THE ELABORATION, MODIFICATION AND
EMPIRICAL TESTING OF THE SPIES BURNOUT
STRUCTURAL MODEL

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DECLARATION

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ABSTRACT

The service industry, specifically call centres are known to be one of the fastest growing industries globally. Organisations are constantly trying to gain from, or utilise these call centres, as it allows them to be cost effective and improve customer service. While call centres are offering products at an essentially low cost, little emphasis is being placed on the negative physical and mental effects experienced by employees of call centres. Call centre jobs are usually characterised by routine work (low complexity), low control and burdening demands. The incessant and prolonged nature of these demands and subsequent consequences typically creates cumulative job stress leading to burnout (emotional exhaustion). The dysfunctional consequences relating to burnout have therefore been well documented in that call centre work has a harmful impact on employees. In light of the aforementioned it is of great importance to gain insight into factors relating to burnout. The impact could be mitigated by deepening the understanding of the variables that determine burnout in employees within the service industry.

Furthermore, the manner in which burnout develops is influenced by certain organisational and individual variables. These variables were regarded as resources, not only influencing burnout but also playing a role in the process in which burnout may occur. For the purpose of this study, the Job Demands-Resource (JD-R) model (focusing on job resources) and the Conservation of Resources (COR) theory (in terms of developing a resource canvas and explaining the significance of these resources) was utilised. It was presented as a theoretical framework to explain and make predictions about employee burnout in terms of the job resources that can aid to buffer the effects of job demands (i.e. emotional labour) on the strain experienced (i.e. burnout). Consequently, the resources (both individual and organisational) included in this study were: Supervisor Support, Psychological Safety and Emotional Intelligence as a coping regulator.

This study focused on the modification and elaboration of the Spies (2006) burnout structural model, by expanding the model with the inclusion of additional variables to better understand the development of burnout. The model was expanded to gain a
better understanding of the complexity underlying burnout and the determinants thereof culminating into a Spies-Kotzé burnout model.

This study made use of an ex post facto design to test the relationships between the various constructs. A non-probability convenience sample of $n = 203$ call centre representatives (CCRs), employed in a call centre in the Western Cape, completed a composite questionnaire. The Emotional Labour Scale (ELS) (Brotheridge & Lee, 2003), Maslach Burnout Inventory (MBI) (Maslach, Schaufeli & Leiter, 2001), Perceived Organisational Support Scale (POSS) (Eisenberger et al., 2001), Psychological Safety Scale (Edmondson, 1999) and two subscales of the Genos EI Inventory namely Emotional Management of Others (EMO) and Emotional Self-Control (ESC) (Gignac, 2010) were administered.

The psychometric properties of the aforementioned measuring instruments were examined by means of item analysis and confirmatory factor analysis (CFA). The structural model was tested using Structural Equation Modelling (SEM) to determine the effectiveness with which the model explained unique variance in burnout. The five interaction effects within the model was tested by means of moderated multiple regression.

Strong support emerged that Psychological Safety and Surface Acting predicted Emotional Exhaustion. The results further revealed that Psychological Safety is a significant predictor of Supervisor Support. The casual ordering/sequencing of the process model of burnout revealed that sufficient evidence emerged that Emotional Exhaustion predicted Depersonalisation and in turn, Depersonalisation emerged to be a predictor of reduced feelings of Personal Accomplishment. Furthermore, Supervisor Support was found to negatively influence Emotional Labour (defined as the effort, planning and control needed to display organisationally desired emotions during constant interpersonal interactions). Regrettably no support was found for the relationships of Deep Acting influencing Emotional Exhaustion and Emotional Labour as a predictor of Emotional Exhaustion. The moderated regression results revealed only one significant moderating effect; Supervisor Support moderated the relationship between Emotional Labour and Emotional Exhaustion.
The study provided some insights into the relevant factors that effect burnout. The results also provided further explanation of the complex nomological net of variables and their interrelationships, which influence the variance of burnout among CCRs.
OPSOMMING

Die diens industrie, en spesifiek inbelsentrums, is wêreldwyd bekend as een van die vinnigste groeiende industrië. Organisasies is voortdurend besig om gebruik te maak van hierdie inbelsentrums, want dit stel hulle in staat om koste-effektief te wees om doelwitte te bereik, asook om beter kliëntediens te lever. Terwyl inbelsentrums produkte teen ’n baie lae koste aanbied, word min klem geplaas op negatiewe fisiese en geestelike gevolge wat ervaar word deur inbelsentrumagente. Inbelsentrum werk word gewoonlik gekenmerk deur roetine werk (lae kompleksiteit), lae beheer en hoë werksvereistes. Die aanhoudende en langdurige aard van hierdie vereistes en die daaropvolgende gevolge skep tipies kumulatiewe werkstres wat lei tot uitbranding (Emosionele Uitputting). Die disfunksionele gevolge wat verband hou met uitbranding is dus goed gedokumenteer aangaande inbelsentrum werk en dat dit ’n skadelike uitwerking op inbelsentrumagente het. In die lig van die bogenoemde is dit van groot belang om insig te verkry in faktore wat verband hou met uitbranding. Die impak kan verminder word deur die begrip te verdiep van die veranderlikes wat uitbranding in inbelsentrumagente binne die diens industrie bepaal.

Die manier waarop uitbranding ontwikkel, word beïnvloed deur sekere organisatoriese en individuele veranderlikes. Hierdie veranderlikes word beskou as hulpbronne, wat nie net uitbranding beïnvloed nie, maar ook ’n rol speel in die proses waardeur uitbranding voorkom kan word. Vir die doel van hierdie studie was die “Job Demands-Resources (JD-R)" model (met die fokus op werkshulpbronne) en die “Conservation of Resources” (COR) teorie (in terme van die ontwikkeling van hulpbronne en die verduideliking van die betekenis van hierdie hulpbronne) gebruik. Dit was aangebied as ’n teoretiese raamwerk om te verduidelik en voorspellings te maak oor werknemer uitbranding in terme van werkshulpbronne wat die effek van werkseise (Emosionele Arbeid) op uitbranding, kan verminder. Gevolglik is die hulpbronne (beide individuele en organisatoriese) in hierdie studie ingesluit soos volg: Toesighouer Ondersteuning, Sielkundige Veiligheid en Emosionele Intelligensie as ’n emosionele aanpassingstrategieë.

Die huidige studie het dit ten doel gehad om uit te brei op die werk van Spies (2006) se uitbranding structurele model, met die insluiting van addisionele veranderlikes om
die ontwikkeling van uitbranding beter te verstaan. Die model is uitgebrei om ‘n beter begrip van die kompleksiteit wat onderliggend aan uitbranding is te kry, en die determinante hoogtepunt daarvan, in n Spies-Kotzé uitbranding model.

Hierdie studie het gebruik gemaak van ‘n ex post facto ontwerp om die verhoudings tussen die verskillende konstrukte te toets. ‘n Nie-ewekansige steekproef van 203 inbelsentrumagente van ‘n oproeptelcentral in die Wes-Kaap het die saamgestelde vraeleys voltooi. Die Emosionele Arbeid Skaal (Emotional Labour Scale) (Brotheridge & Lee, 2003), die Maslach Uitbrandingsvraeleys (Maslach Burnout Inventory) (Maslach et al., 2001), die waargenome Organisatoriese Ondersteuning Skaal (Perceived Organizational Scale) (Eisenberger et al., 2001), Sielkundige Veiligheid skaal (Psychological Safety Scale) (Edmondson, 1999) en twee subskale van die Genos Emosionele Intelligensie skaal naamlik Emosionele Bestuur van Ander (Emotional Management of Others) en Emosionele Selfbeheersing (Emotional Self-Control) (Gignac, 2010), is afgeneem. Die psigometriese eienskappe van die bogenoemde meetinstrumente is ondersoek deur middel van item-analise en bevestigende faktorontleding. Die strukturele model was getoets met behulp van strukturele vergelykingsmodellering om die effektiwiteit te beplaal waarmee die model unieke variansie in uitbranding verklaar. Die vyf interaksie effekte in die model was getoets met gemodereerde regressie-analise.

Die resultate van die studie het aangedui dat Sielkundige Veiligheid en Diep Toneelspel Emosionele Uitputting voorspel. Die bevindinge het verder aangedui dat Sielkundige Veiligheid ‘n belangrike voorspeller van Toesighouer Ondersteuning is. Die volgorde van die prosesmodel van uitbranding wys daarop dat daar voldoende bewyse is dat Emosionele Uitputting Depersonalisasie voorspel en op sy beurt, Depersonalisasie na vore kom om n voorspeller van verminderde gevoel van Persoonlike Bekwaamheid te wees. Verder het Toesighouer Ondersteuning ‘n negatiewe invloed op Emosionele Arbeid gehad (gedefinieer as die moeite, beplanning en beheer wat nodig is om organisatories gewenste emosies te vertoon tydens konstante interpersoonlike interaksies). Ongelukkig was daar geen ondersteuning gevind vir die verwantskappe tussen Diep Toneelspel en Emosionele Uitputting, sowel as Emosionele Arbeid en Emosionele Uitputting nie. Volgens die
resultate van die gemodereerde regressie was daar net een beduidende interaksie effek: Toesighouer Ondersteuning het die verwantskap tussen Emosionele Arbeid en Emosionele Uitputting gemodereer.

Die navorsingsresultate bied insig in die tersaaklike faktore wat gebruik kan word om uitbranding te bepaal. Die resultate verskaf 'n waarskynlike verduideliking van die komplekse netwerk van veranderlikes en hul onderlinge verwantskappe, wat die variansie van uitbranding onder inbelsentrumagente beïnvloed.
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CHAPTER 1
INTRODUCTION

1.1 Introduction

Organisations play a pivotal role within society. The manner in, and the focus with which, organisations position themselves in the marketplace have changed. During the former industrial production model, the emphasis was placed on the aim to produce and sell volumes of goods, as this would ensure a primary position and thus lead to a competitive advantage. The focus however, is now falling on customer service and organisations have to compete through their ability to distinguish themselves from their competitors in terms of the quality of their service delivery. More specifically, in the service industry, excellent service delivery is required. Employees in service organisations are crucial in the building of service excellence. At the heart of the service industry lie competent employees who ultimately drive the success of service organisations as it depends on employee performance. Therefore, employees serve as an important source of competitive advantage in service organisations (Slåtten, Svensson & Sværi, 2011).

To maintain this competitive advantage, organisations need to optimally utilise their human capital to ensure that service goals are continuously met and that effective performance is sustained. According to Hauptfleisch and Uys (2006), labour is the life-giving production factor through which the other factors of production are mobilised. Consequently employees are the carriers of labour as a factor of production and thus provide the organisation with an extremely valuable asset.

One of the management functions within an organisation is the human resource (HR) function. The HR function focuses via its interventions on the attitudes, skills, abilities and other characteristics of employees that determine their performance, as well on situational characteristics like job characteristics and pay structure, in order to contribute to the organisation’s performance and productivity. It is therefore evident that the HR function is of critical importance to an organisation in that it contributes to the production of market-satisfying goods and/or services by influencing the overall effectiveness, performance and productivity of employees. It is the task of an
Industrial Psychologist to attempt to optimally influence and improve the performance of employees through an integrated array of specific HR interventions.

The environment in which employees in the service industry function, especially in South Africa and elsewhere in the world, has drastically changed (Wayde & Rogerson, 2014). These changes are due to many factors such as technological changes, development, globalisation, as well as the development in telecommunications (Hauptfleisch & Uys, 2006). These factors pose specific challenges to employees (e.g. the type of work, amount of support, levels of commitment, control over decisions and working hours etc.). These challenging demands can however have a negative impact on an individual's mental, physical and emotional health/well-being. Of these negative impacts, specifically emotional well-being has become a focal phenomenon in the workplace and one that has a distinct influence on the service transaction quality in the service industry.

Throughout the past decade, call centres specifically have encountered unprecedented growth in essentially every country around the world (Benner, Lewis, & Omar, 2007; Hauptfleisch & Uys, 2006; Kotzé & Lamb, 2012; Wayde & Rogerson, 2014). Call centres have become the most recent and clearest articulation of preferred ways of delivering services within the service industry (Kotzé & Lamb, 2012). This is usually viewed as an immediate result of organisations’ endeavours to give customers benefits at an essentially low cost (Hauptfleisch & Uys, 2006). Call centres, as the name suggests, can be described as offices assigned to conduct telephonic contact with customers. In order to do his/her job, a call centre representative (CCR) of a call centre generally sits at a table in front of a computer, wearing a headset and communicating to the customer, leaving his/her hands free to input data into the computer. CCRs can usually be contacted seven days a week and 24 hours a day. Fuelled by advances in data innovation and the plunging costs of data transmission, organisations have found it cost effective to provide service and sales to customers through remote technology mediated centres (Hauptfleisch & Uys, 2006; Holman, Batt & Holtgrewe, 2007). A survey conducted by Benner et al. (2007) showed that South Africa’s call centre industry is dominated by serving a
domestic market (91%) and of these call centres, 51% are located in the Gauteng province and another 38% in the Western Cape.

Research suggests a high rate of turnover and absenteeism amongst CCRs. According to Web Business (2004), the findings from the *Merchants Global Contact Centre Benchmarking Report*, indicated a 10% increase in CCRs absenteeism per annum, which alone equates to 1.61 million lost working days per year, with South Africa’s 80 000 call centre employee base. Furthermore, a study conducted by Kgomo and Swarts (2010) indicated that 31.51% of the respondents (i.e. CCRs) from a sample of 800 respondents, employed in 16 different call centres, indicated an intention to leave the industry, as well as that 48.70% of the respondents affirmed that they planned to look for a new job during the next 12 months (Kgomo & Swarts, 2010).

This high turnover rate suggests that working in call centres may be a stressful experience (Hauptfleisch & Uys, 2006; Zapf, Isic, Bechtoldt & Blau, 2003). According to Holman (2003, p. 123) call centres have been labelled as “electronic sweatshops” and “dark satanic mills of the twenty-first century”. These descriptions suggest that CCRs may experience major psychological stressors and negative emotions as wide-ranging demands are placed on them (Spies, 2006). These encumbering demands placed on CCRs comprise talking to between 60 and 250 customers per eight-hour shift, as well as relatively short-cycle routine exchanges (Kotzé & Lamb, 2012). Interactions with customers are mainly controlled by automatic call distribution systems and reinforced by networked information technologies that result in a decrease in control of when and whom to speak to (Zapf et al., 2003). Consequently, CCRs are also constantly expected to react and behave in a friendly manner on the telephone to customers and according to Zapf et al. (2003), this imposes emotional demands on the CCRs. It is well documented that call centre work generally has a detrimental and undesirable impact on employees (Abbott, Heiden, Mathiassen, Straker & Toomingas, 2013). CCRs are consequently exposed to both damaging physical and psychological demands.

Due to the incessant and prolonged nature of these demands, employees in the human service arena and specifically call centres, often experience cumulative job
stress (Halbesleben, 2010) that has been described as burnout (Johnson & Spector, 2007). According to Maslach, Schaufeli and Leiter (2001) burnout is described as a response by an individual due to prolonged chronic emotional and interpersonal stressors that occur on the job. According to Jain and Singh (2010), the incident of burnout rates among CCRs is extremely high. CCRs experience burnout as they are exposed to repeated hostile interpersonal exchanges with the customers, as well as the fact that they have restricted control over their work, which can also be labelled as monotonous (Jain & Singh, 2010). Furthermore, due to call centre jobs also being characterised as unskilled work, as well as being called an advanced form of Taylorism\(^1\) (Zapf et al., 2003), it can be assumed that burnout under CCRs is not a small, seldom occurring problem within the call centre industry but rather a pertinent, harmful experience that needs to be addressed.

According to Cordes and Dougherty (1993), there are both physical and emotional consequences of burnout. Mental health deteriorates and tends to be characterised by “decreases in feelings of self-esteem, depression, irritability, helplessness, or anxiety” and physical signs including insomnia and/or headaches (Cordes & Dougherty, 1993, p. 637). Interpersonal consequences such as withdrawal from family life and friends can exist as a result of burnout (Bono & Vey, 2005; Lewin & Sager, 2007). Other changes may include a change in the interaction between the CCRs and the customer. A CCR may become impatient, less tolerant and thus withdrawing from the customer (Maslach et al., 2001; Rothmann & Visser, 2008). This will lead to several implications for the organisation as the employee’s service to the customer is jeopardised. Moreover, organisational outcomes of burnout, such as intention to leave, absenteeism, low morale, low commitment, disengagement and a decrease in the quality of work, may arise (Cordes & Dougherty, 1993; Hauptfleisch & Uys, 2006; Rod & Ashill, 2013). The consequences of burnout clearly have detrimental effects on the performance of employees as well as an undesirable effect on the organisation. Organisational concerns and adverse outcomes such as increased staff turnover, increased intentions to leave, negative work attitudes and

\(^1\)It has been argued that call centre work has been described as “modern” Taylorism as it is characterised by routine tasks and low level of control over work. These Tayloristic principles are evident due to the fact that call centre work has been designed in a monotonous and repetitive manner, resulting in involuntary routing of incoming calls as well as dialing of outgoing calls.
reduced levels of performance can be very costly to an organisation (Brotheridge & Grandey, 2002; Lee & Ashforth, 1993). This raises the question as to how organisations should respond to employee burnout and its consequences.

On the one hand it could be argued that the detrimental work conditions characterised by call centre work, are necessary and an unavoidable work design feature required to ensure a well-controlled, effective and efficient service, as call centres can provide a one-stop service without the high cost of one-to-one interaction (Hauptfleisch & Uys, 2006). As a consequence, CCRs experience higher levels of absenteeism and an increase in turnover rates, which can be as a result of the burnout experienced. This option invariably invokes the image of trench warfare where troop fatality is accepted as an unavoidable sacrifice that needs to be made to win the battle.

On the other hand it could be argued that although the detrimental work conditions are to some degree necessary and an unavoidable work design feature, it is nevertheless required to ensure a well-controlled, effective and efficient quality service in order to keep costs low (Wayde & Rogerson, 2014). It should be noted that it is however not true that nothing can be done to reduce the risk of burnout, or that all individuals are equally susceptible to the development of burnout. A nomological network of variables, some of which characterise the individual and/or the organisation, and some of which are malleable and some, which are not, complexly determines burnout.

It is argued here that it is, to some degree, possible to reduce the probability of burnout developing. The first response option is rooted in the implicit assumption that replacements of CCRs are easy to attain and develop. This is however not necessarily the case. Even though the unemployment rate in South Africa is both a crisis and indictment and many people are looking for work (Posel, Casale & Vermaak, 2014), the cost of simply hiring/replacing a CCR who has not been performing, and/or suffers from burnout is not that simple. The first stage of recruitment throughout the induction process (which can last up to two weeks) is both costly and time consuming for the organisation. The fact of the matter therefore stands that organisations should address the onset of burnout before it occurs due to
the costs involved for the business (D. Oostendorp, personal communication, 1 August 2016).

Moreover, it could be argued that organisations have a moral responsibility to take reasonable steps to foster the well-being of their employees, as this industry is known to experience low levels of engagement, high levels of burnout, voluntary turnover, as well as absenteeism (Burgess & Connell, 2014). This moral responsibility actually not only requires mitigating the risk of the development of burnout, but also requires attempts to move beyond the mere absence of burnout and to foster meaningful, rewarding work that results in engagement. A recent South African qualitative study conducted by Gauche, De Beer and Brink (2017) stated that organisations and applicable professionals should consider the results from their study to determine suitable ways in which to offer on-going support to employees in terms of individuals who are identified as being at risk to burnout. The study was conducted within a business division in the financial services industry, including having multiple call centre functions (i.e. sales, claims, customer services etc.) within this division. It was argued that although burnout has widely been researched and is noticed as an occupational health concern, they advocate that not a lot is known about the actual experiences of employees who are acknowledged as being at risk of burnout. The study addressed the gap by investigating the lives of individuals’ (ranging from CCRs to management) and their experiences (i.e. work demands, well-being/health) that were recognised (identified via an organisational climate survey) as burnout risks (Gauche et al., 2017). When viewed from this perspective (i.e. identifying specific individuals who are at risk), and due to the negative impact on performance, burnout is a syndrome which organisations would want to prevent from occurring, and when it occurs, to treat it successfully. The responsibility for prevention and treating burnout falls on the shoulders of HR. HR therefore needs to implement primary, secondary and tertiary burnout interventions. The need for these interventions subsequently exists more strongly in specific industries, such as call centres.

According to Brotheridge and Grandey (2002), there are distinct differences in the experience of burnout amongst employees working in different occupations. Workers
employed in the categories of “high emotional labour jobs” and “high burnout” jobs report higher levels of negative emotions and stress than workers in other occupations. There is a common assumption that employees involved in service industries such as health care, social service work, teaching and other “caring” professions are more likely to experience burnout. This is because the main focus within the service industry falls on the focus of the quality of customer service. Constant interaction between the customer and the CCRs is therefore inevitable. This interaction demands high emotional control and emotional labour (defined as the effort, planning and control needed to display organisationally desired emotions during constant interpersonal interactions) performed, as certain expected emotions need to be displayed in accordance with organisational rules (Brotheridge & Grandey, 2002).

However, not all employees working in the service industry develop burnout. Those that do develop burnout, moreover, differ in terms of the level of burnout that they actually develop. The level of burnout experienced by each employee is not a random event but rather due to a complex nomological network of latent variables characterising the employees and work conditions. Burnout interventions that focus on reducing and preventing burnout will therefore only be successful if the reasons/factors that determine burnout (i.e. the antecedents of burnout) as well as the manner, in which these antecedents combine to determine burnout, are accurately and validly understood.

A structural model has been developed by Spies (2006) to identify the antecedents of burnout and the manner in which they combine to determine the level of burnout in CCRs employed in an insurance company’s medical aid call centre. Recommendations for future studies made by Spies (2006) in her study were to conduct broader investigations into the predictors of burnout (e.g. Supervisor Support) in order to improve management’s understanding of the conditions that shape the burnout phenomena. Maslach and Goldberg (1998) corroborate this by stating that burnout cannot be addressed in isolation and that organisations need to realise “the necessity of understanding individual behaviour in its social context” (p. 72). In the event that organisations neglect to understand the parity that exists
between the individual and his/her environment, all endeavours in managing burnout will be less effective and organisations will continue to experience uncommitted employees, high levels of turnover and emotional strain.

It seems reasonable to assume that burnout is complexly determined. This implies a richly interconnected network of latent variables where the nomological net includes interaction effects between burnout, its consequences, and the individual characteristics and organisational characteristics that precipitate burnout. The most critical implication, however, is that the meaning/explanation/understanding of burnout is not located at any single point in the network but rather spread over the whole of the network. Viewing only a narrow, selected part of the network invariably will result in a loss of meaning (Cilliers, 1998). It is therefore imperative to expand the existing Spies (2006) burnout structural model in order to gain a broader, more comprehensive understanding of the nomological network of latent variables that determine burnout within CCRs employed in South Africa.

Given that burnout is complexly determined, HR should be able to develop and implement an integrated array of interventions that prevent burnout from occurring, and when it occurs, to treat it successfully. It is imperative that the factors determining burnout, such as individual and/or work characteristics are validly understood in order to combat burnout. It is only through a valid understanding of the complexity of the factors determining burnout that organisations would be able to successfully intervene. This should enable call centres to maintain their competitive advantage (Spies, 2006).

1.2 Research aim and objectives

In essence, the research question therefore asks what leads to variance in burnout experienced by CCRs?

The objectives of the present study are to elaborate and/or modify on the burnout structural model presented by Spies (2006) by:
(a) developing a Spies-Kotzé burnout conceptual model\(^2\), representing the dynamic intricacy of certain variables leading to burnout within CCRs;
(b) to test the fit of the Spies-Kotzé reduced burnout structural model;
(c) assess the significance of the paths that were hypothesised within the reduced model;
(d) evaluate the modification indices to discuss recommendations for changes to the model, and
(e) conduct moderated regression analysis in order to evaluate the moderating effects contained in the Spies-Kotzé burnout conceptual model.

Correspondingly, this study aims to propose a nomological net of the determinants explaining variance in burnout amongst CCRs.

Through effective HR interventions derived from a valid understanding of the complex nomological net of determinants of burnout, call centre management can significantly reduce the incidence of burnout and assist CCRs in better coping with the demands of their work. This will greatly benefit call centres in terms of their competitive advantage as well as the sustainability of their services. Should this study succeed in its objective to modify and/or elaborate the Spies (2006) burnout model, organisations in which call centres form part of their operation would better be able to understand the complex psychological mechanisms that underpins burnout and as a result they would be able to intervene more effectively.

\(^2\) The original intention of the study was aimed at evaluating the hypothesised relationships in an original structural model (which included 5 interaction effects) via structural equation modelling (SEM), by testing the fit of the structural model. The proposed interaction effects within the structural model could however not be tested with LISREL. Subsequently, this led to the construction of a reduced structural model excluding the hypothesised interaction effects. The conceptual model, therefore, visually depicts the reduced structural model, together with the interaction effects which were tested with moderated multiple regression.
CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

The study aims to deepen the understanding of the complex nomological network of latent variables that determine the variance of burnout employees in the service industry, specifically call centres, experience. Since the focal endogenous latent variable is burnout, the literature study will examine the constitutive definition of this construct. In this section, an overview of Spies’ (2006) study will be specified. Due to the fact that one of the goals of this study is to elaborate on the foundations initially established by Spies (2006), it therefore becomes necessary to a) describe the theoretical arguments presented by Spies (2006) for her proposed model, b) describe her model, c) report on the fit of the structural model, and d) report on the findings regarding causal relationships which she has hypothesised (i.e. the statistical significance of the structural path coefficient estimates).

This section also describes the proposed Spies-Kotzé burnout structural model, developed in this study. All proposed constructs that will be added will individually be defined and the theoretical argument underlying its inclusion discussed, in order to systematically uncover the logic underlying the structure of the proposed expanded burnout structural model. An effort will thus be made to yield a systematic and coherent argument in support of a structural model that clarifies the manner in which burnout develops, and is influenced by certain organisational and individual variables, in CCRs. In the following sections of the literature study hypotheses will systematically be derived throughout as the theoretical argument unfolds.

2.2 Conceptualisation of the burnout construct

Moreno-Jiménez and Villodres (2010) define burnout as “a state of physical, mental and emotional exhaustion that may arise when a person is involved in situations of high emotional demand over a prolonged period” (p. 1801). The burnout syndrome within the service industry, as a reaction to prolonged job stress, has increasingly gained social relevance. The term burnout was originally conceptualised by Freudenberger (1989) as a condition of steady and ceaseless exhaustion,
depression and dissatisfaction, as a consequence of an individual’s strong attachment to a relationship that failed to bring about the anticipated rewards. The burnout construct comprises of three dimensions namely, a sense of overwhelming Emotional Exhaustion, feelings of cynicism (Depersonalisation) and a sense of ineffectiveness resulting in a lack of accomplishment (Personal Accomplishment) (Maslach et al., 2001, p. 393). These dimensions can lead to negative behavioural and attitudinal changes within an individual. Activities that are more prone to result in higher levels of burnout are those entailing repeated contact with customers, who demand greater physical and emotional effort (Moreno-Jiménez & Villodres, 2010). Consequently, the combination of direct interaction with customers, expectations of quality service delivery, together with a controlled work environment places numerous demands on CCRs (Kinnie, Hutchinson & Purcell, 2000) resulting in burnout.

Burnout has been associated with higher absenteeism, increased turnover, reduced productivity, increased intentions to leave and negative work attitudes (Brotheridge & Grandey, 2002; Burgess & Connell, 2004; Rod & Ashill, 2013). Extensive monitoring, as well as constant management surveillance and performance monitoring, all leads to excessive pressure experienced by CCRs. This constant pressure within an emotionally draining work environment, as well as the fact that CCRs are frequently expected to handle harassment from customers, has been associated with excessive amounts of burnout in CCRs (Hannif, Lamm & Vo, 2010). Call centres do however differ in their core functions/operational goals, which are necessarily contextualised within the industry the call centre operates. Call centres are diverse entities and various types of call centres exist. The distinguishing factor is usually whether calls are inbound or outbound, the degree of product difficulty and changeability, as well

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3 An inbound call centre is usually characterised by incoming calls whereby CCRs are required to provide customer service/support relating to a specific product, providing certain information, taking orders and/or providing helpdesk functions to customers (Abbott, Heiden, Mathiassen, Straker & Toomingas, 2013). Outbound call centres predominately engage in the CCRs calling customers in order to sell or tele market a certain product and/or service. Usual services with outgoing calls are advertising campaigns, market research and retailing by telephone. A CCRs job role within an outbound environment is therefore accomplished by using a customer orientated telephonic sales approach to achieve targets. According to Abbott et al. (2013) CCRs working in the outbound...
as the complexity of learning required in managing the service collaboration with customers. Miller and Hendrickse (2016) found that working in call centres, for the most part negatively affect CCRs, as they are exposed to both physical (i.e. workplace factors such as prolonged sitting postures, workstations layout, bad lighting etc.) and psychological harms. Call centres therefore provide a range of amenities, from customer services to marketing and sales support. Thus it could be argued that different call centres could have different causes of burnout than others based on the type of function that is being fulfilled. Paulet (2004) contends that not all call centres are alike as each one of them is not necessarily based on monotonous work and deskilling in nature. Also, some call centres depend on a quality administration activity that stresses employee discretion in decision-making.

2.3 The Spies (2006) burnout structural model

Spies (2006) proposed a burnout structural model (figure 2.1) with only Emotional Exhaustion as the primary outcome variable (i.e. the other two burnout sub-dimensions were not included in the model). This structural model was developed in an attempt to represent a possible nomological network of latent variables (i.e. Emotional Labour (EL), Emotional Exhaustion (EE), Supervisor Support (SS), Organisational Commitment (OC) and Intentions to leave (ITL) that directly and/or indirectly influences burnout and which contributes to the onset of EE amongst CCRs. Spies (2006) examined the nature of CCRs jobs to identify aspects within the workplace that impact negatively on their well-being (more specifically, EE levels).

For example, Spies hypothesised that EL (the behavioural response to variations in the frequency, variety, intensity and duration of service interactions, Brotheridge & Lee, 2003) is a significant antecedent to the EE (characterised by feelings of emotional overextension and a lack of energy when experiencing work overload, Schaufeli & Bakker, 2004) levels of CCRs. Spies (2006) therefore hypothesised that EL would lead to EE. These constructs were measured using the Emotional Labour
Scale (ELS) (Brotheridge & Lee, 2003), and burnout was measured using the adapted version of the Maslach Burnout Inventory (MBI-GS).

Furthermore, Spies (2006) hypothesised that a lack of SS would lead to higher EE. In this study SS was defined as “…a source of information to the individual that informs them that they are” “…loved and cared for (emotional support), respected and valued (affirmative support) and that they form part of a wider communication network (network support)” (Cobb, as cited in Spies, 2006, p. 38). The CCRs-team leader relationship (interaction) forms part of an essential component that has an influence on the day-to-day functioning of CCRs, especially with regards to demands and resources available. Consequently, if there is a discrepancy that occurs between the demands and resources obtainable to meet the demands, it can result in emotional strain. It was therefore proposed that the presence of SS could affect the imbalance between these demands and resources and the emotional strain can thus be ameliorated (Spies, 2006). Spies (2006) thus postulated that SS could have a direct effect on EE. Moreover, SS was also hypothesised to have a positive relationship with OC (an individual’s identification with and involvement in a particular organisation, Steers, Leiter & Maslach, 1988). It was argued that a lack of a supportive organisational environment (i.e. SS) would lead to the employee becoming less involved/show less willingness to identify with the organisation. A lack of SS was therefore hypothesised to be associated with lower OC and employee turnover. The Contact Rating Scale (Leiter & Maslach, 1986) was used to measure SS.

In Spies’ (2006) study it was further hypothesised that a negative relationship exists between OC and ITL (an immediate precursor of turnover, Brotheridge & Grandey, 2002). When employees experience a lack of OC (i.e. decrease in their willingness to apply effort within their work in order to be involved within the organisation) they are more likely to have a greater intention to leave the organisation. Therefore the employee’s turnover intentions increase as they experience a decrease in OC that could be due to stress, exhaustion etc. OC was measured using the Affective Commitment Scale (ACS, Allen & Meyer, 1990). Only the affective commitment subscale (emotional-laden construct) was used as the focus of Spies’ study was on
emotions. ITL was measured using a three-item Intention to Leave Scale, developed by Stallworth (2003).

Further, it was hypothesised that EE will also have a positive relationship with ITL. Taking into consideration the negative consequences of burnout (i.e. EE) for the individual as well as the organisation, it was argued that individuals experiencing higher EE would be more prone to leave the organisation. Higher levels of EE, it was argued, could indicate negative ‘thoughts' about leaving the company (Stallworth, 2003). Furthermore, Spies intuitively argued that an individuals’ burnout levels and organisational attachment and involvement should therefore also be related. It was hypothesised that EE has a negative relationship with OC. When an employee has negative psychological reactions (e.g. stress, strain, exhaustion) at work, their level of OC will decrease (characterised by the willingness to exert effort to be involved within the organisation). This could be due to the fact that the employee could be ‘used up' emotionally and can therefore not exert more effort (Spies, 2006).

Spies (2006) collected data (n = 84) from an insurance company’s medical aid call centre in the Western Cape. This call centre predominantly operated as an outbound call centre, whereby CCRs work by adhering to a strict script and marketing their product and/or service to customers. Primarily, the CCRs are required to have technical knowledge of all the different medical aid schemes. The ethnic composition of the sample was 17.9% White; 16.7% Black; and 60.7% Coloured. The gender distribution of the respondents indicated that the majority were female (82.1%), as opposed to males (16.7%). Moreover, the descriptive statistics reflected a mean age of 33 years, with the boundaries at 21 years (minimum age) and 50 years (maximum age) (Spies, 2006). The relative small sample does however cast some doubt on the statistical power of the test of close fit of the structural model.

The Spies (2006) burnout structural model depicted in figure 2.1, achieved good model fit as judged by the overall goodness-of-fit measures. The obtained path estimates and the fit statistics are reported in table 2.1 and in figure 2.1. The fit statistics indicated that the null hypothesis of exact fit was rejected, but that the null hypothesis of close fit was not rejected – implying a close fitting model. A general guideline and rule of thumb for the interpretation of the CFI and NNFI is that values
of .92 and higher indicates satisfactory fit between the postulated model and empirical data (Hair, Black, Babin, Anderson & Tatham, 2006). The CFI (.97) and NNFI (.96) were both above the required cut-off values. The RMSEA had a value of .012. This value fell below .05, suggesting very good model fit. The SRMR value was reported as .061. This also indicated good model fit as it was below the suggested cut-off value of .08 (Hair et al. 2006).

### Table 2.1
**Goodness of fit statistics for structural model fit**

<table>
<thead>
<tr>
<th>X2</th>
<th>S-BX2</th>
<th>df</th>
<th>S-BX2/ df</th>
<th>NNFI</th>
<th>CFI</th>
<th>RMR</th>
<th>SRMR</th>
<th>RMSEA (CI)</th>
<th>P (close)</th>
</tr>
</thead>
<tbody>
<tr>
<td>730.30*</td>
<td>70.89*</td>
<td>70</td>
<td>1.01</td>
<td>.96</td>
<td>.97</td>
<td>.051</td>
<td>.061</td>
<td>.012 (0.0; .065)</td>
<td>.83</td>
</tr>
</tbody>
</table>

*Note. X2 = Chi-square; S-BX2 = Satorra-Bentler Scaled Chi-square; NNFI = non-normed fit index; CFI = comparative fit index; RMR = root mean square residuals; SRMR = standardised root mean residual; RMSEA = root mean square error of approximation *p < .05.

(Spies, 2006, p.109)

However, the results further revealed that only four of the six path coefficients were significant (figure 2.1). Support was not found for the hypotheses that EL was related to EE, and that SS was related to EE.

The results revealed support for the relationships between EE and ITL, OC and ITL, EE and OC, as well as for the relationship between SS and OC (Spies, 2006).

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4 The red lines in figure 2.1 indicate significant paths.
2.4 Modification and elaboration of the Spies (2006) burnout model

Within this study, Spies’ (2006) burnout structural model will be elaborated on, modified and/or adapted. The focus will however not exclusively be on burnout and the identification of additional direct and indirect determinants of burnout, but also on generally clarifying a nomological net of determinants explaining variance in burnout amongst CCRs. In the discussion of the proposed expanded Spies-Kotzé burnout structural model, the questions firstly need to be considered whether (a) any of the paths in the final Spies (2006) burnout structural model depicted in figure 2.1 needs to be excluded from the proposed elaborated model and, (b) whether any additional paths should be proposed between the existing five latent variables in the model. For the purpose of this study, some of the paths that were hypothesised by Spies will be retained and some new paths will be added.

Moreover, when considering ways in which the existing Spies (2006) structural model could be modified and elaborated on, the recommendations by Spies (2006) for future research were also reviewed. Spies (2006) recommended that the other...
two dimensions of burnout namely, reduced feelings of Personal Accomplishment and Depersonalisation should also be incorporated in the model, as EE at least in part, operates through them to have an impact on organisational outcomes. Burnout is a multi-faceted phenomenon. For that reason it makes sense to embrace all the components comprising the construct in an explanatory structural model aimed at understanding the phenomenon. Spies (2006), furthermore, suggested that the role of supervisory support in the work lives of service employees should be investigated. Contradictory to what was hypothesised by Spies – the results revealed that supervisory support did not directly predict EE in her model. Consequently, this finding insinuates a need for further research to investigate the role of supervisory support in CCRs’ work lives, within the framework of the Conservation of Resources (COR) theory (Spies, 2006).

Some of the constructs included in the Spies model are multi-faceted (e.g. EL and burnout), however, in most cases some sub-dimensions were not included in the model (e.g. Deep Acting and Surface Acting as dimensions of EL) as well as Depersonalisation and Personal Accomplishment as dimensions of burnout. It is therefore argued in this study that the sub-dimensions comprising such multidimensional constructs need to be included in the adapted model. This will enable a more penetrating understanding of the complex manner in which the latent variables are structurally inter-related. Furthermore, by gaining an understanding of how the dimensions in the nomological net are related to each other, as well with other constructs, future researchers would be enabled to better expand on the Spies-Kotzé model. Thus, by making provision for more complex structural relations between the dimensions of the multi-dimensional constructs in the model, one could meaningfully take the cumulative research effort on burnout forward.

2.5 Conceptualisation and definition of burnout within the context of call centres

Burnout is a term used to describe a specific kind of anxiety and strain that leads to fatigue and a lack of apathy towards a person’s work. It was initially defined as a syndrome occurring exclusively among helping professionals stemming from repeated and strong exposure to emotionally charged helper-recipient interactions
(Laschinger, Borgogni & Consiglio, 2015). Burnout is a form of psychological strain coming about because of constant work stress. It is described as “a state of exhaustion in which one is cynical about the value of one’s occupation and doubtful of ones capacity to perform” (Bakker & Costa, 2014, p.113). Burnout is considered to be a state that transpires over time. The negative attitudes associated with burnout include boredom, displeasure, doubt, inadequacy and disappointment. It more often than not happens when a person or employee encounters physical, mental and/or non-physical fatigue and can no longer adjust and cope (Rod & Ashill, 2013). According to Maslach and Leiter (as cited in Spies, 2006, p. 59), burnout “has been the proverbial black sheep of organisational problems for decades”. This suggests that although the negative outcomes associated with burnout seriously impedes organisational functioning, and although it is of utmost importance that organisations aim to change this, they nonetheless have tended to ignore the problem. Organisations could benefit important knowledge by recognising the impact of the work environments’ structure and functioning on the development of burnout. Therefore, problems arising as a result of burnout can also be sidestepped.

One line of research argues that burnout is conceived as a tri-dimensional process consisting out of EE (i.e. feelings of emotional over extension), Depersonalisation (DP) (i.e. undesirable, cynical outlooks and emotional state about one’s recipients) and reduced sense of Personal Accomplishment (PA) (i.e. the inclination to appraise oneself negatively within a work context) (Buunk, Schaufeli & Van Dierendonck, 2001; Maslach, et al., 2001). This multi-dimensional conceptualisation of burnout raises a question about the interrelationships as well as the casual arrangement of the founding components - do these components develop simultaneously or is there developmental progression over time? This further raises a question about which components within the burnout process develop first and which thereafter. Lee and Ashforth (1993) highlight two reasons why it is imperative to understand the causal sequencing of these constructs, as an explanation of the sequential order would offer understanding into the burnout process as a whole.

To begin with, it will enable early recognition of burnout and could help identify ‘high-risk’ employees (Houkes, Twellaar, Verdonk & Winants, 2011). It would
consequently be able to foster its prevention and management at an earlier phase before the burnout actually becomes chronic (Lee & Ashforth, 1993). Lee and Ashforth (1993) further indicated that by acknowledging the causal sequencing of burnout, it would help develop a theoretical model that would comprise the antecedents and consequences. Furthermore, it is commonly agreed among scholars that burnout is a form of reaction to job stress (Boren, 2014; Lee & Ashforth, 1993; Sekol & Kim, 2014; Schaufeli, Maslach & Marek, 2017). It is therefore most likely to transpire among service professionals who are not able to efficiently deal with unwarranted demands on their energy, strength and resources (Lee & Ashforth, 1993). This customary idea rests on Maslach’s definition of burnout comprising of the three dimensions (i.e. EE, DP and PA).

Furthermore, of these three dimensions, EE has been viewed as “…the closest to an orthodox stress variable” (Maslach, Leiter & Jackson, 1997, pg. 204). As a result, the dimensions associated with EE are related to those in common literature on stress. As pointed out by Maslach et al. (1997) the concept of burnout cannot just be looked at from the perspective of EE, as one would then simply define it as experienced stress and nothing more. Based on a plethora of research and literature, burnout should be perceived as a person’s stress experience that is “…embedded in a context of complex social relationships and that it involves the person’s conception of both self and others” (Maslach et al., 1997, pg. 204). Therefore by merely looking at the stress component one would disregard the other two components of self-evaluation and relation to others.

Bakker and Costa (2014) proposed that EE serves as the central strain dimension of burnout and most recognisable symptom of the burnout phenomenon. It is characterised by feelings of emotional overextension, being emotionally drained by one’s work, and a lack of energy when experiencing work overload (Bakker & Costa, 2014). When CCRs experience this type of exhaustion they act in a manner in which to safeguard their energy levels. Maslach et al. (1997) also suggest that EE is characterised by tiredness and a feeling of fatigue that progresses when the person’s emotional energies are worn-out. By conserving energy levels, individuals tend to reduce their “…emotional and cognitive involvement with the work” (Rothman...
& Visser, 2008, pg. 79). Therefore they will try and distance themselves, both emotionally and cognitively from their jobs in order to cope – i.e. DP (Maslach et al., 2001). In the case of burnout the source of stress is often people. The cynicism dimension of burnout represents this attempt to psychologically detach oneself from the source of the stress through DP. Moreover, Maslach et al. (2001) put forward that individuals working within the service industry face high emotional demands which can overextend a service provider's capability, resulting in unresponsive behaviours to the needs of service recipients.

Within the service environment constant face-to-face or voice-to-voice collaboration is required. Due to the nature of a service environment, daily hassles such as multi-tasking duties (i.e. listening to customers, capturing data into a system, adhering to a script and performing sophisticated listening skills etc.) need to be dealt with, which may increase exposure to emotional demands. Emotional demands experienced by CCRs are caused, albeit not only, by the constant interpersonal contact with customers, continuous engagement in technology assisted routines, scripted interactions, handling a high rate of calls, as well as dealing with difficult customers, while trying to sustain it all in a friendly manner. Koskina and Keithley (2010) rightfully state that CCRs emotions are therefore stringent to emotional rules and constricted managerial control. These emotional demands along with continuously interacting with customers can lead to EE. Customers may be difficult, rude or obnoxious and these so-called daily hassles become somewhat taxing for employees and eventually lead to burnout (i.e. EE) (Koskina & Keithley, 2010).

