18.143	56.181	71.686	0.835
90% Confid.	(6.138 ; 37.758)	(34.600 ; 85.212)	(46.168;104.707)	(0.0 ; 12.765)
<i>Min.Fit Func.</i>	0.044	0.125	0.18	0.0224
<i>Pop Disc. F0</i>	0.0628	0.194	0.248	0.00289
90% Confid.	(0.0212 ; 0.131)	(0.120 ; 0.295)	(0.160 ; 0.362)	(0.0 ; 0.0442)
RMSEA	0.0835	0.197	0.133	0.0179
90% Confid.	(0.0486 ; 0.120)	(0.155 ; 0.243)	(0.107 ; 0.161)	(0.0 ; 0.0701)
P-Value	0.0564	0	0	0.798
ECVI	0.177	0.281	0.393	0.117
90% Confid.	(0.135 ; 0.245)	(0.206 ; 0.381)	(0.305 ; 0.508)	(0.114 ; 0.158)
ECVI Sat.	0.145	0.104	0.194	0.145
ECVI Indep.	3.195	1.3	2.716	2.012
χ^2 for I.M.	911.399	365.785	770.885	569.341
Indep. AIC	923.399	375.785	784.885	581.341
Model AIC	51.143	81.181	113.686	33.835
Sat. AIC	42	30	56	42
Indep. CAIC	951.418	399.134	817.574	609.36
Model CAIC	107.182	127.88	179.064	89.873
Sat. CAIC	140.067	100.048	186.757	140.067
NFI	0.97	0.833	0.889	0.983
NNFI	0.966	0.684	0.857	0.997
PNFI	0.582	0.416	0.593	0.59
CFI	0.98	0.842	0.904	0.998
IFI	0.98	0.844	0.905	0.999
RFI	0.95	0.665	0.833	0.971
CN	231.689	72.274	99.296	637.699
RMR	0.0471	0.101	0.0872	0.0371
Std. RMR	0.0471	0.101	0.0872	0.0371
GFI	0.993	0.966	0.971	0.995
AGFI	0.983	0.899	0.942	0.989
PGFI	0.425	0.322	0.485	0.426

The indices in Table 4.13 indicate a somewhat problematic outcome. Scale 1 achieved a less than reasonable RMSEA (0.0835), a not good χ^2/df (5.6) and a comparative fit only better than the independence model for the ECVI (0.177) and the model AIC (51.143). However, the NNFI (0.966), CFI (0.98), standardised RMR (0.0471), and the GFI (0.993)

presented a good fitting model while the model CAIC (107.182) was more parsimonious than both the independence and saturated models. Thus sub-scale 1 was deemed to have a reasonably good fit with the data.

Regarding scale 2 only the GFI (0.966) indicated a good fit with the data. All of the other fit indices, RMSEA (0.197), χ^2/df (18.45), NNFI (0.684), CFI (0.842), and standardised RMR (0.101) indicated that this scale does not present a good fit with the data. Scale 2 was thus deemed to indicate a very poor fit with the data.

The fit indices for scale 3 only indicated a good fit by means of the CFI (0.904) and the GFI (0.971) and showed a more parsimonious fit when comparing the model CAIC (179.064) with the independence and saturated models. The standardised RMR (0.0872) was favourable. When considered in light of the other fit indices which indicated a less than good fit, RMSEA (0.133), χ^2/df (11.25) and NNFI (0.857), subscale 3 could be said to have an average fit with the data.

Scale 4 achieved a good fit on all of the fit indices RMSEA (0.0179), χ^2/df (2.29), NNFI (0.997), CFI (0.998), standardised RMR (0.0371) and GFI (0.995) and was also presented better comparison models to both the saturated and independence models for ECVI, AIC and CAIC. Scale 4 was thus deemed to be a good fitting model.

The results of the CFA's on scale 1 and 4 are promising in light of the portability of the scale. However, the mediocre fit of scale 3 and the poor fit of scale 2 indicate that continuing with the four factor solution for further analyses cannot be done confidently. A coherent factor structure could not be found with the responses of the present sample. With the original structure also representing a poor fit with the data the researcher was left with no choice other than to abandon the use of the scale or to proceed with caution bearing in mind the poor fit of especially scale 2. The conceptual meaning of these four scales did offer some hope for the present study and the researcher thus decided to explore possible correlations that the scales may have had with other constructs. [for further discussion on these problematic outcomes see Chapter 5].

4.4 Examination of coping construct and the Ways of Coping Questionnaire (WCQ).

CFA was initially carried out on the participants responses to the 66 item Ways of Coping Questionnaire (WCQ), developed by Lazarus and Folkman (1984). The factor structure of the questionnaire as suggested by Folkman et al. (1986) was imposed on the data set of the participants (N=290) responses. The response of the present sample yielded a Chronbach alpha of .935. The sample size complications experienced with the role stress scale were exacerbated with the 66 items comprising the WCQ. Therefore separate CFA's were carried out on the eight different sub-scales. The measurement models of the original scales presented by Folkman et al. (1986) are shown in Figures 4.11 - 4.18. The corresponding fit indices of the eight measurement models are presented in Table 4.14.

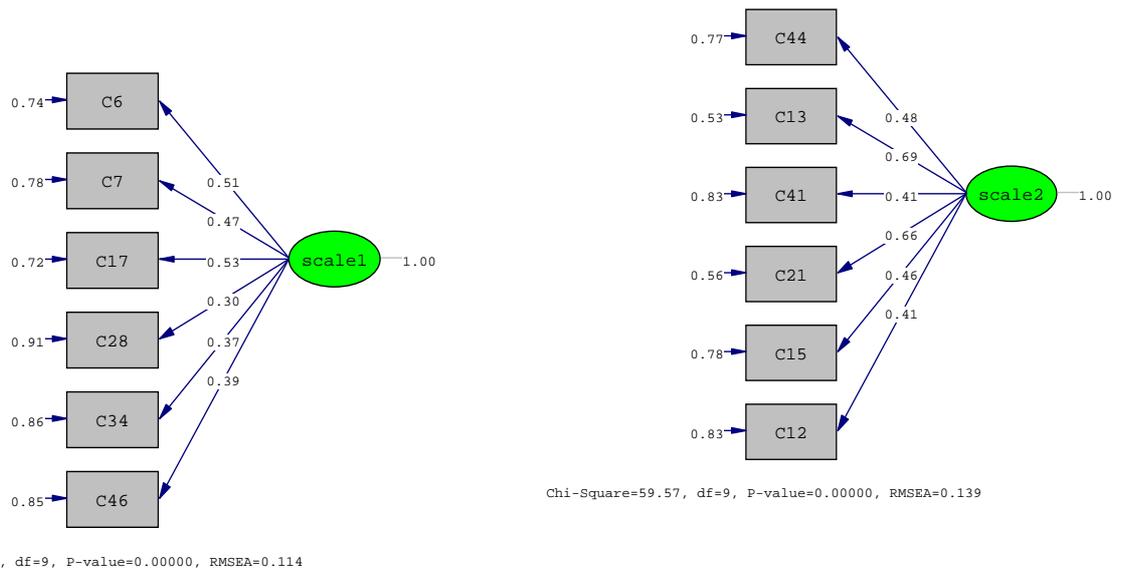
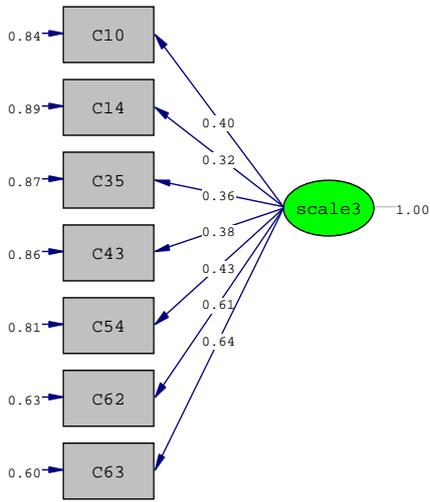
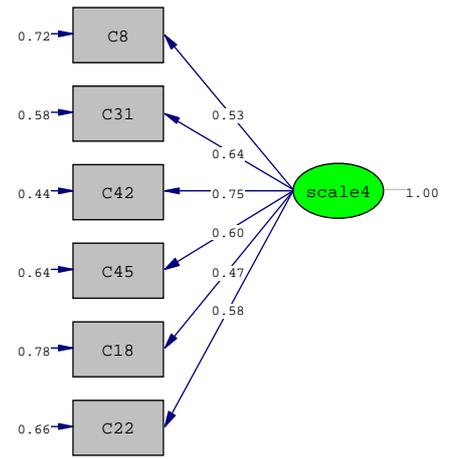


Figure 4.11 Measurement model of sub-scale 1 Figure 4.12 Measurement model of sub-scale 2



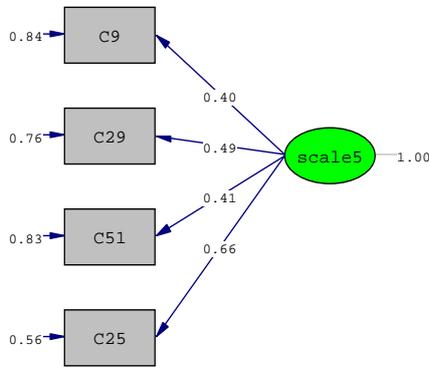
Chi-Square=32.13, df=14, P-value=0.00384, RMSEA=0.067

Figure 4.13 Measurement model of sub-scale 3



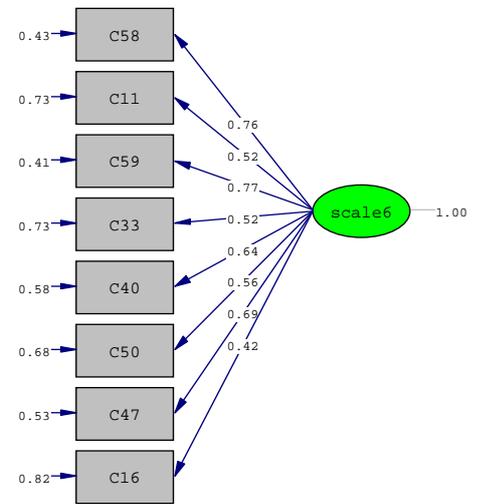
Chi-Square=20.62, df=9, P-value=0.01445, RMSEA=0.067

Figure 4.14 Measurement model of sub-scale 4



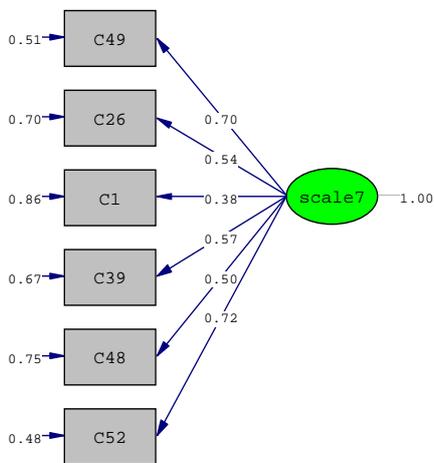
Chi-Square=10.74, df=2, P-value=0.00465, RMSEA=0.123

Figure 4.15 Measurement model of sub-scale 5



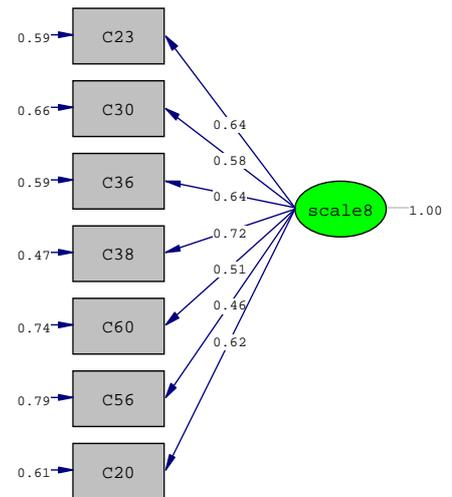
Chi-Square=109.14, df=20, P-value=0.00000, RMSEA=0.124

Figure 4.16 Measurement model of sub-scale 6



Chi-Square=6.06, df=9, P-value=0.73391, RMSEA=0.000

Figure 4.17 Measurement model of sub-scale 7



Chi-Square=47.20, df=14, P-value=0.00002, RMSEA=0.091

Figure 4.18 Measurement model of sub-scale 8

Table 4.14 FIT INDICES obtained from CFA's on 8 original sub scales of Ways of Coping Scale (N=290)

