

The Moderation-Mediation Effect of a Stress Mindset on the Relationship between
Organisational Justice and Job Outcomes in the UK Service Sector

Marshal Padenga

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University of Salford
Manchester

Supervisor: Professor Sunil Sahadev
Co-supervisor: Professor David Percy

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Dedication

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I love you.

Motivation

Fixus • Adversa • Spero

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Abstract

This research develops an understanding of the impact of service sector work on CSRs using structural equation modelling. The aim is to determine; (1) the mediation effects of burnout (i.e. emotional exhaustion) has on organisational justice dimensions (i.e. distributive, procedural and interactional) and job outcomes (i.e. job involvement and OCBs); (2) the moderation effects of a stress mindset on organisational justice and job outcomes. The measurement model is determined using conduct exploratory factor analysis which is executed in SPSS. This process reduces organisational justice to a 3-dimensional construct which refutes the proposition that it is 4-dimensional. The same is true for burnout which is theorised as a 3-dimensional construct but is determined here as 1-dimensional; only composed of emotional exhaustion. This process exploratory factor analysis is followed by confirmatory factor analysis in AMOS aimed at determining the measurement model. The measurement model is treated for common method bias with a common latent factor in AMOS before setting up the structural model generating CMB-adjusted variables used in mediation and interaction-moderation tests. There after the structural model was developed, allowing mediation and interaction-moderation tests to take place. The Baron and Kenny (1986) approach is applied for direct effects whilst the bootstrap approach is used for indirect effects. The Baron and Kenny approach shows weak and non-significant effects through emotional exhaustion whilst the bootstrap approach shows otherwise. Thus, emotional exhaustion mediates the relationship between organisational justice and job outcomes. The interaction-moderation effects of a stress mindset on organisational justice and job outcomes are tested using the bootstrap approach and confirms the interaction-moderation effects of a stress mindset on organisational justice and job outcomes. The results show that in the service sector organisations in the UK need to consider the impact of emotional exhaustion and CSRs' stress mindsets to usurp these to their advantage.

Abbreviations

The following abbreviations are used throughout this research.

AMOS	Analysis of Moments Structures
ANOVA	Analysis of Variance
AVE	Average Variance Explained
BIFA	Banking, Insurance and Finance Union
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CLF	Common Latent Factor
CMB	Common Method Bias
CoR	Conservation of Resources
CR	Critical Ratio
CSM	Customer Service Manager
CSR	Customer Service Representative
Dep	Depersonalisation
DistrJus	Distributive Justice
DPA	Data Protection Act
EFA	Exploratory Factor Analysis
EmoExh	Emotional Exhaustion
FFM	Five Factor Model
GI	General Insurance
HR	Human Resources
IFI	Incremental Fit Index
InfoJus	Informational Justice
InteracJus	Interactional Justice
InterpJus	Interpersonal Justice
JD-C	Job Demand-Control
JD-R	Job Demand-Resources
Jin	Job involvement
KMO	Kaiser-Meyer-Olkin
MANOVA	Multivariate Analysis of Variance
MI	Multiple Imputations
NNFI	Non-Normed Fit Index

OCB	Organisational Citizenship Behaviour
OCB-I	Organisational Citizenship Behaviour-Individual
OCB-O	Organisational Citizenship Behaviour-Organisation
PCA	Principal Component Analysis
ProcJus	Procedural Justice
RMSEA	Root Mean Square Error of Approximation
SAS	Statistical Analysis System
SDT	Self-Determination Theory
SelfInf	Self-Inefficacy
SEM	Structural Equation Modelling
SMM	Stress Mindset Measure
SPSS	Statistical Package for the Social Sciences
SRMR	Standardised Root Mean Square Residual
StrsMind	Stress Mindset
TLI	Tucker Lewis Index
TM	Team Manager
TUC	Trade Union Council

1 Chapter 1: Introduction

1.1 The background to call centre work

There has been an unprecedented growth in call centres in the United Kingdom (UK) over the last three decades in nearly every sector of the economy (Holman, 2002). There are an estimated 1 million customer service representatives (CSRs), about 3 per cent of the workforce employed in around 6,900 call centres in the UK (Unison, 2012). A number of these call centres have between 300 and 700 CSRs working through the day in shifts, with most working between 7:00 hrs and 22:00 hrs in the evenings (Unison, 2012).