The second component, DP, “is an attempt to put distance between oneself and the service recipients by actively ignoring the qualities that make them unique and engaging people” (Maslach et al., 2001, p. 403), thus guarding the employee from further EE. DP can therefore be seen as a coping mechanism in the sense that it will guard the CCR from extra emotional depletion (Rothman & Visser, 2008). DP consequently tries to capture an element of interpersonal relations (Maslach et al., 1997). This form of coping has severe repercussions for an organisation, as CCRs need to be actively involved as they provide the services to the customers. In support of this, Rothman and Visser (2008) argued that DP as a form of coping
mechanism makes CCRs less receptive to, and involved with the needs of their customers. It is therefore characterised by callous responses to one’s work and is marked by the handling of customers as objects as opposed to people (i.e. dehumanisation) (Corders & Dougherty, 1993; Schaufeli et al., 2017). The DP component could have severe consequences on the organisation. Employees detach themselves from their work and express negative feelings towards certain features of their work and the people, in response to the stress that they are experiencing. Acknowledging this, CCRs will be less responsive and involved with the needs of the customers and could demonstrate responses to the customers in a somewhat ‘uncaring’ nature. In line with this reasoning, Alarcon, Eschlemann and Bowling (2009), state that as DP continues, the CCRs feeling of PA in their work reduces. As a result, CCRs will portray a reserved behaviour towards customers and colleagues and will display a lack of emotions.

The third component namely, reduced PA, is characterised by employees who experience reduced feelings of efficiency. This leads to one having a negative picture of themselves and thus a lack of competence and achievement is perceived in one’s work. This results in employees not being successful in meeting work-related goals and an inability to achieve performance goals, as self-confidence is considered to be an imperative factor for effective performance (Alarcon et al., 2009; Fournier, Hollet-Haudebert & Mulki, 2011). Buunk et al. (2001) postulate that reduced PA results in an appraisal of the interpersonal skills in handling customers that in turn affects self-efficacy views concerning future performance. A lack of PA will leave the employee with feelings that their best efforts are not generating, or are not being recognised, compared to their anticipated results. Therefore, it could be reasoned that when CCRs are exposed to incessant job demands and work-related stress, a lack in confidence in their own abilities will further deter the employee in essentially completing work related goals (Fournier et al., 2011). CCRs will therefore begin to feel that their efforts are ineffective, lose inspiration, as well as self-assurance in their abilities to get things completed and perform their job commendably.
The three components of the burnout process are well supported in literature; however, there seems to exist two contrasting views on the casual ordering of these three components (Buunk et al., 2001). Leiter and Maslach (1988) hold the view that by experiencing emotional overload, which is affected by engaging with difficult and demanding recipients, EE will result. This EE results from an attempt to cope with the prolonged work-related stressors that drain the emotional resources from employees (Lewin & Sager, 2007). Feelings of constant exhaustion result in employees distancing themselves psychologically from their customers (i.e. DP) and depersonalising their relationships. Once DP occurs and the employee upholds such an attitude, it results in incongruence between their existing situations and original beliefs. This in turn results in a lack of adequacy and lower self-evaluation (i.e. lack of PA) (Lewin & Sager, 2007). Leiter and Maslach (1988) further proposed that this attitude diminishes the employee’s capacity to deal with their customers and in turn fail to accomplish their work goals. Consequently, their sense of accomplishment decreases (Leiter & Maslach, 1988).

In contrast to this, Golembiewski and Munzenrider (1984) developed a model similar to Leiter and Maslach (1988) but assumed that a service employee would first experience DP. It is suggested that a functional detachment gives way to a (dysfunctional) effort to deal with the stressors experienced at work (i.e. DP) (Lee & Ashforth, 1993; Buunk et al., 2001;) and this form of DP consequently restricts job-related performance (Lewin & Sager, 2007). As Golembiewski and Munzenrider (1984) suggest, this DP will establish the manifestation of burnout and subsequently impair performance leading to a reduced sense of accomplishment, creating it as the second phase of the model. Lee and Ashforth (1993) corroborate this by stating that “as depersonalization deepens and felt accomplishment worsens, work stress may surpass one’s ability to cope, leading to emotional exhaustion” (p. 371). Similarly, Lewin and Sager (2007) stated that DP acts as an antecedent to reduced PA and reduced PA acts as an antecedent to EE.

Regardless of these differences, the two models still share some common features (Lee & Ashforth, 1993). Even though they have both been empirically investigated, conclusions across studies have still not determined the argument regarding which
model best characterises the burnout process (Lewin & Sager, 2007). This is due to the sequencing of the burnout process using diverse sampling frames (i.e. the Maslach model mainly used samples from physical and mental health professionals, whereas the Golembiewski model and their sequencing has been among public sector supervisors and educators etc.) (Lewin & Sager, 2007). Therefore it is argued that even though the process model of burnout is robust, the sequencing of the three components prominent to burnout may be subject to the unique characteristics established in the diverse work contexts contained in the samples used in these studies (Lewin & Sager, 2007).

Taking into consideration diverse work contexts, it is important to note that call centres can operate from different perspectives. Call centres can either be part of the organisation, in other words, an ‘in-house’ call centre whereby inbound call centres are constrained to a passive role. This means that customers (with regards to having questions and/or complaints about a product and/or service) exclusively call up a CCR. Outbound call centres predominantly engage in calling customers in order to sell or tele-market a certain product and/or service (Zapf et al., 2003). It should, however, be noted that several call centres also operate with both inbound and outbound activities. Alluding to the nature of this study and the type and sample of call centre intended to focus upon, the emphasis here is placed more on inbound call centre operations as opposed to outbound. It should however also be established, that outbound operations within the sample organisation does exists but does not make up majority of the organisation.

According to Lewin and Sager (2007) these ‘types’ of departments within a call centre can also be seen from the perspective of a unique profession of sales. These so-called salespeople constantly seek the need to satisfy their customers and organisation by measuring revenue and profit achievement for day-to-day sales. Lewin and Sager (2007) argue that in contrast to service employees (i.e. helping professionals), the sales profession differs considerably, as well as the burnout process associated with it. It is suggested that the burnout process for sales

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5 Outbound segments within the organisation include departments such as: Collections (early and late stage), New Business and Direct Marketing.
professions differ (in terms of divergent samples) from the model of Maslach and Golembiewski whereby the majority of their work examined police officers, educators and social service employees (Lewin & Sager, 2007).

Lewin and Sager (2007) posits that the burnout development for salespeople starts with a decrease in job performance, which leads to self-perceptions of reduced PA followed by feelings of EE. At the same time, this perception of reduced PA results in the sales person distancing themselves from their customers and the organisation etc. whom they believe has contributed to their feelings of a diminished state. This DP in turn will increase their feelings of EE (Lewin & Sager, 2007). For the purpose of this study, however, emphasis will rest more on inbound call centre operations.

With respect to the nature of the burnout process discussed above and in light of the proposed study, the process model of Leiter and Maslach (1988) will be utilised. With the focus on an inbound call centre, CCRs in this regard (i.e. in this study) were working/dealing with loan disbursements. As part of the CCRs role, it is required that they convert existing and new leads to approve loan disbursements (i.e. customers call the CCRs wanting a loan and the CCR is required to disburse the loan ensuring the customer has all the necessary requirements such as payslips, bank statements, copy of ID, no reports of fraudulent activities etc.). Further, this type of work requires the CCR to constantly pursue a positive attitude and working in an efficient manner to achieve sales targets in terms of quality assurance (i.e. customer focus, how CCRs deal with irate customers who cannot afford a loan, proper language used, adherence to scripts etc.). The decision to employ the process model of Leiter and Maslach (1988) in this study was based on the nature of the work the particular CCRs in the sample were doing. It was argued that the demands (i.e. reaching targets for quality assurance which is constantly reviewed, rehabilitating customers with arrear accounts, dealing with irate customers, ensuring all requirements for a loan is presented by the customer etc.) could firstly result in EE, which leads to the sequencing of the other components (Rod & Ashill, 2013). Based on this process model of Leiter and Maslach (1988) these work demands drain the resources of the individual causing EE as the first component. Thereafter, the employee will develop a coping strategy whereby DP acts as an emotional buffer between the individual
and their job demands. This will essentially lead to the individual feeling incompetent (reduced feeling of PA) as their expectations and contribution to society and the organisation is undermined (Cordes & Dougherty, 1993; Rod & Ashill, 2013; Schaufeli et al., 2017). Due to the fact that the development of EE is regarded as the first phase of burnout, according to this process model (Cordes & Dougherty, 1993), it would be advantageous to have mechanisms in place to preclude or diminish its development.

Based on the conceptualisation and explanation of each of the dimensions, it is argued for the purposes of this research that high levels of EE will trigger DP, and that in turn high levels of DP will reduce feelings of PA. Thus, the relevance of burnout to the service environment, especially call centres are due to Maslach et al. (2001) signifying that the development of burnout lies primarily in the relationship between the service provider, the customer and the situational environment of service professions. For the purposes of this study, it is therefore hypothesised that EE will have a positive relationship with DP, and that DP will have a negative relationship with PA. Consequently, the following hypotheses will be tested:

**Hypothesis 3**: Emotional Exhaustion has a positive linear relationship with Depersonalisation.

**Hypothesis 4**: Depersonalisation has a negative linear relationship with Personal Accomplishment.

### 2.6 Emotional Labour within the service environment/call centres

Emotional labour (EL) or emotion work is conceptualised in many different ways. Hochschild (1983), who was the first to define EL, expressed this concept as the “management of feeling to create a publicly observable facial and bodily display” (Agnew, De Castro, Curbow, Fitzgerald & Haythornthwaite, 2006, p. 202). EL requires individuals to plan and control the desired emotions needed in order to express themselves within the organisation (Chu, Baker, & Kurmann, 2012; Morris

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6 The numbering of the hypotheses starts at 3, as hypotheses 1 and 2 involves testing the exact fit and close fit of the proposed measurement and structural models (discussed in chapter 3).
& Feldman, 1996). As Agnew et al. (2006) rightfully state, this is usually due to the nature of the job, especially in terms of the service industry in that it includes constant face-to-face or voice-to-voice communication with the customers. The CCRs are therefore required to produce an emotional state in another individual (i.e. customers and/or clients). CCRs are often referred to as emotional labourers within call centre environments, as EL is essential for high levels of service and customer approval (Brannan, 2005; Ferreira & Saldiva, 2002). EL alludes to the organisationally recommended presentation of feelings as a focal idea for seeing how CCRs package emotion to fit organisational standards. High-emotion labour has therefore been connected with various negative psychosocial impacts (Brannan, 2005).

Hochschild’s (1983) theoretical approach to EL was influenced by Goffman’s perspective in the sense that human beings are prone to act as social actors. They are guided by the norms and rules customary to an organisation that in effect serves as the script or screenplay that dictates the role played by employees. Consequently, the norms and rules dictate what constitutes suitable behaviour within the organisation for different situations that may involve client interactions. The term “client” indicates an interaction that occurs between an employee and customer (Zapf et al., 2003). Goffman (1956) focused on the technique of impression management whereby individuals were viewed as actors who demonstrated a certain “acting” perspective of emotional display when participating in social interactions. In call centres this type of “acting” in social interactions will almost always occur, as the job requires CCRs to express appropriate emotions during face-to-face or voice-to-voice communication (Zapf et al., 2003). Hoffmann (2016) substantiates this by stating that CCRs are gradually compelled to display certain emotions, as emotion management is an organisationally employed tool in a “service-producing society” (p. 154). In line with this stream of literature, Karimi, Leggat, Donohue, Farrell and Couper (2013) state that EL develops due to a behavioural response to variations in service interactions and the suppression of true feelings to generate a considerate and safe atmosphere for customers.
According to Morris and Feldman (1996, p. 987) EL is defined as “the effort, planning, and control needed to express organizationally desired emotions during interpersonal transactions”. Morris and Feldman (1996) theorised EL in terms of four assumptions underlying the construct. Firstly, people tend to interpret their emotions in terms of the surrounding environment in which they experience their actual emotions. This means that social influences play a factor in the manner in which emotions are represented, as well as the degree to which emotions are cherished and nurtured. Secondly, despite the fact that these emotions are felt and expressed, they still need to be changed into displays that are emotionally and contextually fitting. Sometimes the accurate display of experienced emotions for the individuals would be regarded as contextually inappropriate. This is quite often the dilemma faced by service industry employees. In order to display contextually appropriate emotions, physical demands and psychological energy from the employee is required, as they need to express or suppress their emotions in accordance with organisational or professional display rules (Biron & Van Veldhoven, 2012).

The third assumption rests upon the notion that the expression of emotions and the behaviours resulting from this expression has actually become a market-place commodity, which is deemed as being part of the service itself. The fourth assumption is created on certain expectations (i.e. display rules) regarding the specific occupation, as well as the manner in which the permissible and appropriate emotional behaviours have to be displayed. These appropriate behaviours are to be expressed within a specific time limit as well as in a particular manner (Chu et al., 2012). An example of this behaviour would be when CCRs are required to greet customers in a welcoming manner and to remain respectful throughout the service, despite constantly dealing with difficult or obnoxious customers (Chu et al., 2012; Karimi et al., 2013).

Various outcomes associated with EL have been extensively researched and documented. Specific expectations and demands are proposed by the organisation that acts as situational cues for employees. This relates to displaying specific positive emotional expressions, and therefore employees have to constantly regulate their emotions and in the process perform EL (Brotheridge & Grandey, 2002). This
constant emotional regulation requires both psychological and physical effort leading to higher levels of psychological distress and resulting in negative outcomes that can be widespread (Bono & Vey, 2005). Hochschild (1983) further argues that if an employee is required to regularly display emotions that are not congruent to their felt emotions over an extensive period of time, it will lead to the alienation of one’s feelings. Negative effects of constant exposure to EL include increased stress, health deterioration, as well as a reduction in service delivery quality and turnover (Chu et al., 2012). Despite the negative consequences associated with EL, there has in fact been some research that suggests that when CCRs perform EL, it does to some degree have an advantage for organisations’. Morris and Feldman (1996) and Angew et al. (2006) reaffirm this by stating that during service interactions, the fact that a CCR is performing EL, could lead to a positive influence of the customer’s perception regarding the actual service.

Furthermore, literature indicates that EL has been conceptualised along the following dimensions namely, frequency of applicable emotional display, the intensity of required display rules, variety of emotions displayed and emotional dissonance (Morris & Feldman, 1996). When taking these dimensions into consideration it could be argued that these EL dimensions will influence the social and emotional interactions CCRs experience with their customers. Several studies have found support for the EL and burnout process relationship (Alarcon, 2011; Bono & Vey, 2005; Zapf, 2002). Burnout occurs as emotional, physical and mental exhaustion is triggered by continued stress. Moreover, the first three dimensions of EL⁷ (i.e.

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⁷ According to Brotheridge and Lee (2003), EL can be operationalised into six dimensions of emotional display within the work environment. These included: frequency, variety, intensity, duration, Surface Acting (SA) and Deep Acting (DA). However, within this study duration of the interaction will be excluded as this is generally regarded as an extra dimension that measures the average number of minutes that is necessary for the usual service encounter between a CCR and a customer. In this study, this dimension is not included. For the purpose of this study EL, was broadly defined by the five dimensions (duration excluded). However, EL scores are generally measured on a dimensional level, as the construct cannot be reflected in a total score (Brotheridge & Lee, 2003). Drawing on work done by Hochschild, Morris and Feldman and Kruml and Geddes, the two dimensions (i.e. SA and DA) was treated as two separate components in this study. The three dimensions (i.e. frequency, intensity and variety) were combined in a total EL score and SA and DA were both measured separately. This is because SA and DA are two types of emotional regulation strategies that hinder or aid in emotional dissonance. The EL construct in the conceptual model is therefore a combination of the three sub-dimensions included in the EL scale (frequency, intensity and variety), without the SA and DA
frequency, intensity, and variety of emotional display) are well known to contribute to creating stress for the employee eventually leading to burnout. For example the frequency of emotional display refers to how often employees engage with customers. In other words, this refers to the frequency of the interpersonal interactions that comprise of continuously expressing organisationally required emotions (Morris & Feldman, 1996). Therefore, it could be argued that the more interpersonal interactions (i.e. more emotional display) the CCR is involved in, the greater the chances that the employee would be overtaxed. Variety refers to the variation and amount of emotions that need to be shown during interactions and therefore more psychological effort is required from the CCR, enhancing the level of EL engaged in. On the other hand, the intensity of required display rules refer to how strongly emotions need to be expressed; hence more psychological energy is required from the employee (Morris & Feldman, 1996; Zapf, 2002). Consequently it is evident that these dimensions contribute to the degree of EL engaged in thus creating more stress leading to EE experienced by the employee. CCRs are therefore more prone to experience burnout as a result of the EL that is experienced (Zapf, 2002). The following hypothesis can therefore be formulated regarding the relationship between EL and EE.

**Hypothesis 5: Emotional Labour has a positive linear relationship with Emotional Exhaustion.**

A meta-analysis conducted by Bono and Vey (2005) indicated significant correlations between EL and EE, as CCRs are expected to direct and control the quality of the service they provide to the customer. This suggests that CCRs are expected to adhere to organisational norms and express the appropriate emotions (Rothmann & Visser, 2008). Consequently, EL is described as the expression of appropriate emotions CCRs are expected to show during customer interaction while suppressing components (those being measured separately). Moderate to high inter-correlations generally exist among the frequency, intensity and variety sub-scales, which could justify that an underlying latent variable underlies these sub-dimensions. However, the pattern of correlations between SA and DA and the other three sub-dimensions, are somewhat lower – suggesting less overlap. For these reasons, the EL construct was operationalised and included in the conceptual model as a combination of the frequency, intensity and variety components of EL.
the display of actual felt emotions. According to Rothmann and Visser (2008), the emotional dissonance factor of EL is an imperative component to consider in the burnout process as studies have indicated that it leads to burnout (Pugh, Groth & Hennig-Thurau, 2011). Emotional dissonance can therefore be described as a discrepancy resulting from an incongruity between felt emotions and emotions that are displayed in order to meet organisational norms. Emotional dissonance happens when expressions differ from actual or required feelings (i.e. job congruence) and the regulation process thereof, where employees modify their expressions in order to meet work demands (Brotheridge & Grandey, 2002; Karimi et al., 2013). An example of this would be when a CCR still continues to smile even though they have dealt with a difficult customer.

It should however be noted that suppressing the presentation of an actual emotion which is felt is often deliberate, mindful and done in a goal directed manner which requires dynamic inhibition by the CCR and thus consuming their regulatory resources. Messerli, Semmer and Tschan (2016) are of the opinion that the manner in which the CCRs regulate their emotions is thought to be the foremost cause of strain. This prolonged form of strain eventually results in EE. Due to the harmful influence of EL on a CCRs well-being, it is comprehended as an outcome of chronic strain brought by high regularity of EL requirements (Messerli et al., 2016).

Furthermore, according to Agnew et al. (2006) EL is executed through two so-called emotional regulation methods namely Surface Acting (SA) and Deep Acting (DA). The performance of EL necessitates effort and hence presents an occupational demand on employees. Building on Goffman’s view of employees being social actors, guided by organisational rules, Hochschild characterised EL by altered stages of ‘acting’ (Hoffmann, 2016). Monitoring one’s appearance or conduct in order to display the feelings dictated by the circumstance, without transforming one’s genuine core feeling, is known as SA. On the contrary, DA is a portrayal of required feelings through the adjustment of one’s own internal emotions to truly encounter the felt or authentic feeling (Hoffmann, 2016). Consequently, the relevance of EL to call centres and specifically to CCRs, is reinforced by Ashforth and Humphrey (1993) in terms of various arguments. They suggest that in any given environment, employees
operating, as front-line service employees will be the ‘face’ and the representation of the organisation. As customers engage in a service encounter, uncertainty may arise and this uncertainty or misunderstanding may cause a dynamic and changing quality in the customer-employee interaction. This interaction may therefore pose some challenges for the employee due to the intangible nature thereof and it would consequently be difficult to measure/comprehend (Ashforth & Humphrey, 1993).

Moreover, due to this intangible nature, Ashforth and Humphrey (1993) posit that it is highly unlikely that the perspective of both the service provider and the customer will ever be in congruence. It is apparent that both parties will experience unpredictable emotions, as well as the fact that each CCRs interaction with different customers will vary. Holman, Chissick and Totterdell (2002), within the context of emotional regulation, highlight that the competence of service employees (i.e. CCRs) in terms of their emotional regulation of SA and/or DA becomes an important factor to consider in service organisations. Proficiency in emotional regulation will allow the CCR to display the appropriate emotions (even though these might not really be experienced), which will result in customers positively evaluating the quality of service (Holman et al., 2002). For example, employees might feel the need to ‘manage’ their emotions (i.e. DA) as it actively invokes thoughts to induce the ‘right’ emotional expression (Chu et al., 2012).

According to Hochschild (as cited in Brotheridge & Lee, 2003), the regulation techniques employed by individuals will help them alter their displayed feelings (i.e. SA) or by ‘pumping up’ the suitable feelings within themselves (i.e. DA). It is therefore imperative to consider these dimensions as part of the EL construct as each regulation technique essentially has a different effect on the employees’ internal state as well as various effects on the employees’ well-being. For instance Karimi et al. (2013) showed a positive significant relationship between SA and stress, related with general interpersonal interaction and collaboration. The interpersonal interaction amongst the sample employees and those displaying higher levels of SA yielded greater levels of stress. Furthermore, Cheng, Bartram, Karimi and Leggat (2013) stated that SA (through faking unfelt feelings) affects the nature of the interaction with specific customers (e.g. in this study the nature of care from
nurses to the patients were affected). Likewise, Chu et al. (2012) observed that SA positively related to EE (as a segment of burnout), while additionally being negatively related to job fulfilment and/or satisfaction. Consequently, it is anticipated that a CCRs level of EE is predisposed to whether he/she takes part in DA or SA. For example, Johnson and Spector (2007) allude to the fact that a CCR who principally participates in SA is probably going to experience more EE than one who more regularly engages in DA.

According to Chu et al. (2012) SA refers to “the act of displaying an emotion that is not felt and could involve both suppression of felt emotions and feigning unfelt emotions” (p. 907). SA is measured as a response-focused form of emotion regulation that transpires once the emotion has been prompted. This implies that the CCRs could deceive others about what they really feel, but at the same time do not deceive themselves as they mimic the emotions that are expected of them within a given work environment. Consequently, individuals aim to alter their external emotional displays in order to meet the obligatory organisational display rules (Chu et al., 2012). A CCR would therefore ‘fake’ the appropriate emotional display (Messerli et al., 2016). For example, if a CCR is on the phone with a difficult customer, their initial reaction or emotion would be to engage in a more stern or a harsher form of communication, but instead they put on a fake smile in the hopes of making the quality of the call better and/or making a sale. Hochschild (as cited in Bryson, 2007, p. 36) describes the phenomenon of SA as “the body, not the soul, is the main tool of the trade; the smile on the face of the worker is a false smile, but it is still a smile”. Ashforth, Diefendorff and Humphrey (2015) rightfully posit that a CCR would therefore fake their feelings, as there is a dissonance between their feelings and their actual display. To put it in another way, Zapf (2002) emphasises that SA transpires, as there is a dissonance between the inner feelings and the outer expression that takes place during some form of service interaction.

Furthermore, with the use of the aforementioned strategy, the employee changes their outward behaviour without reflecting on their true internal thoughts and feelings. Subsequently, the dissonance between the CCRs own values and feelings and that of the organisation causes an internal clash. In the event that it continues for a
prolonged period of time, it is argued here, that it would result in EE. Hoffman (2016) reaffirms this by stating that several studies have shown that SA is associated with increased levels of stress and depression. According to Messerli et al. (2016), SA is usually preceded by an emotional event. For example a CCR could be required to deal with an obnoxious and/or rude customer, which could result in adverse, undesirable and objectionable negative emotions being experienced by the CCR. It is essential to note that these event(s) do not generate emotion regulation instantaneously, but instead these events first generate emotions in the CCR that in turn trigger emotion regulation, if exhibiting these negative emotions are sensed by the CCR as not suitable (Messerli et al., 2016). These emotions that are perceived by the CCR, which triggers SA are generally negative. The emotions that are not altered by SA and are consequently negative emotions will “…remain as an element in the process” (Messerli et al., 2016, p. 47). The fact that these negative emotions persist, affect the CCRs well-being, as well as the fact that it can spill over into other life spheres. Andela, Borteyrou and Truchot (2015) proposed that SA could also be described as “an obstructive emotion regulation strategy for employee health” (p. 322). Philipp and Schupbach (2010) additionally state that SA and DA is certainly detrimental to the health of a service representative, but it was found that SA was positively related with EE, and more so than DA.

Hülsheger and Schewe (2011) conducted a meta-analysis signifying that SA was undeniably harmful to workers’ well-being and job performance, whereas DA was in actual fact generally unrelated to any of these, and might even increase or enhance performance. This is due to the fact that exhibiting SA requires effort but is also supplemented by continuous emotional dissonance. This in turn is associated with an increase in EE, making it a more harmful strategy. According to Hoffman (2016) CCRs will as a result lose their sense of “authentic selfhood” (p. 155) and experience increased levels of burnout, as they have to mitigate their actual feelings. SA may therefore prompt the tension owing to the feeling of being inauthentic. Scheibe and Zacher (2013) corroborate this by stating that response-focused emotion regulation approaches (i.e. SA) are less successful and therefore more costly than antecedent-focused strategies (i.e. DA). Therefore surface level acting is more damaging and detrimental as it is associated with higher EE. Likewise, during the process of SA,
one’s real enthusiastic experience and the external emotional display are not congruent, which represents a risk to a CCRs emotional well-being (Brotheridge & Grandey, 2002). SA therefore requires the effortful concealment of authentic emotions and the expression of suitable emotions, leading to a greater burden placed on CCRs. Therefore, based on these findings the following hypothesis will be tested:

**Hypothesis 6: Surface Acting has a positive linear relationship with Emotional Exhaustion.**

On the contrary, DA involves suppressing job incongruent felt emotions and actually trying to feel the job congruent ones which the individual can then express authentically. Emotions and feelings are thus actively induced, by ‘pumping’ themselves up into the desired front (Brotheridge & Lee, 2003). Employees utilising this type of emotion regulation strategy sincerely feel the emotions that are required to be displayed within the organisation. This necessitates them to spend effort in order to regulate their emotions (Zapf, 2002). Organisations tend to represent display rules in light of the fact that the expression of emotions has been attached to pertinent organisational outcomes. Becker and Cropanzano (2015) additionally state that CCRs who work within a team will tend to feel pressure to display or show the expected emotional expressions even in difficult circumstances. Similarly, Brotheridge and Lee (2003) define DA as ‘pumping up’ emotions in order to align the required feelings to actual feelings experienced by the employee. Consequently, a CCR ‘pumping up’ their emotions will actually become more excited than they would otherwise. DA becomes part of the employees’ personality and is also utilised outside the workplace (Bryson, 2007). Therefore CCRs will tend to manipulate their inner feelings to try to seem more genuine in their expression of their emotions (Becker & Cropanzano, 2015).

Brotheridge and Lee (2003), in their review of literature on EL, assert that DA can in fact allow the CCR to feel emotional harmony as they endeavour to actually feel the authentic emotions that they are required to display. This is due to the fact that it may lead to positive outcomes for the CCR such as feelings of achievement and accomplishment and thereby enhances job satisfaction and performance.
Furthermore, because the CCR is actually displaying their genuine nature in their effort to feel the appropriate emotions, DA can result in positive outcomes. As such, Brotheridge and Grandey (2002) rightfully state that DA could be seen as a protective mechanism by improving identification with the CCR’s work role and feelings, and in turn result in less prolonged stress experienced. DA will result in a suitable emotion that is truly felt and thus the “emotional dissonance is resolved” (Philipp & Schupbach, 2010, p. 495).

According to Andela et al. (2015) engaging in DA involves a CCR to “…actively reinterpret emotive stimuli in terms that modify the emotional impact” (p. 322). Consequently it can have several benefits for the CCR in the sense that it could decrease the emotional experience without any noticeable physiological impact. It can be argued that a CCR, who engages in DA, can in fact experience less EE as it can be seen as a positive emotion regulation strategy. Becker and Cropanzano (2015) corroborate this by stating that when a CCR acts in accordance with organisational display rules, by engaging in DA and truly changing their fundamental emotions, they ought to encounter a decrease in EE.

Furthermore, Johnson and Spector (2007) hold the view that if a CCR employs DA they will typically feel the articulated emotion. This articulated emotion will therefore prompt emotional congruence, which diminishes the demand caused by the appropriate organisational display rules. For instance, a CCR who is managing an angry customer will probably be encountering negative feelings. By adhering to the organisational display rules/principles, the CCR needs to express positive feelings by either taking part in DA or SA (Johnson & Spector, 2007). In the occurrence when a CCR utilise DA, they endeavour to actually feel the feelings that they need to illustrate when interacting with customers. By doing this, they attempt to feel and acknowledge their authentic feelings, and thus deliberately take part in thoughts and activities that encourage those feelings. Actively reinterpretating or re-evaluating emotive stimuli in terms of modifying the emotional impact may have benefits for the employee. Engaging in DA has been demonstrated especially compelling for “…down-regulating intense negative emotions” (Andela et al., 2015, p. 322).
DA can therefore reduce undesirable emotional experiences without any recognisable physiological costs. This is because there would be a decline in behavioural and individual symptoms of emotions, predominantly emotions such as anger, without increased physiological reactions. Carstairs and Palmer (2003) reiterate this by stating that when CCRs employ the emotional regulation technique of DA, it will actually serve as a protective mechanism against EE\(^8\). For the purposes of this study, it is therefore argued that engaging in DA will lead to a decrease in EE. The following hypothesis will therefore be tested in the study:

**Hypothesis 7: Deep Acting has a negative linear relationship with Emotional Exhaustion.**

### 2.7 Job demands-resource (JD-R) model

Throughout the past few years, numerous theories\(^9\) have been suggested as frameworks for examining the burnout phenomena (Bakker & Demerouti, 2007). The JD-R model is a heuristic model describing the well-being of an employee based on their working conditions. The model accounts for two distinct but interconnected processes to elucidate job strain (i.e. burnout) and motivational effects (i.e. motivation) (Schaufeli & Taris, 2014). The JD-R model rests on the central assumption that job strain progresses as job demands surpass coping resources required in order to successfully deal with the job demands. The energetic process described as job demands, are basically the ‘things that have to be done’ (Schaufeli & Bakker, 2004) and inevitably, something has to be done in every job. These demands tend to sap employees’ cognitive or emotional effort resulting in some sort

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\(^8\) This reasoning (i.e. that DA and EE are negatively related) may seem counterintuitive, but this study aimed to investigate whether DA could in fact be the _better_ emotional regulation strategy to use. DA however, is still labour resulting in strain experienced by the employee, but it was argued here that it could be proven to be less detrimental to well-being than SA.

\(^9\) Theories such as, inter alia, the Demand-Control-Support model, Effort-Reward Imbalance, Person-Environment Fit models have been proposed as frameworks to evaluate the impacts of job stressors and job characteristics on employee health and/or well-being (Brotheridge & Grandey, 2002; Cooper, Dewe & O'Driscoll, 2001; Demerouti, Nachreiner, Bakker & Schaufeli, 2001; Freedy & Hobfoll 1993; Hobfoll, 2001; Lewig & Dollard, 2003; Schaufeli & Bakker, 2004). For the purpose of this study, the JD-R Model (focusing on job resources) and the Conservation of Resources (COR) (in terms of developing a resource canvas) (section 2.8) will be utilised to explain and make predictions about employee burnout in terms of the job resources that can aid CCRs to buffer the effects of job demands (such as EL) on the strain experienced (i.e. burnout).
of physiological and/or psychological costs (Bakker, Demerouti & Verbeke, 2004).

On the contrary, job resources foster work inspiration and encourage adaptive work actions during the motivational process (Schaufeli & Taris, 2014). Job resources are referred to as physical, psychological, social or organisational features within the workplace that can function in accomplishing work goals, decrease job demands (associated with physical and emotional costs) as well as enhancing personal growth and development (Bakker et al., 2004; Schaufeli & Taris, 2014; Schreurs, De Cuyper, Van Emmerick, Notelaers & De Witte, 2011). Job resources such as feedback, social and/or supervisor support can aid in increasing the capacity to sustainably meet certain job demands. Furthermore, the JD-R model can virtually be related to all occupations (Bakker, Demerouti & Sanz-Vergel, 2014) as the model’s flexibility allows the model to be applied to any job or work position notwithstanding of the nature of the organisation or industry. Both job demands and job resources reflect clear and definite consequences on both the individual and organisation (Gordon, Demerouti, Bipp & Le Blanc, 2015). Bakker et al. (2004) therefore rightfully points out that jobs containing high work demands will lead to the individual becoming exhausted both mentally and physically when co-existing with limited resources. In fact, the larger the imbalance or ‘mismatch’ between the employee and their work, the bigger the risk of burnout developing (Bakker et al., 2014). According to Bakker et al. (2004) the assumption posed by the JD-R model is that job resources may serve as a buffer to the impact of job demands (i.e. EL) on the strain experienced (i.e. burnout). In a study conducted with over 1000 employees Bakker et al. (2004) established that job demands influenced burnout less when employees possessed certain job resources (e.g. feedback, social/supervisor and/or team leader support, feelings of psychological safety etc.).

Bakker et al. (2004) postulate that, inter alia, social and/or supervisor support, feedback and a sense of psychological safety are possibly the most tenacious job resources within a call centre. Such as to take a case in point, an employee who has feelings of psychological safety within a job environment will encourage them to participate within this environment without the fear of negative consequences. What is more is that through perceived supervisor and/or team leader support, the
employee will feel safe in the sense that there is support as well as trustworthiness from the team leaders and that interpersonal relationships with co-workers exist. Ultimately, within a supportive environment employees are able to open themselves up by taking risks, as they do not anticipate negative sanctions if they would fail in innovative and creative actions (Crawford, LePine & Rich, 2010). Saks (2006) and Dollard, Dormann and Zimmermann (2009) corroborate this by suggesting that supervisor support and psychological safety (an organisational resource that influences the work context), respectively, are two forms of job resources in the JD-R model. These resources both provide additional vitality to accelerate practices, like decision-making and spare both time and energy to invest in future processing or activity (Gordon et al., 2015).

The potential for relating the principles of the JD-R model in call centre situations consequently turns out to be clear: when and if CCRs are exposed to high emotional job requests/demands (i.e. EL) on a persistent basis, and on the premise that they encounter a shortage of job resources (i.e. lack of psychological safety and/or lack of support) from their environment, the likelihood that burnout (i.e. EE) will progress, increases. As is evident from the above, the JD-R model could thus serve as a good framework and an important theoretical grounding in which to contextualise the Spies-Kotzé burnout structural model, proposed in this research, in terms of resources.

2.7.1 Supervisor Support

Within the call centre environment, general business is mediated by technology with telephone-based interactions. This permits customer-employee interaction allowing instant access to, and inputting of various pieces and types of information. This interaction rarely allows employees to do as they please but rather leads them to frequently report to, and interact with their supervisor. Their interaction with their direct supervisor is imperative to ensure regular reporting and updates as their supervisor monitors certain performance areas. Key performance areas (i.e. KPA’s for the employee) entails the CCR to adhere to timeous and accurate sign off of timesheets, constant monitoring of real-time business intelligence reports, timeous action based on data and trends, as well as adhering to scripted conversational rules
and instructions on what to say and how to act (D. Oostendorp, personal communication, 15 September 2016). Support therefore becomes an important factor to consider when taking into concern the nature of the service industry. Xanthopoulou, Bakker and Van Velhoven (2010) state that research on support within the working environment has been increasing due to the effects that it has on an individual’s health and well-being as it can lessen and/or eliminate the impact of stress, EL and role overload. As a result of an increase in research, there has also been an increase in the number of treatment and intervention programs that use support as a form, or as the basis of assistance (Tjosvold, Chen, Huang & Xu, 2014).

The CCR and team leader relationship is an important contributor of the CCRs daily performance. This relationship involves the supervisor of the CCR acting as a team leader. The team leaders’ role and function they fulfil is therefore to manage a team of CCRs (usually up to 15-20 CCRs per team leader) in order to achieve operational and performance objectives. This is to contribute to reaching organisational goals, such as, for example, that a professional company image is at all times shown by CCRs. Certain characteristics unique to call centres, such as capturing the data on the number of calls answered, strict time schedules (including lunch and facilities breaks), quality assurance of the conversation with customers, as well as product knowledge, are all overseen by the CCRs respective team leader. According to Deery, Iverson and Walsh (2010) these pervasive characteristics invariably allow the CCRs to have little control over their work. The nature and characteristics of the relationships (i.e. between supervisors/team leaders and CCRs) can therefore have an influence in the way in which CCRs experience/perceive the workplace.

Moreover, Hobfoll and Vaux (1993) suggested that support should be viewed as a meta-construct with three sub-constructs. These sub-constructs include a) creating supportive network resources, b) supportive behaviour and c) subjective appraisals. Together these sub-constructs provide stable support for the individual, as well as contributing to the employee’s well-being, by providing a dyadic relationship between the supervisor and employee. The individuals’ subjective evaluation of support is important to consider as a sub-construct of support as

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10 Subjective appraisal of support refers to an individual's personal evaluation of the available support.
employees who report having more support are less vulnerable to burnout than those who do not (Ju, Lan, Li, Feng & You, 2015).

Moreover, support that is given to CCRs can be seen as a straightforward resource in the sense that it is functional in helping to achieve work goals, as well as alleviating the influence of work overload and the strain experienced by CCRs (Bakker & Demerouti, 2007). Bakker and Demerouti (2007) further state that support can protect employees from the “pathological consequences of stressful experiences” (p. 315). Support is therefore a valuable work resource in helping CCRs effectively perform their work. For the purpose of this study, the source of support such as Supervisor Support (SS) will be focused on, as it remains a fundamental aspect within the service industry. SS is defined as the individual’s expectation/perception of the “extent to which the organization values their contribution and care about their well-being (Mishra, 2014, p.847). Moreover, according to Bakker and Demerouti (2007) this level of support can buffer the influence of the job demands on the levels of burnout experienced by CCRs.

Furthermore, within the call centre context, it is a well-known fact that team leaders tend to be former CCRs that have been promoted. This can sometimes constitute a difficult transformation for team leaders and their former colleagues. The team leader now has a supervisory/leadership responsibility, and therefore they might preserve a strong like-mindedness to their respective CCRs, making the changeover quite challenging (Burgess, Connell, Hannif & McDonnell, 2013). Consequently, it has been reported that team leaders commonly experience that there is some uneasiness over the contradictory roles of having to impose strict organisational procedures, and at the same time necessitating to keeping CCRs motivated and driven. Burgess et al. (2013) corroborate this by stating that a team leaders’ role may therefore have an impact on the strain of CCRs, both with regards to their particular role and the CCRs in their team.

According to D. Oostendorp (personal communication, June 25, 2016) the level of support from the team leaders given to CCRs may determine their psychological well-being, in terms of the degree of EE experienced. This is due to the fact that in a customer driven call centre setting, certain activities are performed by the CCRs
exclusively, but the actual business is fundamentally group/team based. Team members work for the same business customers and perform comparative activities under the same team leader.

For example, in a particular inbound call-centre of a financial services company, each CCR is responsible for the same customers requiring a loan disbursement and each CCR completes this activity under the supervision of the team leader. Comparative activities also include capturing personal financial information of the customers such as salary, debt, household income and expenditure, as well as being able to handle objections in an appropriate manner that achieves results and promotes a positive customer experience. Due to these comparative activities, CCRs exchange information about customers, increasing their shared feelings and knowledge amongst themselves and their team members. Consequently, within the context of call centres, this team cohesion speaks to a meaningful level of analysis in which peer relationships, and the relationships with the team leader, are structurally, mentally and socially embedded.

2.7.2 Psychological Safety

Psychological Safety (PS) was described by Kahn (1990, p. 708), as a feeling when an individual is willing “…to show and employ one’s self without fear of negative consequences to self-image, status or career”. It is the feeling that a person will experience in the sense that he/she is willing to take interpersonal risks that will not result in embarrassment, mockery or humiliation. This will enable them to participate, associate, transform and learn within the workplace (Wanless, 2016). As opposed to being repressed by tension and identity management, employees can focus on initiating and finishing goals, paying little attention to the inconvenience and discomfort that accompanies new encounters and ideas which they might have. PS may be pertinent in the light of the fact that it empowers employees to utilise their

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11 This service and/or product typically speak to the nature of the business of the sample that was used in this research. The company offers contact centre-based, technology-driven, cost effective and accessible financial services, products and solutions to customers. It is a registered credit provider with the National Credit Regulator of South Africa.
organisation (i.e. gain knowledge, information, learn etc.) that could impact the way employees develop (Wanless, 2016).

According to Wanless (2016) organisations play a critical role within an employee’s capability of directing their development of experiences and adaptations. Edmondson, Higgins, Singer and Weiner (2016) reaffirm this by stating that PS is imperative for facilitating learning and change. This is especially true in work contexts characterised by high stakes and vital human interactions, as it will assist people to overcome these hindrances to learning and change in interpersonally difficult work contexts. Learning within a call centre environment can thus be seen as a continuous procedure of reflection and activity portrayed by asking team leaders and/or co-workers questions, looking for feedback/input, reflecting on results and debating unforeseen/unexpected results of certain actions (Abbott, Guchait, Lee & Wang, 2016). Therefore, the chances of learning from mistakes within the workplace would increase when CCRs are ready to confront their mistakes directly, as opposed to covering it up because of interpersonal and reputational risks coupled with facing their miscalculations. Basically, interpersonal risks/threats will therefore hinder the CCRs learning conduct. CCRs can gain an advantage from learning, as mistakes speak to a type of negative feedback proving significant information to employees about how to change ones’ course of action, gain information on different error circumstances, and build up a superior understanding of the specific condition(s) that resulted in the mistake (Abbott et al., 2016).

It is argued, therefore, that employees should be able to participate within a call centre environment without the anxiety of negative costs associated to their self-image, status or occupation (De Jong, De Ruyter, Schepers & Wetzels, 2008) and thus shaping how they represent their roles as CCRs. This would mean that for a CCR, they would assess PS as the degree to which they view their working environment and perceived roles as favourable to interpersonally risky behaviours, such as talking up or inquiring for help. A CCR will feel “mentally safe” (De Jong et al., 2008, p. 759) within a workplace where speaking up to co-workers or supervisors will not result in personal harm or rejection. CCRs will therefore encounter a feeling of PS as they would have the self-assurance to freely speak up, and are not obliged
by the likelihood of others’ (i.e. co-workers and/or team leaders/supervisors) dissatisfaction and/or the negative personal costs that may subsequently accrue to them. De Jong et al. (2008) concede that this feeling ought to remain constant for a wide range of discussions with co-workers and supervisors, ranging from an individual discussion, to addressing errors in their work within the call centre environment.

Based on the line of reasoning suggested, it can be reasoned that a psychologically safe environment is one whereby employees have interpersonal trust and shared admiration for each other (Abbott et al., 2016). CCRs will have the discernment that they can be happy and comfortable being themselves and that their group (i.e. co-workers and team leaders) will not humiliate, dismiss or rebuff them for talking up (i.e. conceding a mistake that they made). While errors can be seen as a rich source of learning from ones mistakes, it also tends to additionally provoke fear amongst CCRs as others might think of them as inept and thereby harming their reputation (Dawson, Guchait & Pasamehmetoglu, 2014). In fact, these factors reassure CCRs to remain quiet, disregarding the point that their silence is damaging their service quality to customers and overall organisational functioning (Dawson et al., 2014). Within a call centre context, enhanced feelings of PS may therefore diminish obstructions to engagement and permit employees to unreservedly associate and interact within the organisation as a whole (Wanless, 2016). Edmondson et al. (2016) and Wanless (2016) rightfully points out, that PS can thus be viewed as a remarkable resource in the workplace in which learning and service quality matters.