Statistic	Scale 1	Scale 2	Scale 3	Scale 4	Scale 5	Scale 6	Scale 7	Scale 8
DoF	9	9	14	9	2	20	9	14
NTWLS χ^2	77.556 (P = 0.00)	89.981 (P = 0.00)	49.622 (P = 0.000)	34.134 (P = 0.000)	17.674 (P = 0.00015)	199.276 (P = 0.0)	10.530 (P = 0.31)	83.999 (P = 0.00)
Sat-Bent	42.537 (P = 0.00)	59.571 (P = 0.00)	32.128 (P = 0.0038)	20.619 (P = 0.015)	10.744 (P = 0.00465)	109.141 (P = 0.00)	6.060 (P = 0.734)	47.196 (P = 0.000)
χ^2 Corrected	40.670 (P = 0.00)	46.065 (P = 0.00)	32.900 (P = 0.003)	19.657 (P = 0.02)	13.625 (P = 0.00110)	64.797 (P = 0.000)	7.994 (P = 0.535)	38.105 (P = 0.001)
Est NCP	33.537	50.571	18.128	11.619	8.744	89.141	0	33.196
90% Confid.	(16.888 ; 57.716)	(29.799 ; 78.837)	(5.347 ; 38.610)	(2.075 ; 28.848)	(1.954 ; 23.000)	(60.067 ; 125.735)	(0.0 ; 6.106)	(16.018 ; 57.967)
<i>Min .Fit Func.</i>	0.118	0.178	0.071	0.0431	0.0265	0.195	0.0131	0.115
<i>Pop Disc. F0</i>	0.116	0.175	0.0627	0.0402	0.0303	0.308	0	0.115
90% Confid.	(0.0584 ; 0.200)	(0.103 ; 0.273)	(0.0185 ; 0.134)	(0.00718 ; 0.0998)	(0.00676 ; 0.0796)	(0.208 ; 0.435)	(0.0 ; 0.0211)	(0.0554 ; 0.201)
<i>RMSEA</i>	0.114	0.139	0.0669	0.0668	0.123	0.124	0	0.0906
90% Confid.	(0.0806 ; 0.149)	(0.107 ; 0.174)	(0.0364 ; 0.0977)	(0.0282 ; 0.105)	(0.0581 ; 0.199)	(0.102 ; 0.147)	(0.0 ; 0.0485)	(0.0629 ; 0.120)
<i>P-Value</i>	0.00123	0	0.162	0.203	0.0341	0	0.955	0.00964
ECVI	0.23	0.289	0.208	0.154	0.0925	0.488	0.114	0.26
90% Confid.	(0.173 ; 0.314)	(0.217 ; 0.387)	(0.164 ; 0.279)	(0.121 ; 0.214)	(0.0690 ; 0.142)	(0.388 ; 0.615)	(0.114 ; 0.135)	(0.201 ; 0.346)
ECVI Sat.	0.145	0.145	0.194	0.145	0.0692	0.249	0.145	0.194
ECVI Indep.	0.709	1.297	1.031	1.994	0.415	4.115	1.722	2.862
χ^2 for I.M.	192.843	362.886	283.819	564.15	111.933	1173.282	485.718	813.26
Indep. AIC	204.843	374.886	297.819	576.15	119.933	1189.282	497.718	827.26
Model AIC	66.537	83.571	60.128	44.619	26.744	141.141	30.06	75.196
Sat. AIC	42	42	56	42	20	72	42	56
Indep. CAIC	232.862	402.905	330.508	604.169	138.613	1226.641	525.737	859.949
Model CAIC	122.575	139.61	125.506	100.658	64.103	215.859	86.098	140.574
Sat. CAIC	140.067	140.067	186.757	140.067	66.699	240.116	140.067	186.757
NFI	0.779	0.836	0.887	0.963	0.904	0.907	0.988	0.942
NNFI	0.686	0.758	0.897	0.965	0.752	0.891	1.01	0.937
PNFI	0.468	0.502	0.591	0.578	0.301	0.648	0.593	0.628
CFI	0.811	0.855	0.931	0.979	0.917	0.922	1	0.958
IFI	0.818	0.857	0.933	0.979	0.92	0.923	1.006	0.958
RFI	0.632	0.726	0.83	0.939	0.712	0.87	0.979	0.913
CN	148.205	106.112	263.161	304.682	248.774	100.474	1034.287	179.461
RMR	0.0912	0.0944	0.0588	0.0475	0.0617	0.0798	0.028	0.0687
Std. RMR	0.0912	0.0944	0.0588	0.0475	0.0617	0.0798	0.028	0.0687
GFI	0.966	0.958	0.983	0.991	0.988	0.976	0.997	0.981
AGFI	0.921	0.901	0.967	0.979	0.942	0.956	0.993	0.962
PGFI	0.414	0.41	0.492	0.425	0.198	0.542	0.427	0.491

From Table 4.14 it is clear that not all of the sub scales fitted the data satisfactorily. All of the sub-scales achieved a good fit in terms of the GFI (> 0.90) and at least a reasonable fit for the standardised RMR (< 0.1) as well as being more parsimonious compared to the saturated and independence models when assessing the model CAIC. However, when taking all of the fit indices into account only scale 7 achieved a close fit to the data and a good fit on all of the indices. Scale 7's χ^2/df value (0.673) indicated a possible over-fit. Scale 3, 4 and 8 could be said to have achieved a reasonable to good fit with the data. Scale 5 and 6 also achieved a good fit in terms of the CFI (0.917 and 0.922 respectively) but failed to achieve sufficient values for a good fit on the NNFI index and χ^2/df ratio and showed a poor fit for the RMSEA. These scales were thus deemed to have achieved a less than adequate fit with the data. Scale 1 and 2 failed to achieve good fit in terms of the NNFI, CFI as well as the RMSEA and were thus considered to present a poor fit with the data.

Considering the dubious fit of scales 1, 2, 5, and 6 of the original eight factors of the WCQ, determined by Folkman et al. (1986), with the current data set it was decided to explore the data further using EFA. The procedure used by Sorlie and Sexton (2000) was used as a guide by employing Principal Component Analysis (PCA) with an orthogonal rotation of the axes using SPSS 15.0 for Windows (2005). Tabachnick and Fidell (2001) recommend using PCA when an empirical summary of the data set is required, which was the goal of the current EFA. The decision rules adhered to in determining the number of components to be extracted and the items to be included also matched those used by Sorlie and Sexton (2000). However, instead of using a .45 value as the cut of for factor loadings a .40 value was used in accordance with Field's (2005) recommendation. Folkman et al. (1986) utilised similar criteria deleting items with marginal loadings and lack of conceptual coherence. Items were thus included in the final version of the scales if the following criteria were met:

- Items loaded $> .40$ on their respective components and $< .40$ on any other factors (Sorlie & Sexton, 2000; Fields, 2005).
- Items displayed conceptual coherence with their factor (Folkman et al., 1986; Sorlie & Sexton, 2000).
- The number of components included would be those displaying the greatest scientific utility (Sorlie & Sexton; 2000; Tabachnick & Fidell, 2001).

The measures of sampling adequacy indicated that the correlation matrix for WCQ items was suitable for factor analysis. This was indicated by a KMO value of .852 and with the Bartlett's Test of Sphericity reaching statistical significance at 0.000 (Approx. Chi Square = 8062.030; df = 2145). The anti-image correlation matrix also showed all the KMO values for individual items being above .5 and an examination of the correlation matrix revealed numerous coefficients above .3.

The scree test and eigenvalue criteria proved to be somewhat problematic in assessing the number of components that should initially be extracted in the first round of EFA. The 66-item scale presented 17 eigenvalues > 1 which accounted for 63.18% of the cumulative variance. Using Kaiser's criterion would thus result in the extraction of far too many factors to make conceptual sense of the data. The scree plot, presented in Figure 4.19, also presented a result that was difficult to interpret.

Scree Plot

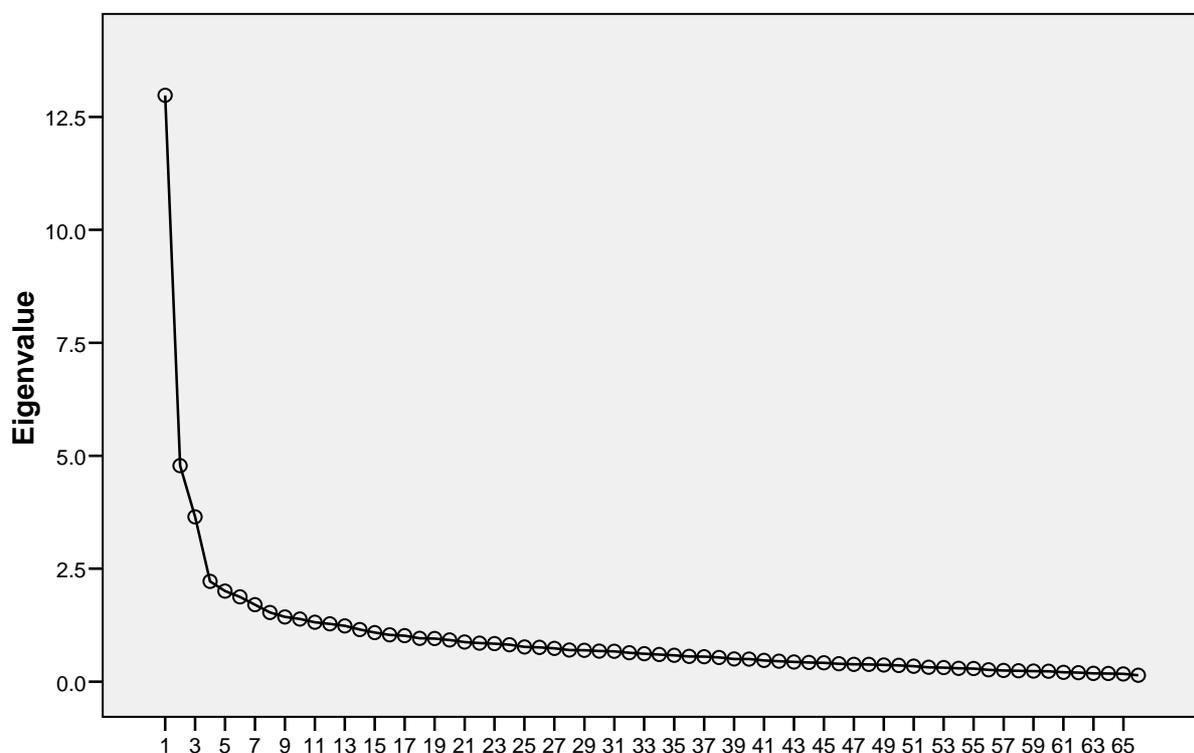


Figure 4.19 Scree Plot of eigenvalues: Ways of Coping Questionnaire (N = 290)

From figure 4.19 it can be seen that there is no clear “elbow” at which the shape of the curve changes direction and becomes horizontal. The gap between the third and fourth component point is somewhat greater than the gap between component four and five, however, in light of the literature it seemed unlikely that only 3 components would exist. It thus seemed doubtful that the number of factors could be accurately assessed from either Kaiser’s criterion or the scree test.

With previous literature finding somewhere between five and eight components (cf. Falkum et al., 1997; Folkman & Lazarus, 1985; Folkman et al. 1986; Sorlie & Sexton, 2000; Vitaliano et al., 1985) it was decided to initially extract eight components and follow the aforementioned rules. The researcher also, however, experimented with different numbers of components, different extraction techniques and both orthogonal and oblique rotation until a solution could be found with the greatest scientific utility, consistency and meaning in line with the recommendations of Tabachnick and Fidell (2001).

A six factor solution, using Principal Component Extraction with Varimax rotation, yielded the most conceptually interpretable set of components. The component matrix of the six factors extracted, with items $> .4$ in bold type, is shown in Table 4.15 (Items have been sorted according to size for readability purposes).

Table 4.15 Rotated Component Matrix

	Component					
	1	2	3	4	5	6
C57_DAYDREAMED	.702	-.015	.210	.078	.269	.073
C58_WISHED	.698	-.079	.192	.015	.148	.290
C59_FANTASIES	.676	-.022	.234	.036	.189	.173
C62_WENT_OVER	.628	.243	-.002	.105	.056	.129
C60_PRAYED	.610	.172	.115	.219	-.126	.022
C61_PREPARED	.603	.096	-.050	.037	.119	.046
C55_WISHED	.518	.255	-.026	.163	.055	.312
C66_WALK	.498	.069	.135	.165	.179	-.158
C63_ADMIRED	.494	.413	.033	.216	.073	-.113
C56_CHANGED	.465	.300	.129	.137	.148	-.041
C50_DENIAL	.427	.126	.329	-.138	.188	-.012
C53_ACCEPTED_IT	.417	.121	.114	.212	.204	.174