The benefits from call centres entice organisations to adapt this phenomenon, with the financial services industry being no exception (Higgs, 2004, Kessler, 2002, Richardson et al., 2000). These benefits range from reduced operational costs, provision of enhanced customer services, to revenue generation for these organisations (Holman, 2002). There is a perception though that call centres are ‘electronic sweatshops’ (Holman, 2002) and ‘dark satanic mills’ of the twenty-first century (Ferne and Metcalf, 1997, Garson, 1998, Homans, 1961). These views are collaborated by empirical research from the Banking, Insurance and Finance Union (BIFU) (1996) suggesting that call centres are plagued with illnesses, ranging from voice loss, hearing difficulties to stress. The Trade Union Council (TUC) (2001) notes that the health and wellbeing of CSRs is directly linked to the structure and content of work in call centres. Therefore, given these issues and the contribution to job creation, in-depth research on CSR effectiveness is necessary.

1.2 The perceptions of work in UK call centres

Taylor et al. (2002) argue that whilst call centres are viewed by Fernie and Metcalf (1998), *inter alia*, as ‘electronic panopticon’, it is unfair to present them in a ‘straight jacket’, where one size fits all, without analysing individual circumstances. In their view, Taylor et al. (2002) believe that work in call centres is not organised in a uniform fashion, but is rather based on a number of characteristics, such as; market conditions, the nature of operations and the technology being used in the call centre and the sector in which the call centre is based, *etcetera*. Holman (2003) distinguishes call centre work based on call length; (1) where there are short but intense calls; these call centres are normally referred to as ‘sweatshops’; and (2) where calls are much longer and demand a semi-skilled workforce. Through this approach

Holman (2003) taps into Frenkel et al. (1999) work by looking at call centres from a 'knowledge-work' premise – a key attribute.

On another level a study of three call centres in the UK sees CSRs expressing concerns about job pressure and unreasonable attitude of management (Brown and Maxwell, 2002) due to high levels of monitoring which increases stress (Brown and Maxwell, 2002, Holman, 2002). This results in CSRs feeling trapped in their jobs. This consequently affects CSRs' attitudes towards their work. Whilst CSRs are viewed as 'very significant' in achieving organisational objectives, their perceptions are that they are not consulted enough in the decision-making process (Brown and Maxwell, 2002). Therefore, by ignoring the input of CSRs most organisations operating call centres are flouting the procedural justice dimension (Colquitt et al., 2009, Thibaut and Walker, 1975) resulting in demotivation (Herzberg, 1966).

Tolterdell and Holman (2001) in a second study of a UK call centre found that there are implications for CSR well-being. The work in call centres demands that emotions should be experienced in a particular way (Kinman, 2009, Rafaeli and Sutton, 1990, Sutton, 1991). This brings into play emotional labour (Kinman, 2009) when looking at how CSRs handle their feelings in the face of customer frustrations, anxieties and anger (Brotheridge and Grandey, 2002, Kinman, 2009). Thus, CSRs succeed in doing so through surface acting, where they display the desired emotions rather than what they actually feel (Bolton, 2003, Hochschild, 1983). This is different from what transpires when they are deep acting, where they make an active effort to direct inner feelings and observable behaviours to customer expectations (Bolton, 2000, Bono and Vey, 2005, Kinman, 2009). This results in emotional dissonance which precipitates job dissatisfaction (Wegge et al., 2006, Zapf et al., 1999).

The way CSRs feel in work is central to how they perform in their roles. Holman (2003) in a third case study finds that positive emotions amongst CSRs have a direct effect on job outcomes. Therefore, when CSRs display these positive emotions this affects their performance and well-being (Holman, 2003, TUC, 2001). The results from this research by Holman (2003) are consistent with causes of stress across organisations in that when CSRs feel emotional labour their performance is also negatively affected (Karasek and Theorell, 1990, Kinman, 2009). These comparative results from the three case studies in the UK show that call centres are not different from any other organisations in relation to stress inducement (Holman, 2002, Holman, 2003). The lessons drawn from the case study by Holman (2003)

are that management must allow job control in call centres (Demerouti et al., 2001, Hockey, 1997, Maslach, 1982, Schaufeli and Bakker, 2004b) through flexibility to content when engaging with customers (Kinman, 2009) to avert surface acting (Wegge et al., 2006). This is why Holman (2003) believes that by allowing CSRs some autonomy organisations give CSRs more control over their emotions, thus reduce emotional dissonance (Hayward and Tuckey, 2011). However, in call centres serving mass markets there are questions about compatibility between CSR well-being and job outcomes. This means that striking a balance between the two is difficult where profit margins are low and the cost of labour is high (Holman, 2003). Thus, understanding emotional labour and a stress mindset becomes a crucial part in attempting to address this dilemma in call centres (Crum et al., 2013).