Enhancing the feeling of PS will create a work environment whereby the CCRs consider that they are and feel more psychologically safe. This perception stems from the fact that they believe they will not be blamed, humiliated and/or experience certain consequences when mistakes do occur, and are revealed. This means that interpersonal trust and respect amongst team leaders and/or co-workers should also contribute to enhancing a CCRs perceived PS. Therefore the CCR will have more support in the form of access to data and resources that would prevent self-doubt and defensiveness of a CCR. According to recent research, Hernandez, Luthanen, Ramsel and Osatuke (2015) state that an increase in PS is linked with increased
levels of employee commitment and engagement. Team leaders can thus contribute to fostering a working environment of collaboration and support. This collaborative and supportive work environment can influence a CCRs perception about their value of contribution to the workplace as well as a belief that the workplace (in other words, their team leaders) care about their well-being and hence further enhance their feelings of PS (Abbott et al., 2016). CCRs, who henceforth report more SS, would have more personal resources that could be utilised to enhance their own performance and help other people (Abbott et al., 2016; Hernandez et al., 2015).

Support from team leaders includes individual consideration, coaching and assistance, to better aid CCRs to fulfil their role and job obligations. This supportive behaviour from team leaders such as offering work-related support in the effort to complete their duties will “…enhance an employee’s perceptions of supervisor support, which serves as a job resource” (Abbott et al., 2016, p. 5). This in turn reduces the CCRs work strain and enriches their well-being, causing them to engage more in helping behaviours and enhanced performance levels. By gaining more support, CCRs are more likely to get additional job resources that permit them to manage work related anxiety, understand customer issues and problems, and to enhance their service execution. Moreover, Abbott et al. (2016) confirm this by stating that support also involves “…emotional support, consideration, useful customer information, and directive guidelines” (p. 6). Consequently, the more psychologically safe CCRs feel, the more they are inclined to embrace failure and deal with the consequences of speaking out. By embracing this, CCRs will feel more connected to their team leaders and their support given, as they have shared goals which are linked by mutual respect permitting them to carry out their duties and roles in an open and honest work environment. It thus creates a positive work context in which CCRs feel safe to accomplish their organisational goals (Abbott et al., 2016; Carmeli & Gittell, 2009).

Once a CCR feels psychologically safe, it could be argued that the perception of accessing their support networks will increase as the perceived support and the amount of care given to the CCRs from their team leaders is evident within this psychologically safe environment. Thus, having a feeling of PS will help CCRs seek
out their team leaders for advice, feedback etc. (Saks, 2006). Team leader support and/or SS thus appear through the condition of the CCR experiencing PS. This is described as a supportive environment that an employee can contribute towards, without the distress of undesirable consequences. By experiencing PS, the CCR feels safe in the sense that there is support, trustworthiness and an interpersonal relationship with their team leaders. Once CCRs feel psychologically safe they will be more willing to ask for support from their team leaders. CCRs will be more prone to engage with their respective team leaders in the sense that they feel supported in order to approach them by asking questions, pursuing feedback, reflecting on outcomes and talking about their mistakes without dire consequences.

It is argued, therefore, that the more psychologically safe a CCR feels, the likelier he/she would be to access their support networks (i.e. SS). Stemming from this, one could argue that PS can be viewed as a resource for CCRs to utilise. Using it as a resource on its own, the CCR thus perceives a likelihood of more positive outcomes of support, as there is no reason for CCRs to fear the outcomes of speaking up and engaging in risk taking behaviour that is essential for learning. CCRs are able to use this resource and open themselves up by taking risks, as they do not anticipate negative sanctions if they would fail in innovative and creative actions (Crawford et al., 2010). Therefore, PS experienced by the CCR will have a positive impact on the access of their network of SS. Consequently, the following hypothesis will be tested in the present study:

**Hypothesis 8: Psychological Safety has a positive linear relationship with Supervisor Support.**

### 2.8 Conservation of Resources theory

The Conservation of Resources (COR) theory is fundamentally propositioned as a theory of motivation and can be used to explain the significance of resources such as PS and SS, and the effect these resources could have on a CCRs level of burnout experienced. The essential precept of COR theory is that people are inspired to secure their present resources, as well as attain new resources (Halbesleben, Neveu, Paustian-Underdahl & Westman, 2014). Resources have been categorised within four categories namely; objects (e.g. physical assets), individual
assets (e.g. self-esteem), and conditions (e.g. SS) or energies (e.g. emotional energy) (Hobfoll, 2001). These resources are appreciated as they serve as channels to safeguard valued resources. The values of resources tend to fluctuate between individuals and are attached to the individuals’ personal encounters and circumstances, which may be particularly critical in hindering the development of burnout (Hobfoll, 1989). The use of the word ‘value’ proposes that a resource ought to prompt a positive result in order for it to actually be regarded as a resource. Halbesleben et al. (2014) consent to this by alleging that defining resources can be “anything perceived by the individual to help attain his or her goals” (p. 5). Halbesleben et al. (2014) and Hobfoll (1989) further argue that it is imperative to emphasise that the focus should be on the perception that a resource could support an individual to achieve an objective, and not that a resource was merely fruitful in enabling goal achievement.

From the essential precept of the preservation and acquisition of resources, a few principles of the theory are pertinent. The first is the *primacy of resource loss* (Hobfoll, 1989). This centres on the notion that it is mentally more detrimental for individuals to lose assets than it is useful for them to obtain resources. Hobfoll (1989) suggest that losses of resources within the work environment will have a greater effect than those equally valued resources that are gained (e.g. forfeiting a decrease in pay will be more hurtful than the same increase in pay would have been useful). Thus, employment-related resource gains, such as for example, getting a job subsequent to being unemployed for a long time, will take on a more noteworthy importance with regards to the context of resource loss (Halbesleben et al., 2014; Hobfoll, 1989).

As an expansion of the preservation view of COR, the second principle is *resource investment* (Hobfoll, 1989). This implies that people are willing to invest resources so as to protect themselves against resource loss and to recuperate from their losses, as well as to gain additional resources. Resource loss has principally been associated to understanding concepts such as stress and strain (Halbesleben et al., 2014; Hobfoll, 1989; Hobfoll & Vaux, 1993). Thus when resources are lost, debilitated or there is a disappointment of a lack of increase in resources after the
initial investment, strain will occur (Alarcon, 2011). Alarcon (2011) reaffirms that when individuals lose resources within the workplace, they are more predisposed to experience tension in the form of burnout. However, this principle has a motivational component also, endorsing that people will take part in behaviours that circumvent resource loss, since loss can have such a significant negative effect on well-being (Alarcon, 2011).

Hobfoll (2001) goes on to explain that the COR theory expects that resource loss serve as the primary component in stress development. The COR theory is centred on environmental and cognitive processes associated with the availability and use of resources (Hobfoll, 2001) as individuals endeavour to acquire, construct and safeguard that which they value (Alarcon, 2011). Due to this attempt, psychological stress according to Hobfoll and Lilly (1993) can occur in any of three circumstances (1) when people’s resources are lost; (2) when their resources are exposed to loss and; (3) when people fail to acquire additional resources after they have devoted other resources in order to gain more. What is more, because employees “strive to obtain, retain, and protect resources” (Hobfoll & Lilly, 1993, p. 130) individuals will proactively exert themselves in order to assemble their resources. If this so called investment in individual resources, does not achieve the desired outcome and/or gain, the consequences for the individual is stressful (Hobfoll & Lilly, 1993).

Furthermore, and apparent within the service environment, employees (i.e. CCRs) are constantly faced with work demands. These work demands include tasks such as providing support to the client (customer related) and at the same time answer however many calls as could reasonably be expected (workload) and therefore CCRs encountering pressure and/or role conflict (Abbott et al., 2013; Benner et al., 2007). Similarly, CCRs could view these work demands as a resource loss, since they have to put in endless measures of resources in an attempt to satisfy such requests and/or demands (Halbesleben; 2006; Hobfoll & Lilly, 1993). Halbesleben (2006) further proposes that stress resulting from an employee’s threat to their resources, the actual loss of resources and the insufficient gain of resources will eventually lead to burnout, over time. This is especially true in light of the fact that
job demands that deplete a CCRs resources (i.e. resulting in less resources), are more likely to be related to emotional distress, than resources which are gained.

Resource loss therefore has a negative impact on well-being (Halbesleben et al., 2014). When disparity between the demands and resources exist, stress will be inflicted on the employee. Burnout can thus be seen as a result of resources (i.e. energy) which are lost or when resources are insufficient to outweigh the burden experienced by the individual. The less resources an individual has, the more they will go into a spiral loss that implicates their well-being. In order to face demands, Halbesleben (2006) and Halbesleben et al. (2014) argue that employees will use the resources at their disposal in order to uphold positive interactive relationships with their customers. As a result, the likelihood exists that these work demands can exhaust an employee’s energy resources and thus contribute to burnout (Halbesleben, 2006; Halbesleben et al., 2014).

Furthermore, in an endeavour to clearly represent the nature of resources, Hobfoll empirically established a list of 74 resources pertinent to the COR model (Halbesleben, 2006). Specifically, resources that are imperative within the discussion of burnout and within the call centre context are SS and PS. These resources are viewed as important resources for employees to attain further well-being. Given the call centre environment, CCRs are constantly required to report to and cooperate with their corresponding team leader. Acknowledging a CCRs daily function, the sort and degree of support offered to them by their team leaders, constitute an imperative facet within their working environment. To put it in another way, the relationship between a CCR and their team leader could therefore be an important contributing factor to the psychological well-being of CCRs. In terms of burnout and support, Halbesleben (2006) argues that the principle of the *primacy of resource loss* argument explains probable dissimilarities in the relationship between support as a resource and burnout as a strain. In other words, work demands will in all likelihood trigger strains and then again, resources will aid the individual to cope with strain and thus lessen the probability of burnout (Halbesleben, 2006). Hence, SS is operational as it enables the reinforcement of positive characteristics (i.e. widen an individuals pool of resources, lower burnout, reinforce positive images of oneself, emotional
support etc.) in CCRs, when stressful times have resulted in CCRs not being able to cope due to a lack of resources.

More specifically, it is argued in this study that support and the impact that it could have on well-being can be categorised in two ways as having a direct and moderating result on the elements of the burnout process. SS can act as a moderator or buffer between EL (i.e. the stressor) and burnout (i.e. the outcome). This implies that the moderating effect will occur by lessening and/or buffering the effects of the demands of EL on EE. What is more is that SS could also have a direct or main effect on stress as it is acknowledged as a resource that helps CCRs to cope with stress. This stress could directly be caused by EL, as it is well known that the demands of the service industry require that CCRs draw on their personal emotional resources to adhere to organisational rules/norms, thus increasing the potential for felt EL (Duke, Goodman, Treadway & Breland, 2009). In other words, CCRs are likely to perform EL, as a response to the emotional job demands, resulting in CCRs experiencing emotionally stressful situations on a regular basis. The specific expectations and demands proposed by the organisation (i.e. CCRs showing positive emotional displays to customers) result in CCRs constantly having to regulate their emotions and in the process perform EL. Subsequently, this continuous emotional regulation exerts both psychological and physical effort leading to elevated levels of distress (Bono & Vey, 2005; Chu et al., 2012). EL is therefore a type of stressor resulting in negative consequences in well-being for the CCRs. However, obtaining team leader support can alleviate this stress as team leaders within a call centre environment often serve as the first line of management to CCRs and can provide support by reducing this emotional strain (Ito & Brotheridge, 2003). In other words, gaining SS as a resource should reduce the strain caused by EL, as CCRs will be able to better cope with the demands (Ito & Brotheridge, 2003).

For example, Ju et al. (2015) showed that employees with more support (i.e. work-related support) networks that can offer support, such as psychological and material resources (i.e. direct help and affective support), have better mental health than those with fewer support networks. Furthermore, highlighting this point, it is evident that CCRs who have a supportive team leader are less vulnerable to burnout than
those who do not. For example, Kahn, Schneider, Jenkins-Henkleman and Moyle (2006), investigated the relationship between support and burnout on a national sample of 339 participants, revealing that support was negatively related to EE.

Consequently, CCRs who are confronted with emotional demands are obliged to utilise their emotional energy to viably and effectively manage customer needs, for example. In the call centre environment, a team leader’s support to the CCRs is imperative for well-being as it shares a direct relationship with their work demands. In addition, the typical work demands accompanying a CCRs employment is that the social interactions with the customers is interrelated and play a central role in the CCRs work. According to Ju et al. (2015) receiving support from team leaders within the work environment is related to the CCRs health as support is a resource that assists individuals to manage with stress.

Brotheridge and Lee (2002) further investigated the COR model as applied to the dynamics of EL. They established that the effect of EL on EE could be reduced when employee’s experience a high degree of SS as such support may aid employees in recovering some of their lost resources. It can therefore be proposed that even though EL results in EE (Brotheridge & Lee, 2002), the association however is influence by, inter alia, team leader support. Support also has a direct and negative affect on EL (Ju et al., 2015). Consequently Ju et al. (2015) allege that support can serve as an imperative protective factor in precluding burnout, as those who report having more support are less susceptible to the demands of EL than those who do not. Accordingly, the following hypotheses can be stated:

**Hypothesis 9: Supervisor Support has a negative linear relationship with Emotional Labour.**

**Hypothesis 10: Supervisor Support moderates the relationship between Emotional Labour and Emotional Exhaustion.**

The focus of providing a psychologically safe environment within the context of call centres is imperative, as the conditions for the development (e.g. gaining knowledge, learning, team member collaboration/support, creative thinking etc.) of CCRs is essential to achieve their work goals. According to Edmondson and Lei (2014) the
development of employees is fostered by the positive relationship between perceived PS and learning behaviour. Newman, Donohue and Eva (2017) corroborate this by stating that employees who feel safe in taking risks (e.g. voicing their opinions, new ideas/creative thinking) will foster both team and individual learning. This implies that employees will feel safe in taking interpersonal risks within the workplace without the fear of judgment, humiliation etc. Additionally, according to research PS can be seen as a contributing factor to personal engagement/disengagement at work as well as contributing to overall organisational performance (Edmondson & Lei, 2014).

Furthermore, when a CCR is required to make a decision they will engage in a behavioural decision that assesses the degree of consequence that that action and/or decision will result in. Based on the perceived consequences, the CCR will decide whether they should proceed or retract from the given situation. CCRs would therefore assess the applicable consequences and internal risk associated with their behaviours (Edmondson, 2002). Feelings of PS among CCRs can create an atmosphere in which the attention can be on productive discussions. Edmondson (2002) therefore suggest that the achievement of shared objectives among CCRs will increase, as they would be less inclined to concentrate and focus on self-protection. This also alludes to the fact that when positive or perceived PS is present, it would increase the overall well-being of the CCR and reduce their perceived stress of providing customer service, for example (Dollard et al., 2009).

Moreover, a number of studies have revealed that there is a strong and positive relationship between PS and work attitudes of individuals in terms of investing their personal resources. In line with this reasoning individuals with a higher perception of PS are also more likely to engage in “work arounds” (Newman et al., 2017, p.527) that is described as those employees who engage in work practices to deal with blocks in workflow (i.e. task conflict, lack of trust, uncertainty etc.). This means that CCRs, who perceive higher PS in the workplace, will be more likely to engage in proactive behaviour resulting in positive outcomes/better well-being for the organisation and team members. It is therefore plausible to suggest that PS is an important organisational resource incumbent to CCRs.
Taking into consideration the COR theory, Hernandez et al. (2015) is of the opinion that when employees whose personal/job resources are not enough to deal with work stressors and/or demands, can face emotional tiredness/strain. PS can be regarded as an important organisational resource that could buffer the development of burnout in various phases. It is argued in this study that high levels of DP would lead to a reduced sense of PA\(^{12}\), which would lead to an employee becoming less productive within the workplace causing a host of further negative outcomes for both the CCR and team members (Hernandez et al., 2015). When an employee experiences emotional demands, they are more likely to preserve their resources in order to offset the emotional demands and thereby “withdrawing from interpersonal relationships and work tasks in an effort to conserve resources” (i.e. DP) (Hernandes et al., 2015, p. 37). Therefore in the case when an employee experiences emotional tiredness, leading to them to experience DP, the amount of PS they perceive, would result in how ‘quickly’ PA will occur. This implies that when an employee feels safe at work, they would be more willing to take the risk of engaging in self-expression and not withdraw from interpersonal relationships (Wanless, 2016). This alludes to the fact that when employees experience emotional strain resulting in DP, higher PS would help them to not withdraw from their work resulting in the employees not developing a lack of PA from DP as they have PS as a resource to buffer this development (Day, Crown & Ivany, 2017).

For instance, a CCR who perceives high PS would not develop a lack of PA (reduced feelings of efficiency) as high PS would serve as a resource minimising the negative effects of the emotional strain/demands causing CCRs to withdraw (i.e. DP). Consequently, high PS can also aid a CCR to be more willing to engage in proactive behaviour as oppose to withdrawing and depersonalisng themselves (PS serves as a resource enabling proactive behaviour) thus resulting in the development of PA from DP to be slower. Hence, when a CCR experiences DP, wanting to withdraw, because they feel ‘unsafe’, PS would buffer CCRs from doing this (as there is no further threat or loss to their personal resources), thus resulting in a ‘slower’ development of PA from DP. On the contrary, when an individual does not

\(^{12}\) As previously discussed in section 2.5, the progression/sequencing of burnout is characterised by high levels of DP leading to reduced feelings of PA (Maslach et al., 2001).
experience PS, the perceived vulnerability in engaging in interpersonal risks and withdrawing from their work (due to feelings of an ‘unsafe’ environment) will increase, resulting in feelings of reduced PA developing faster. Kahn (1990) corroborates this by stating that when the feeling of PS is not present, CCRs would be more prone to “guard their selves by withdrawing when they felt unsafe’ (p. 713).

PS as such, will therefore buffer (serving as a resource to the CCR) the effect of PA from DP. Consequently, it is plausible to suggest that PS would slow down the rate at which the lack of PA would develop from DP if the CCRs have high feelings of PS. PS will thus have a moderating effect on the relationship between DP and PA. The following hypothesis can therefore be formulated:

**Hypothesis 11: Psychological Safety moderates the relationship between Depersonalisation and Personal Accomplishment.**

Additionally, PS has been shown to be directly, and negatively related to the EE component of burnout (Bedi, Courcy, Harvey & Paquet, 2012). This is due to the fact that perceived PS by the CCR serves as a means of explaining an individual’s motivational and/or emotional reaction to their working environment. This means that an employee will have a positive reaction towards their working environment and will be more willing to engage in tasks beneficial to the organisation and/or their team members. The perception of a safe work environment by the CCR can thus have an impact on their well-being (such as burnout).

Therefore, it could be argued that if a CCR experiences a lack of PS, some form of strain will be experienced by the CCR, as they might not have the attitude towards expressing their thoughts and/or engaging in risks (e.g. unwillingness to explore new situations, fear of being embarrassed, seek feedback or come up with a new ideas). By not showing this willingness to express their thoughts and/or engage in risks, a CCR cannot get the necessary feedback and support from their co-workers and team leaders, and therefore forfeit the opportunity to learn from mistakes. This could in effect result in strain and impaired coping responses from the CCR as they might struggle to make sense of their demanding situations, and how to more effectively cope with it. This struggle speaks to the fact that CCRs will not be prepared to ask
their team leaders for encouragement and feedback, for example, as they perceive some form of judgement and/or humiliation resulting in them not being able to clarify their demanding situation. Demanding situations could include a difficult customer, confusion regarding the script and/or misunderstanding about a loan disbursement (D. Oostendorp, personal communication, 28 March 2017). Therefore, by not perceiving an environment that is high in PS, a continual loss of emotional and individual energy will result for the CCR (Bedi et al., 2012). This is because their interpretations or perception of an ‘unsafe’ working environment may further strain their coping resources, thus causing stress reactions (i.e. heightened levels of EE) (Bedi et al., 2012).

Furthermore, and according to the JD-R model, job resources may serve as a buffer to the impact of job demands (i.e. EL) on the strain experienced (i.e. EE) by employees. PS could therefore be viewed as an imperative job resource and a malleable organisation circumstance, as it is regarded as one of the most tenacious resources within the call centre environment (Bakker & Demerouti, 2007). It can therefore be argued, that when CCRs are exposed to high emotional job demands (i.e. EL) on a persistent basis and on a premise that they perceive a shortage of resources, this will result in EE. However, when CCRs have access to a safe environment (i.e. increase in their perceived levels of PS), they may perceive the stressors from EL, as less intense as they are more likely to feel protected against the resource gained from feelings of PS. Consequently PS could aid the CCR in finding coping resources to deal with the EL stressors in their job, thus lessening the effect of EE from EL. Hence, in the event that employees have to engage in EL and experience stress due to regulating their emotions, PS as a resource would buffer the development of EE from EL. Based on these findings the following hypotheses can be formulated:

**Hypothesis 12: Psychological Safety has a negative linear relationship with Emotional Exhaustion.**

**Hypothesis 13: Psychological Safety moderates the relationship between Emotional Labour and Emotional Exhaustion.**
2.9 Emotional intelligence (EI) as a coping regulator

One of the major influences shaping the bottom line of a call centre is the excellence of interpersonal interaction between customers and CCRs (Lee & Ok, 2012). This interaction is critical in satisfying customers, and is shaped by positive approaches and emotions displayed by CCRs. During service encounters positive attitudes can produce a favourable impression on customers and consequently, purchases/business to the call centre will remain (Lee & Ok, 2012). It is due to this fact that most call centres in today’s exceedingly competitive industries “…have begun to focus heavily on managing their employees’ emotional behavior” (Lee & Ok, 2012, p. 1011). As a result, this advocates implicit and explicit presentation rules for CCRs to appropriately express their emotions during customer interactions. This successful management of customer relationships rests with the CCR. It should however be noted that the type and nature of the call centre also depends on how this relationship should be taken into account. For example, a job position such as a New Business Consultant within a call centre entails providing instant call solutions to customers in a proficient manner and with an encouraging attitude (A. Daniels, personal communication, 3 October 2016). CCRs in this department serve as the first impression and first line of contact the customers interact with. CCRs are thus given the responsibility to deal with customers and create a positive climate for those buying and using the organisations service and/or product. CCRs are therefore expected to comply with interpersonal demands such as displaying positive emotions at high frequency and with high intensity in customer interactions.

Additionally, it is a commonly assumed fact that occupations involving “people work” will result in taxing demands on employees. These occupations involve jobs that are

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13 A New Business Consultant role entails providing immediate call solutions to customers in an efficient manner while upholding a positive attitude, thereby portraying a professional company image whilst striving for customer satisfaction. The CCR is required to achieve and maintain good quality assurance scores by making calls to customers who have applied for a loan. They also serve as the first point of contact to customers and thus need to specifically conduct telephonic interaction with the customer in accordance with the script and company policies. Careful consideration needs to be given to capturing the customer’s information correctly on the system and close the call professionally. In addition to this, they need to remain friendly and always have a smile on their face and deal with the customers professionally, especially after affordability assessment has been done and the customers are not eligible for a loan.
deemed as “high emotional labour” and “high burnout jobs” (Lee & Ok, 2012). According to Lee and Ok (2012) contemporary service organisations strive to become unique in order to outlast in globally competitive industries and thus aim to sell their products and/or services as ‘service with a smile’. This so-called ‘friendly service’ can ensure that business will be repeated, as the perception of the quality of service is positive. Business within a call centre environment involves frequent management of customer relationships. It is thus proposed that individuals who tend to be more ‘tuned into’ their emotions will have a more positive social cooperation with others as they engage in their ‘service with a smile’. They will therefore wilfully help other people and are seen as great colleagues within the work environment since they are able to understand social cues (i.e. emotional expression and behaviour) in communication (Lee & Ok, 2012). In order to comply with the expectations for positive emotional displays CCRs have to regulate their emotions. Employees in the service industry are therefore performing EL (see earlier definition) in return for a wage, in addition to accomplishing cognitive and physical work roles that are inherently part of the job. These so-called emotional regulation strategies could be detrimental to the health of service employees. Bedi et al. (2012) consequently states that these emotional regulation strategies do however become detrimental when a CCR constantly supresses their true emotions or when they fake them.

Based on the unique nature of call centre work, it is argued in this study that Emotional Intelligence (EI) could be viewed, as an important coping regulator for CCRs. EI comprises the capability to be able to identify individual feelings, to encourage and manage your own emotions, as well as recognise the emotions in other people. According to Caruso, Mayer and Salovey (2004) EI is regarded as part of a class of intelligences (i.e. social, practical and personal intelligence). EI therefore deals with emotions that are related to matters of personal and emotional importance to an individual. There is however no general agreement on the definition of EI, although Caruso et al. (2004) suggest that a suitable scientific delineation should include EI as a form of typical intelligence that functions on and/or with emotional data. Lee and Ok (2012) described EI as “…the ability to perceive emotions, to access and generate emotions so as to assist in thoughts, to
understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth” (p. 1102).

EI is considered as an adaptive emotional functioning that individuals utilise (Loi & Schutte, 2014). Higher levels of EI are connected with an assortment of constructive and positive intrapersonal and interpersonal outcomes. These outcomes include better well-being, greater mental health, more cooperative behaviour as well as interpersonal relationships (Loi & Schutte, 2014). In a meta-analysis by Loi and Schutte (2014) employees with a higher EI also displayed better job performance and engagement. Individuals with a higher EI have an improved sense of control that they feel they have over their work, which is associated with better mental health. Higher EI therefore has been shown to have significant health benefits for an individual.

Various studies (e.g. Caruso et al., 2004; Ju et al., 2015; Lee & Ok, 2012) have revealed that the functional qualities of EI have a considerable effect on EI. Individuals who are emotionally intelligent are more capable of adapting and maintaining flexibility with regards to modifying their emotions depending on certain demands, than others who are not. Consequently, individuals who are able to maintain their ability to monitor their emotional expression will be more cognisant of what emotions are, thus anticipated and/or (un)acceptable in a particular situation and in any interpersonal interaction. Those who are able to effectively apply emotional strategies to regulate their feelings to affective states are also consequently able to make better decisions during stressful times and utilise these skills required for applicable social behaviour (Ju et al., 2015). This suggests that employees with a higher EI will effectively associate their genuine feelings with encouraging emotional displays as they are more capable of rapidly resolving and discovering the conflict between their felt and communicated emotions. It is therefore argued that employees working in the service industry (i.e. CCRs) need EI to a certain degree in order to successfully perform their jobs (Lee & Ok, 2012). Moreover, CCRs who have a higher degree of EI are thus more sensitive and emphatic to the feelings of their colleagues. Acknowledging this, Lee and Ok (2012)
hold the view that, the positive elements of EI can change CCRs EL behaviour and may as a result reduce the burnout experienced.

Furthermore EI can be considered an important individual difference as well as an imperative resource to have in terms of well-being. According to Ju et al. (2015), EI ought to be deliberated as “an individual-difference variable that moderates stimulus-behaviour linkages” (p. 22). EI can, for that reason, be related to more adaptive stress-coping approaches (Görgens-Ekermans & Brand, 2012). Stress is not a direct outcome of the actual source of stress, but rather, it is based on the judgement of the stress that is perceived by an individual. EI, as an individual difference, has been shown to influence the individual’s reaction and capability to efficiently deal with stress (i.e. organisational demands) (Ju et al., 2015).

Moreover, high EI may also be associated with resilience and flexibility. Ju et al. (2015) consequently reasoned that CCRs with a higher EI would be more prone to decrease the probable negative effects of stress and therefore experience better well-being. Corroborating this, meta-analyses that were conducted with 27,713 participants (Martins, Ramalho & Morin and Schutte et el., cited in Görgens-Ekermans & Brand, 2012) delivered robust experiential support for the EI and well-being correlation. Further to this, Görgens-Ekermans and Brand (2012) showed that EI could act as a moderator in the stress-burnout relationship. Görgens-Ekermans and Brand (2012) concluded that higher levels of EI “…such as the ability to better manage positive and negative emotions and to effectively control strong emotions” (p. 2282) may benefit the individual experiencing high intensities of stress, and therefore diminish the onset of certain features of burnout over time. Similarly, a study conducted by Anderson, Ciarrochi and Deane (2002), using a sample of 302 participants revealed that the relationship between hassles (i.e. daily stressors on the job) and suicidal ideation was greater (β = .574, P < .001) among those individuals with a lower degree or skill of managing own emotions than those with a higher ability to manage emotions (β = .180, P < .05).

This, however, raises the issue that it is plausible to argue that individuals who have a higher EI, with the ability to understand and regulate emotions, could in actual fact feel more emotions as opposed to an individual low in EI. This is because those with
higher EI are more prone to understand, manage and control their own, as well as others’ emotions, and are hence predisposed to inherently feel more emotions. EI could therefore bring with it an ineluctable awareness of the emotions of others and may leave an individual more emotionally attuned (Anderson et al., 2002).

In contrast to the benefits of higher EI as a protective factor, it could be argued that individuals with a lower EI in some instances could perhaps be less impacted by stress than those with a higher EI. This line of argument suggest that even though high EI is deemed as a positive resource, it could also be detrimental and in some cases it may be more advantageous to actually have lower EI. According to Anderson et al. (2002), this could be true for two reasons. The first reason is because individuals with a lower emotional perception (i.e. not being able to identify and/or manage and/or recognise your own feelings and those of others) could be moderately oblivious to stress related problems. Alternatively, individuals could however be cognisant of the perceived stress but may not necessarily comprehend that it is in actual fact distressing them and impacting their well-being (Anderson et al., 2002). For example, CCRs that have lower EI might in actual fact miss the emotional cues of clients (e.g. being annoyed), or misinterpret emotions of customers. This means that CCRs would show more of a tendency to not think about thoughts and feelings, therefore being less attuned to the emotions of their customers and/or their own emotions, resulting in reacting less intensely to every emotional encounter. By extension it suggests that individuals under stress, and with a lower perception of emotions and thus circumventing or suppressing their feelings, may reap beneficial effects for their mental health and well-being.

Given the seemingly both possible positive and negative effects that EI could have on well-being, it is prudent to consider the effects of EI on burnout (e.g. EE) by examining and gaining insight into the different EI skills/dimensions, that comprise the EI construct, on their own.

According to Mayer and Salovey (1997), EI consists of four dimensions: (1) appraisal and expression of emotion in self, (2) appraisal and recognition of emotions in others, (3) regulation of emotion in self, and (4) use of emotion to facilitate performance (Mayer & Salovey, 1997). Self-appraisal reflects the capacity to be able
to evaluate the individuals’ own profound feelings and naturally prompt those feelings/emotions. The ability to appraise and recognise emotions refers to the capability to correctly recognise and apprehend the internal and external emotions in other people. The regulation of emotions includes the capability to manage, control and/or alter emotions to enable satisfying feelings and enhance positive emotional states during specific situations causing psychological strain (Lee & Ok, 2012). Another approach to EI is the Genos model of EI. The purpose of this EI model was to define an ultimate EI inventory designed specifically to implement within the work environment (Palmer, Stough, Harmer & Gignac, 2009). The Genos EI model comprises of seven sub-dimensions demonstrating specific EI skills. These sub-dimensions include: (a) Emotional Self-Awareness (ESA); (b) Emotional Expression (EE); (c) Emotional Awareness of Others (EAO); (d) Emotional Reasoning (ER); (e) Emotional Self-Management (ESM); (f) Emotional Management of Others (EMO); and (g) Emotional Self-Control (ESC) (Gignac, 2010).

Taking into consideration these sub-dimensions, Gignac (2010) suggests that a model of EI should integrate psychological aspects that have a direct significance to the association, utilisation and/or controlling of emotions. Given that the process of EI is in some sense a process of emotional regulation, the focus on EI in this context and for this study, will be on the regulation components of EI, as defined within the Genos model of EI (Gignac, 2010). These include Emotional Self-Control (ESC) and Emotional Management of Others (EMO). ESC is aimed at measuring the comparative frequency with which an individual controls strong emotions within the working environment (Gignac, 2010). This dimension is similar to EMO, but with the difference that ESC focuses more on the behavioural demonstration that displays and regulates the reactive emotions, such as resentment and anger at work (Gignac, 2010). On the other hand, EMO is concerned with the comparative frequency with which individuals successfully manages the emotions of others within the working environment. A significant emphasis is placed on the successful adjustment to negative emotional states by creating a positive working environment for colleagues and clients within the workplace.
It is argued in this study that EI as a resource can therefore play a significant role in the experience of EL of CCRs and could alleviate the strain resulting from EL. EI could be essential in order for an employee to be effective within a work environment, such as a call centre, as the regulation of feelings and the expression of emotions is pertinent (Biron & Van Veldhoven, 2012). There are diverse techniques with which employees can deliver the emotional impression necessary in their specific workplace. Many of the discussions of these techniques have previously been outlined according to two emotional regulation strategies, namely SA and DA. SA is the act of mimicking the required feelings without really feeling it, while perhaps at the same time suppressing genuine and less suitable emotions. DA on the other hand defines the depiction of necessary feelings via the adjustment of the individuals’ own internal emotions to truly encounter the required feeling (Hoffmann, 2016).

This implies that by displaying or engaging in DA is an effort to actively try to manage authentic emotions whereas SA encompasses the manipulation of appearances only. Both strategies (i.e. DA and SA) have been differentiated as “faking in good faith vs. faking in bad faith”, respectively (Austin, Dore & O'Donovan, 2008, p. 680). The emotional effort accompanying an employee displaying SA is most likely to be related to work stress, EE and burnout, whereas DA was positively related to PA (Brotheridge & Lee, 2003). Both these strategies involve a mindful and effortful process, but DA could be associated with more positive individual outcomes such as improved identification within the individuals work role (i.e. enhanced job satisfaction and increase in job performance).

EI and EL consequently have clear theoretical relations (Austin et al., 2008). The emotional regulation14 (ER) dimensions of EI (i.e. ESC and EMO) can therefore be considered as individual character traits that could have an impact on an individual’s experiencing of EL (Karimi et al., 2013). It is well documented in current literature that the emotional dissonance factor (discrepancy resulting from an incongruity

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14 Emotional regulation (ER) falls inside the more extensive framework of EI. It is characterised by the capacity to deliberately modify and shape situations using emotionally applicable processes (Gignac, 2010). ER is therefore a particular type of self-regulation that includes overruling one set of emotional reactions with another, inconsistent set of emotional expressions.
between felt emotions and emotions that are displayed) of EL leads to burnout (Pugh et al., 2011). Furthermore, employees who are high in the ability to regulate emotions (i.e. ER) predispose them to be more adjustable and flexible in managing emotions to situational difficulties than those who are not. Therefore it is likely that the level of ER employees encompass, will influence the type of EL engaged in as those who are emotionally intelligent will have the ability to be cognisant of, manage, control and will be able to use their individual emotions effectively (Loi & Schutte, 2014). In other words, individuals with high EI will be able to better their emotional observation and their understanding abilities of emotions ought to help in the decision of the style of suitable emotional displays (Austin et al., 2008; Lee & Chelladurai, 2016). Acknowledging this, CCRs with higher EMO and ESC will therefore be capable to display the necessary emotions and will be more prone to better react to customers and their colleagues in service engagements as oppose to those with lower EMO and ESC (Sliter, Chen, Withrow & Sliter, 2013). The sub-dimensions of EI can therefore be regarded as a valuable asset for the organisation, particularly with regards to the performance of EL and the negative outcomes associated with EL as both consider emotions within the work environment (Prati, Lui, Perrewé & Ferris, 2009).

Furthermore, among the emotional abilities viewed as shaping components of EI, the capacity to manage the emotions of other people at work (i.e. higher EMO) is especially relevant. Employees who have a higher EMO have the capacity to make better utilisation of their ability to control their own feelings, as well as the feelings of others in the workplace to create and encounter situationally suitable emotions (Austin et al., 2008). In other words, individuals with higher EMO will engage in frequent activities (and not reside in negative emotions) in order to contribute to a positive development of an emotionally positive working environment (Gignac, 2010). Hence EMO involves understanding emotions and the capability to detect and comprehend these emotions within other individuals (Gignac, 2010).

In line with this reasoning, Ramachandran, Jordan, Troth and Lawrence (2011) found that employees who effectively manage their emotional regulation (i.e. DA) would lead to less EE experienced if they possess a higher level of EMO. This
means that less EE will be experienced as a CCR high in EMO maintains the ability to recognise their own, while understanding others emotions, resulting in DA effectively being performed and therefore lessen the degree of EE. In other words, EMO can influence the effect of DA on EE, as those with higher EMO will have the ability to create a positive working environment for themselves and others resulting in lower levels of EE experienced. This positive environment is ‘created’ as CCRs who engage in DA would try to feel the emotions of the customers (e.g. frustration and/or anger) thereby actually displaying their genuine nature (i.e. feeling of emotional harmony between their emotions and the customers) in their effort to display the appropriate emotions. Consequently, individuals higher on EMO would have a better ability to read customers’ emotions, resulting in the effort required for DA to be somewhat less.

It is therefore reasonable to assume that EMO might buffer the effect of DA on EE, as CCRs with a well-developed EMO are more likely to correctly perceive the demands from customers and are more in tune with the feelings of the customers and therefore would not experience the negative effect of DA in the long term (i.e. EE), as quickly or severely, as their low EMO counterparts. This reasoning is also in line with support found for the moderating effect of EMO in a study conducted by Yin (2015) suggesting that certain sub-dimensions of EI plays a protective role regarding individuals EL and occupational stress (i.e. EE).

Moreover, a similar argument could also be proposed for the effect of higher ESC on the relationship between SA and EE. According to Gignac (2010) individuals with higher ESC will better control their strong emotions in the sense that they would be able to effectively regulate reactive emotions such as resentment or anger at work. Emphasis is placed on having the capacity to exhibit and maintain that focus or concentration on the main tasks at hand, despite emotional adversity. For employees higher in ESC, it is expected that their general ability at managing strong emotions will therefore influence the strength of the connection between the EL strategy used (i.e. SA) and its consequent result (i.e. EE). Authors Heilman, Crişan, Miclea, Miu and Houser (2010) corroborate this, by stating that due to the reactive nature of ESC, this sub-dimension is more aligned with the response-focused emotional
regulation namely, SA (described as a form of deception, involving the manipulation of false emotions and hiding true feelings). For example, appropriately being able to control irritable emotions (i.e. ESC) at work towards a customer, will assist the CCR to modify their outward behaviour/displays (i.e. via SA) in order adhere to organisational rules. As such CCRs will be able to better align their levels of emotions, to the demands of the particular situation, adjusting their EL behaviour based on the situational demands (Prati et al., 2009). As a result, CCRs with high ESC who surface act in such situations are less likely to feel the moral uneasiness and/or strain resulting from SA.

In contrast, CCRs with low ESC are less likely to align and/or control their emotions and would unnecessarily use their energy to engage in SA, resulting in more emotional drainage leading to EE. Moreover, Prati et al. (2009) is of the opinion that individuals with a higher ESC are more likely to decrease the EE relating to SA as they are able to distinguish “…and separate work from their personal emotional life” (p. 370). Therefore, CCRs with higher ESC would better be able to discern between the cause and effect of the work stressors experienced, resulting in quicker adaption to the conflict between SA and felt emotions. Typically, CCRs will be more prone to thoughtfully engage and/or detach from certain emotional stressors, making SA less probable to result in higher EE (Prati et al., 2009).

Moreover, many researchers and studies (Caruso et al., 2004; Ju et al., 2015; Lee & Ok, 2012; Prati et al., 2009) have revealed that the functional qualities of EI have a significant effect on EL. In fact, a study conducted by Giardini and Frese (2006) revealed that emotional competence (i.e. EI) is a considerable personal/psychological resource in moderating the relationship between EL and well-being/work outcomes. Therefore ESC, as a protective factor (i.e. viewed as a beneficial personal resource in aiding CCRs to cope with emotional demands) would enable CCRs to uphold a healthier degree of well-being (i.e. less EE) from engaging in SA.

For the purposes of this study it is evident that the sub-dimensions of EI (in terms of ER and therefore EMO and ESC) can be viewed as plausible defence resource/qualities to have that could minimise or slow down the development of
burnout (i.e. EE), when engaging in constant SA and/or DA. Research suggests that in service-related industries (i.e. call centers), what matters most is the manner and process in which CCRs internally regulate their emotions. In other words, how CCRs choose to regulate their emotions and the expression thereof (Brotheridge & Grandey, 2002; Karimi et al., 2013). The sub-dimensions EMO and ESC may therefore render individuals to become less vulnerable against the development of EE from EL.

Based on this, the following hypotheses will be tested in the present study:

**Hypothesis 14:** Emotional Management of Others moderates the relationship between Deep Acting and Emotional Exhaustion.

**Hypothesis 15:** Emotional Self-Control moderates the relationship between Surface Acting and Emotional Exhaustion.

### 2.10 The proposed Spies-Kotzé burnout structural model

The literature review has culminated in an elaborated version of the original Spies (2006) burnout structural model, named the Spies-Kotzé burnout structural model.
CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

The theorising presented in the literature review in response to the research initiating question has resulted in the proposed Spies-Kotzé burnout conceptual model depicted in figure 3.1. Throughout the literature review various path-specific research hypotheses were formulated. This culminated into the burnout conceptual model, which is presented in this chapter, in order to answer the research initiating question. The current study therefore aimed to empirically test the series of research hypotheses (schematically illustrated in the explanatory conceptual model in figure 3.1). The Spies-Kotzé burnout conceptual model can be considered valid and/or permissible to the degree that the Spies-Kotzé burnout reduced structural model (figure 3.2) fits the empirical data, and the multiple regression analyses (conducted to test the moderator effects included in the conceptual model) returns satisfactory results. It should however be noted that the legitimacy and validity of the verifiable claim of this investigation depends on the methodology used to arrive at such a verdict. This chapter consequently offers a comprehensive depiction of the methodological selections that were made, and the justification underlying these choices, in the hope of contributing to serving the epistemic ideal of science through impartiality and rationality.

Based on the aforementioned, the aim of this chapter is to delineate a) the substantive research hypothesis; b) the research design; c) the statistical hypotheses; d) the sampling size and procedure; e) the measurement instruments used to operationalise the latent variables; f) the psychometric integrity of each instrument (i.e. validity and reliability); and g) the statistical techniques that were utilised to empirically estimate the psychometric integrity of the measurement instruments, as well as the measurement, the reduced structural model and the moderated regression analyses.
3.2 Research purpose and objectives

Research methodology serves the epistemic ideal of science. Science is committed to an “epistemic imperative” (Babbie & Mouton, 2001, p. 8), which is a commitment to an ideal to search for valid explanations. These explanations are permissible to the extent to which they closely fit the obtainable data. According to Babbie and Mouton (2001) research methodology can be described as the methods, techniques and procedures that are used in the execution of research.

The purpose of the study was to propose a nomological net of the determinants explaining variance in burnout amongst CCRs. If the proposed Spies-Kotzé burnout conceptual model can be shown to be valid, such knowledge will be beneficial to organisations in that it will assist in developing HR practices that could enhance employee well-being and decrease the negative effects of burnout. By assisting to ensure the appropriate training initiatives and the design of work it could enhance the establishment of a corporate culture of a ‘healthy’ workforce.

Research has shown that CCRs regularly engage in EL, as the nature of their work requires these employees to suppress felt emotions. Over time this tends to result in negative outcomes, such as burnout. High levels of employee burnout will subsequently result in detrimental consequences for both the organisation and the employee. In order to alleviate these detrimental effects it is imperative to gain an improved understanding of the factors contributing to burnout in order to formulate interventions aimed at reducing the incidence and severity of burnout.

A subsequent outcome of this study could be to provide service industries (with a focus on call centres) with insight into possible interventions whereby burnout can be reduced within the workplace. The research initiating question was therefore formulated in an attempt to validly explain and understand the nomological network of factors that explain variance in burnout, so that plausible solutions can be found to reduce the incidence of burnout in CCRs.

The research question was consequently addressed by focusing on accomplishing the subsequent research objectives:
• develop a Spies-Kotzé burnout conceptual model, representing the dynamic intricacy of certain variables leading to burnout within CCRs;
• to test the fit of the reduced structural model;
• assess the significance of the paths that were hypothesised within the reduced structural model;
• evaluate modification indices to discuss recommendations for changes to the model\textsuperscript{15}; and
• conduct moderated regression analysis to evaluate the moderating effects contained in the Spies-Kotzé burnout conceptual model.