C49_DOUBLED EffORTS	.025	.684	.060	.100	.071	.108
C52_DIF SOLUTIONS	.140	.673	-.069	.242	-.028	.053
C51_NEXT TIME	.282	.661	-.014	.172	-.125	.075
C65_MUCH WORSE	.436	.525	-.055	.074	-.128	-.011
C38_REDISCOVERED	.267	.524	.115	.276	-.081	-.011
C36_NEW FAITH	.270	.511	.282	.111	.049	.116
C30_CAME_OUT BETTER	.036	.484	.156	.284	-.056	.170
C64_OTHER_P_OF_V	.409	.476	-.097	.302	-.107	-.010
C37_Pride	.057	.472	.104	-.006	.248	.066
C39_CHANGED_SMTNG	.226	.453	.179	.290	.031	.104
C48_PAST EXPERIENCE	.016	.437	-.043	.027	.201	.318
C54_KEPT FEELINGS	.150	.418	.033	.211	-.028	.337
C46_FOUGHT	.121	.360	.096	.050	.240	.139
C2_ANALYZE PROB	-.214	.338	.322	.293	-.139	.251
C1_NEXT_STP	-.139	.335	.330	.059	-.073	.282
C11_MIRACLE	.336	-.016	.643	.093	.194	-.079
C12_FATE	.231	-.031	.617	-.078	.296	.088
C13_WENT_ON	.191	-.105	.611	.102	.094	.279
C6_DID_SMTNG	.066	.309	.592	-.150	.086	-.194
C7_CHANGE_C_S_MIND	-.004	.164	.546	.099	.009	.104
C4_WAIT	.109	-.076	.535	.231	.208	.006
C3_MIND_OFF	.095	.069	.457	.237	.119	.189
C10_LEFT_OPEN	.028	.344	.454	.153	.133	-.162
C24_WAITED	.197	-.041	.444	.425	.257	.019
C9_CRITISIZED_SELF	.157	.091	.438	.244	.086	-.305
C5BARGAINED	-.226	.378	.421	.144	-.107	-.025
C21_FORGET	.222	-.021	.403	.294	-.111	.362
C14_KEPT FEELINGS	.028	.009	.390	.134	.064	.355
C15_SILVER LINING	-.050	.278	.330	.165	-.012	.308
C29_REALIZED	.083	.078	.320	.295	.242	.139
C22_GOT_HELP	.141	.140	.006	.666	.069	-.116
C18_COLLEAGUE_SYMP	.102	-.097	.279	.558	.240	.015
C42_ADVICE	.201	.198	-.061	.548	.102	.219
C31_TKD_CONCRETE	.083	.298	-.021	.530	.087	.157
C19_TOLD MYSELF	.232	.091	.303	.508	.073	.092
C25_APOLOGISED	.221	.256	.136	.503	-.138	-.096
C20_INSPIRED	-.003	.380	.201	.497	-.151	.175
C26_P_OF_A	.007	.316	.121	.472	.134	.073
C23_GREW	.003	.384	.219	.452	-.146	-.105
C27_NEXT_BEST	.075	.175	.329	.435	.245	-.003
C8_GOT_INFO	-.032	.206	.250	.406	-.118	.200
C45_TALKED	.312	.147	-.026	.396	.143	.219
C34_TOOK_CHANCE	.097	.163	.052	-.052	.643	.082
C47_TOOK_IT_OUT	.286	-.065	.078	.001	.594	.055
C33_SUBSTANCE	.214	.010	.017	.055	.587	-.033
C40_AVOIDED	.311	-.169	.106	.073	.581	.104
C17_EXP_ANGER	.070	-.092	.233	.057	.489	.045
C16_SLEPT	.051	.201	.367	-.021	.461	-.196
C28_FEELINGS_OUT	-.115	-.050	.088	.155	.394	-.022
C35_NOT_FIRST_HUNCH	.037	.322	.035	.031	.391	.148
C32_GOT_AWAY	.296	.125	.108	.088	.347	.215

C44_MADE_LIGHT	.199	.220	.017	.044	.029	.579
C43_KEPT_HOW_BAD	.129	.147	.088	.052	.272	.545
C41_REFUSED_THINK	.292	.253	.039	.049	.079	.453

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 17 iterations.

Items were eliminated according to the decision rules and the remaining items were again factor analysed and a varimax rotation specified. This procedure was repeated, with 32 items being eliminated, until the 34 remaining items all fitted the decision rules. The Rotated Component Matrix of this final solution, sorted according to size and with items loading > .4 in bold type, is presented in Table 4.16 below.

Table 4.16 Rotated Component Matrix of final 34 item solution (N=290).

	Component					
	1	2	3	4	5	6
C51_NEXT_TIME	.725	.197	-.070	.108	.115	-.083
C49_DOUBLED EffORTS	.715	-.052	.003	.059	.125	.114
C52_DIF_SOLUTIONS	.711	.099	-.067	.129	.083	-.045
C38_REDISCOVERED	.635	.212	.133	.151	-.027	-.107
C36_NEW_FAITH	.601	.210	.268	-.038	.111	.025
C39_CHANGED_SMTNG	.570	.173	.208	.184	.102	.058
C30_CAME_OUT_BETTER	.562	-.061	.174	.189	.171	-.046
C64_OTHER_P_OF_V	.526	.321	-.043	.245	.033	-.085
C58_WISHED	-.001	.734	.267	-.081	.248	.061
C59_FANTASIES	.057	.730	.282	-.046	.088	.140
C57_DAYDREAMED	.080	.712	.281	-.047	.105	.184
C62_WENT_OVER	.223	.688	-.032	.201	.060	.065
C61_PREPARED	.103	.655	-.065	.095	.036	.116
C60_PRAYED	.261	.610	.143	.128	-.007	-.178
C55_WISHED	.269	.531	-.011	.315	.228	.123
C4_WAIT	-.032	.045	.687	.149	-.005	.078
C13_WENT_ON	-.019	.150	.667	-.043	.234	.035
C3_MIND_OFF	.124	.036	.615	.146	.149	-.017
C12_FATE	.038	.198	.584	-.186	.082	.353
C24_WAITED	.104	.185	.577	.144	.011	.208
C9_CRITISIZED_SELF	.153	.058	.516	.240	-.302	.119
C21_FORGET	.095	.184	.482	.115	.354	-.152
C10_LEFT_OPEN	.383	-.060	.468	.114	-.159	.207
C8_GOT_INFO	.144	-.022	.218	.646	.127	-.056
C22_GOT_HELP	.208	.152	.151	.635	-.112	.034
C31_TKD_CONCRETE	.320	.084	.068	.598	.142	.093
C42_ADVICE	.288	.171	.090	.512	.259	.019

C44_MADE_LIGHT	.224	.096	.056	.032	.744	.001
C43_KEPT_HOW_BAD	.043	.130	.110	.138	.638	.194
C41_REFUSED_THINK	.266	.187	.088	.072	.572	.085
C17_EXP_ANGER	-.094	.028	.231	.149	.105	.641
C34_TOOK_CHANCE	.190	.142	.090	-.240	.134	.598
C47_TOOK_IT_OUT	-.057	.330	.132	-.087	.088	.578
C28_FEELINGS_OUT	-.130	-.026	.003	.335	-.084	.559

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 7 iterations.

From Table 4.16 it is clear that the remaining 34 items all loaded $> .4$ on only one component. Items C64, C55, C12, C9, C21, C10, C31, C47, and C28 displayed loadings $> .3$ on other components, indicative of cross loading. However, various cross loadings $> .35$ were also found on several items in the six factor solution of Falkum et al. (1996) and only three of the above items (C12, C21 and C10) load $> .35$ on another factor. The solution also had only 32% of the non-redundant residuals with absolute values $> .5$. Therefore with the conceptual coherence of the factors accruing $> .4$ loadings in the current solution, and with this solution presenting a somewhat better outcome in comparison to other studies (cf. Falkum et al., 1996), it was decided to accept this six factor solution, as shown in Table 4.16 above, for the purposes of further analyses.

Both oblique and varimax rotations produced virtually the same factor structure. The Pattern Matrix of the quite similar six factor solution with an oblique rotation is provided in Table 4.17 below for comparison purposes.

Table 4.17 Pattern Matrix of PCA with Direct Oblimin rotation (N = 290)

	Component					
	1	2	3	4	5	6
C49_DOUBLED EffORTS	.754	-.147	-.069	.092	.112	.022
C52_DIF SOLUTIONS	.710	.034	-.138	.041	-.049	-.059
C51_NEXT TIME	.709	.135	-.146	.065	-.097	-.035
C38_REDISCOVERED	.606	.164	.072	-.090	-.131	-.080
C36_NEW FAITH	.599	.130	.208	.048	-.021	.128
C30_CAME_OUT BETTER	.546	-.151	.134	.138	-.056	-.133
C39_CHANGED SMTNG	.536	.098	.136	.047	.035	-.108
C64_OTHER P OF V	.460	.294	-.119	-.019	-.097	-.193
C59_FANTASIES	-.042	.732	.208	.016	.066	.106
C58_WISHED	-.119	.727	.206	.185	-.018	.128
C57_DAYDREAMED	-.013	.705	.202	.034	.112	.111

C62_WENT_OVER	.102	.701	-.131	-.002	.031	-.156
C61_PREPARED	.006	.680	-.153	-.014	.083	-.058
C60_PRAYED	.148	.625	.088	-.078	-.228	-.086
C55_WISHED	.141	.504	-.114	.181	.101	-.272
C4_WAIT	-.086	-.002	.694	-.046	.034	-.117
C13_WENT_ON	-.076	.082	.676	.192	-.034	.082
C3_MIND_OFF	.063	-.036	.618	.108	-.063	-.109
C12_FATE	.047	.135	.552	.034	.288	.258
C24_WAITED	.052	.132	.541	-.041	.164	-.089
C9_CRITISIZED_SELF	.129	.042	.495	-.354	.100	-.194
C21_FORGET	-.009	.116	.484	.317	-.207	-.092
C10_LEFT_OPEN	.409	-.126	.431	-.208	.186	-.040
C44_MADE_LIGHT	.148	-.018	.020	.745	-.031	-.010
C43_KEPT_HOW_BAD	-.046	.034	.061	.643	.172	-.121
C41_REFUSED_THINK	.194	.089	.033	.557	.053	-.034
C17_EXP_ANGER	-.100	-.028	.159	.103	.643	-.111
C28_FEELINGS_OUT	-.145	-.037	-.067	-.073	.597	-.325
C34_TOOK_CHANCE	.258	.075	.004	.115	.573	.320
C47_TOOK_IT_OUT	-.059	.302	.047	.065	.551	.142
C8_GOT_INFO	.011	-.066	.188	.113	-.037	-.652
C22_GOT_HELP	.088	.143	.091	-.148	.054	-.622
C31_TKD_CONCRETE	.209	.030	-.007	.120	.114	-.576
C42_ADVICE	.160	.114	.023	.234	.023	-.491

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 23 iterations.

From Table 4.17 above, it is clear that oblique and varimax solutions produced virtually the same factor loadings and the same structure. The goal of varimax rotation is to maximize the spread of loadings within factors, across variables, thus offering solutions that are easier to interpret describe and report (Tabachnick & Fidell, 2001). This type of rotation was thus deemed most appropriate considering the problematic nature of the scree plot and eigenvalues > 1. The varimax rotated solution was thus used as the main guide for the elimination of items in accordance with Sorlie and Sexton (2000).

The six factors respectively explained 22.16% (Factor 1), 9.36% (Factor 2), 6.78% (Factor 3), 4.48% (Factor 4), 4.21% (Factor 5) and 3.87% (Factor 6) of the total variance, accounting for 50.87% of the variance cumulatively. The Chronbach Alpha coefficients for the sub-scales in the final six factor solution and the 34 item scale were:

Scale: .889 (34 items)

Factor 1: .832 (8 items)

Factor 2:	.842 (7 items)
Factor 3:	.769 (8 items)
Factor 4:	.681 (4 items)
Factor 5:	.641 (3 items)
Factor 6:	.538 (4 items)

The scales distilled from the PCA on the current data set produced results that are in line with the findings of other authors. Many of the items grouped together in sub-scales which were afforded similar themes in other research. These findings were encouraging and suggested that a meaningful and interpretable factor structure, especially in light of previous research, could be found in the responses from the present sample. The names given to the six factors were thus derived from the names given by previous authors who found similar groupings of items. Table 4.18 provides the factor structures from the EFA along with the sub-scale names given by Folkman et al. (1986), Sorlie, T., & Sexton (2000), Vitaliano et al. (1985) and Folkman and Lazarus (1985). This has been included to illustrate how consistently some of the items in the present study loaded on similar factors found in these previous studies. It therefore how the scales in the present study derived their names. The labels given to the six factors were: problem focused coping (component 1); wishful thinking (component 2); self control (component 3) seeking social support (component 4); avoidant coping (component 5); and confrontive coping (component 6).

Having distilled the most meaningful factor structures within the responses of the present sample, the next step was to carry out CFA's on the six factor structure. Once again, it was decided to carry out separate CFA's on each of the six sub scales found in the EFA to assess their fit with the current data. This decision was taken because of the number of parameters that would need to be included with such a high number of items and sub scales. However, scale 5 was comprised of only 3 items, rendering it a just identified model with $df = 0$. Therefore a CFA could not be carried out on this scale and only the Chronbach alpha values were used to assess whether the items measured the construct. The measurement models of the five other sub-scales distilled from the EFA are shown in Figures 4.19 – 4.23. The corresponding fit indices of the measurement models are presented in Table 4.19.

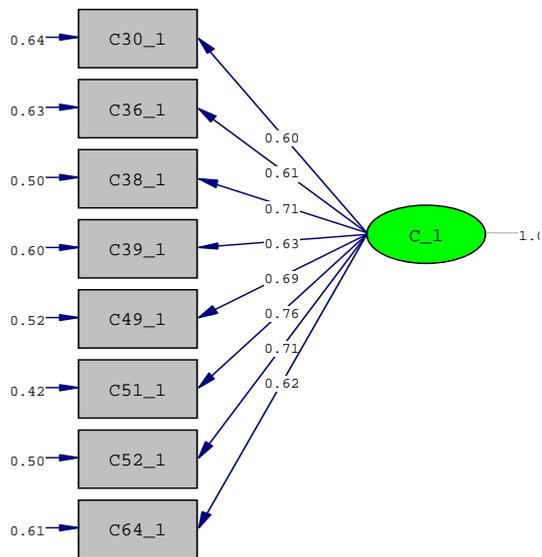
Table 4.18 EFA on coping scale with names attributed by previous authors.