Batt (2000) and Holman (2003) state that one other way of dealing with well-being and performance issues in call centres is to invoke ‘Tayloristic’ job designs and other low cost human resources practices. However, from earlier research by Schlesinger and Beckett (1991) and later research (e.g. Gross and Thomson, 2007, Mikolajczak et al., 2009) failure to address employee well-being may cost organisations more in health-related issues, such as depression (TUC, 2002). Thus, low levels of well-being may cause high absenteeism and turnover which may lead to high employment costs. Schlesinger and Beckett (1991) report negative consequences in an earlier research in UK call centres, where low levels of well-being are reported to affect the quality of the customer service offered by CSRs, which impacts repeat customer behaviour due to bad customer experiences.

These studies on CSR behaviour in UK-based call centres show the impact of stress on businesses and the economy at large (Barnes, 2001). Therefore, justice perceptions must receive fair attention from management so that CSRs feel that they have a ‘voice’ in the way of procedural justice (Colquitt et al., 2007, Colquitt et al., 2009, Thibaut and Walker, 1975) and hence have an impact on their job outcomes (Folger and Cropanzano, 1998, Wegge et al., 2006). Whilst flexibility and job control (Ryan and Deci, 2000) may work organisations may consider the role of a CSR’s stress mindset *vis-à-vis* stress tolerance (Crum and Langer, 2007, Crum et al., 2013, Holman, 2002). This means that understanding a CSR’s stress mindset is beneficial to an organisation operating a call centre. This helps organisations tackle CSRs’ justice perceptions and job outcomes (Crum et al., 2013). Therefore, this research has a place and significance in assisting organisations to position themselves in a way that they benefit from CSRs’ efforts through understanding the impact of a stress mindset.

1.3 The rationale of the research

This research tackles issues related to emotional labour (Hochschild, 1983, Kinman, 2009) and stress mindsets (Crum et al., 2013) in call centres. The research will suggest ways of consolidating further gains from service sector for businesses and the UK economy by using stress mindsets as a moderator (Crum et al., 2013). The significance of a stress mindset has been tested empirically in a university setting in the US. It is therefore vital to understand the nature of emotional labour and a stress mindset to build a rationale for this research.

1.3.1 The importance of emotional labour in the research

The concept of emotional labour also known as emotional work is a broad construct which includes, for instance, experience of emotional dissonance (Wegge et al., 2006). Thus, emotional labour is a construct made up of many facets that include; (1) cognitive processes that involve producing or not showing specific emotions; (2) attentiveness to emotions that are displayed by other people; and (3) more or less frequent volitional display of emotions (Tschan et al., 2005). These processes are normally referred to as surface acting and deep acting and are important in understanding emotional labour (Tschan et al., 2005).

In a study conceptualising emotional labour, Hochschild (1983) states that emotional labour is inherent in jobs that are linked to extensive interpersonal contact with customers in the service sector (Kinman, 2009). It follows that emotional labour is an integral part of service work given the prevalence of emotional control demanded so as to retain customers (Brotheridge and Grandey, 2002, Kinman, 2009). In the same breath Hochschild (1983) states that emotional labour is performed as either a face-to-face (i.e. in person) or voice-to-voice act (i.e. on the telephone e.g. in call centres). Thus, given the way in which emotional labour is performed in work, individuals are confronted with internal and external situations; and naturally, an automatic appraisal process is triggered which enables them to develop personal meaning and relevance (Hayward and Tuckey, 2011). As a consequence, an emotion is generated coupled with cognitive, physiological and behavioural response patterns that are normally aligned to that emotion (Gross and Thomson, 2007, Hayward and Tuckey, 2011, Oschner and Gross, 2005). In furtherance to that, Hayward and Tuckey (2011) argue that whilst it is certain that emotional display does take place, these emotions and response patterns are not fixed as they are a function of; (1) type; (2) duration; (3) intensity; and (4) direction of the experienced emotion.