3.3 Substantive research hypotheses

Theorising in the literature study on the possible relationships between the variables, led to the development of a conceptual model\textsuperscript{16}. The overarching research hypothesis of this study (H\textsubscript{01} and H\textsubscript{02}) was that the Spies-Kotzé burnout reduced structural model depicted in figure 3.2 provided an acceptable justification of the variables that collectively explain variance in burnout amongst CCRs. The overarching substantive research hypothesis was divided into the following 13 more detailed path specific research hypotheses:

**Hypothesis 3**\textsuperscript{17}: Emotional Exhaustion (\eta_3) has a positive linear relationship with Depersonalisation (\eta_4).

**Hypothesis 4**: Depersonalisation (\eta_4) has a negative linear relationship with Personal Accomplishment (\eta_5).

**Hypothesis 5**: Emotional Labour (\eta_2) has a positive linear relationship with Emotional Exhaustion (\eta_3).

\textsuperscript{15} The model modifications suggested by the results were not empirically tested in this study, but are integrated into the discussion on recommendations for potential future research in chapter 5.

\textsuperscript{16} The conceptual model is partitioned into two sections. A reduced structural model and interaction effects. The reduced structural model was tested with LISREL whereas the interaction effects were tested in SPSS via moderated multiple regressions.

\textsuperscript{17} The numbering of the path-specific hypotheses starts at 3 as the first two hypotheses regards the overarching substantive research hypotheses (H\textsubscript{01} and H\textsubscript{02}).
Hypothesis 6: Surface Acting (\(\xi_3\)) has a positive linear relationship with Emotional Exhaustion (\(\eta_3\)).

Hypothesis 7: Deep Acting (\(\xi_2\)) has a negative linear relationship with Emotional Exhaustion (\(\eta_3\)).

Hypothesis 8: Psychological Safety (\(\xi_1\)) has a positive linear relationship with Supervisor Support (\(\eta_1\)).

Hypothesis 9: Supervisor Support (\(\eta_1\)) has a negative linear relationship with Emotional Labour (\(\eta_2\)).

Hypothesis 10: Psychological Safety (\(\xi_1\)) has a negative linear relationship with Emotional Exhaustion (\(\eta_3\)).

During the data analyses process (detailed in chapter 4), it appeared that the testing of the proposed interaction effects within a comprehensive LISREL model (i.e. the structural model with the initial interaction effects) of the Spies-Kotzé burnout structural model was not achievable. Consequently the five interaction effects were removed from the structural model. These interaction effects (contained in the conceptual model) were tested via SPSS version 24 and moderated multiple regression analysis was conducted, by way of mean centering. This procedure is elaborated on in more detail in section 4.6.

---

18 The intention of the study was originally aimed at evaluating the hypothesised relationships in the structural model and via structural equation modelling (SEM), testing the fit of the structural model. The proposed interaction effects within the structural model could not be tested with LISREL. The interaction effects were therefore tested by a technique called orthogonalising (Little, Bovaird & Widaman, 2006). This incorporated computing all potential product terms from the indicators of the latent variables involved in the interaction effects or latent squared effects. All product terms were regressed on the individual indicators of the latent variables and then the residuals for each regression model was calculated. These residuals were in turn utilised to signify the indicator variables for the latent interaction effects. Subsequently, this led to the construction of a reduced structural model excluding the hypothesised interaction effects. An overarching conceptual model was also illustrated, showing all the hypotheses. The reduced structural model was therefore tested by methods of SEM in LISREL while the interaction effects were tested in SPSS, via moderated multiple regression analyses.
The five\textsuperscript{19} hypotheses for the interaction effects therefore included:

**Hypothesis 11:** Supervisor Support moderates the relationship between Emotional Labour and Emotional Exhaustion.

**Hypothesis 12:** Psychological Safety moderates the relationship between Depersonalisation and Personal Accomplishment.

**Hypothesis 13:** Psychological Safety moderates the relationship between Emotional Labour and Emotional Exhaustion

**Hypothesis 14:** Emotional Management of Others moderates the relationship between Deep Acting and Emotional Exhaustion.

**Hypothesis 15:** Emotional Self-Control moderates the relationship between Surface Acting and Emotional Exhaustion.

\textsuperscript{19} The fact that the interaction effects could not be tested with LISREL and subsequently were removed from the original structural model has resulted in a change of the numbering of the hypotheses. Therefore the numbering of the hypotheses is now different in comparison to the sequencing of theorising stated in chapter 2. The five interaction effects are now numbered as $H_{011}$-$H_{015}$.
Figure 3.1 Spies–Kotzé burnout conceptual model
3.4 Statistical hypotheses for the reduced structural model

The statistical hypotheses were articulated in a manner that reveals the logic underlying the proposed research design. Using structural equation modelling (SEM) to estimate the freed parameters in the comprehensive LISREL model, presented the possibility of testing the proposed structural model as a combined complex hypothesis. This was imperative because the cause of the level of burnout occurring amongst service employees cannot be pinpointed to an exact segment of the proposed model. The explanation is spread over the entire complexly determined nomological network of latent variables. It was therefore important to use a statistical technique to empirically test the validity of the hypothesised Spies-Kotzé burnout reduced structural model that allows the model to be evaluated as an integrated entity.

The overarching substantive research hypotheses translate into two possible statistical null hypotheses depending on the manner in which the overarching substantive hypothesis was interpreted. The ideal in a research study would be to find an exact fit, i.e. a reduced structural model that flawlessly explains the co-variance between the indicator variables in the population. LISREL 8.80 (Jöreskog & Sörbom, 2002) was used to test the null hypothesis of exact fit to determine the extent to which the model is consistent with the obtained empirical data:

\[ H_{02a} \text{ exact fit: } \text{RMSEA} = 0 \]

\[ H_{a2a} \text{ exact fit: } \text{RMSEA} > 0 \]

However, exact fit is very rarely achieved. Therefore a more realistic position would be to opt for the hypothesis that the reduced structural model offers an approximate explanation of the co-variance between the indicator variables and that the model

---

20 The overarching substantive research hypothesis can be divided into an exact fit and close fit null hypothesis for the measurement model (\( H_{01a} \) and \( H_{01b} \)) and for the structural model (\( H_{02a} \) and \( H_{02b} \)). Therefore it was decided to number the hypotheses in this order as the results pertaining to the measurement model are discussed prior to the structural model results.
therefore obtains close model fit. LISREL 8.80 was used to test the following close fit null hypothesis:

\[ H_{02b} \text{ close fit: RMSEA } \leq .05 \]

\[ H_{a2b} \text{ close fit: RMSEA } > .05 \]

Should the model fit the data reasonably well, the following path coefficient hypotheses would be tested. The substantive research hypothesis was dissected into eight path specific research hypotheses and was translated into path coefficient hypotheses as shown in table 3.1.

### Table 3.1
**Path coefficient statistical hypotheses**

<table>
<thead>
<tr>
<th>Hypothesis 3:</th>
<th>Hypothesis 4:</th>
<th>Hypothesis 5:</th>
</tr>
</thead>
<tbody>
<tr>
<td>( H_{03}: \beta_{43} = 0 )</td>
<td>( H_{04}: \beta_{54} = 0 )</td>
<td>( H_{05}: \beta_{32} = 0 )</td>
</tr>
<tr>
<td>( H_{a3}: \beta_{43} &gt; 0 )</td>
<td>( H_{a4}: \beta_{54} &lt; 0 )</td>
<td>( H_{a5}: \beta_{32} &gt; 0 )</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hypothesis 6:</th>
<th>Hypothesis 7:</th>
<th>Hypothesis 8:</th>
</tr>
</thead>
<tbody>
<tr>
<td>( H_{06}: \gamma_{33} = 0 )</td>
<td>( H_{07}: \gamma_{32} = 0 )</td>
<td>( H_{08}: \gamma_{11} = 0 )</td>
</tr>
<tr>
<td>( H_{a6}: \gamma_{33} &gt; 0 )</td>
<td>( H_{a7}: \gamma_{32} &lt; 0 )</td>
<td>( H_{a8}: \gamma_{11} &gt; 0 )</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hypothesis 9:</th>
<th>Hypothesis 10:</th>
</tr>
</thead>
<tbody>
<tr>
<td>( H_{09}: \beta_{21} = 0 )</td>
<td>( H_{010}: \gamma_{31} = 0 )</td>
</tr>
<tr>
<td>( H_{a9}: \beta_{21} &lt; 0 )</td>
<td>( H_{a10}: \gamma_{31} &lt; 0 )</td>
</tr>
</tbody>
</table>

The eight path specific hypotheses shown in table 3.1 were all incorporated into the Spies-Kotzé burnout reduced structural model (figure 3.2) and was evaluated via SEM.
Figure 3.2 Spies-Kotzé burnout reduced structural model
3.5 Research design

The overarching substantive research hypothesis presented in the preceding section (paragraph 3.4) makes certain claims with regards to the hypothesised Spies-Kotzé burnout structural model. The Spies-Kotzé burnout conceptual model (containing the reduced structural model, as well as the moderator effects) hypothesises specific structural relations between the various latent variables initially proposed by Spies (2006), as well as the variables incorporated in the expanded model. So as to empirically assess the overarching substantive research hypothesis and the array of eight path-specific substantive research hypotheses contained within the reduced structural model, as well as the interaction effects, a strategy is needed that will guide the procedure. This strategy is known as the research design. According to Babbie and Mouton (2001), a research design acts as the idea or strategy of investigation of how the researcher proposes on directing the research process in order to solve the suggested research problem. It serves as the blueprint on how the research is conducted. The design that best fits the proposed research depends primarily on the research problem and the sort of evidence necessary to address the problem (Babbie & Mouton, 2001). In this particular study, an ex post facto correlation design was utilised.

Ex post facto research is a form of systematic empirical enquiry in which the researcher does not have direct control over the independent variables as their manifestations has already occurred and consequently they cannot be experimentally manipulated. In terms of the logic underpinning the proposed design measures will be attained on the indicator variables representing the exogenous and endogenous latent variables included in the Spies Kotzé burnout reduced structural model. From these measures the observed variance-covariance matrix $S$ was calculated. Parameter estimates were obtained for the freed parameters in the model in an iterative fashion with the goal of reproducing the observed variance-covariance matrix as close as possible. If LISREL fails to find parameter estimates for the freed parameters in the model that allows for the close reproduction of the observed variance-covariance matrix the conclusion invariably has to follow that the model
does not provide a valid explanation for variance in burnout. The opposite, however, is not true. If LISREL succeeds in finding parameter estimates for the freed parameters in the model that allows the close reproduction of the observed variance-covariance matrix, it does not follow that the psychological process depicted in the model necessarily must be the one that underpins the development of burnout. It simply means that the psychological process explained in the Spies-Kotzé reduced structural model depicted, as in figure 3.2, is one plausible process that could be at work to produce burnout in employees in the service industry.

3.5.1 Sampling and sample design

The target population in this study was South African employees working in the service industry in the private sector. A non-probability sampling procedure, particularly convenience sampling, was utilised (Babbie & Mouton, 2001). Given the nature of the service industry, the most practical method for the researcher was therefore making use of the subjects that were readily available. Babbie and Mouton (2001) stress the importance of using this method only when other less risky sampling methods are not feasible. However, caution should be taken in terms of generalising the results from the obtained data.

Choosing a sample is a fundamental part of designing and developing sound research. The service industry was chosen, as the incident of burnout rates among CCRs is extremely high. This is because the main focus within the service industry falls on the focus of the quality of customer service. This interaction within the service industry demands high emotional control and constant EL that is performed, as certain expected emotions are required to be displayed in accordance with organisational rules. The participants (sampling population) used in this study, was obtained from a service organisation in the Western Cape that has an in-house\(^{21}\) and inbound call centre. CCRs were the units of analysis. Data was collected by way of a

\(^{21}\) An in-house call centre refers to a call centre that is part of the organisation, in other words, an in-house call centre whereby inbound calls are constrained to a passive role. The participants used in this study predominately dealt with inbound calls. These calls are characterised by customers (with regards to having a question and/or complaints about a product and/or service) that would exclusively call up a CCR who in turn would offer their assistance and knowledge.
composite research questionnaire (measuring each of the latent variables included in the Spies-Kotzé burnout conceptual model). The composite research questionnaire was developed in Checkbox on the SunSurvey system and completed online. Upon completion of the online questionnaire the anonymous data went straight into an access database with a unique identification number. The researcher consequently did not know the participant’s identity. The sample consisted of 203 CCRs.

According to Babbie and Mouton (2001) the decision on sample size, specifically when using SEM, should consider factors like time, cost, and the accessibility of the respondents, as well as the ratio of the sample size to the number of the parameters to be estimated. Hair et al. (2006) recommended that sample sizes of 200 or more (but not exceeding 400) appear to be acceptable for the majority of SEM applications. Given the foregoing statement, as well as taking practical considerations into account, a sample of n=200 to 250 was considered as an optimal sample size for this study. The obtained sample size of the study was consequently regarded as suitable.

3.5.2 Research participants

The units of analysis for this study were CCRs who were employed within a call centre. Participants were sourced from a call centre within a financial services organisation. This organisation is a specialist loan provider and all CCRs who participated within this study worked within the call centre. CCRs were asked to participate in this study by making use of workforce management at the participating organisation who scheduled CCRs according to applicable timeslots that did not interfere with their work schedules (i.e. during their lunch break). CCRs were therefore encouraged to take part, but participation stayed entirely voluntary.

The sample characteristics of the research participants are comprehensively discussed in the beginning section of chapter 4.
3.6 Data collection

The Human Resource Director at the participating organisation was approached to obtain permission for collecting data within the organisation’s call centre. A signed letter of consent was attained to give permission that the CCRs may be approached for participating in the study. An application for ethical clearance was submitted at the Stellenbosch University research ethics committee. Once ethical clearance was received, workforce management at the participating organisation provided scheduled timeslots in which the data could be gathered. A training room (with computer facilities) was made available where each participant could, on a voluntary basis, complete the online questionnaire. The researcher stayed within the room to confirm that testing conditions remained consistent and to support the participants in case they needed assistance. In the first section of the questionnaire overall information and ethical considerations about the study were communicated to the participants. Each participant electronically ‘signed’ an informed consent (by ticking an appropriate box, see appendix a) that provided a complete description of the nature of the study accompanied by a biographical information page. To ensure confidentiality and anonymity, participants did not divulge their names and/or surnames on the questionnaire.

3.7 Ethical considerations during data collection

The purpose of evaluating the risks related to research ethics was to safeguard the protection of the dignity, rights, safety and well-being of the participants involved in the study. Consequently, the precarious question is whether the cost experienced by the research participants outweigh or balance the benefits that accumulate to society through the purpose of this study.

Research participants had the right to decide whether or not he/she wished to participate in the research. Participants were informed about the voluntary nature of taking part in this study and had to indicate their decision on whether they wished to participate in the research or not.
The research was conducted in accordance to Annexure 12 of the Ethical Rules of Conduct for Practitioners Registered under the Health Professions Act (Act no. 56 of 1974) (Republic of South Africa, 2006.) It is required of a psychologist doing research to enter into an agreement with participants on the nature of the research, the participant’s responsibilities as well as those of the researcher. The participants were therefore informed about:

(1) the objectives and purpose of the research,
(2) what participation in the research would involve,
(3) how the research results would be disseminated and used,
(4) who the researcher was,
(5) what her affiliation is,
(6) where they can make further inquiries about the research if they wish to do so,
(7) what their rights as participants are and,
(8) where they can obtain more information on their research rights.

The aforementioned issues were addressed in an informed consent document, which was submitted for ethical clearance and was sent to the Research Ethics Committee (REC) Human Research (Humanities) of Stellenbosch University. This was for the purpose of acquiring ethical clearance to conduct the research. Ethical clearance was granted by the REC upon inspection of the required documents and thereby approving that the researcher adequately addressed all ethical requirements and concerns.

3.8 Data analysis

The subsequent section aims to elaborate on the different quantitative data analysis techniques that were utilised within this study. These techniques were based on the type of research questions that were addressed within the study. The data analysis included item analysis (conducted with SPSS) and SEM (conducted with LISREL), and more specifically confirmatory factor analysis (CFA) as well as exploratory factor analysis (EFA). Furthermore, moderated regression analysis was conducted to test
the specified moderator effects contained in the Spies-Kotzé burnout conceptual model.

3.8.1 Missing values

Data sets usually contain missing values due to non-response of research participants (Mels, 2003). Missing values needs to be treated before further data analysis can continue. Various options exist to treat missing values such as (1) list-wise deletion; (2) pair-wise deletion; (3) imputation by matching; (4) multiple imputations as well as; (5) full information maximum likelihood imputation (Allison, 2002).

The method utilised in treating the missing values depend on the amount of missing values as well as the nature of the data. Therefore a decision with regards to treating the missing values could only be made after the data was collected and the nature and extent of the missing values were known. In this study, however, there were no missing values. This was due to the manner in which the questionnaire was set up online. After each section, the test-taker could not continue with the questionnaire, if all questions on that page, was not completed. The online questions were therefore set up in such a way to ensure that all the questions in each section were answered\(^{22}\), resulting in a zero possibility of missing values.

3.8.2 Item analysis

The various scales used to measure the latent variables contained in the Spies-Kotzé burnout conceptual model, were developed with the exact intention to measure a specific construct or dimension of a construct carrying a specific constitutive definition. Items are developed to reflect an individual’s standing on the dimensions of the latent variables (Theron, 2013). In other words, these particular latent variables serve as stimuli to which respondents react with observable behaviour that is expected to be a relatively uncontaminated manifestation of the latent variables.

\(^{22}\) The ethical implications of this (i.e. opting to not answer a particular question) were communicated to the participant in the informed consent form. Participants were, however, informed that they could at any time discontinue participation by closing the page and exiting the survey in that manner.
specific underlying latent variable. The rationale behind why item analysis is conducted is to determine whether the items reflect the intended latent variables. A series of item analyses were conducted to establish the internal consistency of the responses to the measuring instruments used to test the proposed conceptual model. Items were identified as possible poor items when an item failed to discriminate between the various levels of the latent variables and/or failed to reflect a common latent variable. Typical measurement theory item statistics that were used to judge the quality of items, included: (a) the item-total correlation, (b) the squared multiple correlation, (c) the change in subscale reliability if the item were to be deleted, and (d) the inter-item correlations. Poor items (i.e. items not contributing to internal consistency of the latent dimensions containing the related construct) were flagged as problematic and consequently considered for deletion based on psychometric evidence.

SPSS version 24.0 (SPSS, 2013) was utilised to perform the series of item analyses.

3.8.3 Exploratory factor analysis

Baez and Tayor (2011) describe exploratory factor analysis (EFA) as a multivariate statistical procedure that seeks to condense a large number of observed variables (in this case items) into highly correlated groups that measure a single underlying construct. The purpose of EFA is therefore to suggest the removal or rewriting of items and to split heterogeneous subscales into two or more homogenous subsets of items if necessary. In this study EFA was used to evaluate the factor structures of the specific instruments based on the results of confirmatory factor analysis (CFA). EFA was therefore only conducted after the CFA, and only if the CFA returned concerning results.

Principle axis factor (PAF) analysis with direct oblimin rotation was used as an extraction technique. The Eigen-value-greater-than-one rule was used to define the number of factors to extract. The analyses were conducted with SPSS version 24.0.
3.8.4 Confirmatory factor analysis

Confirmatory factor analysis (CFA) as a statistical technique was also used within this study, to add to the process in evaluating the quality of various measurement instruments. CFA is described as an analysis that provides formal statistical tests of a priori hypotheses about the specific underlying (latent) variables to explain the data obtained on a set of observed (manifest) variables (Williams & O’Boyle, 2015). In other words, CFA is used to investigate the value of the measurements (from the obtained data), to determine how well the measured factors represent a smaller set of factors. Therefore, CFA requires that the researcher defines the factors and the relationships between the observed variables and their underlying latent constructs (Suhr, 2006). Consequently, CFA helps to substantiate the observed structure of the constructs. In principle CFA was predominantly used within this study to confirm the validity of the original factor structures of the measurement instruments that were used. Only once the original factor structure is accepted with confidence, can the researcher continue with evaluating the research questions (Boers, 2014). LISREL 8.80 was utilised in this study to investigate the measurement model fit of the instruments used.

Variable type

A subsequent requirement before conducting CFA is that the variable type should be specified and the normality of the data needs to be evaluated. All the responses to the items (on all the instruments) within this study were captured on ordinal scales. The data arising from these items are therefore ordinal. The most common method of estimation within CFA is the use of Maximum Likelihood (ML), a technique that assumes that the observed variables are continuous. Further, ML accepts that the distribution of the indicator variables also follow a multivariate normal distribution (Mels, 2003). However, if this assumption is not fulfilled the risk of incorrect standard errors and chi-square estimates increases (Du Toit & Du Toit, 2001; Mels, 2003). According to study conducted by Muthén and Kaplan (1985), their results revealed that the standard errors and chi-square estimates were not misinterpreted if items were treated as continuous and where variables are reasonably skewed and kurtotic.
Therefore the items within this study were hence interpreted as continuous\textsuperscript{23} variables in all the CFA analyses. This warranted the analysis of the variances in and covariance’s between the composite indicator variables rather than the polychoric correlation matrix (Du Toit & Du Toit, 2001).

Normality and estimation technique

To further avoid SEM statistical assumptions from being violated, the univariate and multivariate normality of the composite item parcels were evaluated via PRELIS. In the results of the CFA analysis for each measurement instrument, the results of the normality analyses are reported. If the null hypothesis of the univariate and multivariate normal distribution was rejected, Robust Maximum Likelihood (RML) estimation was used as an alternate method of estimation, more suited to non-normal data. Alternatively, in cases where the null hypothesis of multivariate normality could not be rejected, Maximum Likelihood (ML)\textsuperscript{24} would be used.

Goodness-of-fit indices

The goodness-of-fit statistics (GOF) show the significant amount of variance and covariances accounted for by the model and hence demonstrates how close the model comes to perfectly reproducing the observed covariance matrix. The GOF statistics, and three major aspects thereof, were analysed to establish the acceptability and validity of the measurement and structural models used in this study. This included the Satorra-Bentler chi-square (S-B$\chi^2$), the standardised root mean square residual (SRMR), the standardised Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), the Non-Normed Fit Index (NNFI) and the P-value for Test of close fit. Simulation research conducted by Hair et al. (2006) suggested that acceptable cut-off values for the previously mentioned GOF statistic indices should be set, based on certain model characteristics, such as sample size and the amount of observed variables.

\textsuperscript{23} All items in this study were specified to be continuous in all CFA analyses conducted.
\textsuperscript{24} The normality of the data obtained from all the instruments used within this study was evaluated. In all cases, the null hypothesis for multivariate normality was always rejected, hence requiring RML to be utilised as the estimation technique. Consequently, ML estimation was never employed.
In this study, the sample had less than 250 participants. Hair et al. (2006) suggested cut-off values for certain fit indices, such as a specific sample size, as well as the number of observed variables for each of the instruments. The fit indices shown in table 3.2 are considered applicable based on the number of observed variables in each instrument utilised in this study, given that the sample size was less than 250 participants (i.e. n = 203) (Hair et al., 2006).

Table 3.2
Suggested cut-off values of fit indices demonstrating Goodness-of-Fit given differential model complexity

<table>
<thead>
<tr>
<th>GOF statistics</th>
<th>N&lt;250</th>
<th>12 &lt; m &lt; 30</th>
<th>m ≥ 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFI/NNFI</td>
<td>&gt;.97</td>
<td>&gt;.95</td>
<td>&gt;.92</td>
</tr>
<tr>
<td>SRMR</td>
<td>Could be biased upward, use other indices</td>
<td>≤ .08</td>
<td>&lt;.09</td>
</tr>
<tr>
<td>RMSEA</td>
<td>&lt;.08</td>
<td>&lt;.08</td>
<td>&lt;.08</td>
</tr>
<tr>
<td>Models in this study that comply with the different criterion</td>
<td>ELS</td>
<td>MBI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SA &amp; DA</td>
<td>Measurement Model</td>
<td></td>
</tr>
<tr>
<td></td>
<td>POSS</td>
<td>Structural Model</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psychological Safety</td>
<td>Scale</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Genos EI</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. GOF = goodness-of-fit; m = number of observed variables; N applies to number of observations per group when applying CFA to multiple groups simultaneously; CFI = comparative fit index; NNFI = non-normed fit index; ELS = Emotional Labour Scale; SA = Surface acting; DA = Deep Acting; POSS = Perceived organisational support scale; Genos EI = Genos Emotional Intelligence Inventory; MBI = Maslach Burnout Inventory; Measurement Model = Spies-Kotzé burnout measurement model; Structural Model = Spies-Kotzé burnout structural model.

(Hair et al., 2006)

a) Satorra – Bentler scaled chi square

The Satorra-Bentler scaled chi-square (S-B\(\chi^2\)) was developed by Satorra and Bentler (2001). This statistic integrates a scaling correction intended at refining the chi-square approximation of goodness-of-fit statistics in smaller samples, large models and in distributional assumptions of normality within data that is usually violated. The S-B\(\chi^2\) statistic is produced when robust estimation techniques are employed. Calculation of this statistic occurs when data departs significantly from multivariate normality and thus by calculation of the S-B scaled square, an estimation of the fit of a model is improved (Satorra & Bentler, 2001).
b) **Standardised root mean residual**

The standardised root mean residual (SRMR) is the standardised square root of the mean of the squared residuals. It is therefore the average value of the residuals between individual observed and estimated covariance and variance terms. Values for the SRMR range from zero to 1, with well-fitting models achieving values less than .05. An absolute perfect model fit is indicated by an SRMR = 0. Even though this indicates perfect fit, it should however be noted that SRMR values will be lower in the cases where there is a larger number of parameters within the model, as well as bigger sample sizes (Hooper, Coughlan & Mullen, 2008). Subsequently, in a study with a sample size of less than 250 respondents and with the number of observed variables ranging between 12 and 30 (applicable to both the measurement and structural models), a cut-off value of < .08 is considered acceptable to suggest good model fit (Hair et al., 2006).

c) **The root mean square error of approximation**

The root mean square of approximation (RMSEA) is a popular measure of fit that articulates the difference between the observed and estimated sample covariance matrices. Generally values below .05 indicate good fit and values below .08 are interpreted to indicate reasonable fit. The RMSEA is valuable as it is a standardised measure not attached to the scales/subscales of the latent variables. What is more is the fact that its estimate properties are known, which allows a researcher to acquire parametric confidence intervals to perform hypothesis tests (Kelly & Keke, 2011). The p-value of the RMSEA also determines the test of closeness of fit for the models (RMSEA < .05). In other words, the RMSEA informs the researcher how well the model, with unknown (but optimally) selected parameter estimations, would fit the populations’ covariance matrix.

d) **Comparative fit index and non-normed fit index**

The comparative fit index (CFI) and non-normed fit index (NNFI) indicate better fit the closer the values are to unity (1.00). In other words, CFI and NNFI values usually range between 0.0 and 1.0, with values closer to 1.0 denoting good fit (Hooper et al.,
Furthermore, Hair et al. (2006) suggested that values of .92 and higher provide a strong proposition of a well-fitting model for a sample with fewer than 250 observations, and more than 30 observed variables. This suggestion for good model fit by Hair et al. (2006) may differ if fewer observed variables exist within the identified model, as shown in table 3.2.

3.9 Measurement Instruments

For the purpose of this study, the following, well-validated questionnaires were used to measure the constructs as contained in the proposed conceptual model. Each measurement instrument are discussed in detail within the subsequent section. Information is provided on; (i) accessible validity and reliability research results pertaining to each measurement instrument; (ii) an evaluation of the degree to which the statistical assumptions (i.e. normality) underlying the data analysis technique utilised, have been met; and (iii) a discussion on the results of the item analysis, CFA and where required, EFA that was conducted on each corresponding instrument and/or its respective subscales (in order to investigate the initial results obtained by the CFA). Based on the information obtained, a decision was made regarding the psychometric integrity of the indicator variables and their corresponding latent variables contained in the proposed reduced structural model.

3.9.1 Data preparation

The questionnaire data (i.e. raw data) that was obtained, was captured in a comprehensive excel spreadsheet prior to being imported into SPSS. Accuracy of the dataset was checked with random crosschecks that were completed throughout the dataset (in terms of recoding of variables, scoring of subscales). Some of the items within the instruments used in the composite questionnaire were negatively coded. All these items were recoded.

3.9.2 Emotional Labour

The Emotional Labour scale (ELS), as developed and validated by Brotheridge and Lee (2003), was used to measure Emotional Labour (EL). The ELS is a self-report
questionnaire consisting of 15 items that measure six facets of EL, namely the Frequency, Intensity and Variety of emotional display, the duration of interaction, as well as Surface and Deep Acting. The ELS employs a five-point Likert scale ranging from 1 = ‘never’, to 5 = ‘always’. A response typically stems from “On an average day at work, how frequently do you...” (Brotheridge & Lee, 2003, p. 368). The original validation of the ELS was conducted via two separate studies. In the first study (S1) the instrument was administered to a sample of n=296 students, both at undergraduate and postgraduate level. The sample for the second study (S2) comprised of older and more full-time working individuals (n=238). In the development and validation of the ELS, the estimates of internal consistency (Cronbach’s α) of the subscales proved satisfactory, ranging from .74 to .91 (Brotheridge & Lee, 2003). CFA results demonstrated the support for the existence of six, uni-dimensional subscales and evidence of convergent and discriminant validity was also obtained (Brotheridge & Lee, 2003).

Taking into consideration the five dimensions of EL the following internal consistency results have been reported: Frequency (3 items, S1: α = .75 and S2: α = .88), sample item: “Express particular emotions needed for your job”; Intensity (2 items, S1: α = .58 and S2: α = .76), sample item: “Express intense emotions”; Variety of emotional displays (4 items, S1: α = .68 and S2: α = .76), sample item: “Display many different emotions when interacting with others”; Surface Acting (3 items, S1: α = .85 and S2: α = .79), sample item: “Hide my true feelings about a situation” and Deep Acting (3 items, S1: α = .82 and S2: α = .83), with a sample item: “Make an effort to actually feel the emotions that I need to display to others”.

---

25 In the first study (S1) performed by Brotheridge and Lee (2003) EFA was used to determine how distinct the six dimensions (i.e. Frequency, Intensity, Variety, Deep Acting, Surface Acting and the duration of interaction) were from each other. Their aim was to demonstrate that the respondents do in fact make a distinction between the six aspects of EL. In the second study (S2) they validated the multidimensional factor structure (found in S1) performing CFA and consequently demonstrating support for the uni-dimensional subscales.

26 Duration of the interaction is generally regarded as an extra dimension that measures the average number of minutes that is necessary for a usual service encounter. In this study this dimension was not included and therefore not measured.
These five dimension scores\textsuperscript{27} was therefore used to operationalise the EL latent variable when fitting the structural model.

\subsection*{3.9.2.1 Descriptive statistics and item analysis}

Item analysis was performed on the data using the scales reliability procedure of SPSS version 24.0. The reasons and goals\textsuperscript{28} for performing this analysis was to (a) examine the reliability of the variables; (b) identifying possible poor items and; (c) identify and eliminate items that do not contribute to an internally consistent description of the scales (Burger, 2011). The results of this analysis and the subsequent descriptives of the EL subscales, namely the Frequency, Intensity and Variety of emotional display, are presented in table 3.3. The overall results for the EL construct (as calculated in this study) are shown in table 3.4.

\begin{table}[h]
\centering
\caption{The means, standard deviation and reliability statistics for the EL subscales}
\begin{tabular}{lcccc}
\hline
EL Subscale & Number of items & M & SD & \(\alpha\) \\
\hline
Frequency & 3 & 11.06 & 2.307 & .706 \\
Variety & 3 & 9.51 & 2.820 & .797 \\
Intensity & 2 & 6.18 & 1.765 & .590 \\
\hline
\end{tabular}
\end{table}

\begin{table}[h]
\centering
\caption{The means, standard deviation and reliability statistics for the EL scale}
\begin{tabular}{lcccc}
\hline
EL Subscale & Number of items & M & SD & \(\alpha\) \\
\hline
ELS & 8 & 26.74 & 5.184 & .585 \\
\hline
\end{tabular}
\end{table}

The results of the item analysis showed that two of the subscales’ reliability coefficients exceed the .70 cut-off\textsuperscript{29} value, indicating acceptable internal consistency.

\textsuperscript{27} The three EL sub-constructs (namely Frequency, Intensity and Variety) was measured and combined into one total score. The EL total score in the reduced structural model was, therefore, a combination of Intensity, Frequency and Variety sub-dimensions contained in the EL scale, without the SA and DA components (those being measured separately). This is because moderate to high to inter-correlations generally exist among these three subscales and this could justify that an underlying latent variable (i.e. an emotional display component of EL) underlies these dimensions.

\textsuperscript{28} This procedure of item analysis and the corresponding descriptives was performed for all the subsequent instruments contained in the conceptual model.

\textsuperscript{29} It should however be noted, that there is no universal minimal cut-off value and acceptable reliability value. An acceptable value depends on the type of application (i.e. purpose of assessment, scale length etc.) as well as the characteristics and the sample reliability value etc. (Bonett & Wright,
The Frequency subscale produced a reliability coefficient of .706, which is considered reasonable and the subscale Variety, produced a reliability coefficient of .797, which indicated good internal consistency. However, the Intensity subscale obtained a reliability coefficient of .590, which was below the recommended .70 benchmark (Nunnally, 1978). The inter-item correlation matrix of the Frequency subscale revealed modest correlations (.426 to .466) with squared multiple correlations ranging from .259 to .291. None of the items in this subscale, if deleted, would have caused an increase in the existing Cronbach's alpha of .706. Similarly, modest to higher inter-item correlations were perceived for the Variety subscale (ranging from .501 to .658), with squared multiple correlations ranging from .336 to .497. The results also revealed that removing items from this subscale would not have incurred an increase in the present Cronbach alpha of .797.

However, the results for the Intensity subscale revealed an inter-item correlation of .421 and a weak squared multiple correlation of .178 (the scale only consists of two items). The Intensity subscale achieved a Cronbach alpha of .590, which is below the suggested cut-off. However, deleting items from this scale would not be plausible, as the subscale only consists of two items. In this case, it could therefore be argued that the lower internal consistency could be attributed to, or be a reflection of the fact that the Intensity subscale contained of a limited number of items (n = 2). Taking this into consideration, the Cronbach alpha was subsequently deemed as reasonably acceptable for the purpose of this study.

Furthermore, the following table, (table 3.5) depicts the results of the item statistics for SA and DA.

<table>
<thead>
<tr>
<th>SA and DA</th>
<th>Number of items</th>
<th>M</th>
<th>SD</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface acting</td>
<td>3</td>
<td>8.50</td>
<td>2.834</td>
<td>.623</td>
</tr>
<tr>
<td>Deep acting</td>
<td>3</td>
<td>9.71</td>
<td>2.327</td>
<td>.651</td>
</tr>
</tbody>
</table>

For the purposes of this study the scale and/or subscales of the instruments under investigation were deemed as acceptable if the Cronbach alpha exceeded a cut-off value of .70.
The results from the item analysis revealed that SA and DA produced reliability coefficients of .623 and .651, respectively. These scale Cronbach alphas fell slightly below the desired cut-off value of .70 (Nunnally, 1978). However, scale length does play a role in reliability (DeVellis, 2016; Mulaik & Millsap, 2000; Rammstedt & Beierlein, 2014) and in this instance, these results could be regarded as somewhat acceptable levels, given that there are only three items in each subscale. Evaluation of the inter-item correlation matrix for the SA subscale revealed moderate inter-item correlations (.233 to .464) and squared multiple correlations (.146 to .292). From the results it was evident that the deletion of item 3 would have resulted in a minor increase of the scales’ Cronbach alpha ($\Delta = .011$). It was however decided to retain this item, as the scale had already revealed somewhat sufficient reliability and the suggested increase was rather minor. In addition, this decision was further based on the fact that this scale only consists of three items, and that it is deemed sensible to preserve the integrity of the scale.

The results of the DA subscale revealed moderate inter-item correlations (.304 to .423) in the inter-item correlation matrix, with squared multiple correlations ranging from .198 to .274. Additionally, upon inspection of the item statistics, it was evident that there were no poor items. This implied that, no item, if deleted would have caused an increase in the reliability coefficient of this scale. Taken in conjunction with the rest of the results for this scale, all items were retained in the dataset for further analysis.

3.9.2.2 Confirmatory factor analysis

3.9.2.2.1 Measurement model specification and data normality

Structural equation modelling (SEM) was used to perform CFA on the set of indicator variables for the ELS using LISREL 8.80 (Jöreskog & Sörbom, 2002). The measurement model was specified to consist of eight observed variables ($X$'s), three unmeasured latent factors ($\xi$'s; i.e. Frequency, Intensity and Variety) with single-
headed arrows from the ξ’s to X’s representing the proposed regression of the observed variables onto the latent factors (λs)\textsuperscript{30}.

It should however be noted, that CFA was not performed on SA and DA. Both SA and DA comprised of only three observed variables. According to Mulaik and Millsap (2000) it is recommended that a minimum of four items per construct is necessary for conducting CFA, as more indicators per latent variable could function as a way to increase the degrees of freedom without randomly fixing structural parameters to reach that purpose. Fewer items would also compromise and increase the problems associated with interpretational confounding, as well as enhancing the probability of estimating problems (Mulaik & Millsap, 2000). Furthermore, the restricted number of items within these subscales also implies that there would not be sufficient degrees of freedom for the analysis to yield interpretable results – if the analysis for SA and DA was conducted separately. It was consequently decided to not perform CFA on both SA and DA.

The univariate and multivariate normality of the indicator variables for the ELS was investigated using PRELIS\textsuperscript{31} (Jöreskog & Sörbom, 1996a). The results of the test of multivariate normality are shown in table 3.6. The null hypothesis of multivariate normality was rejected (skewness and kurtosis: χ\textsuperscript{2} = 54.629, p = .000). Therefore, Robust Maximum Likelihood (RML) estimation was utilised to derive the model parameter estimates.

<table>
<thead>
<tr>
<th>Table 3.6</th>
<th>Test of Multivariate normality (ELS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skewness &amp; Kurtosis</td>
</tr>
<tr>
<td></td>
<td>Skewness</td>
</tr>
<tr>
<td>Value</td>
<td>Z-Score</td>
</tr>
<tr>
<td>6.542</td>
<td>5.303</td>
</tr>
</tbody>
</table>

3.9.2.2.2 Evaluation of the measurement model

Evaluation of the measurement model, in this instance, represented the relationship between the Frequency, Intensity and Variety subscales and the manifest indicators.

\textsuperscript{30} Each of the measurement models within this study was specified in the same manner, depending on the number of observed and latent factors for each of the instruments.

\textsuperscript{31} The univariate and multivariate normality is performed with PRELIS for the proceeding instruments.
The purpose of CFA is to establish whether the operationalisation of these three latent variables were effective. The operationalisation is deemed successful if the measurement model successfully reproduces the observed covariance matrix and if the measurement model parameter estimates demonstrate that the majority of the variance in the indicator variables can be clarified in terms of the latent variables they load onto. In other words, the model fits the data well if factor loadings are statistically significant ($p < .05$) and sufficiently large ($\lambda > .40$), and if the error variances are sufficiently small (Brown, 2015).

The results of the CFA for the measurement model of EL are shown in table 3.7. A Satorra-Bentler Scaled chi-square value of 17.993 ($p = .389$) with 17 degrees of freedom emerged. Consequently, the exact fit null hypothesis should not be rejected ($p > .05$).

The null hypothesis of close fit was tested and is illustrated in table 3.7 as the P-Value for Test of Close fit (RMSEA < .05) = .820. The close fit null hypothesis was therefore not rejected ($p > .05$), and close fit was established. According to Hair et al., (2006), when a model with less than 12 observed variables are tested on a sample smaller than 250, values smaller than .08 for both the RMSEA and SRMR indicate good fit. Similarly, NNFI and CFI values above .97 (Hair et al., 2006) further corroborate good fit. The NNFI value of .997 and CFI value of .998 met the suggested cut-off scores, therefore indicative of good model fit. Moreover, the RMSEA value of .017 and SRMR value of .035 further corroborated this evidence of good model fit.

Table 3.7
<table>
<thead>
<tr>
<th>Goodness of fit statistics for the EL measurement model</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X^2$</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>20.644*</td>
</tr>
</tbody>
</table>

Note. $X^2$ = Chi-square; S-B$X^2$ = Satorra-Bentler Scaled Chi-square; NNFI = non-normed fit index; CFI = comparative fit index; RMR = root mean square residuals; SRMR = standardised root mean residual; RMSEA = root mean square error of approximation *p < .05.

The completely standardised factor loadings ranged from .552 to .842. These factor loadings were all significant and above .40, which is indicative of, and corroborates
the previous results indicating that good model fit was attained for the EL 
measurement model.

3.9.3 Burnout

Burnout was measured with the Maslach Burnout Inventory (MBI) (Maslach & 
Jackson, 1981). The items for the MBI were designed to measure three aspects of 
the burnout syndrome (i.e. Emotional Exhaustion, Depersonalisation and Personal 
Accomplishment). The original MBI comprised of 47 items, but subsequent research 
reduced the number of items to 25 and eventually to the final form of 22 items 
(known as the MBI-General Survey) (MBI-GS). The 22-item form was initially 
administered to n=420 individuals all consisting of various occupations such as 
teachers, nurses, social workers, counsellors and mental health workers (Maslach & 
Jackson, 1981). The 22-items on this scale are scored on a seven-point frequency 
scale ranging from 0 = ‘never’ and 7 = ‘every day’.

The three subscales, Emotional Exhaustion (EE), Depersonalisation (DP) and 
Personal Accomplishment (PA) consists out of 9, 5 and 8 items respectively. Sample 
scale items included items such as: “I feel emotionally drained from my work” (EE), “I 
feel I’m positively influencing other people’s lives through my work” (PA), and “I 
worry that this job is hardening me emotionally” (DP). High scores on EE (as well as 
high scores for DP and low scores on PA) are therefore indicative of burnout.

South African studies that have used the MBI reported acceptable reliabilities for the 
instrument (Khamisa, Oldenburg, Peltzer & Ilic, 2015; Rothmann, 2003; Van den 
Berg et al., 2016). For example, a study conducted within the service industry (i.e. n 
= 1200 nurses from various hospitals in South Africa), yielded reliability coefficients 
of .90 for EE, .71 for DP and .79 for PA (Khamisa et al., 2015).

3.9.3.1 Descriptive statistics and item analysis

Item analysis was conducted on all three subscales comprising burnout (i.e. EE, DP 
and PA). These results of the descriptive statistics of the three subscales, as found 
in this study, are presented in table 3.8.
Table 3.8

<table>
<thead>
<tr>
<th>Burnout Subscales</th>
<th>Number of items</th>
<th>M</th>
<th>SD</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE</td>
<td>9</td>
<td>32.65</td>
<td>10.667</td>
<td>.877</td>
</tr>
<tr>
<td>DP</td>
<td>5</td>
<td>14.42</td>
<td>6.009</td>
<td>.722</td>
</tr>
<tr>
<td>PA</td>
<td>6</td>
<td>23.95</td>
<td>6.345</td>
<td>.739*</td>
</tr>
</tbody>
</table>

Note. EE = Emotional Exhaustion; DP = Depersonalisation; PA = Personal Accomplishment. *Final Cronbach alpha achieved for the PA subscale after two items have been deleted from the item pool.

The Cronbach alpha (.877) for the EE subscale was well above the acceptable .70 value (Nunnally, 1978). According to the Item Statistics, there were no items that had obtained an extreme mean or standard deviation. The Item-Total Statistics revealed that both the Scale Mean if Item Deleted, as well as the Scale Variance if Item Deleted, would remain more or less the same if items were to be deleted. The Cronbach Alpha if Item Deleted revealed that there would be a very marginal increase in reliability ($\Delta = .001$) that would be gained, should item EE4 be deleted. The squared multiple correlation (.275) of this item was the lowest compared to the others (i.e. ranging from .301 to .673). The inter-item correlation matrix revealed correlations ranging from .452 to .767, which was also lower. It was however decided to retain this item, as the current reliability far exceeded the .70 cut-off, and it made sense to rather retain the integrity of the scale instead of deleting an item for such a small increase in added internal consistency.