Item	Component						Author				Sub-scale
	1	2	3	4	5	6	F et al. 1986	S&S 2000	Vit 1985	F&L 1985	
C51_NEXT_TIME	0.725						AR	TiO		SB	
C49_DOUBLED EffORTS	0.715						PPs	TiO	PF	PF	
C52_DIF SOLUTIONS	0.711						PPs	TiO	PF	PF	Problem Focused
C38_REDISCOVERED	0.635						PR				
C36_NEW FAITH	0.601										
C39_CHANGED SMTNG	0.570						PPs		PF	PF	
C30_CAME OUT BETTER	0.562						PR		PF		
C64_OTHER_P_OF_V	0.526										
C58_WISHED		0.734					EA	WT	WT	WT	
C59_FANTASIES		0.730					EA	WT	WT	WT	
C57_DAYDREAMED		0.712						WT	WT	WT	
C62_WENT OVER		0.688					SC			PF	Wishful thinking
C61_PREPARED		0.655						WT			
C60_PRAYED		0.610					PR				
C55_WISHED		0.531							WT	WT	
C4_WAIT			0.687							D	
C13_WENT ON			0.667				D		AV	D	
C3_MIND OFF			0.615								
C12_FATE			0.584				D	WT		D	Self-control
C24_WAITED			0.577								
C9_CRITISIZED_SELF			0.516				AR		B	SB	
C21_FORGET			0.482								
C10_LEFT_OPEN			0.468				SC		PF		
C8_GOT_INFO				0.646			SS	SS	SS	SS	
C22_GOT_HELP				0.635			SS	SS	SS		Seeking Social Support
C31_TKD_CONCRETE				0.598			SS	SS	SS	SS	
C42_ADVICE				0.512							
C44_MADE_LIGHT					0.744		D	AV			
C43_KEPT_HOW_BAD					0.638		SC	AV	AV	SI	Avoidant
C41_REFUSED_THINK					0.572		D	AV			
C17_EXP_ANGER						0.641	CC		AV		
C34_TOOK_CHANCE						0.598	CC				Confrontive
C47_TOOK_IT_OUT						0.578	EA				
C28_FEELINGS_OUT						0.559	CC			SS	

Key

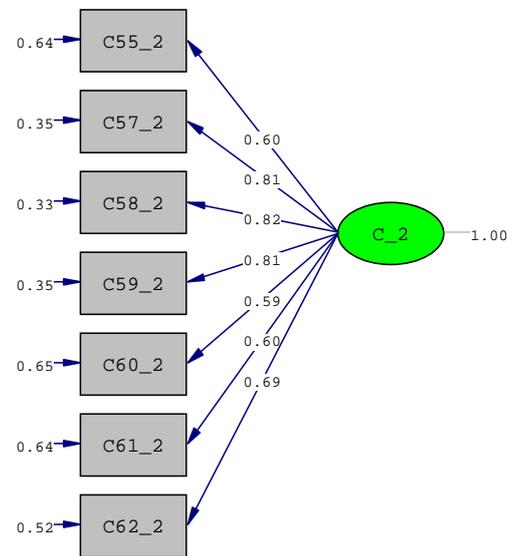
- AR = Accept responsibility
- AV = Avoidant Coping
- B = Blame
- CC = Confrontive Coping
- D = Distancing
- EA = Escape -avoidance
- PF = Problem Focused
- PP = Planful Problem solving
- PR = Positive reappraisal
- SB = Self-blame
- SC = Self Control
- SI = Self-isolation
- SS = Seeking social support
- TiO = Tried options
- WT = Wishful thinking

Extraction: Principal Component Analysis. Rotation: Varimax with Kaiser Normalization. Rotation converged in 7 iterations.



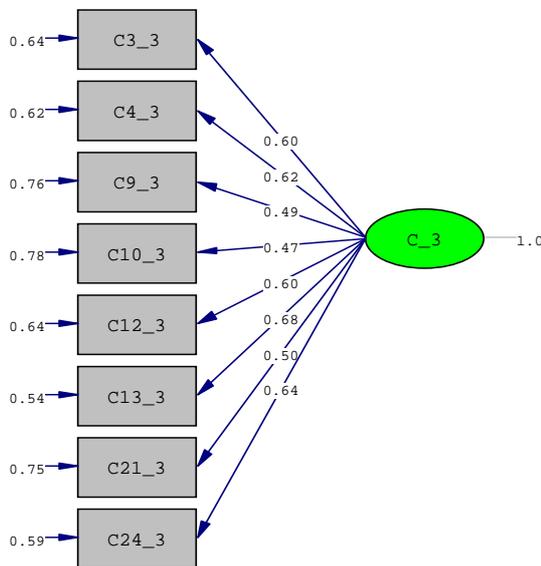
Chi-Square=24.34, df=20, P-value=0.22782, RMSEA=0.027

Figure 4.19 Measurement model of sub-scale 1



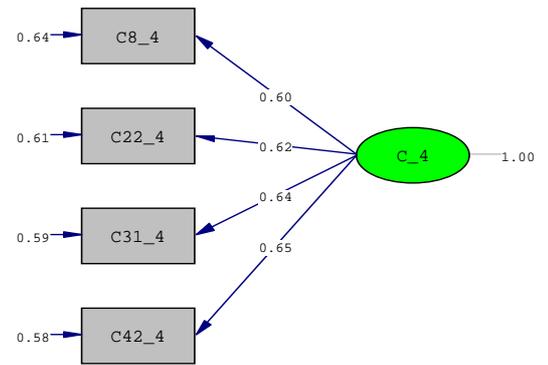
Chi-Square=54.77, df=14, P-value=0.00000, RMSEA=0.100

Figure 4.20 Measurement model of sub-scale 2



Chi-Square=67.67, df=20, P-value=0.00000, RMSEA=0.091

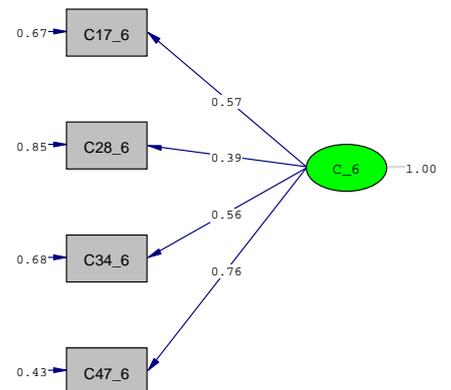
Figure 4.21 Measurement model of sub-scale 3



Chi-Square=3.27, df=2, P-value=0.19490, RMSEA=0.047

Figure 4.22 Measurement model of sub-scale 4

Note: Sub-scale 5 was a just identified model containing only three items with 0 degrees of freedom. Therefore no measurement model was drawn for this scale.



Chi-Square=13.95, df=2, P-value=0.00094, RMSEA=0.144

Figure 4.23 Measurement model of sub-scale 6

Table 4.19 Fit indices obtained from CFA's on 6 new sub scales of WCQ (N=290)

Statistic	Scale 1	Scale 2	Scale 3	Scale 4	Scale 5	Scale 6
DoF	20	14	20	2		2
NTWLS χ^2	46.084 (P = 0.000785)	109.772 (P = 0.00)	108.376 (P = 0.00)	4.340 (P = 0.114)	JUST IDENTIFIED MODEL	33.500 (P = 0.000)
Sat-Bent	24.341 (P = 0.228)	54.769 (P = 0.000)	67.668 (P = 0.000)	3.271 (P = 0.195)		13.950 (P = 0.000935)
χ^2 Corrected	19.981 (P = 0.459)	42.642 (P = 0.000)	76.481 (P = 0.000)	3.315 (P = 0.191)		10.761 (P = 0.00461)
Est NCP	4.341	40.769	47.668	1.271		11.95
90% Confid.	(0.0 ; 21.013)	(21.705 ; 67.398)	(26.387 ; 76.547)	(0.0 ; 10.517)		(3.617 ; 27.737)
<i>Min. Fit</i>	0.0449	0.101	0.166	0.00509		0.036
<i>Pop Disc. F0</i>	0.015	0.141	0.165	0.0044		0.0413
90% Confid.	(0.0 ; 0.0727)	(0.0751 ; 0.233)	(0.0913 ; 0.265)	(0.0 ; 0.0364)		(0.0125 ; 0.0960)
<i>RMSEA</i>	0.0274	0.1	0.0908	0.0469		0.144
90% Confid.	(0.0 ; 0.0603)	(0.0732 ; 0.129)	(0.0676 ; 0.115)	(0.0 ; 0.135)		(0.0791 ; 0.219)
<i>P-Value</i>	0.851	0.00171	0.00271	0.407		0.0107
ECVI	0.195	0.286	0.345	0.0667		0.104
90% Confid.	(0.180 ; 0.253)	(0.220 ; 0.379)	(0.271 ; 0.445)	(0.0623 ; 0.0987)		(0.0748 ; 0.158)
ECVI Sat.	0.249	0.194	0.249	0.0692		0.0692
ECVI Indep.	5.605	5.214	3.235	0.963		0.71
χ^2 for I.M.	1603.731	1492.725	919.016	270.373		197.071
<i>Indep. AIC</i>	1619.731	1506.725	935.016	278.373		205.071
<i>Model AIC</i>	56.341	82.769	99.668	19.271		29.95
<i>Sat. AIC</i>	72	56	72	20		20
<i>Indep. CAIC</i>	1657.09	1539.414	972.375	297.053		223.75
<i>Model CAIC</i>	131.059	148.147	174.386	56.63		67.309
<i>Sat. CAIC</i>	240.116	186.757	240.116	66.699		66.699
NFI	0.985	0.963	0.926	0.988		0.929
NNFI	0.996	0.958	0.925	0.986		0.812
PNFI	0.703	0.642	0.662	0.329		0.31
CFI	0.997	0.972	0.947	0.995		0.937
IFI	0.997	0.972	0.947	0.995		0.939
RFI	0.979	0.945	0.897	0.964		0.788
CN	447.026	154.784	161.44	814.93		191.83
RMR	0.0358	0.0579	0.072	0.0236		0.0755
Std. RMR	0.0358	0.0579	0.072	0.0236		0.0755
GFI	0.995	0.99	0.976	0.998		0.985
AGFI	0.991	0.98	0.957	0.991		0.927
PGFI	0.553	0.495	0.542	0.2		0.197

From Table 4.19, it is clear that both sub-scale one and sub-scale four achieved a good fit in terms of all of the fit indices and can be said to have a good overall fit with the data. Sub-scale two and three did not achieve a good fit as indicated by the RMSEA (0.1 and 0.09 respectively) and presented mixed comparative fit results in terms of the ECVI and AIC. However, these two sub-scales did present a good fit with the rest of the indices including the χ^2/df , NNFI, CFI and GFI, as well as having at least favourable fits for the standardised RMR. Sub-scales two and three were thus deemed to have a favourable to good fit with the data. With sub-scale five being a just identified model, the Chronbach alpha was taken as being indicative of a fairly reliable scale (see Table 4.20). Sub-scale six achieved a good fit when taking the CFI, and GFI indices into account and had a only favourable standardised RMR. As for the rest of the fit indices, however, this sub-scale did not achieve a good fit. The researcher thus concluded that this sub-scale had a poor fit with the current data.

Nunnally's (1978) guidelines are often used in determining the levels of reliability for the scales and sub-scales and are indicated in Table 4.20 below. However, these guidelines are somewhat stringent for the current research in light of reports from other authors. Pallant (2001) shows that it is common to find quite low Cronbach alpha values, around .50, when short scales of less than ten items are used. Similarly, in a meta analyses of 832 published journal articles, Peterson (1994) found that in practice 25% of reported alpha values were below .7, some of which were even well below .5. Nunnally (1967) also reported that for preliminary research, alpha values of .5-.6 could be taken as a recommended level and that higher recommended values .9 - .95 are more appropriate only for applied research. Schmitt (1996) attests that when a measure has other desirable properties such as uni-dimensionality and meaningful content coverage of a specific domain, even reliabilities as low as 0.49 may be appropriate.

Table 4.20 Nunnally (1978) general guidelines for interpreting reliability coefficient

Reliability coefficient value	Interpretation
.90 and above	Excellent
.80 - .89	Good
.70 - .79	Adequate
Below .70	May have limited applicability

Table 4.21 presents a summary of the characteristics of the measuring instruments including the number of items, the dimensions and the Cronbach alpha values for each scale and sub-scale. In light of the views of the authors mentioned above, it is clear that the Cronbach alpha values presented by the scales are all acceptable. The total scale scores for all three of the scales, according to Nunnally's (1978) guidelines, were good to excellent. Five of the subscales had alpha values below .7. In light of Pallant's (2001) comments this is not surprising since these scales have only 3 – 6 items, which are very small. Also, in line with Schmitt (1996), the results of the EFA's showed that these scales displayed meaningful content coverage and uni-dimensionality. The researcher thus concluded that the sub scales present acceptable to good levels of reliability.

Table 4.21 Summary of characteristics of measuring instruments

Instrument	Dimensions (n items)	n Items	Cronbach Alpha (α)
Servant Leadership Questionnaire (SLQ)	Scale total	23	0.946
	Altruistic calling	4	0.815
	Emotional healing	4	0.869
	Wisdom	5	0.849
	Persuasive mapping	5	0.798
	Organisational stewardship	5	0.851
Role Stress	Scale total	24	0.807
	Management role ambiguity	6	0.795
	Authoritative deficiency	5	0.675
	Role conflict	7	0.713
	Functional role ambiguity	6	0.689
Ways of Coping Questionnaire (WCQ)	Scale total	34	0.889
	Problem focused coping	8	0.832
	Wishful thinking	7	0.842
	Self control	8	0.769
	Seeking social support	4	0.681
	Avoidant coping	3	0.641
Confrontive coping	4	0.538	

4.5 Testing of the relationships between servant leadership, RS and coping (Research question 2)

An attempt was made to answer question two and test propositions two, three, and four by calculating Pearson's product-moment correlation coefficients between the total and individual dimension scores on servant leadership, role stress and coping. Preliminary analyses were performed to ensure that no violations of the assumptions of normality, linearity and homoscedasticity existed. The results of the Pearson product-moment correlation coefficients along with their p values for statistical significance are shown in Table 4.22.

Pallant (2001) indicates that for sample sizes greater than $N=100$ small correlations may be statistically significant. This proposition is confirmed in Table 4.22 which indicates numerous correlations below .2 which have achieved statistical significance (note for example: T_SL_TOTAL vs T_RA_4; T_RA_1 vs T_C_5; and T_RAC_2 vs T_C_3). In this case many authors maintain that the focus should remain on the amount of shared variance. Thus it was decided to interpret the results in Table 4.22 in terms of the values of the coefficient of determination (shared variance). This was done in terms of the scale offered by Guilford (1950) which is given below in Table 4.23

Table 4.23 Scale for interpreting correlation coefficients (Guilford, 1950)

Correlation coefficient	Shared variance	Interpretation
> .20	4%	slight; almost negligible relationship
.20 - .40	4-16%	low correlation; definite but small relationship
.40 - .70	16-49%	moderate correlation; substantial relationship
.70 - .90	49-81%	high correlation; marked relationship
.90 - 1.00	81%+	very high correlation; very dependable relationship

The Guilford scale was seen as providing a consistent way of interpreting the statistical correlations, which were evaluated in light of the significance levels, but taking into consideration the impact of the large sample size.

Table 4.22 Correlations between servant leadership, RS, and coping (N = 290)

<u>Variable 1</u>	<u>Variable 2</u>	<u>Pearson (r)</u>	<u>Pearson (p)</u>	<u>Shared Variance (r²)</u>
T_SL_TOTAL	T_RS_TOTAL	-0.42	0.00	17.64%
T_SL_TOTAL	T_RA_1	-0.47	0.00	22.09%
T_SL_TOTAL	T_RAC_2	-0.12	0.03	1.44%
T_SL_TOTAL	T_RC_3	-0.29	0.00	8.41%
T_SL_TOTAL	T_RA_4	-0.16	0.01	2.56%
T_SL_TOTAL	T_C_1	0.26	0.00	6.76%
T_SL_TOTAL	T_C_2	0.12	0.05	1.44%
T_SL_TOTAL	T_C_3	0.20	0.00	4.00%
T_SL_TOTAL	T_C_4	0.27	0.00	7.29%
T_SL_TOTAL	T_C_5	0.11	0.06	1.21%
T_SL_TOTAL	T_C_6	0.05	0.44	0.25%
T_RS_TOTAL	T_C_1	-0.34	0.00	11.56%
T_RS_TOTAL	T_C_2	-0.06	0.32	0.36%
T_RS_TOTAL	T_C_3	-0.20	0.00	4.00%
T_RS_TOTAL	T_C_4	-0.27	0.00	7.29%
T_RS_TOTAL	T_C_5	-0.14	0.02	1.96%
T_RS_TOTAL	T_C_6	0.04	0.52	0.16%
T_RA_1	T_C_1	-0.28	0.00	7.84%
T_RA_1	T_C_2	-0.04	0.50	0.16%
T_RA_1	T_C_3	-0.12	0.04	1.44%
T_RA_1	T_C_4	-0.25	0.00	6.25%
T_RA_1	T_C_5	-0.16	0.01	2.56%
T_RA_1	T_C_6	0.06	0.34	0.36%
T_RA_4	T_C_1	-0.33	0.00	10.89%
T_RA_4	T_C_2	-0.01	0.84	0.01%
T_RA_4	T_C_3	-0.10	0.10	1.00%
T_RA_4	T_C_4	-0.25	0.00	6.25%
T_RA_4	T_C_5	-0.12	0.04	1.44%
T_RA_4	T_C_6	0.07	0.21	0.49%
T_RC_3	T_C_1	-0.21	0.00	4.41%
T_RC_3	T_C_2	-0.05	0.40	0.25%
T_RC_3	T_C_3	-0.13	0.03	1.69%
T_RC_3	T_C_4	-0.24	0.00	5.76%
T_RC_3	T_C_5	-0.05	0.42	0.25%
T_RC_3	T_C_6	0.10	0.09	1.00%
T_RAC_2	T_C_1	-0.11	0.07	1.21%
T_RAC_2	T_C_2	-0.05	0.41	0.25%
T_RAC_2	T_C_3	-0.18	0.00	3.24%
T_RAC_2	T_C_4	0.01	0.86	0.01%
T_RAC_2	T_C_5	-0.03	0.66	0.09%
T_RAC_2	T_C_6	-0.13	0.03	1.69%

Legend

T_SL_TOTAL:	SERVANT LEADERSHIP
T_RA_1:	MANAGEMENT ROLE AMBIGUITY
T_RAC_2:	AUTHORITATIVE DEFICIENCY
T_RC_3:	ROLE CONFLICT
T_RA_4:	FUNCTIONAL ROLE AMBIGUITY
T_C_1:	PROBLEM FOCUSED COPING
T_C_2:	WISHFUL THINKING
T_C_3:	SELF CONTROL
T_C_4:	SEEKING SOCIAL SUPPORT
T_C_5:	AVOIDANT COPING
T_C_6:	CONFRONTIVE COPING

In terms of proposition two, it can be seen from Table 4.22, that the total scores for servant leadership and role stress had a moderate to substantial negative relationship ($r = - 0.42$; $p = 0.00$; $N = 290$) with 17.64% common variance. Thus high levels of servant leadership are associated with lower levels of role stress in the current data set. Between the servant leadership total score and management role ambiguity a 22.09% common variance was yielded ($r = - 0.47$; $p = 0.00$; $N = 290$), indicating a moderate to substantial negative relationship between these two variables. The total score for servant leadership and role conflict had 8.41% common variance ($r = - 0.29$; $p = 0.00$; $N = 290$) indicating a low but definite negative relationship. Both authoritative deficiency ($r = - 0.12$; $p = 0.03$; $N = 290$) and functional role ambiguity ($r = - 0.16$; $p = 0.01$; $N = 290$) had only slight almost negligible negative relationships with the total servant leadership score and having only 1.44% and 2.56% common variance respectively.

In terms of proposition three, Table 4.22 shows definite positive relationships existing between servant leadership and three of the four coping behaviours that may be deemed helpful to customer service. However, these relationships were small with problem focused coping having only 6.76% common variance ($r = 0.26$; $p = 0.00$; $N = 290$), self control having only 4% common variance ($r = 0.20$; $p = 0.00$; $N = 290$), and seeking social support having only 7.29% common variance ($r = 0.27$; $p = 0.00$; $N = 290$). Thus high levels of servant leadership are to some degree associated with higher levels of problem focused coping, self control and seeking social support. These low correlations were disheartening in light of the expected findings, however, the definite positive relationships do offer some support for the expected findings. Wishful thinking ($r = 0.12$; $p = 0.05$; $N = 290$) presented a slight almost negligible relationship with only 1.44% common variance, a result that also did not reach statistical significance, even with $N = 290$.

From Table 4.22 it is clear, in terms of proposition four, that no substantially negative relationship presented itself in the present data between servant leadership and coping behaviours that are deemed negative in response to customers. Both avoidant coping ($r = 0.11$; $p = 0.06$; $N = 290$) and confrontive coping ($r = 0.05$; $p = 0.44$; $N = 290$) had very slight almost negligible positive relationships with the servant leadership total score, and both failed to reach statistical significance. They also had only 1.21% and 0.25% common variance respectively.

From Table 4.22 it can be seen that the role stress total score has definite but small, negative relationships with problem focused coping ($r = - 0.34$; $p = 0.00$; $N = 290$), self control ($r = - 0.20$; $p = 0.00$; $N = 290$) and seeking social support ($r = - 0.27$; $p = 0.00$; $N = 290$). These results all reached statistical significance, however, they had a mere 11.56%, 4.00% and 7.29% common variance respectively. Thus higher levels of role stress are associated with lower levels of problem focused coping, self control and seeking social support.

The only coping sub scales to present significant relationships with any of the role stress sub scales were problem focused coping and seeking social support. Table 4.22 shows that problem focused coping had low negative correlations with management role ambiguity ($r = - 0.28$; $p = 0.00$; $N = 290$), functional role ambiguity ($r = - 0.33$; $p = 0.00$; $N = 290$), and role conflict ($r = - 0.21$; $p = 0.00$; $N = 290$). These correlations represent definite but small relationships as only 7.84%, 10.89% and 4.41% of their common variance was shared. Seeking social support also had low negative correlations with management role ambiguity ($r = - 0.25$; $p = 0.00$; $N = 290$), functional role ambiguity ($r = - 0.25$; $p = 0.00$; $N = 290$), and role conflict ($r = - 0.24$; $p = 0.00$; $N = 290$), having only 6.25%, 6.25% and 5.76% common variance respectively. All of these relationships represent definite but only small negative relationships.

The degree to which servant leadership and role stress would predict certain coping mechanisms was further explored using standard multiple regression. The low correlations between the various sub-scales, shown above, made it unlikely that regression equations would yield results that showed substantial predictive ability (Pallant, 2001). However, regression analyses were nonetheless carried out to confirm these assumptions. Various authors recommend that researchers avoid using predictor variables that are highly correlated (a condition known as multicollinearity) when doing regression (Howell, 1999; Pallant, 2001; Tabachnick & Fidell, 1996), which was the case with the sub scales of servant leadership. Pallant (2001) even recommends forming a composite variable from the scores of the highly correlated variables to avoid multicollinearity. Therefore, once again the total score for servant leadership was used instead of the five sub-scales, whilst the role stress sub-scales were taken independently. These five scales were then used as

the independent variables in formulating regression equations with the six different coping scales, which were each used as dependant variables. The results are shown in Table 4.24.

The assumptions of normality, linearity, homoscedasticity, the presence of outliers and independence of residuals were checked by inspecting the residuals scatterplots and the Normal Probability Plots for each of the six analyses. The Normal Probability Plots showed the points lying in a reasonably straight line from bottom left to top right whilst the scatterplots of the standardised residuals had roughly rectangular shapes with most of the scores concentrated in the centre. These results were indicative of the absence of any major violations of the assumptions.

From Table 4.24 it can be seen that the regression coefficients, as expected from the low correlation coefficients, presented low predictive abilities of the IV's for the DV's. For problem focused coping (T_C_1) the R^2 indicates that the IV's explain 15.8% of its variance. The Beta coefficients show that functional role ambiguity (- 0.244) makes the strongest unique contribution to explaining problem focused coping followed by servant leadership (0.188). When using $p < 0.05$, both of these variables, having p-values of 0.000 and 0.013 respectively, make significant unique contributions to the prediction of problem focused coping. The sign's in front of the beta coefficients show that functional role ambiguity has a negative influence while servant leadership has a positive influence, matching the results of the correlations. The rest of the IV's did not have significant predictive ability.

Table 4.24 shows that only 1.6% ($R^2 = 0.016$) of the variance in wishful thinking (T_C_2) is explained by the IV's. None of the beta coefficients made significant unique contributions to wishful thinking with all of their p-values exceeding 0.05.

For self control (T_C_3), Table 4.24 shows that the IV's explained only 6.8% ($R^2 = 0.068$) of its variance. Servant leadership (0.163; $p = 0.015$) made the strongest unique contribution to explaining self control having a positive influence. Authoritative deficiency (- 0.149; $p = 0.012$) also made a significant contribution with an expected negative influence.

Table 4.24: Results from standard multiple regression analysis

Summary statistics: DV: **T C 1**: R= .397 R²= .158 Adjusted R²= .143 F(5,284)=10.630 p = 0.000

	Beta	Std.Err. - of Beta	B	Std.Err. - of B	t(284)	p-level
Intercept			43.516	3.755	11.588	0.000
T_SL_TOTAL	0.158	0.063	0.051	0.020	2.498	0.013
T_RA_1	-0.093	0.067	-0.129	0.093	-1.384	0.168
T_RAC_2	-0.026	0.056	-0.042	0.089	-0.464	0.643
T_RC_3	-0.043	0.061	-0.068	0.096	-0.707	0.480
T_RA_4	-0.244	0.062	-0.484	0.123	-3.940	0.000

Summary statistics: DV: **T C 2**: R= .126 R²= .016 Adjusted R²= -0.002 F(5,284)=.912 p = 0.474

	Beta	Std.Err. - of Beta	B	Std.Err. - of B	t(284)	p-level
Intercept			24.576	4.290	5.728	0.000
T_SL_TOTAL	0.121	0.068	0.041	0.023	1.775	0.077
T_RA_1	0.024	0.072	0.035	0.107	0.332	0.740
T_RAC_2	-0.035	0.061	-0.059	0.102	-0.574	0.567
T_RC_3	-0.018	0.066	-0.030	0.110	-0.275	0.783
T_RA_4	0.010	0.067	0.020	0.140	0.145	0.885

Summary statistics: DV: **T C 3**: R= .261 R²= .068 Adjusted R²= .052 F(5,284)=4.148 p = 0.001

	Beta	Std.Err. - of Beta	B	Std.Err. - of B	t(284)	p-level
Intercept			31.077	3.909	7.951	0.000
T_SL_TOTAL	0.163	0.066	0.052	0.021	2.446	0.015
T_RA_1	0.001	0.070	0.001	0.097	0.014	0.989
T_RAC_2	-0.149	0.059	-0.236	0.093	-2.534	0.012
T_RC_3	-0.043	0.064	-0.067	0.100	-0.669	0.504
T_RA_4	-0.032	0.065	-0.063	0.128	-0.492	0.623