Furthermore, the results indicated that the Cronbach alpha (.722) for the subscale DP was slightly above the cut-off value (Nunnally, 1978). Upon inspection of the Item Statistics, the results revealed that there existed no extreme mean or small standard deviation within the items. This implied that there was no item that could be flagged as problematic. Furthermore, from the Item-Total Statistics, it was evident that none of the items, if deleted, would have incurred an increase in the subscales’ current Cronbach alpha of .722.

Evaluation of the subscales’ inter-item correlation matrix indicated moderate inter-item correlations ranging from .242 to .460, with squared multiple correlations ranging from .180 to .320. All of the items fell within a similar range and therefore no items were flagged as possible poor items, and none were considered for removal from the item pool.
The PA subscale initially produced a reliability coefficient of .713. This fell slightly above the generally accepted cut-off value (.70) specified by Nunnally (1978), indicating good internal consistency. All of the items achieved reasonably high-corrected item-total correlations (ranging from .347 to .586), except for item PA2 (.218). After inspection of the item analysis results, item PA2 was flagged as a possible poor item and an item that should be considered for deletion. The Cronbach’s Alpha if Item deleted showed that the reliability would slightly increase (Δ = .007) by deleting item PA2. Also, the squared multiple correlations for item PA2 were among the lowest of all the items (.218). Based on these findings, item PA2 was deleted and the internal consistency reliability increased to .720. The item analysis was then repeated for the reduced item subscale.

The recalculated item statistics showed that in the inter-item correlation matrix, item PA1 correlated very low with the other items in the subscale (.008 to .218). The corrected item total correlation for this item was the lowest compared to the other items at .179, as was the squared multiple correlation at .068. The recalculated item statistics also indicated that if item PA1 was to be deleted the Cronbach alpha would increase to .739 (Δ = .19). Consequently, item PA2 was also removed from the item pool.

It was therefore decided to delete these two items from the item pool related to this subscale. This decision was also corroborated by the CFA results (reported in section 3.9.3.2). The results of the initial CFA analysis for the burnout measurement model showed that the factor loadings of PA1 (.156) and PA2 (.155) were far below .40, further substantiating the conclusion of these items being poor performing items within the context of this study.

The results shown in table 3.8 revealed that a Cronbach alpha of .739 was achieved, after the deletion of the two items. The results of this analysis revealed that there were, in the current item pool, no further extreme means (ranging from 3.19 to 4.52) or low standard deviations (ranging from 1.50 to 1.70). It also indicated that none of the remaining items, if considered for deletion, would result in an increase in the
reliability coefficient. The PA subscale was thus reduced from eight items to six items, for the purpose of this study.

3.9.3.2 Confirmatory factor analysis
3.9.3.2.1 Measurement model specification and data normality

The results of the test for univariate and multivariate normality (table 3.9; skewness and kurtosis: \( \chi^2 = 107.176, p = .000 \)) for the indicator variables led to the rejection of the null hypothesis of multivariate normality, and RML estimation was employed in order to derive the parameter estimates.

<table>
<thead>
<tr>
<th>Skewness &amp; Kurtosis</th>
<th>Value</th>
<th>Z-Score</th>
<th>P-Value</th>
<th>Value</th>
<th>Z-score</th>
<th>P-value</th>
<th>Chi-square</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>62.341</td>
<td>9.214</td>
<td>0.000</td>
<td>459.889</td>
<td>4.721</td>
<td>0.000</td>
<td>107.176</td>
<td>0.000</td>
</tr>
</tbody>
</table>

3.9.3.2.2 Evaluation of the measurement model

The results of the burnout model represent the relationship between the three dimensions, namely EE, DP and PA and its corresponding indicators. The results of this model’s CFA\(^{32}\) are reported in table 3.10.

The Satorra Bentler scaled chi-square (S-B\(\chi^2\)) statistic achieved a value of 321.151 with 167 degrees of freedom (\( p = .00 \)). Subsequently, this indicated that the exact fit null hypothesis (RMSEA = 0) should be rejected (\( p < .05 \)), thereby implying imperfect model fit. Moreover, the null hypothesis for close fit was tested and is shown in table 3.10 as the P-Value for Test of Close Fit (RMSEA < .05) = .005. The close fit null hypothesis was consequently rejected and close fit was not concluded. However, the RMSEA (.067) suggested a good model fit, as it was somewhat below the .08 cut-off value. Hair et al. (2006) suggested that the SRMR and the RMSEA should be below a cut-off value of .80. The results indicated that the RMSEA (.067) and the SRMR (.071) were below this suggested cut-off mark. In addition, the NNFI and CFI

\(^{32}\) CFA was conducted without the two items (i.e. PA2 and PA1) that were deleted from the item pool, as indicated in the item analysis results (table 3.8).
obtained values of .953 and .959, respectively. These values also fell slightly above the suggested cut-off value of .95 (Hair et al., 2006) for good model fit.

Table 3.10
Goodness of fit statistics results for the burnout measurement model

<table>
<thead>
<tr>
<th>X2</th>
<th>S-Bχ2</th>
<th>df</th>
<th>S-Bχ2/df</th>
<th>NNFI</th>
<th>CFI</th>
<th>RMR</th>
<th>SRMR</th>
<th>RMSEA (CI)</th>
<th>P (close)</th>
</tr>
</thead>
<tbody>
<tr>
<td>346.851*</td>
<td>321.151*</td>
<td>167</td>
<td>1.923</td>
<td>.953</td>
<td>.959</td>
<td>.201</td>
<td>.071</td>
<td>(.056; .078)</td>
<td>.005</td>
</tr>
</tbody>
</table>

Note. X² = Chi-square; S-Bχ² = Satorra-Bentler Scaled Chi-square; NNFI = non-normed fit index; CFI = comparative fit index; RMR = root mean square residuals; SRMR = standardised root mean residual; RMSEA = root mean square error of approximation *p < .05.

Completely standardised significant factor loadings for the EE subscale ranged from .48 to .85; DP ranged from .48 to .71; and PA ranged from .38 to .77. In conclusion, these collective results seem to be indicative that good model fit was attained for the burnout measurement model.

3.9.4 Supervisor Support

Perceived Organisational Support gives reference to an employee’s perception concerning the degree to which the employee perceives that the organisation values their well-being. The Perceived Organisational Support Scale (POSS) was developed by Eisenberger et al. (1996) and was used to measure perceived Supervisor Support (SS). The scale originally consisted of 36 items but for the purpose of this study, the eight-item version developed by Eisenberger et al. (1996) was used. According to Hellan, Fuqua and Worley (2009) the eight-item scale is recommended as “…the original scale is uni-dimensional and has a high internal reliability, the use of shorter versions does not appear problematic” (p. 114). However, related to the practice employed by many researchers (e.g. Hutchison, 1997; Rhoades, Eisenberger & Armeli, 2001; Rhoades & Eisenberger, 2002; Pazy & Ganzach, 2009; Stinglhamber & Vandenberghe, 2003), items from the POSS were adapted for this study, by replacing the word “organization’ with “supervisor”. Sample items therefore included: “My supervisor cares about my well-being” and “My supervisor fails to appreciate any extra effort from me”.

Responses were obtained by using a Likert-type scale ranging from 0 = ‘strongly disagree’ to 6 = ‘strongly agree’ in which half of the items are negatively worded, and
the other half are positively worded. In the original validation study, item analysis were performed resulting in a Cronbach alpha of .97, with item-total correlations ranging from .42 to .83, and the mean and median item-total correlations were .67 and .66 respectively, for the 36-item version (Eisenberger et al., 1996). Furthermore, for the eight-item version, a Cronbach alpha of .93, with item-total correlations ranging from .70 to .84, has been reported for this scale (Hellan et al., 2009).

3.9.4.1 Descriptive statistics and item analysis

The POSS comprised of eight items. Item analysis was conducted and the results, as depicted in table 3.11, showed a very acceptable reliability coefficient of .851 (Nunnally, 1978). This value fell well above the critical cut-off value of .70 used as a general benchmark in this study.

Evaluation of the subscales’ inter-item correlation matrix revealed moderate to high inter-item correlations (.247 to .788) and squared multiple correlations (.334 to .722). The squared multiple correlations show the proportion of variance in each item explained by a weighted linear composite of all the remaining items. Good items share a reasonable amount of variance with the other items as they are meant to measure the same underlying factor. Furthermore, the results revealed that no item, if deleted, would have caused an increase in the preliminary Cronbach alpha attained. All the items were, therefore, retained for further data analysis, as no poor items were identified after inspection of the item analysis statistics.

Table 3.11
The means, standard deviation and reliability statistics for the POSS

<table>
<thead>
<tr>
<th>POSS</th>
<th>Number of items</th>
<th>M</th>
<th>SD</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSS</td>
<td>8</td>
<td>38.97</td>
<td>11.800</td>
<td>.851</td>
</tr>
</tbody>
</table>

Note. Perceived Organisational Support Scale

3.9.4.2 Confirmatory factor analysis

3.9.4.2.1 Measurement model specification and data normality

The measurement model was specified to comprise of eight observed variables (X’s) and one latent factor (ξ; i.e. SS) with single headed arrows from the ξ to the X’s
representing the proposed regression of the observed variables onto the latent factor ($\lambda$s).

The results of the PRELIS analysis revealed that the null hypothesis of multivariate normality had to be rejected (skewness and kurtosis: $\chi^2 = 171.688$, $p = .000$; table 3.12) and once again RML estimation was used to derive the parameter estimates for the POSS measurement model.

### Table 3.12
**Test of Multivariate normality (POSS)**

<table>
<thead>
<tr>
<th>Skewness</th>
<th>Z-Score</th>
<th>P-Value</th>
<th>Kurtosis</th>
<th>Value</th>
<th>Z-score</th>
<th>P-value</th>
<th>Skewness &amp; Kurtosis</th>
<th>Chi-square</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.760</td>
<td>11.456</td>
<td>0.000</td>
<td>96.166</td>
<td>6.360</td>
<td>0.000</td>
<td>171.688</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 3.9.4.2.2 Evaluation of the measurement model

The results of the CFA conducted with LISREL 8.80 (Jöreskog & Sörbom, 2002) for the measurement model are presented in table 3.13. The results of this analysis revealed a Satorra Bentler Scaled chi-square ($S-B\chi^2$) value of 172.703 with 20 degrees of freedom and $p = .00$. Hence, the exact fit hypothesis had to be rejected.

The null hypothesis of close fit was also tested by LISREL, and the P-Value for Test of Close Fit ($RMSEA < .05$) = .000 was considered. The close fit null hypothesis was rejected and it was concluded that close fit for the measurement model was not achieved. In addition, all the other fit indices clearly revealed poor model fit, far exceeding the suggested cut-off values ($RMSEA = .194$; $CFI = .854$; $NNFI = .796$).

### Table 3.13
**Goodness of fit statistics for the POSS measurement model**

<table>
<thead>
<tr>
<th>$X^2$</th>
<th>$S-B\chi^2$</th>
<th>df</th>
<th>$S-B\chi^2$/ df</th>
<th>NNFI</th>
<th>CFI</th>
<th>RMR</th>
<th>SRMR</th>
<th>RMSEA (CI)</th>
<th>P (close)</th>
</tr>
</thead>
<tbody>
<tr>
<td>234.824*</td>
<td>172.703*</td>
<td>20</td>
<td>8.635</td>
<td>.796</td>
<td>.854</td>
<td>.493</td>
<td>.111</td>
<td>.194 (.168; .222)</td>
<td>.000</td>
</tr>
</tbody>
</table>

*Note. $X^2$ = Chi-square; $S-B\chi^2$ = Satorra-Bentler Scaled Chi-square; NNFI = non-normed fit index; CFI = comparative fit index; RMR = root mean square residuals; SRMR = standardised root mean residual; RMSEA = root mean square error of approximation *p < .05.

Based on the concerning results of the CFA, Exploratory Factor Analysis (EFA) was conducted in order to investigate why the uni-dimensionality assumption of the original scale, did not seem plausible for the current study.
3.9.4.2.3 Exploratory factor analysis (EFA)

EFA was therefore performed on the Perceived Organisational Support Scale (POSS) in order to gain transparency on the CFA results, and to inspect the factor structure of the scale in more detail. An EFA using Principle Axis Factoring (PAF) with direct oblimin rotation was conducted. The structure matrix results using PAF contained in table 3.14 shows how the items loaded on the respective factors.

The Eigenvalue-greater-than-one rule indicated that two factors could be extracted, accounting for 54.34% of the total variance. The results of the reproduced correlations of the non-redundant residuals further revealed that there were eight non-redundant residuals with absolute values bigger than 0.5 (28%). Although not ideal, these results provided a sufficiently satisfactory explanation for the observed correlation matrix. From the results it is evident that items SS1, SS4, SS6 and SS8 obtained high significant loadings on Factor 1, while items SS2, SS3, SS5 and SS7 loaded onto Factor 2. Upon inspection of the item content of the items within the two factors, it was clear that these factors reflect ‘method factors’ related to the scale. Method factors exist when variations in responses are caused by the measurement method as opposed to the substantive latent variable (Brown, 2006).

In this case, the way in which the items were worded (i.e. positively or negatively) and interpreted by the respondents could have resulted in different response styles from the respondents. According to Foxcroft and Roodt (2009) a potential source of bias could be attributed to the participants’ language proficiency as they may have responded to the questions using a specific response set. Therefore the manner in which the items were presented to the respondents and the items wording (i.e. positive and negative), could have led to different interpretations by the respondents. Many researchers (e.g. Podsakoff, MacKenzie, Lee & Podsakoff, 2003; Schmitt & Stults, 1986) have argued that negatively worded items may be interpreted differently based on language proficiency as they establish a pattern of responding and may fail to attend to the positive-negative wording of items, causing this to be a source of method bias. As a result, this method bias then shows up in the factor analysis as method factor because both positively and negatively worded items may
lead to method effects related to the different wording of the items (Lindwall et al., 2012).

For example, it was evident that all the items that loaded onto Factor 1 were positively worded items, such as “My supervisor cares about my wellbeing” and “My supervisor takes pride in my accomplishments at work”. Factor 2 consisted of all the negatively worded items, such as “Even if I did the best job possible, my supervisor would fail to notice” or “My supervisor shows very little concern for me”. Therefore the positively and negatively worded items, did not only load onto the substantive latent variable, but also on the two factors that consisted of the positively and/or negatively worded items, i.e. a method factor.

Table 3.14
POSS structure matrix

<table>
<thead>
<tr>
<th>Factors</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS1</td>
<td>.949</td>
<td>.551</td>
</tr>
<tr>
<td>SS2</td>
<td>.415</td>
<td>.714</td>
</tr>
<tr>
<td>SS3</td>
<td>.401</td>
<td>.758</td>
</tr>
<tr>
<td>SS4</td>
<td>.773</td>
<td>.443</td>
</tr>
<tr>
<td>SS5</td>
<td>.540</td>
<td>.765</td>
</tr>
<tr>
<td>SS6</td>
<td>.629</td>
<td>.423</td>
</tr>
<tr>
<td>SS7</td>
<td>.461</td>
<td>.652</td>
</tr>
<tr>
<td>SS8</td>
<td>.576</td>
<td>.369</td>
</tr>
</tbody>
</table>

Note. Values in bold represent significant factor loadings.

CFA was consequently run on the three-factor solution (i.e. the two method factors and the underlying latent factor). This generated considerably better results. All the positively worded items were specified to load on the ‘positive’ method factor and likewise negatively worded items, were indicated to load on the ‘negative’ method factor. All items were also specified to also load onto the SS latent factor. The overall model fit results are reported in table 3.15. A RMSEA of .039 was obtained, indicating good model fit. The incremental fit indices fell well above the suggested cut-off value (CFI = .997; NNFI = .992). The Satorra Bentler Scaled chi-square value obtained, was 14.395 (p = .212). The exact fit hypothesis was, therefore, not rejected. Close fit was achieved, as the close fit null hypothesis could also not be rejected (p = .583; p > 0.05). Furthermore, the SRMR value of .021 further corroborated the result of very good model fit, as it fell far below the .08 specified
cut-off value. The completely standardised lambda-X solution revealed that all the positive and negative factor loadings, as well as loadings on the SS latent trait, were significant, ranging from .506 to .874.

Table 3.15

<table>
<thead>
<tr>
<th>X2</th>
<th>S-BX2</th>
<th>df</th>
<th>S-BX2/ df</th>
<th>NNFI</th>
<th>CFI</th>
<th>RMR</th>
<th>SRMR</th>
<th>RMSEA (CI)</th>
<th>P (close)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.104</td>
<td>14.395</td>
<td>11</td>
<td>1.308</td>
<td>.992</td>
<td>.997</td>
<td>.096</td>
<td>.021</td>
<td>.039 (0.0; .088)</td>
<td>.583</td>
</tr>
</tbody>
</table>

Note. X2 = Chi-square; S-BX2 = Satorra-Bentler Scaled Chi-square; NNFI = non-normed fit index; CFI = comparative fit index; RMR = root mean square residuals; SRMR = standardised root mean residual; RMSEA = root mean square error of approximation *p < .05.

3.9.5 Psychological Safety

Psychological Safety (PS) was measured with the Edmondson (1999) Psychological Safety Scale. An overall internal consistency score of .73 (Lau & Muringhan, 2005) has been reported for this scale. The scale was designed to measure psychological safety at the individual level of analysis, as well as with several items focusing specifically on the manager-employee relationship. For example, the sample (n=496) for the original validation study included individuals made up of many teams (i.e. self-managed teams, sales teams, management teams and functional teams made up of managers and supervisors) within a manufacturing company (Edmondson, 1999). The Psychological Safety Scale requires respondents to respond to the items by utilising a five-point Likert type scale ranging from 1 = ‘never’ to 5 = ‘often’. Sample items include items such as, “If I make a mistake in my team, it is often held against me”, “Members of this team are able to bring up problems and tough issues” and “It is safe to take a risk on this team”.

3.9.5.1 Descriptive statistics and item analysis

The item analysis results for Psychological Safety Scale (consisting of seven items) produced a Cronbach alpha of .491, which was well below the recommended cut-off value of .70, for acceptable internal consistency. This denotes that approximately only 49% of the variance in the items is systematic/true score variance, whilst the other 51% is random error variance. After inspection of the item analysis statistics, item PS5 was flagged as a possible poor item. The results showed that the deletion of this item would incur an increase in the reliability coefficient of .10, resulting in the
alpha being .591. This item (PS5) also achieved a negative Corrected Item-Total Correlation (-.106), as well as the lowest squared multiple correlation of all the items (.108). Correspondingly PS5 was deleted from the item pool.

The item analysis was repeated and the results revealed that item PS2 should be flagged as a possible poor item. The results, in terms of the Cronbach Alpha If Item deleted, showed that the reliability would substantially increase to $\alpha = .689$ by deleting item PS2. Also, the squared multiple correlation for item PS2 was the lowest of all the items (-.110). As a result, item PS2 was also deleted from the item pool.

Item analysis was therefore performed again without items PS2 (and also PS5, which was deleted in the previous round of analysis) and the results depicted in table 3.16 revealed that a Cronbach alpha of .689 was achieved, which fell slightly below the cut-off value .70. However, the results of this analysis revealed that there were no further extreme means or low standard deviations. Moreover, the results indicated that none of the remaining items, if flagged as possible poor items and deleted accordingly, would result in an increase in the reliability coefficient. The Psychological Safety Scale was, consequently, reduced from seven items to five items for the purpose of this study.

Table 3.16
The means, standard deviation and reliability statistics for the PS scale

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of items</th>
<th>M</th>
<th>SD</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS</td>
<td>5</td>
<td>16.95</td>
<td>4.314</td>
<td>.689</td>
</tr>
</tbody>
</table>

*Note. PS = Psychological Safety*

3.9.5.2 Confirmatory factor analysis

3.9.5.2.1 Measurement model specification and data normality

In order to investigate the dimensionality of the Psychological Safety Scale, CFA was conducted with LISREL 8.80 (Jöreskog & Sörbom, 2002). The measurement model was specified to consist of one underlying latent trait ($\xi$; i.e. PS) and five observed variables ($X$’s) loading on this one construct, with single headed arrows from the $\xi$ to the $X$’s representing the proposed regression of the observed variables onto the latent factor ($\lambda$s).
The univariate and multivariate normality of the indicator variables were evaluated via PRELIS. The results (table 3.17; skewness and kurtosis: $\chi^2 = 12.284$, $p = .002$) led to the rejection of the null hypothesis of multivariate normality and RML estimation was used in order to derive the parameter estimates for the measurement model.

<table>
<thead>
<tr>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Skewness &amp; Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>Z-Score</td>
<td>P-Value</td>
</tr>
<tr>
<td>2.134</td>
<td>3.505</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 3.17
Test of Multivariate normality (PS)

3.9.5.2.2 **Evaluation of the measurement model**

The results of the CFA are presented in table 3.18. The exact fit null hypothesis was tested by means of the Satorra Bentler-Scaled chi-square (S-B$\chi^2$) statistic and a value of 6.469 with 5 degrees of freedom ($p = .263$) was achieved. Consequently, the exact fit null hypothesis could not be rejected ($p > .05$). Furthermore, the close fit hypothesis, that is the P-Value (RMSEA < .05) = .521 was considered and it was concluded that the close fit null hypothesis could also not be rejected ($p > .05$), indicating that strong evidence existed to suggest close fit. The RMSEA (.038) and SRMR (.031) values were far below the .08 cut-off value. Likewise, the CFI and NNFI values of .993 and .985 correspondingly, also corroborated that the model obtained very good model fit.

<table>
<thead>
<tr>
<th>Goodness of fit statistics for the PS measurement model</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X^2$</td>
</tr>
<tr>
<td>6.754</td>
</tr>
</tbody>
</table>

**Note.** $X^2$ = Chi-square; S-B$\chi^2$ = Satorra-Bentler Scaled Chi-square; NNFI = non-normed fit index; CFI = comparative fit index; RMR = root mean square residuals; SRMR = standardised root mean residual; RMSEA = root mean square error of approximation *p < .05.

All the factor loadings were statistically significant at $t \geq |1.64|$. From the lambda-X completely standardised solution it was evident that the factor loadings ranged from .409 (item 3 = PS4) to .71 (item 2 = PS2). Hence, the results seemed to suggest that good model fit was achieved for the PS measurement model.
3.9.6 Emotional Intelligence

Emotional Intelligence (EI) was measured in this study with The Genos EI Inventory (Gignac, 2010). The Genos EI Self-Assessment has been designed to measure how frequently an individual demonstrates emotionally intelligent behaviours at work. For the purpose of this study, the Emotional Management of others (EMO) and Emotional Self-Control (ESC) subscales were used. EMO is aimed at measuring the relative frequency with which the emotions of others are managed successfully within the working environment, whereas ESC is defined as the comparative frequency with which individuals successfully manage their own emotions within the working environment.

Items are rated on a five-point Likert scale ranging from 1 = ‘almost never’ to 5 = ‘almost always’. Sample items for the EMO and ESC subscales respectively include “I create a positive working environment for others” and “I behave inappropriately when angry at work” (Gignac, 2010).

The Genos EI has shown good internal consistency across various samples. The total Genos EI internal consistency reliability has been associated with respectable levels of reliability across the following nationalities: American, Asian, Australian, Indian and South African. The average subscales alphas all exceeded .70 and ranged from .71 to .85. The reliability estimates (Cronbach’s α) associated with the Genos EI inventory may be considered favourably when compared to other self-report EI measures, such as Bar-On EQ-I and ECI (Gignac, 2010).

For the purpose of this study, the two subscales (i.e. EMO and ESC) from the Genos EI concise version were used (each containing four items). However, due to a very unforeseen and honest human error on the side of the researcher, the assigned scoring keys (i.e. items that correspond to each subscale) for the Genos EI concise version, were accidently extracted from the Genos EI full inventory version when the composite questionnaire was developed on the SunSurvey platform.

After this mistake was uncovered, the items were scrutinised to establish which subdimensions of the Genos EI concise version they belonged to. This resulted in only...
three items for EMO and two items for ESC that could be utilised from the full pool of items that were included in the composite questionnaire. Although a careless mistake on the part of the researcher, it nevertheless poses a limitation to the breadth of the EI measurement in the study. However, it was decided to continue with the narrowed EI measurement, and to give due regard to this limitation when reporting on the results of the study.

### 3.9.6.1 Descriptive statistics and item analysis

The results obtained via the item analysis procedure in SPSS Version 24.0 (IBM Corp, 2013) are presented in table 3.19. Item analysis was conducted on the two separate subscales (i.e. EMO and ESC). The results obtained from the item analysis indicated somewhat moderate internal consistency. The EMO subscale achieved an internal consistency (.681), which fell just below the cut-off value, whereas the ESC Cronbach alpha (.509) achieved an even lower internal consistency. The inter-item correlation matrix of the EMO subscale revealed modest correlations (.426 to .466) with squared multiple correlations ranging from .202 to .294. Furthermore, for the ESC subscale the results revealed an inter-item correlation of .342 and a weak squared multiple correlation of .117. It should, however, be noted that the coefficient of internal consistency to some extent is dependent on the amount of scale items. In this instance it may, therefore, be reasonable to argue that the lower internal consistency could in part also be attributed to, or be a reflection of the fact both the subscales (EMO and ESC) consisted of a restricted number of items (n = 3; n = 2) respectively. Given this fact, it was argued that the Cronbach alphas were deemed reasonably acceptable for the purposes of this study.

<table>
<thead>
<tr>
<th>EI Subscale</th>
<th>Number of items</th>
<th>M</th>
<th>SD</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMO</td>
<td>3</td>
<td>12.28</td>
<td>2.077</td>
<td>.681</td>
</tr>
<tr>
<td>ESC</td>
<td>2</td>
<td>7.99</td>
<td>1.692</td>
<td>.509</td>
</tr>
</tbody>
</table>

*Note. EMO = Emotional Management of Others; ESC = Emotional Self Control*
3.9.6.2 Confirmatory factor analysis

CFA was not performed on these two subscales (i.e. EMO and ESC). This was due to the fact that each subscale comprises of only three and two items respectively. According to Mulaik and Millsap (2000) a scale or subscale that is subjected to a CFA should at least contain four items (i.e. observed variables) per latent construct that is being evaluated. Fewer items would increase the probability of problems with interpretational confounding, including the fact that it would enhance the possibility of estimation difficulties.

3.10 Conclusion regarding the psychometric integrity of the measurement instruments

A combined summary of the item analyses conducted on the range of scales (i.e. respective measuring instruments) used in this study, are presented in table 3.20.

Table 3.20
A summary of the reliability results of the composite questionnaire latent variable

<table>
<thead>
<tr>
<th>Scales</th>
<th>Sample size</th>
<th>Number of items</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Cronbach alpha</th>
<th>Number of items deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL</td>
<td>203</td>
<td>8</td>
<td>26.74</td>
<td>5.184</td>
<td>.585</td>
<td>0</td>
</tr>
<tr>
<td>SA</td>
<td>203</td>
<td>3</td>
<td>8.50</td>
<td>2.834</td>
<td>.623</td>
<td>0</td>
</tr>
<tr>
<td>DA</td>
<td>203</td>
<td>3</td>
<td>9.71</td>
<td>2.327</td>
<td>.651</td>
<td>0</td>
</tr>
<tr>
<td>EE</td>
<td>203</td>
<td>9</td>
<td>32.65</td>
<td>10.667</td>
<td>.877</td>
<td>0</td>
</tr>
<tr>
<td>DP</td>
<td>203</td>
<td>5</td>
<td>14.42</td>
<td>6.009</td>
<td>.722</td>
<td>0</td>
</tr>
<tr>
<td>PA</td>
<td>203</td>
<td>6</td>
<td>23.95</td>
<td>6.345</td>
<td>.739</td>
<td>2</td>
</tr>
<tr>
<td>SS</td>
<td>203</td>
<td>8</td>
<td>11.80</td>
<td>38.97</td>
<td>.851</td>
<td>0</td>
</tr>
<tr>
<td>PS</td>
<td>203</td>
<td>5</td>
<td>16.95</td>
<td>4.314</td>
<td>.689</td>
<td>2</td>
</tr>
<tr>
<td>EMO</td>
<td>203</td>
<td>3</td>
<td>12.28</td>
<td>2.077</td>
<td>.681</td>
<td>0</td>
</tr>
<tr>
<td>ESC</td>
<td>203</td>
<td>2</td>
<td>7.99</td>
<td>1.692</td>
<td>.501</td>
<td>0</td>
</tr>
</tbody>
</table>

Note. EL = Emotional Labour; SA = Surface acting; DA = Deep acting; EE = Emotional exhaustion; DP = Depersonalisation; PA = Personal accomplishment; SS = Supervisor support; PS = Psychological safety; EMO = Emotional management of others; ESC = Emotional self-control.

The composite results from the item analysis revealed that four out of the 10 scales returned Cronbach reliability coefficients of .70 and higher, which was above the critical cut-off value (Nunnally, 1978), with four other subscales (i.e. SA, DA, PS and EMO) falling just short of this benchmark. The remaining two subscale/scale, ESC and EL yielded concerning results (alpha < .60). However, consideration for deleting items in both ESC and EL subscales was not a viable option as the subscales already contained of a reduced number of items and no increase in the internal
consistency would have incurred from doing so. Based on the results, evidence was provided to conclude satisfactory internal consistency for most of the subscales/scales that lead to the justification for the use of these scales in the subsequent analyses.

Item analysis was performed on all the data for the purpose of identifying and eliminating items that did not add to an internally consistent description of the subscales in question and therefore removing these poor items. Only four items from the composite questionnaire was deleted and were eliminated from further analyses. The results recommended the removal of items PA1 and PA2 from the Personal Accomplishment subscale as well as items PS2 and PS5 from the Psychological Safety Scale. CFA that was conducted on the respective instruments revealed results ranging from reasonable to good. In addition, EFA was conducted on the Perceived Organisational Support Scale (POSS) that led to a two-factor solution providing a better account of the structure of the instrument in this particular sample. A closer inspection of the item wording revealed an occurrence of method factor, possibly being attributed to the language proficiency of the respondents.

In conclusion, the overall basket of evidence delivered sufficient justification to utilise these instruments in the subsequent analysis in order to represent the latent variables they were assigned to reflect.
CHAPTER 4
RESULTS

4.1 Introduction
The purpose of this study was to propose a nomological net of the determinants explaining variance in burnout amongst CCRs at work. The respective relationships between the proposed constructs and its effects on burnout were examined in the pursuit of the aforementioned aim. This chapter reports on the empirical evidence that was reached during this process and reports on the data analyses that were conducted in this study.

This chapter commences by discussing the sample, with specific emphasis on the sample characteristics. The measurement model fit (of the reduced structural model) was assessed and evaluated in terms of the goodness-of-fit (GOF) statistics and the magnitude of its parameter estimates. Thereafter the reduced structural model fit and the acceptability of the model parameter estimates, derived via structural equation modelling (SEM) in LISREL, was assessed. The gamma and beta matrices were examined to determine the significance of the hypothesised paths. The modification indices were reviewed to determine alternative ways in which the model could be enhanced for future research. Lastly, a series of moderated multiple regression analysis was conducted (via SPSS) to explore whether Emotional Management of Others, Psychological Safety, Supervisor Support and Emotional Self-Control acted as moderators in the conceptual model. The results are reported in the last section of this chapter.

4.2 Sample characteristics
The sample comprised of CCRs employed at a call centre of the participating organisation, situated in the Western Cape. A total of n = 203 CCRs completed the composite questionnaire as part of this study. The demographic information obtained

33 Improvements and suggestions for future research are elaborated on in chapter 5. The information obtained from the gamma and beta matrices as well as the modification indices was utilised to support these suggestions. It should however be noted that no model modification indices were empirically tested, it was merely used in support of theoretical arguments that could lead to an improved model fit and/or modification of the model to inform future research.
on the sample, included information on gender, marital status, ethnic group and first and second languages. The sample information pertaining to these demographic characteristics are summarised in table 4.1.

Table 4.1
Demographic sample characteristics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>169</td>
<td>83.3</td>
</tr>
<tr>
<td>Male</td>
<td>34</td>
<td>16.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29</td>
<td>118</td>
<td>58.1</td>
</tr>
<tr>
<td>30-39</td>
<td>82</td>
<td>40.4</td>
</tr>
<tr>
<td>40+</td>
<td>3</td>
<td>1.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>147</td>
<td>72.4</td>
</tr>
<tr>
<td>Married</td>
<td>40</td>
<td>19.7</td>
</tr>
<tr>
<td>Divorced</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Separated</td>
<td>3</td>
<td>1.5</td>
</tr>
<tr>
<td>Living together</td>
<td>11</td>
<td>5.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnic Group Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black (African)</td>
<td>148</td>
<td>72.9</td>
</tr>
<tr>
<td>Coloured</td>
<td>52</td>
<td>25.6</td>
</tr>
<tr>
<td>White</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Indian</td>
<td>1</td>
<td>0.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First Language Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afrikaans</td>
<td>23</td>
<td>11.3</td>
</tr>
<tr>
<td>English</td>
<td>40</td>
<td>19.7</td>
</tr>
<tr>
<td>Xhosa</td>
<td>132</td>
<td>65.0</td>
</tr>
<tr>
<td>South Sotho</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td>Tsonga</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Tswana</td>
<td>3</td>
<td>1.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Language Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afrikaans</td>
<td>35</td>
<td>17.2</td>
</tr>
<tr>
<td>English</td>
<td>155</td>
<td>76.4</td>
</tr>
<tr>
<td>Xhosa</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td>Zulu</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Ndebele</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>South Sotho</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Tswana</td>
<td>1</td>
<td>0.5</td>
</tr>
</tbody>
</table>

From the sample demographics shown in table 4.1, it is apparent that the gender division was heavily skewed towards females, in that 83.3% of the respondents were female and only 16.7% were male. Slightly more than half of the sample (58.1%)
were between the ages 20 - 29, and 40.4% between the ages of 30 - 39. The average age of the participants was 29.03 with a standard deviation of 7.33. Additionally, more than two thirds of the sample (72.4%) was not married. In terms of ethnic group distribution, a large proportion of the sample (72.9%) was African, followed by 25.6% of the sample consisting of Coloured individuals. Table 4.1 also indicates the first and second languages of the sample. The data shows that Xhosa and English were reported as the most frequent first languages of the research participants, with respective percentages of 65% and 19.7%. By far, the most prevailing second language spoken by most of the participants was English (76.4%).

A large proportion of the sample (78.3%) reported matric (table 4.2) as their highest qualification, followed by 9.4% having a diploma/post-matric qualification. With respect to the participants’ tenure within the organisation, 71% of the sample reported working for the organisation between 1 to 3 years with a mean of 2.49 and standard deviation of 1.40. Only 7.40% of the sample specified that they had not been at the organisation for more than a year.

Table 4.2
Sample characteristics in terms of highest qualification and tenure

<table>
<thead>
<tr>
<th>Highest Qualification</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 12/Matric</td>
<td>159</td>
<td>78.3</td>
</tr>
<tr>
<td>Post-Matric</td>
<td>19</td>
<td>9.4</td>
</tr>
<tr>
<td>Diploma</td>
<td>19</td>
<td>9.4</td>
</tr>
<tr>
<td>Undergraduate Degree</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td>Post Graduate Degree</td>
<td>1</td>
<td>0.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tenure</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than a year</td>
<td>15</td>
<td>7.40</td>
</tr>
<tr>
<td>1 – 3 years</td>
<td>144</td>
<td>71</td>
</tr>
<tr>
<td>3 – 6 years</td>
<td>44</td>
<td>21.6</td>
</tr>
</tbody>
</table>

4.3 Item Parcels

Item parcels were created for the purpose of assessing the fit of the measurement and structural models. Item parcels characteristically comprise of indicator variables constructed from the items of each scale or subscale. The item parcels were specified as continuous variables. This warrants the analysis of the variances in and covariance’s between the composite indicator variables, rather than the polychoric
correlation matrix (Du Toit & Du Toit, 2001). A different solution would have been to use individual items comprising the scales or subscales, but this would have resulted in an extensive comprehensive model with a large number of parameters to be estimated. Consequently, using item parcels lessens the number of parameters that needs to be estimated.

Hagtvet and Nasser (2004) postulate, that in comparison to item-level data, models based on parcelled data could provide more stable results than often attained with item analysis. Studies have also reported improved fit and less contaminated data when parcelled data instead of individual item-level data are used as indicators of a latent construct (Gribbons & Hocevar, 1998; Hagtvet & Nasser, 2004; Yuan, Bentler & Kano, 1997). Furthermore, parcelled data is also more parsimonious, meaning that there would be less estimated parameters, it would also result in less opportunity for residuals to be correlated or double loadings (as less indicators are utilised), and could lead to reductions in various sources of sampling error (Hagtvet & Nasser, 2004; Little, Cunningham, Shahar & Widaman, 2002).

Despite the apparent advantages, the use of parcelled data is not without controversy (Bandalos & Finney, 2001). According to Bandalos and Finney (2001) the most important point to consider is the fact that parcelling depends on the uni-dimensionality of the items being combined, an assumption that is rarely tested. West, Finch and Curran (1995) corroborate this, by advocating that it cannot merely be assumed that parcelled data is conducted within a set of uni-dimensional data and that when this assumption is not met, it could lead to obscuring, rather than clarifying the factor structure of the data. Despite the widespread use of item parcelling, it could be viewed as a trade-off for providing misleading results if not constructed carefully (Bandalos & Finney, 2001). Nevertheless, parcels were used for the purpose of this study as the amount of parameters to be estimated would have been too large should the measurement and structural models both have been fitted on item-level data. Therefore at least two item parcels were formed as indicator variables for each of the latent variables.
For the Psychological Safety Scale the even and uneven numbered items were grouped together, creating two item parcels. In order to create the parcels for EE, and PA three items per parcel were randomly selected from the total item pool (EE consisted out of nine items and PA out of six) to create three item parcels for each construct. Likewise, two item parcels for DP were formed in the same manner. Furthermore, three item parcels constructed by random selection of items represented all the item parcels for DA and SA. For EMO and ESC parcels were not formed as the subscales only consisted out of three and two items, respectively, and therefore the items were used. Four Perceived Organisational Support Scale (POSS) item parcels were formed by randomly selecting items from the POSS item pool. Furthermore, observed variables for EL were represented by three items parcels grouped according to the constructs’ three sub-dimensions (i.e. Frequency, Variety and Intensity).

4.4 Measurement Model

The measurement model signifies the relationships between the different latent variables and their corresponding item parcel indicators. The objective of determining the fit of the measurement model is to stipulate information about the observed variables, specifically the reliability and validity thereof (Diamantopolous & Siguaw, 2000). By means of CFA the fit of the measurement model was evaluated, with the purpose of establishing whether the operationalisation of the latent variables was fruitful. Fit indices derived through LISREL 8.80 were examined to determine overall fit of the measurement model.

4.4.1 Screening the data

LISREL 8.80 (Jöreskog & Sörbom, 2002) was utilised in order to conduct CFA on the measurement model. The data failed to satisfy the multivariate normality assumption (skewness and kurtosis: 54.713, p < .05). Therefore robust maximum likelihood estimation (RML) was used to derive the model parameter estimates.
Table 4.3
Test of Multivariate normality (Spies-Kotzé burnout measurement model)

<table>
<thead>
<tr>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Skewness &amp; Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>Z-Score</td>
<td>P-Value</td>
</tr>
<tr>
<td>80.130</td>
<td>5.742</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>596.431</td>
<td>4.663</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54.713</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

4.4.2 Fitting the measurement model

The measurement model fit needed to be evaluated, before the comprehensive LISREL model could be fitted to the data. Diamantopolous and Siguaw (2000) propose that the structural model fit indices can only be interpreted unambiguously for or against the fitted structural model, if it can be proven that the indicator variables were successfully operationalised as distinct constructs.

The Satorra-Bentler chi square ($X^2$) was utilised to test the exact fit null hypothesis $H_{01a}$. The exact fit null hypothesis hypothesised that the measurement model demonstrates a perfect account of how the latent variables manifest themselves in the indicator variables. However, it is fairly improbable that the measurement model would achieve an exact fit and therefore it was predictable that $H_{01a}$ would be rejected. In the event that $H_{01a}$ was rejected, it required testing of the close fit null hypothesis ($H_{01b}$). According to Theron (2013), the model is said to fit well if the reproduced covariance matrix estimates the observed covariance matrix. An array of goodness-of-fit indices was produced by LISREL, which were used to interpret the measurement model fit and are reported on in table 4.4.

Table 4.4
Goodness of fit statistics for the Spies-Kotzé burnout measurement model

<table>
<thead>
<tr>
<th>$X^2$</th>
<th>S-B$X^2$</th>
<th>df</th>
<th>S-B$X^2$/df</th>
<th>NNFI</th>
<th>CFI</th>
<th>RMR</th>
<th>SRMR</th>
<th>RMSEA (CI)</th>
<th>P (close)</th>
</tr>
</thead>
<tbody>
<tr>
<td>330.636*</td>
<td>311.651*</td>
<td>202</td>
<td>1.542</td>
<td>.951</td>
<td>.961</td>
<td>.486</td>
<td>.064</td>
<td>.051(0.040;0.062)</td>
<td>.384</td>
</tr>
</tbody>
</table>

Note. $X^2$ = Chi-square; S-B$X^2$ = Satorra-Bentler Scaled Chi-square; NNFI = non-normed fit index; CFI = comparative fit index; RMR = root mean square residuals; SRMR = standardised root mean residual; RMSEA = root mean square error of approximation *p < .05.

A Satorra Bentler Scaled chi-square ($X^2$) value of 311.651 with 202 degrees of freedom, and $p = 0.000$ was obtained. The null hypothesis for exact fit ($H_{01a}$) was subsequently, and as expected, rejected ($p < 0.05$). To determine whether the measurement model closely approximated the processes that underlie the Spies-Kotzé burnout measurement model, the P-value for the test of close fit (RMSEA <
.05) was evaluated. From table 4.4 it is evident that the close fit null hypothesis (H₀₁b) for this model could not be rejected (.384; p > .05), thus indicating close fit. Hair et al. (2006) suggest (see table 3.2) that for a model, tested on a sample with less than 250 participants and with less than 30 observed variables, obtaining a RMSEA smaller than .08 indicates good fit. As indicated in table 4.4, a RMSEA of .051 was obtained, thus suggesting good fit when being compared to the guidelines set out by Hair et al. (2006).

Inspection of the NNFI and CFI fit indices revealed that both incremental fit indices were slightly above the suggested .95 benchmark advocated by Hair et al. (2006). The NNFI obtained a value of .951 and the CFI a value of .961, which further underscores the conclusion of good fit.

The standardised root mean residual (SRMR) is the standardised square root of the mean of the squared residuals, representing the average value between the fitted and the sample covariance matrices. Models that obtain values less than .08 are well fitting models, as lower values indicate better fit. The model attained a SRMR of .064, which fell below the .08 cut-off value (Hair et al., 2006), once again, indicating good model fit.

In conclusion and based on the basket of evidence from the GOF indices, it could be established that good measurement model fit was attained. The following sections report further information on the standardised residuals, modification indices and parameter estimates of the measurement model, providing further inferences concerning the measurement model fit.

4.4.3 Interpretation of the measurement model standardised residuals and modification indices

The standardised residuals and the modification indices provide evidence for possible modifications of the model in order to improve the model fit (Diamantopolous & Siguaw, 2000). Standardised residuals can be deduced as z-scores (i.e. the number of standard deviations above or below the mean). Standardised residuals can be considered large if they surpass +2.58 or -2.58 (Baez
The modification indices and standardised residuals (calculated for the lambda-X and theta-delta) were inspected to gain additional insight into the fit of the measurement model. If the results suggest that there is only a limited number of ways to improve model fit, this was interpreted to further comment positively on the fit of the model.

### 4.4.3.1 Standardised residuals

Table 4.5 provides a summary of the standardised residuals. Ten standardised residuals obtained values greater than 2.58 and five obtained values smaller than -2.58. These 15 large residuals accounted for 5.43% of the total number of unique variance and covariance terms in the observed covariance matrix. Therefore, roughly 5% of the observed variances and covariance’s were erroneously estimated from the model parameter estimates. This is however not ideal, but can be considered as acceptable as it is a reasonably small amount. Hence, this result further underscored the conclusion of good model fit.