Summary statistics: DV: **T C 4**: R= .375 R²= .140 Adjusted R²= .125 F(5,284)=9.280 p = 0.000

	Beta	Std.Err. - of Beta	B	Std.Err. - of B	t(284)	p-level
Intercept			19.514	1.987	9.823	0.000
T_SL_TOTAL	0.178	0.064	0.030	0.011	2.794	0.006
T_RA_1	-0.078	0.068	-0.057	0.049	-1.156	0.249
T_RAC_2	0.095	0.057	0.080	0.047	1.682	0.094
T_RC_3	-0.128	0.061	-0.106	0.051	-2.086	0.038
T_RA_4	-0.163	0.063	-0.170	0.065	-2.612	0.009

Summary statistics: DV: **T C 5**: R= .182 R²= .033 Adjusted R²= .016 F(5,284)=1.941 p = 0.088

	Beta	Std.Err. - of Beta	B	Std.Err. - of B	t(284)	p-level
Intercept			12.113	1.886	6.421	0.000
T_SL_TOTAL	0.051	0.068	0.008	0.010	0.748	0.455
T_RA_1	-0.117	0.072	-0.077	0.047	-1.636	0.103
T_RAC_2	0.006	0.060	0.004	0.045	0.093	0.926
T_RC_3	0.028	0.065	0.021	0.048	0.430	0.667
T_RA_4	-0.079	0.066	-0.073	0.062	-1.188	0.236

Summary statistics: DV: **T C 6**: R= .211 R²= .045 Adjusted R²= .028 F(5,284)=2.657 p = 0.023

	Beta	Std.Err. - of Beta	B	Std.Err. - of B	t(284)	p-level
Intercept			5.693	1.779	3.201	0.002
T_SL_TOTAL	0.105	0.067	0.015	0.010	1.565	0.119
T_RA_1	0.075	0.071	0.047	0.044	1.058	0.291
T_RAC_2	-0.156	0.060	-0.111	0.042	-2.619	0.009
T_RC_3	0.124	0.065	0.088	0.046	1.925	0.055
T_RA_4	0.044	0.066	0.039	0.058	0.667	0.505

Table 4.24 shows that seeking social support (T_C_4) has an R^2 of 0.140, which indicates that 14% of the variance of seeking social support was explained by the IV's. Servant leadership (0.178; $p = 0.006$) made the strongest significant unique contribution, with a positive influence, to the prediction of seeking social support. Functional role ambiguity (-0.163; $p = 0.009$) contributed slightly less than servant leadership, yet still significantly. Its influence on seeking social support was negative. Role conflict (- 0.128; $p = 0.038$), had a negative influence on, and made the smallest significant contribution to, seeking social support.

Only 3.3% of the variance ($R^2 = 0.033$) in avoidant coping (T_C_5) was explained by the IV's, as seen in Table 4.24 and none of the IV's made a significant contribution to avoidant coping. For confrontive coping (T_C_6), Table 4.24 shows an R^2 of 0.045, indicating that 4.5% of the variance was explained by the IV's. Of the IV's, authoritative deficiency (T_RAC_2) made the strongest unique contribution (beta = - 0.156; $p = 0.009$) to confrontive coping having a negative influence. It was the only IV that made a significant contribution.

The results of the multiple regression on the six different coping sub-scales show that although some correlations were significant, the contribution of the predictor variables to the DV's was small, with very low common variance. This may be indicative of various unknown factors playing a role in diluting the relationships that may in reality exist (see Chapter 5 for a more detailed discussion). On the whole, Table 4.24 shows that the IV's have a very small, almost negligible, amount of predictive ability on the coping sub-scales. These results were not unexpected, considering the only small correlations found in the correlational analyses outlined in Table 4.22.

The results of the correlation and regression analyses highlight the very limited correlations between, and predictive ability of the various scales and sub-scales found in the current data set. More specifically in terms of proposition five and six, it is clear that only very slight correlations exist between SSRS and the coping sub-scales. These results indicate that finding significant relationships when assessing the mediating effect of SSRS and coping with regards to the impact of servant leadership on these variables is unlikely.

If the relationship between SSRS and coping is uncertain, then taking a step further back and assessing their mediating effects in terms of servant leadership becomes all the more vague. Even so, in the unlikely event that some measure of mediation effects do exist, the low predictive ability found in the multiple regression would make any conclusions drawn from these findings problematic. Therefore, in lieu of the unconvincing results of the correlational analyses, the researcher decided that further analyses to assess the mediating effect of SSRS and coping would be futile. Findings in support of proposition five and six were thus deemed inconclusive from the present data set.

4.6 Testing the fit of the proposed structural model (Research question 3)

As a result of the limited correlational and predictive qualities of the various scales and subscales, as well as their relative lack of fit with the data from the CFA's outlined in this chapter, an attempt at building one structural model and assessing its fit on the data, was considered useless. With so few significant and large correlations, and with many subscales having already presented a poor fit with that data, it is implausible that a more complex structural model would achieve a good fit with the data. The researcher therefore decided against attempting to fit a structural model and concluded in response to research question three that a model of sequential relationships could not be built successfully. Proposition seven, that the conceptual model (proposed in chapter 2) describing the relationships between servant leadership, RS and coping would produce a good fit with the data, was thus rejected.

4.6 Summary

In this chapter the results of the statistical analyses were presented which were carried out in an attempt at finding answers to and proving or disproving the propositions stated in Chapter 2. It is clear that, though the statistics did show some tendencies towards supporting the propositions, in many cases the statistical support for the propositions was only marginal and generally problematic. A comprehensive discussion on some of the issues that may have been causal in diluting the results, as well as the implications and contributions of these findings will be discussed in Chapter 5.

CHAPTER 5: DISCUSSIONS, CONCLUSIONS, CONTRIBUTIONS, LIMITATIONS, AND RECOMMENDATIONS

5.1 Introduction

The purpose of this chapter is to provide a consolidated discussion of the conclusions of the main findings, to highlight the contributions and limitations of this study, and finally to offer recommendations. Chapter 5 will thus be arranged according to the following structure:

Section 1

- **Discussions** and **conclusions** that can be drawn from the main findings of the study, specifically in terms of the research questions and how these relate to previous research.

Section 2

- The **contributions** the current study makes towards the body of knowledge.

Section 3

- **Limitations** and **shortcomings** of the present study. This will include:
 - generally recognised limitations of survey research, and
 - specific potential problems of the present study.

Section 4

- **Recommendations** in retrospect of this study in terms of:
 - theoretical, and
 - methodological

5.2 Discussion and conclusions of the main findings

From what has been discussed in Chapters 3 and 4, it is apparent that the exploratory nature of the present study warrants conclusions of a tentative nature. However, some of the results do suggest several organisational behaviour

considerations. The findings of the propositions posed at the end of Chapter 2 may be summarised as follows:

Results: Research question one

The discussion in Chapter 3 highlighted the necessity of intercultural measurement of constructs due to the globalisation of organisations and how imperative this is especially within the South African work environment where many different cultures may amalgamate within one organisational setting. The portability of constructs and measuring instruments is thus a major practical consideration (Harkness et al., 2003; Johnson et al., 1997; Smith, 2003, 2004; Van de Vijver, 2003), particularly in South Africa, and especially within this study as a result of the constructs being imported from outside of the South African context. For this reason it was necessary to examine both the measurement qualities and content of all the instruments used in this study (Harkness et al., 2004). As shown in Chapters 3 and 4, this was done mainly by means of CFA and EFA.

All of the measuring instrument's original structures were first tested by means of CFA. If the original structure produced an unsatisfactory fit with the data EFA was conducted to determine what the underlying structure of the data was within the present sample. The results of the EFA aided the researcher in ascertaining the degree to which the instruments reflected the constructs presented by the original authors. The only exception was with the SLQ in which EFA was carried out despite a satisfactory fit. This was done to assess whether the uni-dimensional structure found by Dannhauser (2007), Dannhauser and Boshoff (2007) and Van Staden (2007) in the South African context was perhaps more appropriate to the present sample. In all cases, CFA was carried out on the final accepted structure. The above process was used in an attempt to answer the first research question and to determine whether the first proposition could be accepted. The results of this validation process are summarised in Table 5.1. The results of these analyses appear to present some valuable findings.

Table 5.1 Summary of the results pertaining to the content and structure of constructs

Variable	No of original factors	Cronbach α (all items)	No of new factors	Items lost	Items retained	Cronbach α (new)	CFA indices (original)	CFA indices (new)	Variance %
Servant Leadership	5	.946	5	0	23	.946	Satisfactory	Less satisfactory	46.28
					4	.815 ^a			
					4	.869 ^b			
					5	.849 ^c			
					5	.798 ^d			
					5	.851 ^e			
SSRS	2	.839	4	5	24	.807	Unsatisfactory	Good	45.52
					6	.795 ^f		Very poor	20.22
					5	.675 ^g		Average	9.93
					7	.713 ^h		Good	8.45
					6	.689 ⁱ			6.93
Coping	8	.935	6	32	34	.889	Unsatisfactory	Good	50.87
					8	.832 ^j		Favourable	22.16
					7	.842 ^k		Favourable	9.36
					8	.769 ^l		Good	6.78
					4	.681 ^m		(Just Id.)	4.48
					3	.641 ⁿ		Poor	4.21
					4	.538 ^o			3.87

- a. Altruistic calling
- b. Emotional healing
- c. Wisdom
- d. Persuasive mapping
- e. Organisational stewardship
- f. Management role ambiguity
- g. Authoritative deficiency
- h. Role conflict

- i. Functional role ambiguity
- j. Problem focused coping
- k. Wishful thinking
- l. Self control
- m. Seeking social support
- n. Avoidant coping
- o. Confrontive coping

The contents of the Barbuto and Wheeler (2006) SLQ seems to be adequately robust with all of the original items from the questionnaire being retained in the present sample. This confirms the analyses done by Dannhauser (2007) and Van Staden (2007) who also preserved all of the original items, concluding that Spears's (1995, 1998) views, regarding the content of the construct, are well embedded. Thus it appears as if the instrument can be used on the South African sample. However, unlike Dannhauser (2007), Dannhauser and Boshoff (2007), and Van Staden (2007) who found uni-dimensional structures, the original five-factor structure of servant leadership found in the development sample of Barbuto and Wheeler (2006) and derived from Spears's (1995) characteristics of servant leadership, was replicable in the present study. This is encouraging in terms of the possible portability of the instrument.

Despite this apparent replicability, a uni-dimensional structure was tested to be certain that the one factor structure found by Dannhauser (2007), Dannhauser and Boshoff (2007) and Van Staden (2007) was not more appropriate for the present sample. This was done by conducting EFA using all 23 items, however, the results showed that only 46.28% of the total variance could be explained by the one factor structure. Moreover, the CFA results showed that the uni-dimensional structure seemed to be a less good representation of the data, with the five factor structure showing a better overall fit.

Further encouragement were the results of the internal consistency of the measure with a very high overall reliability coefficient (Chronbach alpha = .964) according to the stringent Nunnally (1978) criteria (See Chapter 4). The individual factors also all yielded good values for their reliability coefficients, except for persuasive mapping (.798) which was only adequate.

A possible explanation for the above findings could be the similar functionality of the managers in the present study when compared with the community leaders used by Barbuto and Wheeler (2006). The organisation in the present sample endeavours to create a strong sense of community within each store (See Chapter 3). Therefore,

the managers and supervisors in the present sample are also seen as community leaders who must serve as overseers of the 'community'. This similarity may have prompted responses in the present sample similar to those in the development sample.

The disparity between the findings of Dannhauser (2007) and Van Staden (2007) respectively and the present study is concerning since a construct which is not generally accepted and which is inadequately defined is highly problematic (Dannhauser, 2007). The uni-dimensional structure found by both Dannhauser (2007) and Van Staden (2007) left much room for concern in terms of the portability of the SLQ into the South African context. However, the results of the present study are more encouraging and may point towards a certain measure of portability for the SLQ into the South African cultural setting.

Therefore, it appears as if the SLQ as a measure can be seen as somewhat portable to the South African cultural setting. However, more research is evidently necessary.

As far as the RS scale is concerned the CFA carried out on the two factor structure identified by Hartline and Ferrell (1996) failed to achieve a satisfactory fit between the measurement model and the data. The subsequent EFA's carried out resulted in a four-factor structure in which 24 of the initial 29 items were included. The four factors all appeared to be interrelated to some degree and were labelled as management role ambiguity (Factor 1), authoritative deficiency (Factor 2), role conflict (Factor 3), and functional role ambiguity (Factor 4). The most notable correlation existed between management role ambiguity and functional role ambiguity, which is encouraging since the items that load on these two factors all originate from the initial role ambiguity scale proposed by Hartline and Ferrell (1996).

The CFA carried out on the final four-factor configuration was done separately on each of the four sub scales to assess their individual fit with the data. This was done to accommodate the sample size which was too small to fit only one model onto the data (see Chapter 4). However, the configuration of the responses yielded CFA indices that were varied. Whereas factors 1 and 4 indicated a good fit with the data,

factor 3 demonstrated an average fit and factor 2 showed a very poor fit when taking all the fit indices into account. These results were rather disapproving in terms of the portability of the Hartline and Ferrell (1996) RS scale into the South African context.

The scale and sub-scale scores had Cronbach alpha coefficients of .807 (scale), .795 (management role ambiguity), .675 (authoritative deficiency), .713 (role conflict), and .689 (functional role ambiguity). Of the original 29 items, 5 had to be discarded as not part of the construct. Of the remaining variance less than 50% was predicted by the four-factor configuration with only 45.52% (respectively 20.22%, 9.93%, 8.45%, and 6.93%) of the variance being explained by the factors on the responses of the whole sample. The contents of the construct therefore did not appear to be stable over the original (development) and present samples. Therefore, doubt regarding the full portability and stability of the instrument seems to exist.

Not only the content but also the configuration of the construct seems to be somewhat different over the development and revalidation samples. The four factors identified during the revalidation process showed a separation and recombination of some of the items originally found to make up the two dimensions of the construct. The original factor representing role ambiguity seems to have split into management role ambiguity and functional role ambiguity. The diffusion of this factor may be due to the specific position occupied by SSR incumbents, whereas the original Hartline and Ferrell (1996) scale was developed for use on individuals occupying any boundary spanning role. The factor 'authoritative deficiency' appears to be a combination of items from both the original role conflict and role ambiguity factors. However, this factor presented itself as being highly problematic and yielded a very poor fit with the data.

Despite these changes in the configuration, it does provide some encouragement that the items tended to load onto the factors resembling those found by Hartline and Ferrell (1996). This was especially clear when two factors were extracted (see Table 4.10 of Chapter 4). However, this solution was abandoned because of the low percentage of non-redundant residuals, which indicated the probability of more factors. With management role ambiguity and functional role ambiguity being made

up of only role ambiguity items and the role conflict factor being made up of only role conflict items, it appears that RC and RA to some degree, have again presented as being separate factors in role stress – which is in agreement with the literature (Rizzo et al, 1970; Hartline & Ferrell, 1996).

The results of management role ambiguity (Factor 1) and functional role ambiguity (Factor 2) offer some prospect in terms of the importation of a role ambiguity scale into the South African context. However, the mediocre fit of scale 3 and the poor fit of scale 2 indicate that a coherent factor could not be found with the responses of the present sample. Therefore, the role stress scale of Hartline and Ferrell (1996) cannot fully be portable to the South African cultural setting.

As far as the WCQ is concerned the CFA carried out on the eight factor structure of the instrument identified by Folkman et al. (1986) indicated an unsatisfactory fit between the measurement model and the data on four of the eight sub-scales. The subsequent EFA, which identified a six factor structure with only 34 of the original 66 items included, casts some doubt on the portability of the content of the measure. The six factors were labelled problem focused coping (Factor 1), wishful thinking (Factor 2), self control (Factor 3), seeking social support (Factor 4), avoidant coping (Factor 5), and confrontive coping (Factor 6) respectively. These labels were given in accordance with other authors that had found similar factor structures and hence given them similar names (See Table 4.18). The fact that the configuration seemed to reflect previous findings is encouraging.

The above configuration of the responses yielded CFA indices that mostly indicated a good fit with the data. CFA's were again carried out independently (See Chapter 4). Problem focused coping and seeking social support had a good fit with the data while wishful thinking and self control each yielded a favourable to good fit. Avoidant coping was a just identified model with a Cronbach alpha that was considered acceptable for the present research. Unfortunately, confrontive coping yielded a poor fit with the data.

The six-factor configuration predicted 50.87% (respectively 22.16%, 9.36%, 6.78%, 4.48%, 4.21%, and 3.87%) of the total variance on the responses of the whole sample. Though the Cronbach alpha coefficients were not all adequate according to Nunnally's (1978) guidelines, they were all considered to be acceptable for the purposes of this research in accordance with Peterson (1994), Pallant (2001), and Schmitt (1996). The initial alpha value of .935 for the 66 item scale can be attributed to the large number of items. According to Pallant (2001), the small number of items in each sub-scale, especially avoidant coping with only three items, can be expected to produce small alpha values and therefore, the present alpha values are rather encouraging.

These results show that both the content and the configuration of the construct appear different for the sample of Folkman et al. (1986) and the present sample. This may be due to the WCQ being developed as a general measure that can be applied to varying circumstances (Lazarus & Folkman, 1984). It offers some support that the configuration of certain items matched those of other authors including Folkman and Lazarus (1985), Sorlie and Sexton (2000) and Vitaliano et al. (1985) (See Table 4.18). The fit yielded by the first four factors, which was more than acceptable, as well as the fifth factor being deemed acceptable supports the portability of these scales. However, the poor fit of the final factor casts some doubt on the full portability of the measure.

Therefore it seems as if the WCQ, which was developed in the USA cannot be seen as a measure that is fully portable to the South African cultural context and attempts to use this measure without caution is not advisable.

In terms of research question one and the associated propositions, it can be concluded that factor structures for each of the measures could be interpreted and understood to some extent in a culture different to the original one. The problems associated with the fit of certain sub-scales in the RS scale and WCQ must not, however, be taken too lightly in terms of their impact on the possible overall fit of the scales. Therefore the proposition related to this could be accepted for the SLQ, but not for the role stress scale and the WCQ. In terms of the content of the constructs

being intelligible to the original content, this could be accepted with regards to the SLQ, but could not be fully accepted in terms of the RS scale and the WCQ. Thus the contents of the latter two constructs cannot be regarded as entirely similar to that proposed by Hartline and Ferrell (1996) and Folkman et al. (1986) and viewing the contents as similar to those proposed by these authors should be done with much caution.

Results: Research question 2

Research question two pertained to the possible relationships between servant leadership, RS and coping. Therefore, attempts were made to answer this question and the associated propositions by calculating pearsons-product moment correlation coefficients (Propositions 2, 3, and 4) and standard multiple regression (Propositions 5 and 6). The results regarding the correlations between the variables are summarised in Table 4.22 in Chapter 4.

From Table 4.22 it is clear that servant leadership had a moderate to substantial negative relationship with role stress. This means that high levels of servant leadership are associated with lower levels of role stress in the current data set. Servant leadership also had a moderate to substantial negative relationship with management role ambiguity and a low but definite negative relationship with role conflict. Only slight, almost negligible negative relationships were found between servant leadership and authoritative deficiency and functional role ambiguity. These findings are in line with the theory and hypotheses regarding servant leadership and its possible impact on role stress and thus proposition two can be accepted.

That there is lower relationship shown between these last two variables, is of interest to the present study, as the first two are more in line with what a leader actually has influence over. Therefore these findings make intuitive sense in line with the expectations from the theory. However, the difference was so slight and the correlations so low that this finding cannot be taken for certain.

Table 4.22 shows that a small but definite positive relationship exists between servant leadership and three of the four coping strategies deemed helpful for customer service. These three strategies were problem focused coping, self-control, and seeking social support. Only wishful thinking, the fourth coping strategy deemed conducive for customer service, did not have a statistically insignificant relationship with servant leadership. Therefore, proposition three can be partially accepted.

In terms of proposition four, Table 4.22 shows that no statistically significant relationship exists between servant leadership and avoidant coping or confrontive coping in the present data set. These were the coping strategies deemed negative with regards to customer service. In both cases the results failed to reach statistical significance and the relationships were positive and almost negligible. Proposition four was thus rejected in the present study.

Table 4.22 also indicates the correlations between the RS and coping variable, showing that there is a definite but small association between higher levels of role stress and lower levels of problem focused coping, self control and seeking social support. These associations reached statistical significance. Problem focused coping and seeking social support were the only coping sub-scales to have significant relationships with the individual sub-scales of the RS scale and these were with management role ambiguity, functional role ambiguity and role conflict. This is not surprising given the poor fit of the authoritative deficiency sub-scale with the data.

According to Pallant (2001), the low correlations between the RS and coping sub-scales, make it improbable that regression equations would yield results that showed substantial predictive ability. However, regression analyses were nonetheless carried out to confirm these assumptions and in order to test propositions five and six. Standard multiple regression was used for this purpose and the results are shown in Table 4.24. The results showed the following correlations to be significant:

- Problem focused coping is negatively influenced by functional role ambiguity and positively influenced by servant leadership.

- Self control was also positively influenced by servant leadership and negatively influenced by authoritative deficiency.
- Seeking social support was also positively influenced by servant leadership and negatively influenced by functional role ambiguity and role conflict.
- Confrontive coping was negatively influenced by authoritative deficiency.

Even though the above correlations reached statistical significance, the results show that servant leadership and RS have a very small, almost negligible, amount of predictive ability on the coping sub-scales. The very slight correlations existing between RS and coping are compounded by the low predictive ability found in the multiple regression. These results indicate that finding significant relationships when assessing the mediating effect of RS and coping, with regards to the impact of servant leadership on these variables, is unlikely. The uncertain relationship between RS and coping minimises attempts to assess their mediating effects. In the event that some measure of mediation might exist, the low predictive ability found in the multiple regression would make any conclusions drawn from these findings weak. The researcher therefore halted the analyses of the variables as it could clearly be concluded that the present data set did not support propositions 5 or 6 and they were therefore rejected.

Results: Research question 3

The final research question was whether a proposed model of sequential relationships between the study's variables could be built successfully. In order to do this the researcher originally intended to assess whether a good fit could be found between the data and the theory-based model depicted in Figure 1.1/Figure 2.10. However, this process was confounded by the subscales yielding too few strong and significant correlations and with numerous subscales presenting a poor fit with the data.

The results of the analyses done in answering research questions one and two, showed that the various scales and subscales yielded limited correlational and predictive qualities. Apart from the SLQ, they also produced a dubious fit with the

data from the CFA's. Therefore it is implausible that a more complex structural model would achieve a good fit with the data. These results showed that making an attempt at building one structural model and assessing its fit on the data would be improbable. The researcher thus decided against attempting to fit a structural model concluding in response to this research question that a model of sequential relationships could not be built successfully. Proposition seven, that the conceptual model (Figure 1.1/Figure 2.10) describing the relationships between servant leadership, RS and coping would produce a good fit with the data, was therefore rejected.

5.2.1 Central conclusions drawn from the findings

The conclusions regarding the contents and configuration of the three constructs were varied. It appears as if the SLQ manifests itself in a similar form in this South African sample as it did in the Barbuto and Wheeler (2006) sample. Thus, the findings demonstrate that servant leadership can be measured in a South African work place setting. However, in the case of RS and coping, the contents as well as the form of the original constructs are somewhat different to the responses of the present South African sample. Though their respective factor structures are to some extent interpretable and understandable, they must be used with caution in the South African context.

The findings in this study also demonstrated to some degree that servant leadership correlates negatively with role stress in general and positively with some coping strategies deemed conducive to customer service. However, correlations were not found between servant leadership and coping strategies deemed non-conducive to customer service. Finally, no causal relationships could be found between any of the variables in the present sample.

5.3 Contributions of the study

The present study made various contributions to the constructs of servant leadership, RS and coping and their measures. Information clarifying the content and

configuration of the measures was obtained. Despite some limited results, the degree of portability of the instruments was ascertained.

The present study also brought some more clarity on the construct of servant leadership. A highly encouraging finding was the portability of the SLQ of Barbuto and Wheeler (2006) into the South African sample. However, the fact that this finding was somewhat different to that found by Dannhauser (2007) and Van Staden (2007) shows that further work on the measurement of the construct is still necessary. Despite their mediocrity, the correlations between servant leadership, role stress and certain coping mechanisms, adds to the understanding of servant leadership and its effect on employees. This may serve to add impetus to the growing interest in and value of servant leadership for organisations.

The diffusion of the role ambiguity factor is an important finding in this study as it may expose the presence of subscales that emerge for SSR incumbents because of their specific positioning in occupying a SSR. The author therefore thought it appropriate to make the following suggestion. It appears as if role ambiguity can be classified into two categories for SSR incumbents, namely management role ambiguity and functional role ambiguity. The emergence of management role ambiguity is not unexpected in light of the role that supervisors and managers play for many employees that occupy a SSR. This may imply that employees occupying a SSR may experience role stress somewhat differently to other boundary spanning employees. This finding confirms the qualitative attempts of Shamir (1980) and means that more work in this area is still necessary.

The lack of predictive ability and the resulting decision to abort the attempt to fit a structural model means that the role of servant leadership in bringing about fluctuations in role stress and certain coping mechanisms for SSR incumbents is still unclear. Though the correlations implied certain relational compatibilities, the direct and indirect causal impact of servant leadership on the stress and coping of SSR incumbents is still unclear and must be researched further.

5.4 Limitations and shortcomings of the present study

5.4.1 Generally recognised limitations of survey research

The less than expected results found in the data of the present study may be the result of various factors which impacted on the responses of the employees. Some of these are included below, adding to those highlighted in section 3.5.2.

The context within which individuals find themselves is of utmost importance in understanding their responses to certain elements of their environment. However, survey research can seldom encapsulate the context of social life and therefore cannot allow the researcher to develop a feel for the total life situation in which respondents find themselves (Babbie, 2004). The questionnaires used in this research may therefore have constricted the respondents to such an extent that they were not able to report on other variables impacting on their experience of stress within the work environment.

Response set is also a persistent problem in survey research. The acquiescence response set occurs when respondents tend to answer either positively or negatively throughout the questionnaire (Mouton, 1996). A visual inspection of some of the questionnaires showed that this response set may have occurred in some instances. This may have been particularly problematic in the present research where the “friendship” between a respondent and their supervisor may have caused them to respond positively to the leadership questions because of their positive relationship with the individual rather than the actual leadership behaviours which they displayed. The same may have been true of the stress and coping scales in a negative sense where a respondent may have had a number of difficult situations and thus presented negatively skewed responses.