---

34 The residual matrix for the model contained $([23 \times 24]/2) = 276$ elements.
Table 4.5

**Summary statistics for the Spies-Kotzé burnout measurement model standardised residuals**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallest Standardised Residual</td>
<td>-3.618</td>
</tr>
<tr>
<td>Median Standardised Residual</td>
<td>0.000</td>
</tr>
<tr>
<td>Largest Standardised Residual</td>
<td>4.957</td>
</tr>
</tbody>
</table>

**Largest Negative Standardised Residuals**

| Residual for ELsa13 and ELsa9        | -3.273 |
| Residual for SSp3 and SSp1           | -3.618 |
| Residual for SSp4 and SSp2           | -3.295 |
| Residual for EEp1 and ELf             | -2.897 |
| Residual for DPp2 and ELf             | -3.114 |

**Largest Positive Standardised Residuals**

| Residual for ELsa10 and ELsa9         | 3.587  |
| Residual for ELsa13 and ELda11        | 2.795  |
| Residual for SSp2 and SSp1            | 4.957  |
| Residual for SSp3 and ELsa13          | 2.776  |
| Residual for ELv and ELsa13           | 3.710  |
| Residual for DPp1 and ELsa13          | 3.817  |
| Residual for DPp1 and ELv             | 2.995  |
| Residual for PAp1 and ELf             | 3.103  |
| Residual for PAp2 and ELf             | 3.136  |
| Residual for PAp3 and ELf             | 3.040  |

*Note.* ELsa13, ELsa9, ELsa10 = Surface Acting; ELda11 = Deep Acting; SSp3, SSp1, SSp4, SSp2 = Supervisor Support; EEp1 = Emotional Exhaustion; ELf = Frequency; ELv = Variety; DPp2, DPp1 = Depersonalisation; PAp1, PAp2, PAp3 = Personal Accomplishment.

A stem-and-leaf plot portrays the collective investigation of all standardised residuals (Diamantopolous & Siguaw, 2000). It further indicates where there has been overestimation or underestimation of the observed variance and covariance terms in the observed covariance matrix and whether the derived model parameters were typically overestimated or underestimated. The plot of standardised residuals indicates that a model fits the data well when the spread of the residuals is reasonably symmetrical around zero. Figure 4.1 portrays the visual representation of the stem-and-leaf plot for this measurement model and shows a slight negatively skewed distribution of residuals. The stem-and-leaf plot indicates that there has been more overestimation, as there is a dominance of larger negative residuals. Deleting paths to the model could remedy this problem.
Figure 4.1 Stem-and-leaf plot of the measurement model standardised residual

The Q-plot for the measurement model, shown in figure 4.2, plots the standardised residuals (horizontal axis) against the quintiles of the normal distribution (Diamantopolous & Siguaw, 2000). When interpreting the Q-plot, it is imperative to take into consideration where the data points fall on the 45-degree reference line to determine model fit. The closer the data points fall on the 45-degree reference line, the better the fit. On the contrary, model fit that is less than acceptable will be reflected in many data points that deviate from the 45-degree reference line.
Figure 4.2 Q-plot for the measurement model standardised residuals

From figure 4.2 it is apparent that the model indicated reasonable to good fit as the data points swivelled away from the 45-degree reference line, but mostly around the upper and lower regions of the X-axis. When looking at the results obtained and reported in figure 4.1 and table 4.5, the Q-plot corroborates these findings. Both large positive and large negative standardised residuals were evident as well as the fact that negative standardised residuals were slightly more prevalent.

4.4.3.2 Modification Indices

All item parcels were designed with the purpose to reflect a respondent’s standing on a particular latent variable. However, it should be recognised that no item parcel
would be a perfectly valid measure of the latent variable that it was allocated to reflect. The basic intention of creating item parcels was therefore to show that the systematic error component of each parcel does not have a mutual source (i.e. error components should be uncorrelated). The measurement model in this instance mirrored these intentions. In $\Lambda_X$ each item parcel was permitted to load only onto a single latent variable, with alternate loadings fixed to zero.

Modification indices indicate the amount to which the $X^2$ fit statistics will decrease if a currently fixed parameter in the model is freed, and the model is re-estimated. According Jöreskog and Sörbom, (2002) modification indices are considered large if it constitutes values that exceed 6.64 and indicates parameters that, if set free, would significantly improve the model fit ($p < .01$).

The purpose of evaluating the modification indices was to gain information in order to further comment on the model’s fit, instead of detecting paths to free and then approximating the model fit again. If only a small number of ways existed to improve the fit of the model, it would suggest good fit of the current model. By contrast, if there were a large number of large modification index values, it would comment negatively on the fit of the model. The modification indices analysed for the lambda-$X$ and theta-delta matrices are illustrated in table 4.6 and table 4.7.
Table 4.6 indicated that nine of the elements in the $\Lambda_X$, if set free, would increase the fit of the model significantly ($p > .01$). Therefore the results recommended that only nine out of 161 (5.6%) ways of improving the model would lead to enhancements in the model fit. This percentage was regarded as small and consequently, further commented positively on the present model fit.
Table 4.7
Measurement model modification indices for theta-delta

<table>
<thead>
<tr>
<th></th>
<th>ELsa9</th>
<th>ELsa10</th>
<th>ELda11</th>
<th>ELda12</th>
<th>ELda13</th>
<th>ELda14</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELsa9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ELsa10</td>
<td>60.917</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ELda11</td>
<td>10.590</td>
<td>0.093</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ELda12</td>
<td>0.544</td>
<td>3.403</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ELsa13</td>
<td>9.950</td>
<td>4.755</td>
<td>2.773</td>
<td>2.359</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ELda14</td>
<td>0.575</td>
<td>2.097</td>
<td>0.135</td>
<td>0.018</td>
<td>0.025</td>
<td>-</td>
</tr>
<tr>
<td>PSp1</td>
<td>0.005</td>
<td>0.864</td>
<td>2.567</td>
<td>4.067</td>
<td>0.953</td>
<td>0.135</td>
</tr>
<tr>
<td>PSp2</td>
<td>0.419</td>
<td>0.358</td>
<td>2.871</td>
<td>1.616</td>
<td>2.750</td>
<td>2.141</td>
</tr>
<tr>
<td>SSP1</td>
<td>0.881</td>
<td>0.314</td>
<td>0.310</td>
<td>0.257</td>
<td>2.494</td>
<td>0.107</td>
</tr>
<tr>
<td>SSP2</td>
<td>0.962</td>
<td>1.049</td>
<td>0.289</td>
<td>0.104</td>
<td>1.269</td>
<td>0.014</td>
</tr>
<tr>
<td>SSP3</td>
<td>0.068</td>
<td>1.191</td>
<td>0.284</td>
<td>0.158</td>
<td>9.265</td>
<td>1.079</td>
</tr>
<tr>
<td>SSP4</td>
<td>0.299</td>
<td>0.006</td>
<td>0.661</td>
<td>0.980</td>
<td>0.110</td>
<td>0.676</td>
</tr>
<tr>
<td>ELi</td>
<td>10.284</td>
<td>1.657</td>
<td>2.120</td>
<td>1.665</td>
<td>1.188</td>
<td>1.443</td>
</tr>
<tr>
<td>ELf</td>
<td>0.004</td>
<td>2.101</td>
<td>0.315</td>
<td>0.683</td>
<td>0.036</td>
<td>5.406</td>
</tr>
<tr>
<td>ELv</td>
<td>2.760</td>
<td>0.427</td>
<td>1.128</td>
<td>0.435</td>
<td>8.126</td>
<td>0.207</td>
</tr>
<tr>
<td>EEp1</td>
<td>0.317</td>
<td>0.023</td>
<td>0.207</td>
<td>1.145</td>
<td>1.750</td>
<td>0.364</td>
</tr>
<tr>
<td>EEp2</td>
<td>2.262</td>
<td>3.144</td>
<td>3.789</td>
<td>0.889</td>
<td>0.702</td>
<td>1.533</td>
</tr>
<tr>
<td>EEp3</td>
<td>0.056</td>
<td>4.250</td>
<td>1.254</td>
<td>0.062</td>
<td>2.683</td>
<td>0.006</td>
</tr>
<tr>
<td>DPp1</td>
<td>2.524</td>
<td>0.095</td>
<td>0.078</td>
<td>2.113</td>
<td>5.934</td>
<td>0.275</td>
</tr>
<tr>
<td>DPp2</td>
<td>0.007</td>
<td>2.868</td>
<td>0.776</td>
<td>0.484</td>
<td>0.583</td>
<td>0.165</td>
</tr>
<tr>
<td>PAp1</td>
<td>0.000</td>
<td>1.926</td>
<td>0.714</td>
<td>0.844</td>
<td>1.008</td>
<td>1.033</td>
</tr>
<tr>
<td>PAp2</td>
<td>0.138</td>
<td>0.416</td>
<td>0.023</td>
<td>0.225</td>
<td>6.546</td>
<td>0.307</td>
</tr>
<tr>
<td>PAp3</td>
<td>0.726</td>
<td>0.001</td>
<td>0.074</td>
<td>0.003</td>
<td>1.885</td>
<td>0.940</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>PSp1</th>
<th>PSp2</th>
<th>SSP1</th>
<th>SSP2</th>
<th>SSP3</th>
<th>SSP4</th>
</tr>
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<tbody>
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<td>PSp1</td>
<td>-</td>
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<td>SSP1</td>
<td>0.160</td>
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</tr>
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<td>SSP2</td>
<td>0.113</td>
<td>7.762</td>
<td>34.169</td>
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<td>-</td>
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<tr>
<td>SSP3</td>
<td>1.317</td>
<td>1.555</td>
<td>21.416</td>
<td>1.040</td>
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<td>-</td>
</tr>
<tr>
<td>SSP4</td>
<td>0.430</td>
<td>2.868</td>
<td>1.806</td>
<td>24.914</td>
<td>23.648</td>
<td>-</td>
</tr>
<tr>
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<td>0.538</td>
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<td>0.116</td>
<td>0.852</td>
<td>0.632</td>
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<tr>
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<td>0.062</td>
<td>0.181</td>
<td>0.036</td>
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<thead>
<tr>
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<th>ELv</th>
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<th>EEp2</th>
<th>EEp3</th>
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<td>-</td>
</tr>
<tr>
<td>ELv</td>
<td>-</td>
<td>2.212</td>
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<tr>
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<td>1.020</td>
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<td>0.408</td>
<td>0.916</td>
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</tr>
</tbody>
</table>
Table 4.7 displays the modification indices for the theta-delta matrix. The results revealed that only 14 out of the possible 246 (5.7%) covariance terms were significant (> .6.64). Subsequently, the model fit (p < .01) would significantly improve, if 5.7% of the values were set free. As a result, it is further concluded that this small percentage of large modification index values once again commented favourably on the fit of the model.

Moreover, the small percentages of both large standardised residuals and of large modification index values (attained for Λ_X and Θ_δ) satisfactorily supported the fit of the measurement model. In addition to the range of the goodness-of-fit statistics previously evaluated (table 4.4), an overall final conclusion of good model fit was therefore warranted. The measurement model parameter estimates were therefore regarded as plausible in reproducing the observed covariance matrix. Interpretation of the measurement model parameter estimates and the squared multiple correlations (R^2) for the indicators were consequently justified.
4.4.4 Interpreting the measurement model parameter estimates and squared multiple correlations

Information regarding the validity of the measures comprised in the measurement model is obtained by considering the magnitude and statistical significance of the slope of regression of the observed variable loadings onto their particular latent variables. Diamantopolous and Siguaw (2000) state that it is imperative that the slope of the regression of \( X_i \) on \( \xi_j \) has to be significant in order for a measure to offer an acceptable reflection of the particular latent variables that it was intended for. Table 4.8 shows the unstandardized lambda-X matrix of the burnout measurement model. Table 4.8 contains the regression coefficients of the regression of the manifest variables on the latent variables, which they are coupled to. The t-values of these manifest variables and their loadings on the latent variables are considered significant (\( p < .05 \)) if the absolute value of \(|1.6449|\) is surpassed.

Table 4.8

<table>
<thead>
<tr>
<th>Measurement model unstandardised lambda-X matrix</th>
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<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>ELsa9</td>
</tr>
<tr>
<td>ELsa10</td>
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<tr>
<td>ELda11</td>
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<td>ELda14</td>
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<tr>
<td>PSp1</td>
</tr>
<tr>
<td>PSp2</td>
</tr>
<tr>
<td>SSp1</td>
</tr>
</tbody>
</table>
SSp2  -  2.071  (0.245)  8.446
SSp3  -  2.664  (0.269)  9.891
SSp4  -  2.960  (0.229) 12.928
ELi  -  -   1.267  (0.123) 10.306
ELf  -  -   0.936  (0.195)  4.793
ELv  -  -   1.908  (0.216)  8.824
EEp1  -  -   -   3.004  (0.178) 16.874
EEp2  -  -   -   3.355  (0.193) 17.417
EEp3  -  -   -   3.692  (0.181) 20.401
DPp1  -  -   -   2.304  (0.162) 14.177
DPp2  -  -   -   3.078  (0.212) 14.504
PAp1  -  -   -   -   2.491  (0.194) 12.871
PAp2  -  -   -   -   2.292  (0.190) 12.044
PAp3  -  -   -   -   1.741  (0.170) 10.240

Note. PS = Psychological Safety; SS = Supervisor Support; EL = Emotional Labour; EE = Emotional Exhaustion; DP = Depersonalisation; PA = Personal Accomplishment; SA = Surface Acting; DA = Deep Acting; ELsa9 = surface acting parcel 1; ELsa10 = surface acting parcel 2; ELsa13 = surface acting parcel 3; ELda11 = deep acting parcel 1; ELda12 = deep acting parcel 2; ELda14 = deep acting parcel 3; PSp1 = psychological safety parcel 1; PSp2 = psychological safety parcel 2; SSp1 = supervisor support parcel 1; SSp2 = supervisor support parcel 2; SSp3 = supervisor support parcel 3; SSp4 = supervisor support parcel 4; ELi = intensity subscale parcel 1; ELf = frequency subscale parcel 1; ELv = variety subscale 1; EEp1 = emotional exhaustion parcel 1; EEp2 = emotional exhaustion parcel 2; EEp3 = emotional exhaustion parcel 3; DPp1 = depersonalisation parcel 1; DPp2 = depersonalisation parcel 2; PAp1 = personal accomplishment parcel 1; PAp2 = personal accomplishment parcel 2; PAp3 = personal accomplishment parcel 3; significant regression coefficients are displayed in bold.
### Table 4.9

*Measurement model completely standardised lambda-X matrix*

<table>
<thead>
<tr>
<th></th>
<th>PS</th>
<th>SS</th>
<th>EL</th>
<th>EE</th>
<th>DP</th>
<th>PA</th>
<th>SA</th>
<th>DA</th>
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<td>0.643</td>
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</table>

*Note.* PS = Psychological Safety; SS = Supervisor Support; EL = Emotional Labour; EE = Emotional Exhaustion; DP = Depersonalisation; PA = Personal Accomplishment; SA = Surface Acting; DA = Deep Acting; ELsa9 = surface acting parcel 1; ELsa10 = surface acting parcel 2; ELsa13 = surface acting parcel 3; ELda11 = deep acting parcel 1; ELda12 = deep acting parcel 2; ELda14 = deep acting parcel 3; PSp1 = psychological safety parcel 1; PSp2 = psychological safety parcel 2; SSp1 = supervisor support parcel 1; SSp2 = supervisor support parcel 2; SSp3 = supervisor support parcel 3; SSp4 = supervisor support parcel 4; ELi = intensity subscale parcel 1; ELf = frequency subscale parcel 1; ELv = variety subscale 1; EEp1 = emotional exhaustion parcel 1; EEp2 = emotional exhaustion parcel 2; EEp3 = emotional exhaustion parcel 3; DPp1 = depersonalisation parcel 1; DPp2 = depersonalisation parcel 2; PAp1 = personal accomplishment parcel 1; PAp2 = personal accomplishment parcel 2; PAp3 = personal accomplishment parcel 3; significant factor loading values are displayed in bold (>0.71).

With reference to table 4.8, it is clear that all of the indicator variables exceeded the absolute value of |1.6449| thus loading significantly on their corresponding latent variables. According to Diamantopolous and Siguaw (2000) a problem can be expected when solely relying on the unstandardised loadings and associated t-values. This is because the units of the measurement of the variables involved may influence the unstandardised loadings. Therefore, when the observed variables are measured on diverse scales, it becomes challenging to establish what is a ‘small’ or a ‘large’ value (Diamantopolous & Siguaw, 2000). To overcome this, the completely standardised factor loading matrix should also be interpreted.
The completely standardised factor loading solution matrix (table 4.9) shows the average change in the indicator variables, granted one standard deviation change in their assigned latent variables, with all other variables being held constant (Diamantopolous & Siguaw, 2000). According to Hair et al. (2006), factor loadings are regarded as satisfactory if the completely standardised factor loading estimates surpass the cut-off value of .71.

In table 4.9 it is evident that 11 of the parcels acquired loadings greater than .71. Twelve of the parcels achieved loadings that were below the .71 cut-off value (i.e. PSp2, SSp1, SSp2, SSp3, Elf, Elv, PAp3, ELsa9, ELsa10, ELda12, ELda14). These parcels did, however, obtain loadings that exceeded .50, except for the factor loading Elf (.406). However, the factor loadings achieving values above .50 were not low enough to warrant serious unease (i.e. all loadings ranged from .549 to .708).

The R² values in table 4.10 signifies the squared multiple correlations for the regression of the item parcels on their assigned latent variables. The R² values suggest whether the manifest variables are fruitful measures of the latent variables in the model (Diamantopolous & Siguaw, 2000). In other words, the R² value specifies the amount of variance in the item parcel that is explained by its underlying variable. Therefore the higher the R² values, the better the manifest variable acts as an indicator of the corresponding variable (i.e. higher indicator reliability).
Table 4.10
Squared multiple correlations for the X-variables

<table>
<thead>
<tr>
<th></th>
<th>ELsa9</th>
<th>ELsa10</th>
<th>ELda11</th>
<th>ELda12</th>
<th>ELsa13</th>
<th>ELda14</th>
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<tbody>
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<td></td>
<td>0.308</td>
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<td>0.576</td>
<td>0.302</td>
<td>0.326</td>
<td>0.317</td>
</tr>
<tr>
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<td>0.371</td>
<td>0.454</td>
<td>0.329</td>
<td>0.501</td>
<td>0.629</td>
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<tr>
<td></td>
<td>0.515</td>
<td>0.165</td>
<td>0.458</td>
<td>0.711</td>
<td>0.709</td>
<td>0.755</td>
</tr>
<tr>
<td>DPP1</td>
<td>0.654</td>
<td>0.686</td>
<td>0.750</td>
<td>0.528</td>
<td>0.414</td>
<td></td>
</tr>
</tbody>
</table>

Note. ELsa9 = surface acting parcel 1; ELsa10 = surface acting parcel 2; ELsa13 = surface acting parcel 3; ELda11 = deep acting parcel 1; ELda12 = deep acting parcel 2; ELda14 = deep acting parcel 3; PSp1 = psychological safety parcel 1; PSp2 = psychological safety parcel 2; SSp1 = supervisor support parcel 1; SSp2 = supervisor support parcel 2; SSp3 = supervisor support parcel 3; SSp4 = supervisor support parcel 4; ELi = intensity subscale parcel 1; ELf = frequency subscale parcel 1; ELv = variety subscale 1; EEp1 = emotional exhaustion parcel 1; EEp2 = emotional exhaustion parcel 2; EEp3 = emotional exhaustion parcel 3; DPP1 = depersonalisation parcel 1; DPP2 = depersonalisation parcel 2; PAP1 = personal accomplishment parcel 1; PAP2 = personal accomplishment parcel 2; PAP3 = personal accomplishment parcel 3.

According to Hair et al. (2006) the critical cut-off value of .71 for the factor loadings suggests a critical R² value of .50. Consequently, R² values surpassing .50 would be indicative of high indicator reliability as an acceptable amount of variance of each indicator variable is explained by its underlying latent variable. Of the 23 indicators, 11 fell below the .50 cut-off value (ELsa9, ELsa10, PSp2, ELf, SSp1, ELv, ELda12, SSp2, ELsa13, PAP3, ELda14), ranging from .302 to .489. Although these values were below .50, it did not warrant serious concern. Item parcel ELf did however raise some concern due to the low R² value of .165. This suggests that approximately only 16.5% of the variance in ELf is explained by the latent traits it was designed to reflect.

No R² values were considered as extremely high. Both extremely low and high R² values, to a certain extent, could erode confidence in the measurement model and the success with which the latent variables have been operationalised. Given the results it could be concluded that the bulk of the latent variables were reasonably effectively – to very effectively, operationalised.
In table 4.11, the completely standardised measurement error variances are summarised. These values reflect the proportion of item parcel variance that is explained by systematic non-relevant variance and random error variance. Higher values are not favoured. For example, values below .50 would indicate that 50% of the item parcel variance could be ascribed to measurement error, further compromising the reliability and validity of the variables. It is evident from table 4.11 that the results indicated that the same 11 parcels were identified as problematic (> .50). ELf once again, raised concerned with a value of .835, indicating that a very high proportion of item parcel variance (83.5%) is attributed to systematic non-relevant variance and random error variance. All other values (excluding ELf) displayed values ranging from .511 to .698, although not ideal, but were considered acceptable. As previously mentioned, the results indicate that these indicators and their corresponding validity and reliability may have been compromised.

Table 4.11

<table>
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<th>Measurement model completely standardised solution theta-delta</th>
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<tr>
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</tr>
<tr>
<td>DPP1</td>
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<tr>
<td>0.346</td>
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</tbody>
</table>

Note. ELsa9 = surface acting parcel 1; ELsa10 = surface acting parcel 2; ELsa13 = surface acting parcel 3; ELda11 = deep acting parcel 1; ELda12 = deep acting parcel 2; ELda14 = deep acting parcel 3; PSp1 = psychological safety parcel 1; PSp2 = psychological safety parcel 2; SSp1 = supervisor support parcel 1; SSp2 = supervisor support parcel 2; SSp3 = supervisor support parcel 3; SSp4 = supervisor support parcel 4; ELi = intensity subscale parcel 1; ELf = frequency subscale parcel 1; ELv = variety subscale 1; EEp1 = emotional exhaustion parcel 1; EEp2 = emotional exhaustion parcel 2; EEp3 = emotional exhaustion parcel 3; DPP1 = depersonalisation parcel 1; DPP2 = depersonalisation parcel 2; PAP1 = personal accomplishment parcel 1; PAP2 = personal accomplishment parcel 2; PAP3 = personal accomplishment parcel 3.
4.4.5 Discriminant validity

Discriminant validity indicates the degree of distinctiveness attained from indicators in defining a latent variable (Hooper et al., 2008). The $\Phi$ matrix (table 4.12) portrays the inter-correlations between the latent variables in the measurement model. In this study satisfactorily low inter-correlations (< .90) were required in order for the constructs being measured to have obtained discriminant validity. Therefore, since the correlations between the measures of the different variables, shown in table 4.12, all met the < .90 cut-off value, discriminant validity could be assumed.

Table 4.12

<table>
<thead>
<tr>
<th></th>
<th>PS</th>
<th>SS</th>
<th>EL</th>
<th>EE</th>
<th>DP</th>
<th>PA</th>
<th>SA</th>
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</tr>
<tr>
<td>SA</td>
<td>-0.346</td>
<td>-0.235</td>
<td>0.224</td>
<td>0.354</td>
<td>0.360</td>
<td>-0.232</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>DA</td>
<td>-0.095</td>
<td>-0.051</td>
<td>0.558</td>
<td>0.042</td>
<td>0.278</td>
<td>0.256</td>
<td>0.343</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Note. PS = Psychological Safety; SS = Supervisor Support; EL = Emotional Labour; EE = Emotional Exhaustion; DP = Depersonalisation; PA = Personal Accomplishment; SA = Surface Acting; DA = Deep Acting.

In view of the totality of results discussed in this section, it was concluded that sufficient merit for the Spies-Kotzé burnout measurement model was demonstrated and that the operationalisation of the measurement model was not totally unsuccessful. Consequently, it was permissible to test the structural model fit.

4.5 Structural Model

The Spies-Kotzé burnout conceptual model proposed by this research represents the substantive relationships between the numerous endogenous and exogenous latent variables. The five interaction effects that were included in the conceptual model were initially tested with SEM via the orthogonalising technique by Little et al. (2002), but the model failed to converge, and the interaction effects could therefore not be investigated as part of the conceptual model with LISREL. This subsequently led to the construction of the Spies-Kotzé burnout reduced structural model excluding the hypothesised interaction effects. An overarching Spies-Kotzé burnout
conceptual model was also illustrated, showing all the hypotheses. Therefore the Spies-Kotzé burnout reduced structural model (figure 3.2) was tested with SEM via LISREL (in order to establish if the theoretical relationships indicated at the conceptualisation phase, chapter 2, is supported by the data), whereas the interaction effects were tested in SPSS via a series of moderated multiple regressions.

4.5.1 Fitting the structural model

The Spies-Kotzé burnout reduced structural model was fitted by assessing the covariance matrix. LISREL 8.80 (Du Toit & Du Toit, 2001) was used to conduct the SEM analyses.

4.5.2 Interpretation of structural model fit and parameter estimates

The fit of the structural model was assessed by evaluating a fuller scope of fit indices calculated by LISREL (Diamantopolous & Siguaw, 2000). The exact fit null hypothesis ($H_{02a}$) was examined via the Satorra-Bentler chi square ($X^2$) statistic (as RML estimation was applied). It should, nevertheless, be noted that the probability of confirming this hypothesis was highly unlikely. Therefore it was expected that the exact fit hypothesis would be rejected. As a result of rejecting the exact fit hypothesis, the close fit null hypothesis ($H_{02b}$) was tested. This was determined by examining the possibility of observing the sample estimate of the root mean square error of approximation (RMSEA).

Consideration and interpretation of the magnitude and distribution of the model modification indices computed for gamma ($\Gamma$) and beta ($\beta$) were also evaluated. The number of large standardised residuals was additionally examined, as well as the symmetry of the distribution of the standardised residuals. Standardised residuals are considered large when values surpass +2.58 or fall below -2.58. A significant amount of positive residuals would suggest that the model underestimates the covariance and that the model needs to be changed by adding paths. Conversely, negative residuals tend to overestimate covariance between the variables and thus the trimming of paths should be used to modify the model.
The B and $\Gamma$ matrices were also evaluated to investigate likely modifications to enhancing the fit of the model, by adding further structural paths. A modification index with a value greater than 6.64 show that the structural model parameters, if set free, would improve the model fit. Therefore, in the event that several large modification index values are identified, it would insinuate that many possibilities exist to modify the model, and hence would result in a negative evaluation of the fit of the model. A review of the model modification indices for the above-mentioned matrices was used to comment on the reduced structural model fit within this study. No empirical testing of suggested modifications to the original reduced model were conducted in this study. Alternatively, the proposed model modifications were integrated into the discussion on recommendations for potential future research pertaining to the Spies-Kotzé burnout model.

If close model fit is obtained (i.e. $H_{02b}$ failed to be rejected), or if at least reasonable model fit is achieved (through the assessment of the basket of evidence derived from the GOF indices), then $H_03 - H_{010}$ (formulated in chapter 3) could be tested. These hypotheses were tested by assessing the statistical significance and magnitude of the path coefficients as obtained from the completely standardised solutions for $\Gamma$ and B. Furthermore, the squared multiple correlations ($R^2$) that specify the quantity of variance in each endogenous latent variable was also evaluated. Large $R^2$ values were preferred.

In the final analysis of the results, the reduced structural model, figure 3.2, was considered acceptable to the extent that:

a) the measurement model fitted the data well;
b) the reduced structural model fitted the data well;
c) the path coefficients for the hypothesised relations were significant; and
d) the model explained a significant proportion of the variance in each of the endogenous variables.
4.5.3 Evaluating the burnout structural model fit

The goodness-of-fit indices for the structural model provided by LISREL 8.80, is portrayed in Table 4.13.

<table>
<thead>
<tr>
<th>X2</th>
<th>S-Bχ2</th>
<th>df</th>
<th>S-Bχ2/ df</th>
<th>NNFI</th>
<th>CFI</th>
<th>RMR</th>
<th>SRMR</th>
<th>RMSEA (CI)</th>
<th>P (close)</th>
</tr>
</thead>
<tbody>
<tr>
<td>414.10*</td>
<td>429.865*</td>
<td>219</td>
<td>1.962</td>
<td>.913</td>
<td>.925</td>
<td>.727</td>
<td>.098</td>
<td>.069 (.059; .078)</td>
<td>.000869</td>
</tr>
</tbody>
</table>

Note. X² = Chi-square; S-Bχ² = Satorra-Bentler Scaled Chi-square; NNFI = non-normed fit index; CFI = comparative fit index; RMR = root mean square residuals; SRMR = standardised root mean residual; RMSEA = root mean square error of approximation *p < .05.

The structural model achieved a Satorra-Bentler Chi-square value of 429.865 with 219 degrees of freedom, and p = 0.00. As anticipated, the exact fit null hypothesis (H₀₂ᵃ) was consequently rejected.

Subsequently, the p-value for close fit (RMSEA < .05) was evaluated and the close fit null hypothesis (H₀₂ᵇ) was also rejected (.000869, p < .05). However, evaluation of the other indices revealed that the model still attained a reasonable fit. Table 4.13 shows that this model achieved an RMSEA value of .069, which indicated that, this model achieved good fit in the sample. Based on the recommendations stipulated by Hair et al., (2006), for a model containing less than 30 observed variables tested on a sample size of less than 250, a RMSEA of .069 is suggestive of good model fit.

Table 4.13 revealed that the structural model obtained a NNFI value of .913 and a CFI value of .925, both falling below the proposed cut-off value (.95) (Hair et al., 2006). The SRMR value (.0983) also missed the suggested cut-off value for good fit (.08; Hair et al., 2006). Taken together all these results pointed to only reasonable fit.

The expected cross-validation index (ECVI) evaluates the possibility of the model cross validating between samples of a similar size from a comparable population. The result of the ECVI shows the disparity that would be achieved between the fitted (analysed sample) and the expected covariance matrix in another sample of a comparable size. Accordingly, the ECVI valuably contributes to the model’s general fit (Diamantopoulos & Siguaw, 2000). The model’s ECVI (2.692) was smaller than
the values achieved for both the independence model (15.410) as well as for the saturated model (2.733). In light of these outcomes, it is apparent that a model more closely resembling the fitted model has a higher possibility of being reproduced in a cross-validation sample than the independence model. Nonetheless this possibility was just marginally better.

Additionally, two information criterions, Akaike’s information criterion (AIC) and the consistent version of the AIC (CAIC) were used to address the issue of model parsimony and utilised to compare models. A smaller value for AIC and CAIC signifies a better fit of the hypothesised model. The fitted model obtained an AIC value of 543.865 and the CAIC value = 789.718. The AIC obtained a value lower than the independence model (3112.752) as well as for the saturated model (552.000). The CAIC value was also lower for both the independence (3211.955) and saturated (1742.445) models. Based on these results, support for good model fit was substantiated.

Another measure of fit is the critical N (CN) statistic. On a statistical basis, the CN value indicates the acceptability of a sample size that should be obtained to achieve a satisfactory model fit. As a general rule-of-thumb, a model should obtain a CN > 200 to show a satisfactory representation of the data (Diamantopoulos & Siguaw, 2000). The CN value (128.162) in this model, fell extensively below the putative rule-of-thumb (CN > 200), once again pointing to only reasonable fit. However, the value of the CN statistic as well as the alleged rule-of-thumb should be construed with caution as it has been challenged in literature on numerous instances (Diamantopolous & Siguaw, 2000).

The goodness-of-fit index (GFI) and the adjusted goodness-of-fit index (AGFI) are both regarded as absolute fit indices. The GFI represents how close the model comes to flawlessly reproducing the observed covariance matrix. The AGFI is just the GFI, altered for the degrees of freedom in the model. Generally, values of the GFI and AGFI should range between 0 and 1, and values > .90 suggest adequate model fit (Diamantopoulos & Siguaw, 2000). The results revealed that the GFI (.837) and AGFI (.795) produced values that were below the benchmark value of
acceptable fit ( > .90). These indices fell well below the good model fit value, and subsequently further pointed to only reasonable model fit.

Based on the previously mentioned GOF indices, it could only be concluded that the Spies-Kotzé structural model acquired reasonable fit. However, the aggregate results seemed to demonstrate that the reduced structural model was able to replicate the observed covariance matrix, to a point that suggested that adequate faith in the model and the derived parameter estimates, could still be assumed.

In the subsequent section, the reduced structural model standardised residuals and modification indices are reviewed, with the motivation of further commenting on the model fit.

### 4.5.4 Interpretation of the structural model standardised residuals

Table 4.14 illustrates a summary of the standardised variance-covariance residuals. Thirty-four large residuals were observed, i.e. residuals that were larger than |2.58|. This indicates that the model inadequately estimated 12.31% of the unique observed variance-covariance terms. This could be regarded as satisfactory, but not ideal.

---

35 The residual matrix for the model contained ((23 x 24)/2) = 276 elements.
Table 4.14
Summary statistics for the Spies-Kotzé burnout structural model standardised residuals

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallest Standardised Residual</td>
<td>-4.728</td>
</tr>
<tr>
<td>Median Standardised Residual</td>
<td>0.000</td>
</tr>
<tr>
<td>Largest Standardised Residual</td>
<td>5.072</td>
</tr>
</tbody>
</table>

Largest Negative Standardised Residuals

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residual for SSp3 and SSp1</td>
<td>-3.460</td>
</tr>
<tr>
<td>Residual for SSp4 and SSp2</td>
<td>-3.116</td>
</tr>
<tr>
<td>Residual for EEp1 and SSp1</td>
<td>-2.575</td>
</tr>
<tr>
<td>Residual for EEp1 and Elf</td>
<td>-2.708</td>
</tr>
<tr>
<td>Residual for PAp1 and EEp1</td>
<td>-4.095</td>
</tr>
<tr>
<td>Residual for PAp1 and EEp2</td>
<td>-4.728</td>
</tr>
<tr>
<td>Residual for PAp1 and EEp3</td>
<td>-4.529</td>
</tr>
<tr>
<td>Residual for PAp3 and EEp3</td>
<td>-4.332</td>
</tr>
<tr>
<td>Residual for ELsa10 and EEp3</td>
<td>-2.603</td>
</tr>
<tr>
<td>Residual for ELsa13 and PAp2</td>
<td>-2.657</td>
</tr>
<tr>
<td>Residual for PSp2 and SSp2</td>
<td>-2.776</td>
</tr>
</tbody>
</table>

Largest Positive Standardised Residuals

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residual for SSp2 and SSp1</td>
<td>5.072</td>
</tr>
<tr>
<td>Residual for DPP1 and ELi</td>
<td>2.773</td>
</tr>
<tr>
<td>Residual for DPP1 and ELv</td>
<td>3.983</td>
</tr>
<tr>
<td>Residual for PAp1 and SSp1</td>
<td>2.733</td>
</tr>
<tr>
<td>Residual for PAp1 and Elf</td>
<td>3.966</td>
</tr>
<tr>
<td>Residual for PAp2 and Elf</td>
<td>3.896</td>
</tr>
<tr>
<td>Residual for PAp3 and Elf</td>
<td>3.704</td>
</tr>
<tr>
<td>Residual for ELsa9 and ELi</td>
<td>2.785</td>
</tr>
<tr>
<td>Residual for ELsa10 and ELsa9</td>
<td>3.358</td>
</tr>
<tr>
<td>Residual for ELda11 and ELi</td>
<td>3.386</td>
</tr>
<tr>
<td>Residual for ELda11 and ELv</td>
<td>4.454</td>
</tr>
<tr>
<td>Residual for ELda11 and DPP1</td>
<td>3.132</td>
</tr>
<tr>
<td>Residual for ELda11 and DPP2</td>
<td>4.089</td>
</tr>
<tr>
<td>Residual for ELda11 and PAp1</td>
<td>2.744</td>
</tr>
<tr>
<td>Residual for ELda11 and PAp3</td>
<td>2.719</td>
</tr>
<tr>
<td>Residual for ELda12 and ELi</td>
<td>3.474</td>
</tr>
<tr>
<td>Residual for ELda12 and ELv</td>
<td>3.673</td>
</tr>
<tr>
<td>Residual for ELsa13 and ELv</td>
<td>4.018</td>
</tr>
<tr>
<td>Residual for ELsa13 and DPP1</td>
<td>3.956</td>
</tr>
<tr>
<td>Residual for ELsa13 and DPP2</td>
<td>2.693</td>
</tr>
<tr>
<td>Residual for ELsa13 and ELda11</td>
<td>2.989</td>
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<tr>
<td>Residual for ELda14 and Elf</td>
<td>2.762</td>
</tr>
<tr>
<td>Residual for ELda14 and ELv</td>
<td>2.908</td>
</tr>
</tbody>
</table>

Note. ELsa13, ELsa9, ELsa10 = Surface Acting; ELda11 = Deep Acting; SSp3, SSp1, SSp4, SSp2 = Supervisor Support; EEp1 = Emotional Exhaustion; Elf = Frequency; ELv = Variety; DPp2, DPP1 = Depersonalisation; PAp1, PAp2, PAp3 = Personal Accomplishment; PSp2 = Psychological safety.

The stem-and-leaf plot of the structural model is displayed in figure 4.3. The plot of standardised residuals indicates that a model fits the data well when the spread of residuals is reasonably symmetrical around zero (Diamantopolous & Siguaw, 2000).

The distribution for the structural model revealed a slightly positively skewed spreading of residuals, suggesting that the observed variance and covariance terms
in the observed covariance matrix were slightly underestimated by the derived model parameter estimates.

![Stem-and-leaf plot of the structural model standardised residuals](image)

**Figure 4.3 Stem-and-leaf plot of the structural model standardised residuals**

From figure 4.4 it is evident that the model indicated only reasonable fit as the data points swerved away from the 45-degree reference line. This deviation was however not big enough to raise concern about a poor model fit.

When looking at the results obtained and reported in figure 4.3 and table 4.14, the Q-plot corroborates these findings, where there were both large positive and large negative standardised residuals, as well as the fact that positive standardised residuals were more predominant. Thus indicating that in terms of the substantial estimation errors, the structural model tends to underestimate rather than overestimate the observed covariance matrix.
4.5.5 Structural model modification indices

The structural model modification indices were examined in the same manner as with the measurement model, for the main purpose of further commenting on the model fit. Modification indices (MI) that obtained values higher than 6.64, are considered large and specify parameters that, if set free, would improve the model fit (p < .01).

The gamma matrix presented in table 4.15, shows the modification indices computed for the fixed gamma parameters and revealed that four parameters, if set free, would enhance the fit of the model. This result suggests that 36% of the probable additional
paths between the exogenous and endogenous latent variables, which are not presently contained in the model, would enhance the model fit significantly.

When examining the modification indices illustrated in table 4.15, it is evident that the parameter with the highest modification index value (26.532) suggested the addition of a path allowing DA to exert an influence on EL. The results indicated a positive relationship between these two constructs. This suggested path does make substantive theoretical sense, as DA is in fact a sub-dimension of EL and could therefore warrant justification for this suggested path.

Table 4.15
Structural model modification indices for gamma

<table>
<thead>
<tr>
<th></th>
<th>SA</th>
<th>DA</th>
<th>PS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>1.809</td>
<td>10.016</td>
<td>9.009</td>
</tr>
<tr>
<td>DP</td>
<td>2.313</td>
<td>9.353</td>
<td>2.406</td>
</tr>
<tr>
<td>EE</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
</tr>
<tr>
<td>EL</td>
<td>4.488</td>
<td>26.532</td>
<td>2.654</td>
</tr>
<tr>
<td>SS</td>
<td>0.098</td>
<td>0.002</td>
<td>- -</td>
</tr>
</tbody>
</table>

Note. SA = Surface Acting; DA = Deep Acting; PS = Psychological Safety; PA = Personal Accomplishment; DP = Depersonalisation; EE = Emotional Exhaustion; EL = Emotional Labour; SS = Supervisor Support; values in bold display the significant modification index values.

Furthermore, from the modification indices which were computed for the fixed beta parameters, it was revealed that seven parameters out of 16 possible paths (43.75%), if set free, would increase the fit of the model. These model modifications suggested by the results are further discussed as recommendations for future research in chapter 5. This result further underscores the conclusion of only reasonable model fit, as indicated by the basket of GOF indices discussed previously.

Table 4.16
Structural model modification indices for beta

<table>
<thead>
<tr>
<th></th>
<th>SA</th>
<th>DA</th>
<th>EE</th>
<th>EL</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>- -</td>
<td>- -</td>
<td>71.297</td>
<td>9.987</td>
<td>4.099</td>
</tr>
<tr>
<td>DP</td>
<td>29.972</td>
<td>- -</td>
<td>- -</td>
<td>5.951</td>
<td>0.009</td>
</tr>
<tr>
<td>EE</td>
<td>8.628</td>
<td>0.419</td>
<td>- -</td>
<td>- -</td>
<td>4.754</td>
</tr>
<tr>
<td>EL</td>
<td>8.468</td>
<td>6.894</td>
<td>0.914</td>
<td>- -</td>
<td>- -</td>
</tr>
<tr>
<td>SS</td>
<td>0.820</td>
<td>1.054</td>
<td>6.751</td>
<td>1.634</td>
<td>- -</td>
</tr>
</tbody>
</table>

Note. SA = Surface Acting; DA = Deep Acting; PS = Psychological Safety; PA = Personal Accomplishment; DP = Depersonalisation; EE = Emotional Exhaustion; EL = Emotional Labour; SS = Supervisor Support; values in bold display the significant modification index values.
4.5.6 Structural model parameter estimates and squared multiple correlations

To determine whether the hypothesised relationships ($H_{03} - H_{010}$), was supported by the data, the empirical evidence concerning the relations between the endogenous ($\eta$) and exogenous ($\xi$) latent variables were considered. According to Diamantopoulos and Siguaw (2000) there are a few components and/or issues that are of importance when evaluating the relations contained in the structural model. In the first place the significance of the parameter estimates should be examined. Secondly, the magnitude of the parameters, indicating the strength of the hypothesised relationships, should be considered. Thirdly, the signs of the parameters that signify the direction of the paths between the latent variables should be inspected in order to establish whether this coincides with the original direction of the hypothesised path (i.e. positive or negative). Finally, for every endogenous latent variable the squared multiple correlation ($R^2$) thereof should be evaluated. The $R^2$ reveals the proportion of variance in the endogenous latent variables clarified by the independent latent variables that are associated to it.

The parameters of concern are the elements of the beta ($B$), gamma ($\Gamma$) and psi ($\Psi$) matrices, all containing the unstandardised parameter estimates, standard error terms and t-values. These values indicate the result of a variation in a dependent variable for a unit of change in an independent variable, whilst all other variables are assumed being held constant (Diamantopoulos & Siguaw, 2000).

The unstandardised gamma matrix displayed in table 4.17, indicate the significance of the estimated path coefficients $\gamma_{ij}$, which articulates the strength of the effect of Ksi ($\xi_j$) on Eta ($\eta_i$). The unstandardised $\gamma_{ij}$ estimates are deemed statistically significant if the corresponding t-values exceed $|1.6449|$. 

140
Table 4.17

*Structural model unstandardised gamma matrix*

<table>
<thead>
<tr>
<th></th>
<th>SA</th>
<th>DA</th>
<th>PS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>DP</td>
<td>0.155</td>
<td>-0.064</td>
<td>-0.543</td>
</tr>
<tr>
<td>EE</td>
<td>-</td>
<td>1.636</td>
<td>-6.190</td>
</tr>
<tr>
<td>EL</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SS</td>
<td>-</td>
<td>-</td>
<td>0.625</td>
</tr>
</tbody>
</table>

*Note.* SA = Surface Acting; DA = Deep Acting; PS = Psychological Safety; PA = Personal Accomplishment; DP = Depersonalisation; EE = Emotional Exhaustion; EL = Emotional Labour; SS = Supervisor Support. Significant regression coefficient values are displayed in bold.

In table 4.18 the completely standardised gamma matrix is presented. The standardised gamma matrix allows for comparison across structural equations, as the parameter estimates for gamma are unaltered by variance in the unit of measurement of the latent variables.

Table 4.18

*Structural model completely standardised gamma matrix*

<table>
<thead>
<tr>
<th></th>
<th>SA</th>
<th>DA</th>
<th>PS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>DP</td>
<td>0.155</td>
<td>-0.064</td>
<td>-0.543</td>
</tr>
<tr>
<td>EE</td>
<td>-</td>
<td>1.636</td>
<td>-6.190</td>
</tr>
<tr>
<td>EL</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SS</td>
<td>-</td>
<td>-</td>
<td>0.625</td>
</tr>
</tbody>
</table>

*Note.* Significant regression coefficient values are displayed in bold.

From table 4.17, it is evident that three of the four t-values surpassed the cut-off value (1.6449) and these paths were, therefore, statistically significant. The following three null hypotheses were consequently rejected (p < .05) $H_06: \gamma_{33} = 0; H_08: \gamma_{11} = 0$ and $H_{10}: \gamma_{31} = 0$. These findings were interpreted in terms of the hypotheses formulated in chapter 3.

**Hypothesis 6:** Surface Acting ($\xi_3$) has a positive linear relationship with Emotional Exhaustion ($\eta_3$).

The results in tables 4.17 and 4.18 indicated that the hypothesised path of SA on EE was supported. The sign of the parameter estimate concurred with the hypothesised positive relationship, and therefore it could be concluded from the results that SA ($\xi_3$)
has a statistically significant positive effect on EE ($\eta_3$). Consequently, $H_{06}: \Upsilon_{33} = 0$ could be rejected in favour of $H_{a6}: \Upsilon_{33} > 0$.

**Hypothesis 7:** Deep Acting ($\xi_2$) has a negative linear relationship with Emotional Exhaustion ($\eta_3$).

The results revealed that the hypothesised negative relationship between DA and EE was not statistically significant. Hence $H_{07}: \Upsilon_{32} = 0$ could not be rejected in favour of $H_{a7}: \Upsilon_{32} < 0$. Therefore, it had to be concluded from the results that this study revealed no empirical evidence for the notion that DA ($\xi_2$) has a negative linear relationship with EE ($\eta_3$).

**Hypothesis 8:** Psychological Safety ($\xi_1$) has a positive linear relationship with Supervisor Support ($\eta_1$).

The results indicated in tables 4.17 and 4.18 suggested that the hypothesised relationship between PS and SS was statistically significant (path coefficient = .625). Consequently, $H_{08}: \Upsilon_{11} = 0$ could be rejected in favour of $H_{a8}: \Upsilon_{11} > 0$. PS ($\xi_1$) therefore does have a positive linear effect on SS$^{36}$ ($\eta_1$).

**Hypothesis 10:** Psychological Safety ($\xi_1$) has a negative linear relationship with Emotional Exhaustion ($\eta_3$).

The hypothesised negative linear relationship between PS and EE was supported (path coefficient = -.543). The sign of the parameter estimate matched the theorised negative relationship, and it could be concluded that PS ($\xi_1$) has a significant negative relationship with EE ($\eta_3$). Therefore $H_{010}: \Upsilon_{31} = 0$ could be rejected in favour of $H_{010}: \Upsilon_{31} < 0$.

---

$^{36}$ Supervisor Support refers to the CCRs perception regarding the degree to which they perceive the organisation values their contribution and provides emotional support (Abbott et al., 2016). CCRs who perceive more support from their supervisors are more likely to have inner resources with which they can enhance their own performance. Consequently, if CCRs feel psychologically safe within the workplace (i.e. confidence to speak up freely and take interpersonal risks without fear of embarrassment), their perception of accessing their support networks will increase as the perceived support and amount of care given to the CCRs from their supervisors is present (Edmondson et al., 2016; Wanless, 2016).
Table 4.19 portrays the unstandardised beta matrix, which was utilised to evaluate the significance of the estimated path coefficients $\beta_{ij}$, articulating the strength of the influence of $\eta_j$ on $\eta_i$. Again, Diamantopolous and Siguaw (2000) articulate that the unstandardised $\beta_{ij}$ estimates are statistically significant ($p < .05$) if the corresponding $z$-value is larger than $|1.6449|$.

### Table 4.19
**Structural model unstandardised beta matrix**

<table>
<thead>
<tr>
<th></th>
<th>PA</th>
<th>DP</th>
<th>EE</th>
<th>EL</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td></td>
<td></td>
<td>-0.319</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.091)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-3.509</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DP</td>
<td></td>
<td></td>
<td></td>
<td>0.792</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.082)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.677</td>
<td></td>
</tr>
<tr>
<td>EE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.083</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.075)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.108</td>
</tr>
<tr>
<td>EL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.154</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.095)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-1.653</td>
</tr>
<tr>
<td>SS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* SA = Surface Acting; DA = Deep Acting; PS = Psychological Safety; PA = Personal Accomplishment; DP = Depersonalisation; EE = Emotional Exhaustion; EL = Emotional Labour; SS = Supervisor Support. Significant regression coefficient values are displayed in bold.

According to table 4.19, the results revealed that three of the four freed beta parameter estimates in the model, obtained values larger than $|1.6449|$. Consequently, the following null hypotheses were rejected $H_{03}: \beta_{43} = 0$; $H_{04}: \beta_{54} = 0$; $H_{09}: \beta_{21} = 0$.

**Hypothesis 3:** Emotional Exhaustion ($\eta_3$) has a positive linear relationship with Depersonalisation ($\eta_4$).
Table 4.19 and table 4.20 revealed that EE (\(\eta_3\)) had a statistically significant positive relationship with DP (\(\eta_4\)) (path coefficient = .79). It was theoretically hypothesised that there exists a positive linear relationship, which was corroborated by the results. Therefore, \(H_03: \beta_{43} = 0\) could be rejected in favour of \(H_{a3}: \beta_{43} > 0\).

**Hypothesis 4:** Depersonalisation (\(\eta_4\)) has a negative linear relationship with Personal Accomplishment (\(\eta_5\)).

The hypothesised negative relationship between DP and PA (path coefficient = - .319) was statistically significant. It was, therefore, concluded that DP (\(\eta_4\)) has a significant negative relationship with PA (\(\eta_5\)). Consequently, \(H_{04}: \beta_{54} = 0\) was rejected in favour of \(H_{a4}: \beta_{54} < 0\).

**Hypothesis 5:** Emotional Labour (\(\eta_2\)) has a positive linear relationship with Emotional Exhaustion (\(\eta_3\)).

The results indicated that EL did not have a statistically significant effect on EE. Therefore \(H_{05}: \beta_{32} = 0\) could not be rejected in favour of \(H_{a5}: \beta_{32} > 0\). The empirical results of this study, therefore, did not provide support for the notion that EL (\(\eta_2\)) has a positive linear relationship with EE (\(\eta_3\)).

**Hypothesis 9:** Supervisor Support (\(\eta_1\)) has a negative linear relationship with Emotional Labour (\(\eta_2\)).

The results revealed (table 4.19 and table 4.20) that SS had a negative relationship with EL, with a statistically significant path coefficient of -.155. \(H_{09}: \beta_{21} = 0\) could therefore be rejected in favour of \(H_{a9}: \beta_{21} < 0\), and thus it was concluded that SS (\(\eta_1\)) has a significant negative linear relationship with EL (\(\eta_2\)).

In conclusion, the completely standardised parameter estimates revealed that of all the significant effects, the influence of EE on DP was the most pronounced (.792), followed by the effect of DP on PA (.319), and lastly the effect of SS on EE (-.155).

The psi matrices (contained in tables 4.21 and 4.22) portray the variances in the structural error terms. The structural model unstandardised psi matrix, as indicated
by table 4.21, show the standard errors, the residual terms, as well as the error variance estimates for the model. Furthermore, the completely standardised psi matrix is portrayed in table 4.22. The latter mentioned matrix depicts the magnitude of the variance coefficients among the structural error terms.

Table 4.21  
**Structural model unstandardised psi matrix**

<table>
<thead>
<tr>
<th></th>
<th>PA</th>
<th>DP</th>
<th>EE</th>
<th>EL</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.898</td>
<td>0.372</td>
<td>0.612</td>
<td>0.976</td>
<td>0.610</td>
</tr>
<tr>
<td>SE</td>
<td>(0.150)</td>
<td>(0.081)</td>
<td>(0.100)</td>
<td>(0.265)</td>
<td>(0.162)</td>
</tr>
<tr>
<td></td>
<td>5.970</td>
<td>4.581</td>
<td>6.129</td>
<td>3.681</td>
<td>3.772</td>
</tr>
</tbody>
</table>

Note. PA = Personal Accomplishment; DP = Depersonalisation; EE = Emotional Exhaustion; EL = Emotional labour; SS = Supervisor Support. Significant structural error term values are displayed in bold.

Table 4.22  
**Structural model completely standardised psi matrix**

<table>
<thead>
<tr>
<th></th>
<th>PA</th>
<th>DP</th>
<th>EE</th>
<th>EL</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.898</td>
<td>0.372</td>
<td>0.612</td>
<td>0.976</td>
<td>0.610</td>
</tr>
<tr>
<td></td>
<td>5.970</td>
<td>4.581</td>
<td>6.129</td>
<td>3.681</td>
<td>3.772</td>
</tr>
</tbody>
</table>

Note. PA = Personal Accomplishment; DP = Depersonalisation; EE = Emotional Exhaustion; EL = Emotional labour; SS = Supervisor Support.

The results demonstrated that a statistically significant proportion of the variance in all of the endogenous factors were not represented by the model (t-values > |1.6449|). Bearing in mind that the model cannot be viewed as having accomplished perfect fit, these outcomes (i.e. all psi variances being significant) are not unforeseen. However, the magnitude of the structural error variances was slightly disappointing.

The squared multiple correlations ($R^2$) shown in table 4.23, clarify the variance of all endogenous variables, represented by the weighted linear composite of all effects related to it in the model (Diamantopoulos & Siguaw, 2000).

Table 4.23  
**Squared multiple correlations for structural equations**

<table>
<thead>
<tr>
<th></th>
<th>PA</th>
<th>DP</th>
<th>EE</th>
<th>EL</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.102</td>
<td>0.628</td>
<td>0.388</td>
<td>0.024</td>
<td>0.390</td>
</tr>
</tbody>
</table>

Note. PA = Personal Accomplishment; DP = Depersonalisation; EE = Emotional Exhaustion; EL = Emotional labour; SS = Supervisor Support.

From these results it is apparent that the structural model displayed a reasonable endeavour to clarify the variance underlying the burnout components (i.e. EE, PA
and PA). The results indicated that the structural model accounted for 39% of variance in EE, as well as almost two thirds (63%) of variance in DP. A mere 10% of variance was explained in PA. Taking into consideration the process model of burnout\textsuperscript{37}, it is argued that burnout could be regarded as a tri-dimensional process with EE being the central strain dimension of burnout. However, when interpreting the results (table 4.23) and considering the burnout process model, the key latent outcome is in fact PA. However, the results revealed that a relatively large amount of variance (63%) in DP was accounted for by the model, indicating that during the process of burnout of CCRs, most of the variance in the process is in fact located in the DP component (i.e. become more cynical).

Figure 4.5 visually illustrates the parameter estimates for all the hypothesised paths in the Spies-Kotzé burnout reduced structural model. Six of the eight hypothesised paths\textsuperscript{38} in the model proved to be significant (indicated in red). These eight hypotheses reflected the beta and gamma path specific hypotheses. Another five hypotheses (H\textsubscript{011} - H\textsubscript{015}) were considered as interaction effects in the Spies-Kotzé conceptual model. As previously mentioned, these five interaction effects that were included, were initially tested with SEM via the orthogonalising technique by Little et al. (2002), but disappointingly failed and was therefore examined with moderated multiple regression analyses, reported in the subsequent section.

\textsuperscript{37} The casual ordering and contrasting views of the three components (i.e. EE, DP and PA) comprising the burnout process, was thoroughly discussed in the literature review (chapter 2). It was argued that chronic work demands would drain the resources of a CCR causing EE as the first component in the burnout process. Thereafter a CCR would develop a coping strategy whereby DP acts as an emotional buffer between themselves and their job demands, essentially leading to the CCR feeling incompetent (i.e. reduced feelings of PA).

\textsuperscript{38} It should be noted that in totality, the study included 15 hypotheses. With reference to the Spies-Kotzé conceptual model (figure 3.1), H\textsubscript{01} and H\textsubscript{02} represented the exact and close fit null hypotheses respectively.
Figure 4.5 Results of the fitted Spies-Kotzé burnout reduced structural model
4.6 Moderating Effects

A moderator is a variable that determines conditions under which a given indicator is related to an outcome. Moderation suggests an interaction impact, whereby a moderating variable changes the course or magnitude of a connection between two factors. The incline of the slope of the dependent variable on the independent variable will then vary in terms of direction and/or size, depending upon the levels of the moderator variable.

Two moderated multiple regression analyses were conducted to determine whether PS acted as a moderator in the relationship between DP and PA, as well as on the relationship between EL and EE. A further three multiple regression analyses were conducted to determine whether other variables acted as moderators in various relationships contained in the conceptual model. These included, the effect of EMO on the relationship between DA and EE; SS as a moderator between EL and EE; and ESC as a moderator on the SA and EE relationship.

Collinearity, according to Dalal and Zickar (2012), is inherent to the moderated regression specification. When collinearity is present, the independent variables are likely to be linearly related to one or more of another independent variable within the predictor set. Furthermore, Little et al. (2006) states that this could potentially lead to issues when estimating the regression coefficients, as well as affecting the statistical support for these moderators. Therefore, in order to mitigate collinearity, mean centering (Little et al., 2006) was utilised as a strategy. The mean centered interaction effects were calculated by taking the mean for each of the two variables (e.g. the independent variable, EL, that was hypothesised to have a main effect on the dependent variable and the variable (i.e. SS) that was hypothesised to moderate this relationship), were determined and subtracted from the original variables. For example, the mean of EL was subtracted from the total EL score, and the mean of SS was subtracted from the SS total score, resulting in two mean centered values (e.g. mean centered interaction effect = [EL – mean of EL] * [SS – mean of SS]. The result of these two mean centered values were then computed as the SS * EL.
interaction variable, and entered into the regression analysis, with the initial two variables.

According to Little et al. (2006) mean centering would further diminish or exclude the related instability of regression estimates and standard errors. Mean centering, as a strategy, was therefore used in the moderated multiple regression analysis to examine all the moderating effects that were initially proposed within this study.

4.6.1 Supervisor Support as a moderator

EE was entered as the dependent variable in the first moderated regression analysis. EL and the mean centered product term generated for the hypothesised interaction effect between SS and EL were entered as the independent variable. The analysis was performed to test the following hypothesis:

Hypothesis 11: Supervisor Support moderates the relationship between Emotional Labour and Emotional Exhaustion.

The regression results, portrayed in table 4.24, indicated that the model was significant (.05, p < .05) and revealed that only 2.8% (R² = .028) of the variance in EE could be explained by the model.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>.168 a</td>
<td>.028</td>
<td>.018</td>
<td>10.56835</td>
<td>2.902</td>
<td>.050 b</td>
</tr>
</tbody>
</table>

**Note.** EEtot = Emotional Exhaustion total; SStot_MC = Supervisor Support mean centered; ELtot = Emotional Labour total.

Table 4.25

**Moderated regression analysis with mean centering for Supervisor Support**

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardised Coefficients</th>
<th>Beta</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Constant)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ELtot</td>
<td>.082</td>
<td>1.168</td>
<td>.244</td>
</tr>
<tr>
<td></td>
<td>SStot_MCxELtot_MC</td>
<td>-.151</td>
<td>-2.164</td>
<td>.032</td>
</tr>
</tbody>
</table>

**Note.** ELtot = Emotional Labour total; SStot_MC = Supervisor Support mean centered; ELtot_MC = Emotional Labour mean centered.
From the moderated regression results (table 4.25), evidence for SS as a moderating variable emerged indicating that SS significantly moderated the effect of EL on EE (p = .032; p < .05). The results consequently provided support for hypothesis 11.

4.6.2 Psychological Safety as a moderator

In the second moderated regression analysis, PA was entered as a dependent variable. The independent variables included DP and the product term generated for the hypothesised interaction effect between PS and DP. The following hypothesis was tested:

Hypothesis 12: Psychological Safety moderates the relationship between Depersonalisation and Personal Accomplishment.

The results from this moderated regression analysis, presented in table 4.26, indicated that the model was significant (p < .05), and that only approximately 3% (R² = .028) of the variance in PA could be accounted for by the model.

Table 4.26
Model summary: Psychological Safety as a moderator (mean centring)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.168 a</td>
<td>.028</td>
<td>.019</td>
<td>7.04134</td>
<td>2.910</td>
<td>.050 b</td>
</tr>
</tbody>
</table>

a. Dependent Variable: PA tot
b. Predictors: (Constant), PS_MCxDPtot_MC, DPtot

Note. PA tot = Personal Accomplishment total; PS_MC = Psychological Safety mean centered; DPtot_MC = Depersonalisation mean centered; DPtot = Depersonalisation total.

Table 4.27
Moderated regression analysis with mean centring for Psychological Safety

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardised Coefficients</th>
<th>Beta</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>(Constant)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DPtot</td>
<td>-.167</td>
<td>-2.362</td>
<td>.019</td>
</tr>
<tr>
<td></td>
<td>PS_MCxDPtot_MC</td>
<td>.006</td>
<td>.092</td>
<td>.927</td>
</tr>
</tbody>
</table>

Note. DPtot = Depersonalisation total; PS_MC = Psychological Safety mean centered; DPtot_MC = Depersonalisation mean centered.

From table 4.27 it can be deduced that the interaction effect was not significant (p = .927; p > 0.05). The standardised coefficients presented in table 4.27 indicated that DP, as a main effect, was significant (β = -.167, p < .05) and contributed to
explaining variance in PA. However, given the fact that the interaction effect was not significant, it was concluded that hypothesis 12 was not supported by the results.

A second moderated regression with PS as a moderator was conducted. In this regression analysis EE was entered as the dependent variable. The independent variables were PS\(^{39}\), EL and the mean centered product term generated for the suggested interaction effect between PS and EL. The following hypothesis was tested:


The results, as shown in table 4.28, indicated that the model was significant (p < .05), and explained 11% (R\(^2\) = .110) of the variance in EE.

\[\text{Table 4.28} \]

**Model summary: Psychological Safety as a moderator (mean centring)**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.332</td>
<td>.110</td>
<td>.097</td>
<td>10.13858</td>
<td>8.207</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: EEtot  
b. Predictors: (Constant), PS_MCxELtot_MC, ELtot, PS

*Note.* EEtot = Emotional Exhaustion total; PS_MC = Psychological Safety mean centered; ELtot_MC = Emotional Labour mean centered; ELtot = Emotional Labour total; PS = Psychological Safety.

\[\text{Table 4.29} \]

**Moderated regression analysis with mean centring for Psychological Safety**

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardised Coefficients</th>
<th>Beta</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. (Constant)</td>
<td></td>
<td></td>
<td>8.739</td>
<td>.000</td>
</tr>
<tr>
<td>PS</td>
<td>-.320</td>
<td>-.320</td>
<td>-4.772</td>
<td>.000</td>
</tr>
<tr>
<td>ELtot</td>
<td>.060</td>
<td>.060</td>
<td>.901</td>
<td>.369</td>
</tr>
<tr>
<td>PS_MCxELtot_MC</td>
<td>-.032</td>
<td>-.032</td>
<td>-.473</td>
<td>.637</td>
</tr>
</tbody>
</table>

*Note.* PS = Psychological Safety; ELtot = Emotional Labour total; PS_MC = Psychological Safety mean centered; ELtot_MC = Emotional Labour mean centered.

The results of the moderated regression analysis in table 4.29 showed that PS as a main effect (β = -.320, p < .05) was significant, and appeared to be the only

\[^{39}\] In this regression analysis, apart from the EL main effect, PS was also entered as a main effect. This was due to the fact that this variable was proposed to have a main effect on the EE variable, together with the interaction effect. This was visually depicted in the Spies-Kotzé burnout conceptual model (figure 3.1).
significant predictor in the model. No support for the significance of the interaction effect was evident from the results \((p = 637; p > 0.05)\). Hypothesis 13 was therefore not supported.

4.6.3 Emotional Management of Others as a moderator

EE was entered as the dependent variable for the third moderated regression analysis. The independent variables included DA and the product term generated for the mean centered interaction effect between EMO and DA. The subsequent hypothesis was investigated:


The results from table 4.30 showed that the model was not significant \((p = .893, p > .05)\). Consequently, hypothesis 14 was not supported by the results.

Table 4.30

<p>| Model summary: Emotional Management of Others as a moderator (mean centring) |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.034a</td>
<td>.001</td>
<td>-.009</td>
<td>10.714</td>
<td>.113</td>
<td>.893b</td>
<td></td>
</tr>
</tbody>
</table>

\(a.\) Dependent Variable: EEtot,

\(b.\) Predictors: \((\text{Constant}), \text{EMOtot}_\text{MCx}x\text{DAtot}_\text{MC}, \text{DAtot}\)

Note. EEtot = Emotional Exhaustion total; EMOtot_Mc = Emotional Management of Others mean centered; DAtot_Mc = Deep Acting mean centered; DAtot = Deep Acting total.

Table 4.31

Moderated regression analysis with mean centring for Emotional Management of Others

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardised Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
</tr>
<tr>
<td>1. (\text{(Constant)})</td>
<td>9.650</td>
</tr>
<tr>
<td>DA tot</td>
<td>.032</td>
</tr>
<tr>
<td>EMO tot_Mc x DA tot_Mc</td>
<td>.011</td>
</tr>
</tbody>
</table>

Note. \(\text{DAtot} = \text{Deep Acting total}; \text{EMOtot}_\text{MC} = \text{Emotional Management of Others mean centered}; \text{DAtot}_\text{MC} = \text{Deep Acting mean centered} \).
Hypothesis 15: Emotional Self-Control moderates the relationship between Surface Acting and Emotional Exhaustion.

The results (table 4.32) revealed that the model was significant \( (p = .000, p < .05) \) and that approximately 9\% \( (R^2 = .085) \) of the variance in EE was being explained by the model.

### Table 4.32
**Model summary: Emotional Self-Control as a moderator (mean centring)**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>.292</td>
<td>.085</td>
<td>.076</td>
<td>10.25446</td>
<td>9.298</td>
<td>.000b</td>
</tr>
</tbody>
</table>

a. Dependent Variable: EEtot  
b. Predictors: (Constant), ESCtot_MCxSAtot_MC, SA tot

**Note.** EEtot = Emotional Exhaustion total; ESCtot_MC = Emotional Self-Control mean centered; SA tot_MC = Surface Acting mean centered; SA tot = Surface Acting total.

### Table 4.33
**Moderated regression analysis with mean centring for Emotional Self-Control**

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardised Coefficients</th>
<th>Beta</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>(Constant)</td>
<td></td>
<td>10.283</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>SA tot</td>
<td>.284</td>
<td>4.202</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>ESCtot_MCxSAtot_MC</td>
<td>-.057</td>
<td>-.838</td>
<td>.403</td>
</tr>
</tbody>
</table>

**Note.** SA tot = Surface Acting total; ESCtot_MC = Emotional Self-Control mean centered; SA tot_MC = Surface Acting mean centered.

SA as a main effect was the only significant predictor \( (p = 0.00; p < .05) \) in this model. The interaction effect was non-significant \( (p = .403; p > .05) \). Consequently, no support for hypothesis 15 was found.

In figure 4.6 the final Spies-Kotzé burnout conceptual model is presented. Significant pathways/results derived via the SEM and moderated multiple regression analyses are shown in red.
Figure 4.6 Final Spies-Kotzé burnout conceptual model with significant hypothesised effects
4.7 Summary

The purpose of this chapter was to give an account on the research results acquired through the data analyses conducted in this study. This chapter remarked and commented on the measurement and structural model fit, as well as revealing the results of the hypothesised interaction effects contained in the conceptual model. The following, and final chapter will give an in-depth discussion of the results and in particular focus on plausible structural model modifications and recommendations for future research. The methodological restrictions and reasonable implications of the research are also discussed.
CHAPTER 5
DISCUSSION

5.1 Introduction

The service industry, specifically call centres are known to be one of the fastest growing industries globally (Miller & Hendrickse, 2016). Call centres characterise many features of the service industry that have come to govern many economies. Call centres have therefore become the most recent and clearest articulation of endeavours aimed at justifying the arrangement of communication and information technologies. This is usually viewed as an immediate result of organisations’ endeavours to be able to provide customer service at an essentially low cost (Hauptfleisch & Uys, 2006). However, little emphasis has been placed on the negative effects experienced by CCRs enabling this customer service.

In many instances call centres have suffered a bad reputation due to the encumbering demands placed on CCRs and the outcomes thereof. It is well documented that call centre work has a harmful impact on CCRs as they are exposed to both physical and psychological demands (Abbott et al., 2013). Psychological consequences, such as mental health deterioration, tends to be highly prevalent amongst CCRs and is characterised by decreases in feelings of self-esteem, as well as increases in depression, anxiety, psychological distress and even substance abuse (Abbott et al., 2013). Recent literature even suggests that CCRs can develop musculoskeletal disorders (MSD) due to physical workplace factors such as prolonged sitting postures, workstations layout and exposure to bad lighting (Miller & Hendrickse, 2016).

The incessant and prolonged nature of the demands and consequences creates cumulative job stress (Halbesleben, 2010) leading to burnout, which is defined as “a state of exhaustion in which one is cynical about the value of one’s occupation and doubtful of ones capacity to perform” (Bakker & Costa, 2014, p.113). According to Jain and Singh (2010) the incident of burnout rates within the service industries and especially among CCRs is extremely high and a common occurrence. High levels of
employee burnout has well known detrimental effects on organisations, such as higher absenteeism, increased turnover, low morale, reduced productivity, increased intentions to leave and negative work attitudes (Brotheridge & Grandey, 2002; Burgess & Connell, 2004; Schaufeli, Maslach & Marek, 2017). Burnout among CCRs is commonplace due to the combination of direct contact with customers and an emphasis on service quality, together with a tightly controlled work environment, which places great demands on these employees (Kinnie et al., 2000). This raises the question as to how organisations should respond to burnout.

The dysfunctional consequences relating to burnout have therefore been well documented in call centres work and the harmful impact on employees. This impact could however be mitigated by deepening the understanding of the nomological network of latent variables that determine the level of burnout CCRs in the service industry experiences.

The process model of Leiter and Maslach (1988) was utilised to explain the nature of the three negative response patterns of burnout i.e. EE, DP and PA. The process model describes the experience of EE leading to DP, that acts as an emotional buffer between the individual and their job demands, leading to the individual feeling incompetent (i.e. reduced feelings of PA; Alarcon, 2011; Bono & Vey, 2005; Karimi et al., 2013; Zapf, 2002).

Further to this, it was argued that EL is a key contributor to the development of burnout in CCRs. More specifically, the emotional labour emotional regulation techniques (i.e. SA and DA) utilised by CCRs were considered as predictors of EE, as each technique essentially has a different effect on the employees’ well-being (Cheng et al. 2013; Chu et al. 2012; Karimi et al. 2013), SA and DA both have both been shown to have differential effects on how employees develop burnout, with SA tending to be particularly more harmful than DA. DA involves suppressing job incongruent felt emotions and actually trying to feel the job congruent ones which the CCRs can then express authentically. Through DA emotions and feelings are actively induced, by ‘pumping’ themselves up into the desired front. It was argued that when employees utilise this type of emotion regulation strategy (i.e. DA) it could
actually allow them to feel emotional harmony as the CCR is actually displaying their genuine nature in their effort to feel the appropriate emotions. SA on the other hand involves the suppression of felt emotions, and therefore implies deceiving others about what they really feel. Consequently CCR who engage in SA would ‘fake’ the appropriate emotional display to customers (Messerli et al., 2016). Whereas both emotional regulation techniques have detrimental effects on a CCR, SA is understood as being more harmful, as the disconnect between the individuals actual feelings and those they must display, is greater. Hoffman (2016) acknowledges that several studies have shown that SA is associated with higher levels of stress and depression leading to a quicker development of burnout.

Moreover, it was argued that the manner in which burnout develops is influenced by certain organisational and individual variables. Individual and/or organisational factors were regarded as resources that may buffer the impact of job demands (i.e. EL) on the strain experienced (i.e. burnout) by a CCR. The JD-R model was therefore included in the beginning to support the framework for the study. For example, a study conducted with more than 1000 employees established that job demands influenced burnout less, when employees possessed certain job resources (Bakker et al., 2004). The Conservation of Resources (COR) theory was also introduced in the beginning of the study, proposing that this theory is fundamentally a theory of motivation and can be used to explain the significance of resources, and the effect that these resources have on a CCRs level of burnout experienced. Consequently, the resources (both individual and organisational) included in this study were: SS, PS and EI as an emotional coping regulator. The effects of these individual (i.e. EI) and organisational factors and/or resources (i.e. PS and SS) were consequently examined indirectly through hypothesised influences.

The possibility for applying the principles of the JD-R model and COR theory in call centre situations consequently turns out to be clear: when and if CCRs experience high emotional work requests/demands (i.e. EL) on a persistent basis, and on the premise that they encounter a lack of job resources (i.e. lack of PS and/or lack of SS) from their environment and team leaders or a lack of personal resources (e.g.
EI), the likelihood that burnout (i.e. EE) will progress, increases. Job resources/demands and the effects thereof incorporated in the study were therefore aimed at gaining unique insights into the psychological processes that determine variance in burnout (i.e. EE) amongst CCRs.

The research initiating question therefore aimed to ask what leads to the variance in burnout experienced by CCRs? More specifically, the study aimed to build forth on the Spies (2006) burnout model, aiming to adapt and elaborate the model to enhance the understanding of the complexity of factors that combine to determine burnout in CCRs. The main aim of this study was therefore to propose a complex nomological net of the determinants explaining variance in burnout amongst CCRs.

The theorising presented in the literature review (chapter 2) and in response to the research initiating question resulted in the proposed Spies-Kotzé burnout conceptual model. Chapter 3 reported on the empirical evidence that was attained by delineating the research methodology applied to test and evaluate the newly established Spies-Kotzé burnout conceptual model (i.e. SEM was conducted on the reduced structural model and moderated regressions analyses on the interaction effects).

The final chapter concludes and discusses in detail the results, as reported on in chapters 3 and 4. A discussion of the results of the evaluation of the measurement model and the outcomes of the reduced structural model and multiple regression analyses will be included. Further to this, this section provides suggestions for future research. More specifically, possible model modifications to enhance/improve the Spies-Kotzé burnout structural model are discussed. Lastly, the chapter concludes by discussing managerial implications of the research, encouraging organisations to introduce interventions within the workplace to alleviate the occurrence of burnout among CCRs. Limitations to the current study are also considered.
5.2 Results

5.2.1 Evaluation of the Spies-Kotzé burnout measurement model

The overall range of the goodness-of-fit statistics, i.e. the RMSEA, NNFI, CFI and the SRMR for the measurement model, revealed good model fit. In addition, statistical evidence of close model fit was obtained.

All indicator (i.e. item parcel) loadings were statistically significant (p < .05). The results further revealed that of the 23 indicator variables, 11 achieved acceptable lambda-X parameter estimates, low measurement error and high R\(^2\) values. However, 12 of the remaining variables (i.e. PSp2, SSp1, SSp2, SSp3, Elf, Elv, PAp3, ELsa9, ELsa10, ELda12, ELda14) exceeded loadings above .50 but below .70, therefore not warranting serious concern, except for one indicator variable (Elf) that raised some concern due to an extremely low R\(^2\) value. Overall it was established that the majority of the indicator variables gave a reasonably uncontaminated reflection of the latent variables they were intended to reflect and their operationalisation was rendered effective.

In conclusion, it could be deduced from the results that the measurement model obtained good model fit. Based on this deduction, an unambiguous judgement on the fit of the reduced structural model was considered possible. Accordingly, the Spies-Kotzé burnout reduced structural model (figure 3.2) was tested with structural equation modelling (via LISREL).

5.2.2 Evaluation of the Spies-Kotzé burnout reduced structural model

Taking the evaluation of the reduced structural model GOF statistics (i.e. RMSEA, NNFI, CFI and SRMR) into account, it was concluded that the model attained only reasonable fit, whilst no statistical evidence of close fit were obtained. However, the aggregate results showed that the Spies-Kotzé burnout reduced structural model was able to replicate the observed covariance matrix, to the point that led to adequate faith in the model and the derived parameter estimates.
The gamma matrix revealed that three of the four hypothesised relationships between the endogenous and exogenous latent variables were significant (p < .05). The hypothesised influences of SA on EE, and PS on both SS and EE were all supported. Regrettably, no support was found for the influence of DA on EE.

Furthermore, a review of the beta matrix also revealed empirical support for three out of the four hypothesised relationships. Empirical support was obtained for the influence of EE on DP, the influence of DP on PA as well as the influence of SS on EL. The results however, unfortunately indicated that EL did not have a significant effect on EE.

From the results it was further concluded that the structural model displayed a reasonable endeavour to clarify the variance underlying the burnout components (i.e. EE, DP and PA). The results indicated that the structural model accounted for 39% of variance in EE, 63% of variance in DP and only 10% in PA.

In the Spies-Kotzé burnout reduced structural model, EE was found to positively influence DP as well as DP negatively influencing PA. These three dimensions forms part of the process model through which, it is argued, burnout occurs (Buunk et al., 2001; Maslach et al., 2001; Sánchez-Moreno, De la Fuente Roldán, Gallardo-Peralta & De Roda, 2014). The burnout process model was tested to determine the casual arrangements of these three components. The question was raised as to which components within the burnout process develops first, and which thereafter. It was argued in this study that taking a stance on a particular order, and testing the process model to better understand the casual sequencing of these constructs, could serve as an explanation of the sequential order that would offer an understanding into the burnout process as a whole. For example, if reduced PA, rather than EE, marks the onset of the burnout process40, then organisations need to be cognisant of different characteristics and/or signs within a CCR that leads to the onset of burnout.

40 Strictly speaking the verdict on the sequencing of the three components was only tested in the sense that the sequencing as specified in this model (i.e. EE leads to DP, leads to PA) was tested and found to be reasonably supported by the model fit. However, the researcher notes that to really definitively answer this question, competing models where the sequencing differs, should be fitted,
However, the results of this study (i.e. reasonable empirical support of the sequencing of the burnout components suggested in the Spies-Kotze reduced structural model) supports an argument put forth in a study by Houkes et al. (2011), where they conducted a three-wave longitudinal study on a sample of Dutch employees working in the service industry. Their study aimed to determine the casual ordering of the three-burnout components. Similar to the stance taken in this study, these authors are of the opinion that the burnout components do not develop simultaneously, but sequentially, and that understanding the ordering of these components can be pertinent for early acknowledgement of burnout and the identification of ‘high risk’ individuals (Houkes et al., 2011). They supported the process of burnout that is in line with the model initially presented by Leiter and Maslach (and also the approach followed in this study), with “…emotional exhaustion being the core dimension of burnout, which triggers the development of depersonalization, and subsequently personal accomplishment (through depersonalization)” (Houkes et al., 2011, p. 9).

Empirical evidence for this sequencing emerged from the current study. More specifically, EE was found to positively influence DP with a path coefficient of .792. It was reasoned that feelings of constant exhaustion would result in CCRs distancing themselves psychologically from their customers and therefore depersonalising their relationships. With regards to the burnout process model, the original model of Leiter and Maslach (1988) was utilised, as the focus of the study was on inbound call centres, where part of the CCRs roles was to approve loan disbursements to customers who inquire about the affordability of getting a loan and to achieve targets in terms of quality assurance. It was therefore reasonable to assume that this type of work (i.e. reaching targets for quality assurance, dealing with irate customers who cannot afford a loan, rehabilitating customers with arrear accounts) could firstly result in EE leading to the sequencing of the other components. Therefore CCRs would start experiencing exhaustion as a function of their personal reaction to persistent aspects of their work environment and demands, draining the resources (and the verdict on which process model is the best fit should be derived by comparing the model fit of the two models.

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particularly emotional resources) of a CCR. This means that the results suggests that it is plausible to argue that the constant feelings of exhaustion will result in the CCR developing a coping strategy whereby they become cynical and detach themselves from others, and their work.

DP therefore occurs as the employee distances and detaches themselves psychologically from their work resulting in incongruence between their existing situations and original beliefs. Maintaining this incongruence would result in a lack of lower self-evaluation (i.e. lack of PA) and thus diminishing an employee’s capacity to deal with customers and failing to accomplish work goals (Lewin & Sager, 2007; Schaufeli et al., 2017). DP was therefore found to negatively influence PA. Empirical evidence for this relationship emerged (path coefficient of -.319). Consequently, it can be inferred that the more a CCR psychologically de-personalises themselves from their work, the more a decrease in their work accomplishments will follow. A CCR that reports less perceived PA would feel that their efforts are unsuccessful. The CCR would therefore begin to lose inspiration as well as self-assurance in their abilities to perform their job. This feeling of reduced PA has negative outcomes for an organisation, as the CCR would ultimately withdraw from their work as they are emotionally drained and would find it difficult to produce the same amount of effort as they previously did. Such CCRs would manifest a lack of performance, a diminished attitude towards work and lack the capacity to deal with customers, and consequently fail to effectively accomplish their work goals (or would not accomplish their work goals as effectively as when they did not present with burnout). A longitudinal study\textsuperscript{41} conducted by Buunk et al. (2001) revealed that their analyses showed a pattern whereby EE influenced DP (obtaining a path coefficient of .32) and DP negatively influencing PA with a path coefficient of -.24. The stability coefficients for the three components were .60 for EE, .56 for DP and .66 for PA (Buunk et al., 2001). It could therefore be reasonable to assume that DP signifies the attempt of

\textsuperscript{41} This research utilised data based on five different longitudinal studies that investigated the casual ordering of the three components of burnout. The data used compared the competing models of the burnout process against each other in order to classify the best-fitting model. The purpose was to provide more insight into the casual sequencing of the three components by testing the models of Leiter and Maslach (1988) against that of Golembiewski and Munzenrider (1984).
CCRs to cope with the effects of EE by detaching themselves from their work and customers. Furthermore, conceptualising PA as an indication of the CCRs capacity and competence to accomplish work tasks, results in this dimension of burnout also being viewed within a coping framework (Brown & Roloff, 2015). These results suggest that a process model of burnout should include a complex process of recognition to CCRs and coping methods to emotional demands in human service industries.

Furthermore, the expected positive relationship between EL and EE did not emerge from the data. The lack of evidence for this relationship was in line with Spies’ (2006) results, as support was also not found for the relationship between EL and EE in her study. Spies (2006) also utilised the Emotional Labour Scale (ELS) developed by Brotheridge and Lee (2003) to measure EL, by incorporating all six facets of EL (i.e. the Frequency, Intensity, Variety, duration of the interaction, SA and DA). It was anticipated that EL (in terms of the EL construct, and SA and DA) could, together, be viewed as the foremost cause of strain in CCRs eventually resulting in EE (therefore each of these constructs were hypothesised to directly include EE in the present model). In other words, the harmful influence of EL (described as the expression of appropriate emotions CCRs are expected to show during customer interactions while suppressing actual felt emotions) on CCRs well-being was comprehended to result in an outcome of chronic strain (manifested in EE) brought by high regularity of EL requirements (Messerli et al., 2016).

Only a few studies do however confirm that EL contributes to the EE experienced by CCRs (Chu et al., 2012; Grandey, 2000; Messerli et al., 2016). For example, Bono and Vey (2005) showed that the constant emotional regulation of EL required both

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42 In the current study, it was however argued that EL would be measured by the three sub-constructs namely Frequency, Variety and Intensity, excluding duration of interaction as this is regarded as an extra dimension. EL scores are generally measured on a dimensional level, as the construct generally is not reflected in a total score (Brotheridge & Lee, 2003). Drawing on work done by Hochschild and Morris and Feldman, two dimensions (i.e. SA and DA) were treated as two separate components in this study. The three dimensions (i.e. Frequency, Intensity and Variety) were combined in a total score and SA and DA were measured separately. This is because SA and DA are two types of emotional regulation strategies that hinder or aid emotional dissonance.
psychological and physical effort, which resulted in higher levels of psychological
distress. In a study conducted by Zapf (2002) EL was shown to contribute to burnout,
as CCRs are not able to keep up with the psychological distance between the
prerequisites of felt emotions within their job, resulting in higher levels of EE.
Although general trends in literature suggest that there exists support for the
relationship between EL and EE, there has however been some inconsistency (Pugh
et al., 2011). For example, some studies have shown positive outcomes with EL
such as employee satisfaction, higher PA and even higher job satisfaction has been
found. Côte (2005) corroborated this by stating that the “understanding of the
mechanisms linking emotional labour and strain is limited” (p. 509).

In the current study, given the particular nature of call centre work, it was anticipated
that a strong relationship would be found between SA and EE. Empirical support
from the results revealed that SA was positively related to EE, with a path coefficient
of .155. A study conducted by Adil and Kamal (2012) suggested that the more a
CCR is required to alter their emotional displays, the more likely they will exert both
psychological and physical effort in order to alter or suppress their authentic emotions.
But the negative outcomes of modifying emotional displays will vary according to the
emotional regulation strategy used. Thereby, confirming that the effortful
concealment of authentic emotions (i.e. SA) and of the expression of suitable
emotions, leads to a greater burden placed on CCRs. This effort is also
supplemented by continuous emotional dissonance and that SA requires more effort
from the CCRs as actual feelings were mitigated. The relationship between SA and
EE was supported by the findings in a study conducted by Mann and Cowburn
(2005) on mental health nurses. The study revealed staggering evidence for the
salience of EE, with 67% of the interaction with patients being described by the
nurses as involving high emotional regulation strategies with “surface acting serving
as the most important contributor” (p. 160). Bagdasarov and Connelly (2013) further
corroborate this finding by stating that the majority of studies that have been
conducted, suggest that SA is more detrimental (as opposed to engaging in DA) as it
is strongly linked to adverse health problems such as psychological and physical strain, EE and emotional dissonance.

Due to the nature of CCRs’ work and specifically in this sample, there is reason enough to suggest that SA is the most salient contributor to EE for CCRs. It was argued that when a CCR engages in SA, they would experience a lack of control over their emotions and experience inauthenticity as there is conflict between their personal values and the specific job demands that a CCR is expected to achieve. This implies that SA is positively related to EE, as it is a conscious skilful strategy necessitating higher levels of psychological energy because it demands presenting inauthentic emotions and hence provokes more negative reactions from customers resulting in higher EE. Maslach and Leiter (2008) corroborate this by affirming that “workers will find themselves making a trade off between work they want to do and work they have to do” (p. 501) implying a lack of fit between the individuals personal state and demands, resulting in higher EE. Due to the fact that CCRs are supressing their emotions (when SA), their cognitive resources are reduced and this could, over the long term, result in a detrimental impact on their well-being.

Several researchers (e.g. Brotheridge & Grandey, 2002; Prati et al., 2009; Pugh et al., 2011) have further suggested that because SA incorporates the manipulation of the individuals’ feelings as well as false impressions (i.e. true feelings are hidden and/or masked) it could be considered as a form of deception, resulting in higher strain placed on CCRs. Hülsheger, Alberts, Feinholdt and Lang (2013) reaffirm that when emotion regulation within a work environment is pertinent, SA will be “the central variable of interest” (p. 4). This is because it is a strategy that is repeatedly used to react to emotional incidents within the workplace (specifically in service industries) and because SA has constantly been revealed to be positively related to EE (Hülsheger et al. 2013).