The fact that the study was done in a post hoc fashion meant the respondents had to reflect on what they remembered of how they coped in a particular situation. This left room for error in that it is possible that respondents reported on what they thought they saw or did rather than on what actually happened.

The single moment in time data gathering method used in the present study may also have limited the accuracy of responses. The nature of stress is that it changes over time as certain events are appraised and re-appraised (Lazarus & Folkman, 1984). This means that a longitudinal study would allow for participants to respond to the fluctuations in the stress experienced from dealing with customers. Instead, by collecting data at a single moment in time, respondents may have found it difficult to contain the stress they experienced to the single incident they were asked to report on in the questionnaires.

5.4.2 Specific potential problems of the present study

The single sample used in the present study, coming from within just one organisation, limits the generalisability of the findings to other organisational settings. Moreover, the specific individuals targeted within this study make the findings only applicable to these individuals and perhaps not to others in other similar positions.

The environment in which the data was collected may have had a considerable impact on the results of the study. During the morning meetings, though enough time was allowed for individuals to finish the questionnaires before customers were allowed into the store, on several occasions, individuals had to be moved to another office to finish their responses while customers were allowed into the store. This may have impacted on these last few responses with individuals simply wanting to finish and get to their stations as quickly as possible. Also, despite the researcher being present throughout the data gathering process and having requested the individuals do not discuss the items, some individuals were found to have been talking to each other while filling out the questionnaires.

Certain problems also pertained to the measures used in the study. The WCQ, though it was portrayed as being the most widely used measure in the coping literature, is not a scale that presents highly consistent factor structures. Therefore, the CFA and EFA processes carried out on this scale were done tentatively and with a fair amount of subjective decision making on the part of the researcher. The WCQ

was also not formulated specifically for individuals coping with SSRS and though it had many questions that were highly appropriate in terms of the coping of these individuals highlighted in the literature, it is perhaps necessary to use a scale more suited to a specifically SSR position.

The length of the questionnaire also posed as a problem with some participants showing that they were tired and had lost interest by the end of the questionnaire. Some of the respondents had even left the last few items of the WCQ blank. The researcher also suspected that some individuals may have simply marked some answers at random to finish the last few items quickly.

The RS scale used in this study also poses a number of problems. The scale was developed to be used on any individuals occupying boundary roles. Therefore its use on individuals that occupy specifically SSR's may be somewhat inappropriate. A scale that was developed to measure specifically SSRS as originally identified by Shamir (1980) may have been more appropriate for the present study. However, this type of scale is not in existence. This may be the reason for the four factor structure identified by the researcher and the importability of this scale to the present sample.

The complex findings in terms of the portability of both the RS scale and the WCQ are challenging to the results of the present study. Therefore, any conclusions made from further analyses had to be understood as being only tentative and explorative. The sample size of the present study was also not large enough to allow for the sample to be split and used as two sub-samples for validation purposes.

A dilemma also occurred in this study in terms of the use of the words leader, manager, and supervisor within the particular organisation within which the study was carried out. Whereas the present study attempted to understand the impact of the manager's leadership style on individuals, many of the participants had numerous people that acted as their managers. Not only was the title of 'the manager' given to the overall store manager who did not have much direct contact with the participants, but also, many of the individuals had more than one direct supervisor. The word 'supervisor' replaced the word 'leader' in the present study as

this was the person that most closely resembled the role that the researcher wished to assess. This confusion of terms may have contributed to some of the mediocre and unexpected results.

The lack of correlation found between the RS and coping subscales is unexpected in terms of the present study and may point towards various unknown factors playing a role in diluting the relationships that may in reality exist. Some of these factors may include: participants' misunderstanding of particular items in the questionnaire; response bias or response set resulting from a lengthy questionnaire; confusion surrounding the term 'supervisor'; dishonesty in reporting on certain coping mechanisms that may have been punishable within the organisation.

5.5 Recommendations

5.5.1 Theoretical recommendations

Dannhauser (2007) recommended further refinement of the servant leadership construct, implying a move from conceptual theory building (ideographic) to empirical theory testing (nomothetic). The portability of the SLQ on the present data set encourages its use in empirical theory testing. However, with the structure being different to that found by Dannhauser (2007) and Van Staden (2007) more quantitative research is needed as highlighted by Barbuto and Wheeler (2006). The mixed results of the SLQ in the South African context also highlight a need to continue with the building of theory.

The current research took place within a particular organisational setting. Therefore, future research should investigate the impact of servant leadership in relation to role stress and coping in other organisations or industries different from that used in the present study. In these settings servant leadership can also be looked at from both a personal and organisational level. The result ought to be confirming the generalisability of the findings of the present study.

The stress experienced by employees was restricted to the stress resulting from their specific position as occupying SSR's. Future studies should therefore also focus on other forms of work stress which may be dampened by servant leadership. More specifically, the role of emotional healing and its specific impact on work stress should be explored.

Future research should also re-consider the predictive ability of servant leadership in terms of the stress and coping of employees. Where this research failed in showing causal relationships between the variables (perhaps due to methodological issues discussed in the following section), the causal link between stress and coping remains theoretically probable (Folkman & Lazarus, 1985; Lazarus, 1999; Lazarus & Folkman, 1984). Furthermore, the impact of the very nature of servant leadership as conceptualised by Barbuto and Wheeler (2006) provides hope for the catharsis of stress experienced and the facilitation of certain coping behaviours exhibited by SSR employees. Therefore, more research using these variables should be explored.

Various other factors may impact on the relationships which exist to facilitate the practice of servant leadership within an organisation containing SSR incumbents where they experience stress and employ certain coping behaviours. These factors form part of the dynamic environment in which servant leadership exists and in which SSR incumbents find themselves. These correlates, antecedents or outcomes of servant leadership should be investigated and may include amongst others:

- The relationship between servant leadership, self esteem, stress and coping.
- The relationship between stress, coping, servant leadership and burnout of employees.
- The investigation into the impact of a servant leadership style on the perceived levels of customer service.
- The relationship between emotional intelligence, servant leadership, stress and coping.

- The effect of servant leadership on turnover.
- The relationship between servant leadership, stress and job satisfaction.
- The relationship between servant leadership, stress, coping and motivation of SSR employees
- The development of a subordinate service role stress instrument within the South African workforce.
- The development of a coping instrument specific to subordinate service role stress within the South African context.

The present research has also highlighted the need for further research into the experience of specifically SSR incumbents and the specific stress that they experience and coping mechanisms they employ. Further research is still needed to fully understand the particular stress these incumbents experience and their response to that stress. For the time being future research should focus on qualitative research with the intention of moving towards developing measures that can more accurately assess these phenomena, and subsequently to empirically test relationships that exist.

5.5.2 Methodological recommendations

Due to the poor correlations found between the constructs on the present study, it should be beneficial to investigate similar relationships again using measures that are more appropriate to the South African context. More specifically, measures focusing on SSRS and the coping employed in this specific position should be created and used to assess the relationships that exist between these constructs and servant leadership.

In future research, leadership conditions that are less ambiguous should be used. The confusion existing in the present organisation about who is the most direct supervisor for each respondent (see section 5.4.2) leaves an opportunity for research to be done in organisations in which the leader being assessed is clear. This avenue could be explored in future studies.

The present study clumped the SSR incumbents into one category and used these results to represent a homogenous group. However, the different departments within which different SSR employees work may vary considerably in terms of how they are able to cope and the type of stress they experience. Therefore, future research could assess the different SSR positions and the specific conditions under which these individuals work.

The perceptions of customers and of the leaders themselves was not taken into account in terms of the stress and resulting coping strategies employed by SSR incumbents. Future research could take these role players into account when assessing the impact of servant leadership on these factors as well as on customer service.

Similar research to the present study could be done using a more qualitative or mixed method approach. This would allow for more in-depth analyses of the actual underlying stress that is experienced by SSR incumbents as well as how they perceive the impact of servant leadership.

Longitudinal studies exploring the experience of SSRS for individuals when working under different supervisors/managers could be assessed. The changes in coping strategies employed over time could also be analysed with a more longitudinal approach and may highlight further impacts of servant leadership.

Using case studies as an approach in assessing the impact of servant leadership on stress and coping could also be used. Moreover, once certain organisations have been identified and confirmed to maintain a servant leadership approach, the stress

and coping of SSR individuals within these organisations could be compared with those of organisations where servant leadership is not adopted as an approach.

As recommended by Dannhauser (2007) measures of servant leadership must be developed and validated to empirically distinguish it from other similar constructs. This must also be done in terms of measuring servant leadership at different levels including the organisational, group/team/unit, and individual level.

5.6 Concluding remarks

The present study has attempted to advance the level of understanding about the impact of servant leadership on the RS experienced by SSR incumbents and their resultant coping strategies. This study can be seen as having taken some steps forward in assessing these variables. The dynamics surrounding individuals within an organisation, and especially those who deal directly with customers, make research into this area challenging. Therefore, it has become apparent that more qualitative and quantitative work is still needed in this area.

Servant leadership appears to be a highly appropriate leadership style for organisations that house employees whose primary role is to provide customer service. The stress experienced by these employees and the resulting coping mechanisms they employ are crucial in terms of their general functioning and response to customers. However, for adequate causal links to be properly understood, valid and reliable measures must be used. Adequate measures are an essential part of taking further steps in assessing the relationships between variables and with the problems highlighted in this study (surrounding the scales used) it is clear that more work is needed. The relationship between servant leadership, stress and coping of individuals is a promising avenue for those interested in the effectiveness and wellbeing of individuals within organisations. Further research in this area may thus prove highly beneficial and ought to continue.

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APPENDIX A

STELLENBOSCH UNIVERSITY CONSENT TO PARTICIPATE IN RESEARCH

You are asked to participate in a research study conducted by Mark Baker, from the Department of Industrial Psychology at Stellenbosch University. The results of the study will contribute to his Masters Thesis. You were selected as a possible participant in this study because you work directly with customers in your organization.

1. PURPOSE OF THE STUDY

The study aims to investigate the relationships between servant leadership and the stress and coping of customer contact workers.

2. PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

- To fill out one multiple choice questionnaire.
- This will take approximately 30 minutes.

3. POTENTIAL RISKS AND DISCOMFORTS

There will be no risks to partaking in this research. The questionnaire will be entirely confidential and time taken during work hours will be negotiated with your manager.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

This research may directly benefit you in terms of offering new insights into appropriate ways of coping with customers to increase customer service and decrease your stress levels.

The benefit to leadership theory will be to highlight the possible impact of servant leadership, on the stress and coping of customer contact workers.

5. PAYMENT FOR PARTICIPATION

There will be no payment for participating in this study.

6. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of your questionnaire being handed directly to the researcher. The researcher will have the only access to the data.

Anyone that may read the end result of the study will read only the final results of the study which can in no way be traced back to you personally.

7. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Mark Baker on Cell: 076 817 5683; Email: baker.mark.alan@gmail.com; or P.O.Box 239 Koelenhof, Stellenbosch, 7600.

9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Maryke Hunter-Husselman at the Unit for Research Development, Stellenbosch University, Tel. 021 808 4623.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was described to [*me/the subject/the participant*] by Mark Baker in [*Afrikaans/English/Xhosa/other*] and I am in command of this language or it was satisfactorily translated to [*me/him/her*]. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

Name of Subject/Participant

Signature of Subject/Participant or Legal Representative

Date

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____
He/she was encouraged and given ample time to ask me any questions. This conversation was conducted in [*Afrikaans/English*] and [*no translator was used/this conversation was translated into _____ by _____*].

Signature of Investigator

Date

SECTION A

Please provide for statistical purposes only, the following information about yourself.

Mark the applicable category with an X.

Q1. NAME OF COMPANY

Q2. BRANCH

Q3. AGE (In years)

Q4. GENDER

- 1 Male
- 2 Female

Q5. JOB TITLE OR POSITION

Q6. LANGUAGE (Language spoken in parents home).

- 1 Afrikaans
- 2 English
- 3 Xhosa
- 4 Venda
- 5 Zulu
- 6 Ndabele
- 7 South Sotho
- 8 North Sotho
- 9 Tsonga
- 10 Tswana
- 11 Swazi
- 12 Other (specify) _____

Q7. LANGUAGE (Current home language)

- 1 Afrikaans
- 2 English
- 3 Xhosa
- 4 Venda
- 5 Zulu
- 6 Ndebele
- 7 South Sotho
- 8 North Sotho
- 9 Tsonga
- 10 Tswana
- 11 Swazi
- 12 Other (specify) _____

Q8. ETHNIC GROUP

- 1 Black (African)
- 2 Coloured
- 3 White
- 4 Indian
- 5 Asian
- 6 Other (specify) _____

Q9. RELIGIOUS ORIENTATION (Mark only one)

- 1 Christian - Catholic
- 2 Christian - Protestant
- 3 Islamic / Muslim
- 4 Jewish
- 5 African Traditional
- 6 Hindu
- 7 Buddhist
- 8 Sikh
- 9 New Age
- 10 Agnostic / Atheist
- 11 Interdenominational
- 12 Other (specify) _____

Q10. HIGHEST QUALIFICATION OBTAINED

- 1 Secondary School / High School
- 2 Matric / Standard 10 or equivalent
- 3 Post-School certificate / diploma / degree

Q11. HOW LONG HAVE YOU BEEN IN YOUR CURRENT POSITION

0 - 6 Months	6 - 12 Months	1 - 2 Years	2 - 5 Years	5 - 10 Years	10 + Years
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**Please proceed to the next set of questions.
Remember to read the instructions carefully before you begin.**