Another possible explanation for the significant effect of SA on EE cannot only be attributed to SA being a significant contributor to EE (taking into consideration the nature of the CCRs job in this study), but perhaps also because of the mean age of
the CCRs included in the sample utilised in this study. A recent study conducted by Sliter et al. (2013) investigated whether age was related to the choice of EL strategies. This cross-sectional study was conducted on a total of 519 participants (ages ranging from 18 to 68) working in different service occupations. The results revealed that SA was negatively related to age. This means that younger individuals are more likely to engage in SA, as older individuals have more motivation to decrease their negative emotions and instead engage in DA by experiencing positive emotions in order to meet their goals. Subduing inauthentic and negative emotions (caused by SA) would be more costly to older individuals, as a reduced number of cognitive resources would tend not to match their motivational goals (e.g. strive to experience less exhaustion/strain) and/or their organisational goals (e.g. better customer service, reaching targets etc.) (Sliter et al., 2013). These findings were also consistent with researchers, Dahling and Perez (2010), whom also reported a negative relationship between age and SA. Since the majority of respondents within the current study’s sample were younger CCRs (average age = 29.03) it could possibly also clarify the significant contribution of SA on EE considering that all EL components in this study was specified to load onto EE, but with only SA revealing a significant loading.

The current study also investigated whether DA was negatively related to EE. This path was however not supported by the results. This suggests that although a CCR is engaging in DA in order to authentically display their felt feelings, does not necessarily result in less EE experienced. It was however argued that DA could be viewed as a positive emotional regulation strategy. Bagdasarov and Connelly (2013) stated that numerous studies involving service employees have indicated that DA is associated with more positive individual and organisational outcomes such as an increase in job performance, enhanced job satisfaction and decreases in intentions to quit. Hülsheger and Schewe (2011) further corroborate this, as they conducted a meta-analysis revealing that DA could in fact increase or enhance job performance and the individuals’ well-being. Grandey (2003) is of the opinion that the often-found lack of support between DA and EE could also be due to the negative effects of DA
being restored via CCRs interaction with customers. This means that when CCRs resources are depleted, it could be restored in the face of the customers’ positive reaction/responses towards the authentic expression of DA towards them.

It was argued that DA can be viewed as a protective mechanism by providing identification with the CCRs feelings, and in turn emotional dissonance is resolved (Andela et al., 2015; Becker & Cropanzano, 2015). Emotional dissonance refers to the discrepancy resulting from an incongruity between felt emotions and emotions that are displayed in order to adhere to organisational rules. Since CCRs must continually attend to customers in service interactions, they unavoidably experience emotional dissonance and continuously attempt to relieve this dissonance by engaging in DA. According to Andela et al. (2015) engaging in DA involves CCRs to “…actively reinterpret emotive stimuli in terms that modify the emotional impact” (p. 322). Consequently, DA and the displays of emotion are argued to be authentic as these emotions match their internal experiences. However, empirical findings are mixed on whether DA is advantageous, harmful or unconnected to well-being (Gabriel, Daniels, Diefendorff & Greguras, 2015; Hülsheger & Schewe, 2011). Therefore DA might not be as beneficial to a CCR as many perceive it to be.

The results revealed that PS was positively related to SS with a path coefficient of .625. It was argued that the more psychologically safe a CCR feels, the likelier they would be willing to access their support networks (i.e. supervisor/team leader support). A psychologically safe environment is characterised by high levels of interpersonal trust and shared respect between team leaders and colleagues (Abbott et al., 2013). This implies that a CCR would assess PS as the degree to which they view their workplace as favourable to interpersonal risky behaviours, such as talking up or inquiring for help. CCRs would consider that they are and feel more psychologically safe within this environment. Within such an environment CCRs will be more inclined to embrace failure and speak up knowing that there is trust and emotional support. By embracing this, CCRs will feel more connected to their supervisors and/or team leaders and the support given by them, as they have shared goals which are linked by mutual respect permitting them to carry out their duties and
roles in an open and honest working environment. Therefore, once a CCR feels psychologically safe the results suggest that the perception of more frequently and easily accessing their support networks, will increase. Subsequently, when CCRs perceive a higher degree of PS, the more inclined they will be to embrace failure and deal with job related consequences as the accessibility of support to them is evident. This argument seems plausible in suggesting that an increase in CCRs perceived feelings of PS would lead to an increase in their willingness to access their support networks (Abbott et al. 2016; Carmeli & Gittell, 2009; Crawford et al., 2010).

Furthermore, the results revealed that SS as an organisational resource exerted a negative influence on EL. This relationship was significant, with a path coefficient of -.154. Investigating this relationship was proposed as a recommendation for future studies by Spies (2006) as SS within her study revealed a correlation with EL. SS was introduced as a construct in this study by arguing that within an organisation it could serve as a vital protective factor in preventing EL, as those who have more support are less susceptible to the demands of EL, than those who do not. For example, receiving support from team leaders within the work environment is related to the CCRs health, as support is a resource that assists individuals to manage work-related stress (Brotheridge & Lee, 2002; Ju et al., 2015). Xanthopoulou et al. (2010) believe that research on SS within the service industry has increased due to the significant influence it has shown to have on well-being, as it is associated with lessening the impact of stress, EL and role overload.

Furthermore, a possible explanation for the significance of SS could be due to the organisational context within which the CCRs in this study worked. CCRs could constantly rely on support from their supervisors and/or team leaders, creating a supportive working climate. Within the context of the working environment, the CCRs could immediately transfer their calls when dealing with difficult customers or when they were uncertain of a specific demand (e.g. the necessary requirements to grant a load) imposed by the customer. This would invariably result in less ‘risks’ (e.g. decreasing possible stressful situations) that a CCR would have to engage in and
therefore not required to deal with the customer because the CCR is aware that their 
team leaders are there to support them (i.e. SS would serve as a resource).

The inclusion of SS was further explained by the COR theory that specifies that 
people are inspired to secure their present resources as well as attain new
resources. Since employees “strive to obtain, retain, and protect resources” (Hobfoll
& Lilly, 1993, p. 130) individuals will proactively exert themselves in order to 
assemble their resources. Therefore when CCRs have the resource of SS, they 
would probably be able to acquire other resources (e.g. team support/collaboration, 
positive feedback, access to information, emotional support etc.) and will then be 
able to better cope with demands. CCRs are likely to perform EL as a reaction to 
emotional job demands, causing CCRs to experience emotionally stressful situations 
on a regular basis (Mishra, 2013). Hur, Moon and Jun (2013) propose that 
employees within the service industry have to engage in EL to accomplish 
organisational service goals, but their perception about SS will determine their 
reaction when under strain from EL. Consequently, the demands of the service 
industry require that employees constantly need to regulate their emotions and 
therefore tend to draw on their personal emotional resources to fulfil organisational 
responsibilities, thereby increasing the potential for EL (Duke et al., 2009). The 
results imply that SS as a resource aids CCRs to cope with managing their stress-
related emotions and/or work demands. This then reduces the need for individuals to 
engage in EL, as it would not be required for them tap into their personal emotional 
resources as much to alleviate resource loss, as they would have done if there was a 
lack of SS.

Furthermore, the results supported the arguments put forward in this study about the 
relationship between PS and EE. Support was revealed for the negative influence of 
PS on EE with a path coefficient of -.543. This result was in line with a study by 
Wanless (2016) where it was considered that when employees perceive a high 
degree of PS they are more likely to feel protected against resource loss due to 
ummanageable job demands and/or lower levels of interpersonal trust. This means 
that CCRs would not be required to invest more resources to manage perceived
threats to their psychological well-being. On the contrary, it was argued that a CCRs perception of an ‘unsafe’ working environment would strain a CCRs coping resources, thereby resulting in stress reactions (i.e. heighten levels of EE) (Bedi et al., 2012). Consequently, by not being subjected to PS, Bedi et al. (2012) reiterates that this will result in repercussions on the CCRs well-being causing a gradual loss of emotional and personal energy resulting in an increase in EE.

In a recent study by Zadow, Dollard, Mcintosh, Lawrence and Tuckey (2017), the links between PS and EE on a sample of 214 hospital nurses were examined. The study’s multilevel analysis revealed that nurses perceived a low degree of PS which “…emanates from senior managers and transmitted through teams, as the origin of psychological health erosion” (p.1) (i.e. EE) within the work environment. This is corroborated by an interesting finding in recent literature suggesting that individuals more prone to EE are typical employees who are constantly “giving it their all” (Brown & Roloff, 2015, p.388) to impress their supervisors (i.e. greater commitment and higher achievement), and in turn could result in unnecessary workloads. Gradual disappointment may occur when this well-intentioned extra commitment by a CCR is not reciprocated by their supervisors, in terms of a psychologically safe environment that fosters interpersonal trust, shared recognition and support (Brown & Roloff, 2015). This disappointment could cause the CCR to feel that their work efforts (perhaps having taken an interpersonal risk) is not respected and/or acknowledged (Brown & Roloff, 2015; Wanless, 2016). Therefore, both the strain of extra effort and greater commitment to their work, as well as the lack of reciprocity (between the CCRs efforts and lack of feelings of PS) will add to the defencelessness of EE. Consequently it is clear that PS is a malleable organisation circumstance and significant positive contributor in lessening EE among CCRs.

5.2.3 Evaluation of multiple regression analyses results

A series of moderated multiple regressions were conducted to increase the understanding of which organisational resources (i.e. SS and PS) as well as personal resources (i.e. ESM and ESC), functioned as moderators in the relationships between components of burnout, EL and the sub-dimensions of EL. In
The essence the moderating effects were tested to investigate the buffering effect of various resources (e.g. organisational or personal) on various components of the burnout process, and in the EL, EE relationship. Therefore CCRs burnout might be decreased by dealing with the moderating variables that are known to be viable in diminishing the development of burnout. However, the results of the moderated regression only revealed support for one of the five hypothesised interaction effects. Evidence for SS as a moderating variable in the relationship between EL and EE emerged. The absence of support for the remaining moderating effects (i.e. PS, EMO and ESC) should be tested again, to determine whether these interaction effects do have a significant effect on burnout (i.e. EE) experienced by CCRs.

Empirical support for SS as a moderating variable emerged, indicating that SS moderated the effect of EL on EE. In chapter 2 it was argued that the effect of EL on EE would be reduced when CCRs experience a higher degree of SS. This was recognised from evidence of the COR theory stating that SS can serve as a resource to CCRs, buffering the detrimental effects of EL on EE (Halbesleben et al., 2014; Hobfoll, 2001). The results of the current study is a replication of the study conducted by Brotheridge and Lee (2002) whereby these authors investigated the COR model as applied to the dynamics of EL. They established that the effect of EL on EE could be reduced when employees’ experience a high degree of SS as this may aid employees in recovering some of their lost resources. Support from supervisors such as work-related support (i.e. coaching, individual consideration and acknowledgement) in the effort for CCRs to complete their duties would increase the CCRs perception of SS. CCRs would view this as a resource that is gained. This is in line with the reasoning presented by Abbott et al. (2016) in that by gaining more support, CCRs are more likely to get additional job resources that permit them to manage work-related anxiety, understand customer issues and increase their quality of service. This line of reasoning was also based on the essential precept of the COR theory. The COR theory states that employees will proactively exert themselves to acquire, retain and protect their resources (Alarcon, 2011). Therefore by gaining additional resources from SS, CCRs would be less likely to exert extra effort to make up for lost resources.
The results are consistent with the findings of Duke et al. (2009) whereby they found support for the moderating effect of perceived SS, in attenuated the negative effects of the EL and EE relationship, in two service industry firms with a sample of n = 338. Furthermore, a more recent study conducted by Hur et al. (2013) on flight attendants, also reported evidence for the moderating effect of SS. These authors stated that employees engaging in EL will experience strain as a result of regulating their emotions, but high levels of support “will function as a stress buffer on the relationship between emotional regulation strategies and emotional exhaustion” (Hur et al., 2013, p. 111). Choi, Cheong and Feinberg (2012) also highlight the significance of this relationship by stating that SS will mitigate the adverse effects of EL and EE by enlarging an employee’s resources. Therefore the significance of this result indicates that organisations planning to mitigate the effects of EE should be effective in creating and/or providing SS, which could have a host of positive organisational outcomes. The implication of this finding is that how CCRs perceived SS, and how they interpreted this support, is an important contributor in the association between EL and the amount of EE experienced by CCRs.

Furthermore, the current study investigated the moderating effect of PS on the relationship between DP and PA. It was reasoned that the lack of PS (defined as the perception of the consequences an individual experiences in that they are willing to take interpersonal risks that will not result in embarrassment or humiliation) would lead to CCRs guarding themselves and withdrawing when they feel unsafe. Therefore when a CCR experiences emotional tiredness, leading to DP, the amount of perceived PS they are subjected to, would result in how ‘fast’ a lack of PA will occur. Furthermore, it was argued that when a CCR feels safe at work, they would be more willing to take the risk of engaging in self-expression. In other words, this self-expression relates to the amount of personal engagement a CCR is willing to invest, if the feeling of safety is present. The results of the analysis for the current study did however not provide support for the moderating effect of PS in this relationship. This suggests that even though a CCR might perceive a lack of PS, it would not necessarily result in ‘faster' development of PA from DP. However,
Wanless (2016) and Garrick et al. (2014) for example, reported that feelings of PS would buffer the development of PA from DP, as PS would serve as a resource to CCRs to minimise the negative effects of having to personally engage within their work tasks. This reasoning was in line with a recent study conducted by Day et al. (2017) who also reported the moderating effect of PS. Therefore a CCR, who perceives a high level of PS, will use this as a resource, as they have no need to depersonalise and withdraw themselves at work consequently not leading to a reduced feeling of PA.

No evidence from the results emerged that PS played a moderating effect in the relationship between EL and EE. It is likely that this hypothesised moderating effect of PS was not supported in the present study, as a lack of the relationship between EL and EE was not either as strong as initially anticipated. Despite the lack of support for this moderating effect, previous research (Day et al., 2017) has however found support for this interaction effect. Day et al., (2017) argued that providing positive organisational resources such as PS would buffer the effect of EE from EL. In addition, Hur et al. (2013) also found support for this moderating effect. They argued that PS is the perception of safety employees experience and the extent to which they perceive the organisation values their well-being are therefore willing to engage in risks at work and fulfilling their work obligations. Their study found support in that when employees engage in EL and experience stress/strain due to regulating their emotions, higher levels of PS will function as a stress buffer on the relationship between emotion regulation strategies and EE (Ashforth & Humphrey, 1993; Bedi et al. 2012; Hur et al., 2013).

Moreover, EMO (as a personal resource) was evaluated as a moderating variable between the relationship of DA and EE. EMO is the degree to which the emotions of other people are effectively managed at work. In other words, individuals high on EMO will engage in activities (and not reside in negative emotions) in order to contribute to the positive development of an emotionally positive working environment (for clients and colleagues). DA is a type of emotional regulation strategy, described as the adjustment of individuals’ own emotions to truly encounter
the required feeling, hence an effort to actively manage authentic emotions. Although no evidence emerged from the data that EMO played a moderating role in the relationship between DA and EE, some support for this relationship has previously been found (Prati et al., 2009; Ramachandran et al., 2011; Yin, 2015). Due to the narrowed measurement of EMO (discussed in section 3.9.6) could be a reason for the lack of support for the moderating effect. This poses a limitation to the breadth of the EI measurement in this study. This is viewed as a limitation but it is suggested that EI should further be investigated in future studies, as it is a worthwhile hypothesis to investigate.

Furthermore, the effect of ESC was investigated as a moderator on the relationship between SA and EE. Whereas previous research has confirmed the moderating effect of EI on the EL and EE relationship (Karimi et al., 2013; Prati et al., 2009), comparable results did not emerge in the current study. Nevertheless, it was argued that ESC would buffer the development of EE from SA. This suggests that CCRs with a high ESC (described as the frequency with which individuals control strong emotions within the workplace) will be able to regulate the reactive emotions such as resentment and anger at work more effectively. Furthermore, emotional dissonance (discrepancy resulting from an incongruity between felt emotions and emotions that are displayed to meet organisational norms) is closely related to EL (Pugh et al., 2011). SA is seen as a form of deception as it involves the manipulation of false emotions and hiding individuals true feelings. As a result, emotional dissonance becomes problematic, as it is well known to be associated with increased EE (Brotheridge & Grandey, 2002). Many researchers (Anderson et al., 2002; Ju et al., 2015) have found empirical support for the relationship between EI and EE amongst employees and in addition, other studies (Caruso et al., 2004; Ju et al., 2015; Lee & Ok, 2012) have revealed that the functional qualities of EI has a considerable effect on EL.

Therefore, is was argued that EI in the form of ESC as a protective factor would enable CCRs to regulate strong emotions which they would want to show when engaging in SA and therefore lessen the impact of SA on EE. In other words, CCRs
who are high in ESC (i.e. viewing it as a beneficial personal resource in aiding CCRs to cope with emotional demands) would report less EE as they engage in SA. This is because they have more resources (i.e. the protective/beneficial factor of ESC) to deal with the negative outcomes of SA (i.e. emotional dissonance). For example, CCRs would be better able to align their levels of emotional regulation as well as control and manage their emotions while engaging in SA so that the negative effects are not experienced.

5.3 Recommendations for future research

The Spies-Kotzé burnout model was developed and tested with the purpose of increasing our understanding of the complexly determined nomological net of the process of burnout in CCRs. This section aims to provide recommendations for future researchers interested in the study of burnout on CCRs. Recommendations are made based on the findings of this study concerning the modification/elaboration of the model based on sound theoretical reasoning.

The persuasiveness of sound theoretical reasoning will determine the decision regarding the removal of insignificant pathways contained in the current model (Theron, 2013). For the purpose of modifying the Spies-Kotze burnout model, it was therefore considered whether insignificant paths in the existing model should be taken out or whether any extra paths should be added. The results from the statistical analyses depicted that two path coefficient estimates in the burnout structural model were statistically insignificant (p < .50).

A lack of evidence from the data emerged for the influence of EL on EE. A possible explanation for this could be due to the organisational context in which the CCRs within this sample worked, explaining the possible lack of the EL – EE results. Spies (2006) did not either find support for this relationship in her study. Perhaps a possible explanation for the lack of support for this relationship has to do with the measurement of EL. The three EL sub-dimensions (i.e. Frequency, Variety and Intensity of displays) are not the main EL components of CCRs work that results in
EE, but throughout the results it was evident that SA seemed to be the main factor contributing to CCRs EE.

Moreover, evidence was not found for the hypothesised influence of DA on EE. It was initially argued that an increase in DA would lead to a decrease in EE as it serves as a protective mechanism against EE (Brotheridge & Grande, 2002). However, DA as an emotional regulation technique could increase or decrease strain (Gabriel et al., 2015). Côte (2005) rightfully points out and with reference to the social interaction model\(^{43}\) that “factors pertaining to the social dynamics of emotion determines when emotion regulation increases or decreases strain and when it does not influence strain” (p. 509). In other words, this increase or decrease is reliant on the distinct emotion in question, the direction of the emotional regulation technique (i.e. DA either intensifies or suppresses the emotion), and the receivers’ reaction (i.e. customers) to the CCRs emotional display. Disregarding this pathway in future studies would be an impulsive action. Instead future researchers should consider identifying all the possible ways in which emotions influence strain levels and how specific emotional regulation techniques such as DA, contributes to emotions in influencing employees strain levels.

The modification indices from the gamma (table 4.15) and beta (table 4.16) matrices indicated that seven additional paths (currently not included in the model) were included, would result in an improvement in the model fit. The paths containing the highest values were considered and the inclusions of these paths in future research were argued, where a sound theoretical rationale could be argued for doing so.

The parameter with the highest modification index value (71.29) suggested the addition of a path allowing EE to exert a direct positive influence on PA. The inclusion of such a path in future research could theoretically be warranted. To justify

\(^{43}\) Côte (2015) proposed this model within her research, describing that this model incorporates the social dynamics of emotion in the explanation of how emotion regulation impacts strain in terms of the senders (i.e. CCRs) and the receivers (i.e. customers). The model is therefore based on "social functional accounts of emotion positing that the senders public displays of emotion communicate rich and important information to receivers during interpersonal encounters" (Côte, 2005, p. 514).
the inclusion of the path it could be argued that in terms of the process model of burnout, EE also exerts a direct influence on PA. In other words, together with the process model of EE exerting an influence on DP and DP leading to PA, it would seem that additional variance in PA could be accounted for by adding a direct path of EE to PA. This means that in the event where a CCR experiences EE from an attempt to cope with chronic-work related stressors, this would drain the emotional resources of an individual. A lack of emotional resources would result in direct feelings of inadequacy to cope with the demands, thus resulting in a perceived lower self-evaluation for the CCR. This lower self-evaluation diminishes the employee’s capacity to deal with their customers and consequently fails to accomplish their work goals. In line with this reasoning, authors Rod and Ashill (2013) found support for the direct influence of EE on PA and Lee and Ashforth (1993) also propositioned that EE directly leads to PA. In other words, reduced PA develops independently from DP (as majority of research suggests) and a decrease in PA is also affected directly by EE. Authors Lee and Ashforth (1993) contested the models of Leiter and Maslach and Golembiewski and Munzenrider in a study that they conducted. The results revealed that EE had a direct effect on PA. This indicates that CCRs who experience strain (i.e. EE) in the form of job stressors would lead to a CCR undermining their sense of PA, negative evaluation towards their work and dissatisfaction with their accomplishment with work. Research regarding this relationship is slightly scant, however Leiter (1991) suggests that EE may directly effect PA, but only after some substantial time, hence suggesting that this could be more apparent through a longitudinal study.

The modification index with the second highest value (29.97), suggested the addition of a direct positive path between SA and DP. The addition of this path would make theoretical sense in the case where a CCR utilising SA not only results in EE as a component of burnout, but subsequently has a direct effect on DP as well. Research has indicated that the extensive use of SA through constantly faking unfelt emotions (Cheng et al. 2013; Johnson & Spector, 2007) to meet organisational demands will lead to strain, lack of emotional control and emotional dissonance (Chu et al., 2012).
This in turn will affect the nature and interaction with customers resulting in treating the customers as objects and in a callous manner (i.e. depersonalising). According to Rothmann and Visser (2008) DP can be seen as a coping mechanism that will guard the CCR from extra emotional depletion. SA requires an effortful concealment of authentic emotions as well as the expression of suitable emotions leading to a greater burnout placed on CCRs. This constant effort of managing emotions and suppression of true feelings through SA requires the CCR to invest more of their personal resources (i.e. emotional effort/strain).

Moreover, during the validation of the Emotional Labour Scale (ELS), Brotheridge and Lee (2003) found support for the relationship between SA and DP. In their study it was suggested that employees engaging in more SA is an important predictor of DP as a direct effect. This was also supported in a recent study conducted by Yilmaz, Altinkurt, Guner and Sen (2015) on a sample of 410 teachers. These authors argued, for example, that it is somewhat plausible to assume that teachers who are exhausted and repetitively have to engage in SA (as they would constantly have to make a conscious effort to not reflect personal problems within the classrooms, and on students, as well as behaving in line with formal norms as professionals) would invariably start to feel detached from their students. This could suggest that apart from the fact that SA has been shown in the current results to directly influence EE, which then leads to DP, the results seem to suggest that the effect of SA on DP does not necessarily always work through EE. In other words, there is a potential direct effect of SA on DP. Furthermore, Zammuner and Galli (2005) in their study of a sample with 769 participants reported that SA significantly predicted DP ($r = .39; p < .01$). Hülsheger and Schewe (2011) reported similar results and conducted a meta-analysis signifying that SA, as a response-focused emotion regulation technique was undeniably harmful to a CCRs well-being. The constant inauthentic display of emotions would prompt the tension owing to the feelings of being inauthentic, leading to DP making CCRs less receptive to, and involved with the needs of their customers.

Therefore, CCRs would get ‘tired’ of continuously faking their emotions (i.e. SA),
which could of course indirectly feel like lying. Constantly faking emotions can lead to feelings of DP and alienation from their call centre work especially in their responses towards customers. Scheibe and Zacher (2013) corroborate this by stating that response-focused emotion regulation approaches (i.e. SA) are less successful and therefore more costly than antecedent-focused strategies. Furthermore, Brotheridge and Lee (2003) and Carstairs and Palmer (2003) found support that DP is correlated with SA implying that emotional strain stems largely from individual effort that is required to constantly conceal authentic feelings and pretend to feel the emotions that are displayed. Therefore SA is detrimental and associated with higher DP, as SA will result in CCRs feeling detached from their individual feelings and with the emotions of their customers suggesting the direct relationship with DP.

Furthermore, the third largest modification index value (26.53) suggested that DA exerts a positive influence on EL. Hochschild (1983) initially suggested that individuals performing EL was merely based on the ‘acting’ that they were performing. Taking EL into consideration, literature indicates that EL has been identified along the following dimensions namely, the frequency of applicable emotional display, the intensity of required display rules and the variety of emotions displayed (Brotheridge & Lee, 2003). The frequency of emotional display simply refers to how often employees engage with customers whereas variety refers to the variation and amount of emotions that need to be explained and the intensity of required display rules refer to how strongly emotions are expressed (Morris & Feldman, 1996). Authors Brotheridge and Lee (2003) further built on Morris and Feldman’s (1996) conceptualisation of EL and replaced a fourth dimension, emotional dissonance with SA and DA. Therefore DA is in fact expressed as a sub-dimension and/or component of EL, making theoretical sense that there could be a connection between these two dimensions and could therefore warrant more justification for this suggested path.

A study conducted by Brotheridge and Lee (2003) and Brotheridge and Grandey (2002) revealed that the frequency of interactions could facilitate more SA or DA. This seems plausible as the more frequently CCRs engage with their customers over
the phone for example, the higher the likelihood that they will engage in more DA and/or SA. However, Ashforth et al. (2015) argues that more frequent interactions would make it more likely that employees will display their naturally felt emotions. DA could influence the intensity of emotional displays, arguing that the more intense customer interactions become, the more stronger the emotions that CCRs will be required to display thus making more use of DA. Lastly, DA can also influence the variety of emotions displayed (Ashforth et al., 2015). Therefore, the greater the variety of emotions that need to be expressed by CCRs during interactions, the more effort is needed which will result in CCRs engaging in more DA. These positive correlations between DA and the three EL components suggest that they are associated as DA is a sub-dimension of EL.

In conclusion the nature of these suggested paths should be investigated and replicated in future research to better understand the process of burnout. More specifically, the relationships between EE and PA and SA and DP suggest more direct effects on the burnout process as opposed to indirect effects. It is therefore clear that much prospect exists for future studies to unravel the direct and indirect relationships between the variables contributing to burnout. Also, future studies should aim to understand the type of emotional regulation strategies that CCRs engage in, as a more probable direct effect on the burnout process.

5.4 Limitations to the study

There are several limitations that were identified during the course of this study, which need to be noted.

Similar to most sampling investigations, this study was restricted to the use of self-report questionnaires, which carries a few disadvantages. Subjects are required to report or depict their feelings, attitudes and beliefs on a given response scale for items in a questionnaire. Several disadvantages, including, but not limited to, is that subjects show an inclination to respond to the questions in a way that, albeit efficient, meddles with the validity of the response (Paulhaus & Vazire, 2007). Socially desirable, acquiescent and extreme responding are few of the common examples.
Social desirability refers to the subject responding to the questionnaire in a desirable manner to gain approval/acceptance from others. In other words, respondents do not attend as much to the actual trait and/or the question being measured as they do to the social acceptability of the statement (Davidshofer & Murphy, 2005). Moreover, acquiescent responding is when respondents tend to merely just agree with the questions without regarding the actual questions’ content. Extreme responding on the other hand, refers to respondents’ tendency to only use the extreme ends of a rating scale, for example, only selecting “1’s” and “5’s” on a 5-point scale. It is therefore prudent to be aware of these limitations, known as response biases, in affecting the validity of the subjects’ responses.

Another limitation of this study concerns the sampling technique that was used. The conceptual model was developed for the purpose of explaining variance in burnout among CCRs within the service industry. The sampling technique that was used to test the model was a non-probability, convenience sample of CCRs employed in a call centre within the Western Cape. Therefore the results of this study cannot, and should not, be interpreted as being representative of the whole population of South African CCRs. Hence caution should be taken in terms of generalising the data obtained to the wider population of CCRs. However, the majority the sample (72.9%) were African. Although the sample was not a probability sample, restricting the study to be representative of the whole South African CCR population, the distributions of race groups were in line with the general population demographics (Statistics South Africa, 2016), actually reflecting a strength of the data obtained. Yet, the positively skewed gender distribution with the majority of the respondents being female (83.3%) decreases the generalisability of the study to the wider CCR population. Furthermore, a sample size of 203 CCRs is considered large enough for the purpose of conducting SEM analyses. However, it is suggested that future endeavours use a larger, and even more demographically diverse and representative sample, as a more noteworthy level of confidence in the results can be placed on studies containing larger sample sizes (Hair et al. 2006).
A further limitation of this study could be attributed to another demographic characteristic of the sample. A rather large portion of the sample (76.4%) indicated that English was their second language. Hence, the composite English questionnaire was completed in the majority of the respondents’ second language. A few studies have shown that language proficiency plays a role in the interpretation of the item content (e.g. Foxcroft & Roodt, 2009). Furthermore, the questionnaire contained a fair amount of negatively keyed items as negatively keyed items are often used in an attempt to protect against acquiescence (Barnette, 2000). However, negatively worded items could lead to the presence of method factors (Podsakoff, MacKenzie, Lee & Podsakoff, 2003; Schmitt & Stults, 1986). Method factors underlying the structure of the specific instrument could therefore be attributed to the wording of the items causing respondents to respond differently in their response styles. Different respondents deal differently with negatively worded items (Barnette, 2000). It is argued here that due to the fact that the questionnaire were presented to the majority of the respondents in their second language, this may have increased the presence of method bias (as was evident in the validation of the SS instrument). According to Foxcroft and Roodt (2009), when questionnaires are presented to participants in a language in which they are less capable, this could lead to ambiguous interpretation of the items and influence the outcomes. Thus, distinguishing between whether the results are due to language difficulties, or because of the levels of the construct being measured, will be somewhat confounded.

A further limitation to the study could be due to the sort of call centre that the data was collected from. The sample was drawn from an inbound call centre, where CCRs do not take part in outbound calls where they are relied upon to sell a product or service to potential customers. The fact that the calls are simply receptive to customer inquiries, would imply that the nature would not be as distressing as opposed to an environment characterised by sales whereby CCRs are required to meet strict sales targets. In the present example of CCRs, targets are of course set but are conveyed electronically to each CCR and by means of weekly meetings per department and per team, where the team leaders are present. These targets are
also less equitably based (i.e. number of calls taken per day, number of items sold) and concentrate more on criteria such as quality assurance of the calls and with an emphasis on customer focus. Therefore, it is recommended that future research should aim to focus on both inbound and outbound call centres, as well as testing the model on different service industries such as nurses, teachers, waitrons or even flight employees, as opposed to limiting it to only CCRs.

Furthermore, it is important to again stress the narrowed measurement of EI as a limitation, which was obtained in this study. The implications of this on the results are that it poses a limitation on the breadth of the EI measurement. It is therefore suggested that future researchers should not disregard EI and should further investigate the role of EI and its sub-dimensions.

5.5 Managerial implications

The current study investigated factors influencing burnout in an attempt to provide more insight into the burnout phenomena so that organisations may better be able to prevent it. Organisations all over the world are beginning to recognise that employees serve as important sources of competitive advantage in service organisations (Slåtten et al., 2011). To maintain this competitive advantage, organisations need to optimally utilise their human capital to ensure that service goals are met, and that effective performance is sustained. Organisations therefore need to acknowledge the role that burnout plays in the well-being of employees in order to offset the detrimental effects that it has on the organisation, as well as the employees.

Therefore, this section will discuss some managerial implications based on the results from the study. The importance of the present study is condensed in the knowledge that there are both physical and emotional consequences of burnout (Hauptfleisch & Uys, 2006). Burnout interventions should focus on reducing and preventing burnout, but will only be successful if the reasons/factors that determine burnout (i.e. the antecedents of burnout), as well as the manner in which these antecedents combine to determine burnout, are accurately and validly understood.
Based on the results of this study it is suggested that organisations consider the following broad categories to combat burnout: (1) develop an organisational environment that promotes a supportive atmosphere (i.e. supervisor support and psychological safety etc.), and (2) create intervention programmes aimed at increasing individual knowledge to develop resources such as emotion regulation techniques and coping strategies.

Firstly and foremost, burnout interventions should be focused on the relationship between the individual and their situational context. Interventions should be intended to provide different types of support for individuals in environments where job demands are high and therefore creating a supportive environment. The significant relationships between the burnout dimensions revealed that interventions should clearly be designed to challenge the symptoms and/or signs of EE and DP as well as enhance and boost feelings of PA. Simply allowing an employee to work less or sending them on vacation would treat the symptoms and not the root cause of the burnout problem. It is therefore imperative that burnout should be identified by connecting the job setting to the individual employee. Preventing the onset of burnout is important and organisations need to work on the premise that burnout can be prevented and/or counteracted by identifying all factors that negatively impact employee’s emotions and work behaviours.

The Conservation of Resources (COR) theory is fundamentally proposed as a theory of motivation and can be used to explain the significance of resources such as SS and PS and the effect these resources have on a CCRs level of burnout. The essential precept of COR theory is that people are driven to secure their present resources, as well as attain new resources (Bal & De Lange, 2015). Based on the results of this study, support was found for both perceived SS and PS influencing EL and EE respectively. SS has been shown to somewhat protect individuals against burnout (Bakker et al., 2004; Bakker & Demerouti, 2007) and it is therefore vital that organisations should focus on the degree of SS within the work environment. For example, organisations (i.e. through their HR and Industrial Psychologists) should take the responsibility for the development of interventions that emphasise building
and enhancing perceived support of their employees. Increasing employees’ perceptions about perceived support, for example, through improving rewards and recognitions and job conditions, could increase CCRs perceptions. Furthermore, supervisors and team leaders should be trained in how and when to deliver support to their CCRs within a given work context. For instance, within a call centre environment, high emotional demands are placed on CCRs and thus supervisors should be in control in providing CCRs with various support types such as emotional (expressions of trust and care), instrumental (tangible services), informational (advice and feedback) and even appraisal (feedback that is useful for self-evaluation) support (Russell, Holmstrom & Clare, 2015).

Fostering a good team culture and/or climate could also enhance an employees support networks. Team collaboration and team learning could enhance an employees support networks (Turner, Barling & Zacharatos, 2005). This could be implemented through specific training aimed at work that is designed within groups whereby individuals are expected to learn together increasing their collaboration and shared knowledge with each other. This could lead to employees gaining emotional and practical assistance that could increase coping, as well as increasing individuals’ feelings of belonging. A study conducted by Carter and West (1999) from 71 teams (n = 2263 health care workers) reported that higher levels of team clarity and team commitment to group goals predicted better individual well-being, as perceived support from team members and supervisors were higher.

PS on the other hand as defined by Kahn (1990, p. 708), as a feeling when an individual is willing “…to show and employ one’s self without fear of negative consequences to self-image, status or career”. Edmondson et al. (2016) and Wanless (2016) rightfully points out that PS can be seen as a remarkable resource in the workplace where learning and service quality matters. Organisations should therefore take into account that team leaders can provide this by implementing strategies aimed at giving individual consideration, coaching, assistance and accessibility to better aid CCRs to fulfil their work roles and responsibilities. As an illustration, intervention strategies could focus on coaching supervisors and/or team
leaders on how to create a typical interpersonal climate of PS through essential aspects such as knowledge about the organisations vision, strategy, becoming a supportive leader and modelling the behaviour of collaboration. Therefore if the team leader is supportive, has non-defensive responses to questions and is coaching-orientated, CCRs are most likely to conclude that the team leader/supervisor constitutes a psychologically safe environment. In a psychologically safe environment employees will perceive this as conducive to taking interpersonal risks, leading them to participate, associate, transform and learn within the workplace (Wanless, 2016). Within the call centre context, enhanced feelings of PS may diminish obstructions to engagement and permit employees to openly associate and interact within the organisation (Wanless, 2016). Supervisors and/or team leaders should therefore foster a climate of PS to alleviate interpersonal threats and make coordinated effort more likely. This is especially true in the face of emotional vulnerability, complexity and interdependence that typically characterises the work of a CCR.

Furthermore, organisations that want to support CCRs in diminishing or controlling their exhaustion levels should implement interventions aimed at enhancing emotional regulation techniques by developing emotional coping skills. The study revealed a positive relationship between SA and EE. It could be plausible to suggest that organisations should strive to develop the skills and knowledge of employees about emotion regulation techniques and how to cope with emotional demands. Material of this nature could be provided to all CCRs in a workshop design, by training CCRs on emotion regulation techniques, in an attempt to impact their strain levels. If employees were to understand and be aware of the role of SA in creating desired organisational outcomes, may offer the type of cognitive justification that lessens the negative effects of SA (Pugh et al., 2011). Training from supervisors and/or team leaders highlighting the impact of SA and providing emotional coping skills may benefit the CCR to see the usefulness to themselves of managing displayed emotions.
By making employees aware that SA is more detrimental to their health, as well as the fact that customers are more prone to perceive inauthentic emotions as opposed to authentic ones, should rather be avoided.

Moreover, it is imperative to furnish CCRs with adaptive coping skills. This is because in reality supervisors and/or team leaders do not always have the time or capacity to offer a supportive role. However, if organisations are to receive any benefits from training CCRs on adapting abilities, team leaders would have to encourage them in their coping behaviours. Grandey, Tam and Brauburger (2002) underline the significance of encouraging and preparing CCRs in emotion coping skills as – in the call centre setting, the capacity to adapt to the emotional demands and adjust own emotions, not only influences the CCR individually, but also the customers’ impression of the organisation. Development of coping skills is therefore a well-known way of helping employees cope with stress, which in the long run could turn into burnout.

EI is regarded as a personal resource as individuals have an ability to monitor their emotional expression, become more aware of what emotions are and can aid in coping with emotional situations (Caruso et al., 2004; Ju et al., 2015; Lee & Ok, 2012). Evidence for the EI dimensions, as moderators in the study, were however not supported for the suggested effects. Nonetheless, it is worthy to note what organisations could achieve, by enhancing EI within the workplace. Therefore, intervention programmes could combine EI training aimed at increasing employees stress resilience. By enhancing EI levels, for example, the capacity to better oversee positive and negative feelings and to adequately control compelling feelings, could benefit employees who encounter elevated amounts of stress – by diminishing the onset of specific aspects of burnout over time. This could have constructive results at an individual level by increasing emotional adapting resources. Consequently, enhanced levels of EI may return positive results for an organisation, as better service delivery from the CCRs could be given (Görgens-Ekermans & Brand, 2012).
In conclusion, interventions aimed at developing and training employees and supervisors and/or team leaders would yield considerable results for organisations. Implementing interventions needs to be prioritised on both supervisor and management level and should receive buy-in from all those potentially involved. Organisations should, however, note that interventions is not necessarily a quick fix to the problem of burnout, but rather that it requires a long-term commitment from both the organisation and individuals.

5.6 Conclusion

The purpose of this study was to establish a nomological net of the determinants hypothesised to influence burnout in CCRs. The study took the stance that the meaning/explanation/understanding of burnout is not located at any single point in the network but rather spread over the whole of the network. Viewing only a narrow, selected part of the network invariably will result in a loss of meaning. The existing model was developed as an elaboration of the Spies burnout model with the inclusion of additional variables to ultimately gain better insight in the burnout phenomenon. Examining both individual and organisational factors within a burnout model led to a plausible conclusion that the level of burnout experienced by each employee is not a random event, but rather due to a network of variables characterising the employee and their work conditions.

The study provided relevant insight into gaining a better understanding of the complexity underlying burnout and the determinants thereof. This could assist organisations to develop interventions to possibly reduce and prevent burnout successfully.
REFERENCES


257-265.


Messerli, L., Semmer, N. K., & Tschan, F. (2016). Disentangling the components of surface acting in emotion work: experiencing emotions may be as important as regulating them. *Journal of Applied Social Psychology*, 46 (1), 46-64.

Miller, N., & Hendrickse, R. (2016). Differences in call centre agents’ perception of their job characteristics, physical work environment and wellbeing.


Nursing Education and Practice, 4 (12), 115.


APPENDIX A
INFORMED CONSENT

EMPIRICAL EVALUATION OF A STRUCTURAL MODEL OF BURNOUT AT WORK

You are asked to participate in a research study conducted by Miss Chloe Kotze from the Industrial Psychology Department at Stellenbosch University. The results obtained will contribute to the completion of a Masters of Commerce degree in Industrial Psychology. You are selected as a possible participant in this study because you can give valuable input in the data gathering process of this study.

1. PURPOSE OF THE STUDY

Spies (2006) developed a structural model of burnout in an attempt to identify the determinants of burnout and the manner in which they combine to determine the level of burnout among employees in a call centre. As a modification and elaboration to the Spies (2006) model, this study aims to provide a better understanding of the complexity underlying burnout and the determinants thereof.

2. PROCEDURE

If you volunteer to participate in this study, you will be asked to evaluate yourself by means of completing a composite online questionnaire. You have been scheduled into time slots in order for you to have access to the computer rooms where the online questionnaire can be completed. There are no right or wrong responses for the questionnaire; we are merely interested in how you view yourself. The completion of the composite questionnaire will require approximately 30 minutes of
your time. The time scheduled for the completion of the questionnaire will not impede your work performance and has been approved by the relevant stakeholders.

3. POTENTIAL RISKS AND DISCOMFORTS

This is a relatively risk-free study. The only potential risks and/or discomforts that could result from participating in this study include the time that is required to fill out the questionnaire and the potential discomfort of having to evaluate yourself. Filling out the questionnaire may make you think about things that you have to do on a daily basis, which you may not enjoy particularly. You should understand that none of this data will be shared with any person in a management position, and that you will not be required to write your name on the questionnaire. Moreover, you will also be asked to think about the emotional labour of your job (i.e. the extent to which you regulate your emotional display in an attempt to meet organisationally-based expectations specific to your job roles). Reflecting on your daily emotional experiences may cause some discomfort. If you experience any severe emotional distress during the completion of the questionnaire, please be advised that you have the right to discontinue participation at any stage, or decide not to complete some of the items in the questionnaire. Please note that when completing the online questionnaire, the system does not allow you to skip a question, but if you feel you want to discontinue, you may at any stage. The data will only be utilised for research purposes and no consequences, positive or negative, will result from the findings.

In the event that you think that you might be suffering from burnout, please be advised that you can contact ICAS (0800 220 009), the EAP provider for your company. This Personal Support Line has unlimited access (24 hour toll-free line) with all calls answered by fully qualified ICAS counsellors.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Participation in this study has no direct benefit, monetary or otherwise, to the individual participant. The benefits of the knowledge obtained from the study’s results will be focused on helping organisations to develop human resource practices to ensure the development of employees’ strength and positive personal resources to combat Burnout through training initiatives, as well as through the establishment of a corporate culture of positive well-being.
5. **PAYMENT FOR PARTICIPATION**

No payment will be made to participants for taking part in this study. As a token of our appreciation for your effort to participate in this study, you will be granted an opportunity to stand a chance to win a cash prize to the amount of R1000. At the end of the survey, you will be asked if you want to participate in a lucky draw. If you want to participate and click “yes”, the system will take you to a new SunSurvey questionnaire in which you will be required to enter your cellphone number. In this way, a log of cellphone numbers will be created, without comprising your anonymity whilst entering you into the lucky draw.

6. **CONFIDENTIALITY AND ANONYMITY**

The information that you provide will be kept completely confidential. You will not have to fill in your name on the questionnaire; hence your responses will be anonymous. The results of this study will be published in the form of an academic thesis and academic peer-reviewed article in an academic journal and confidentiality of all data will be maintained at all times.

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. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

8. **IDENTIFICATION OF INVESTIGATORS**

If you have any concerns about the research, feel free to contact Chloe Kotze (chloekotze1@gmail.com / 083 488 3501) or Prof G Görgens (ekermans@sun.ac.za / 021 808 3596).

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 Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development, Stellenbosch University.
CONSENT FORM (please tick the appropriate box):

I hereby consent to voluntarily participate in this study, and therefore I agree that my data may be integrated into a summary of the results of all the questionnaires without identifying me personally.

[ ]

I don’t want to participate in this study.

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SECTION A – BIOGRAPHICAL INFORMATION

BIOGRAPHICAL INFORMATION

Please provide the following information about yourself.

Fill in the necessary information or draw an X in the appropriate block.

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