Hochschild (1983) reveals in a qualitative study that employees can regulate emotions through deep and surface acting when interacting with customers as a way of manipulating customer cognitions and mood (Hayward and Tuckey, 2011). In this case deep acting occurs when employees make an active effort to direct inner feelings and observable behaviours to customer expectations (Bolton, 2000) whilst surface acting takes place when observable behaviours are manipulated to match organisational and professional expectations regardless of the employee's feelings (Mann and Cowburn, 2005).

There are several studies that investigate the relationship between emotional labour and strain outcomes, such as psychological distress, work-life conflict and job satisfaction. These relationships are; (1) emotional labour and psychological distress that occur when hiding an individual's true emotional feelings, like anger precipitate psychological distress (e.g. Mauss et al., 2007, Panagopoulou et al., 2002, Pennebaker, 2002). In several of these studies they look at emotional labour and distress and focus on job-related emotional exhaustion (e.g. Deery and Kinnie, 2004, Heuven and Bakker, 2003, Hochschild, 1983, Zammuner and Galli, 2005); (2) emotional labour and work-life balance are characterised by 'spill-over' effects into other life domains resulting in perceived conflict between work and home roles (Kinman, 2009, Wharton and Erickson, 1995). Kinman (2009) and Kinman and Jones (2001) argue that emotional-strain (work-life conflict) results in irritability, social withdrawal and sleeping disorders; (3) emotional labour and job satisfaction have a strain which gives a host of mixed results. Kinman (2009) and Ybema and Smulders (2001) found that employees who perform emotional labour often report low levels of job satisfaction; whilst in contrast others see emotional labour as a source of job satisfaction, though Kinman (2009) finds that a negative relationship is more pervasive.

The benefits from call centres to the UK economy are overshadowed though by these negative perceptions. The concerns about call centres being 'electronic sweatshops' (Holman, 2002, Taylor et al., 2002), sometimes referred to as 'dark satanic mills' of the twenty-first century, (Ferne and Metcalf, 1997, Garson, 1998) are rife. One piece of evidence from empirical studies in the UK indicates that staff turnover in call centres is higher than in other sectors (Brown and Maxwell, 2002). Thus, coupled with low levels of customer retention this situation is a result of low customer service delivery from disaffected CSRs. However, in the UK a commonly held view is that the success of a call centres is based on the level of customer service offered. In view of the central role CSRs play their performance is critical in

ensuring good customer service delivery (Brown and Maxwell, 2002). Therefore, this research intends to offer solutions into how CSR retention and performance can be maintained in the face of emotional work.

1.3.2 The significance of a stress mindset in the research

The stress phenomenon is defined as a state of anticipating adversity in one's goal related efforts (Carver and Connor-Smith, 2010, Crum et al., 2013). A stress response on the other hand is characterised by the activation of an individual's sympathetic nervous system, parasympathetic withdrawal and increased activity of the hypothalamic-pituitary-adrenal axis as imposed on it (Blackwell et al., 2007, Crum et al., 2013). It is from these two that the 'enhancing' nature of stress is documented. This establishes the view that when an individual anticipates adversity there is an arousal of a physiological nature combined with a narrowing of attention. Thus, resources are directed to the challenge at hand (Crum et al., 2013) which then generates good stress normally referred to as 'eustress' (Alpert and Haber, 1960, Lazarus, 1974). Therefore, individuals via a defensive pessimism mechanism use stress as a motivator to approach, thus improve their problem solving capabilities by preparing to deal with any eventualities (Cahill et al, 2003, Crum et al., 2013).

The benefits that arise from a 'stress response' show that, far from being negative, there are gains to accrue from it. These contradictions give rise to the 'stress paradox' (Alpert and Haber, 1960, Crum et al., 2015). In a way, to make sense of it all, it is imperative to explore the functional definition of a 'mindset'. A mindset is defined as a frame or lens that selectively organises and encodes information orienting an individual towards a unique way of understanding, experiencing and therefore guiding one towards a set of corresponding actions (adapted from Dweck, 2008, Crum et al., 2013). On another level, Crum and Langer (2007) state that a mindset is where individuals have an impact on their judgements beyond their decisions, e.g. health (Crum et al., 2015).

Blackwell et al. (2007) and Cahill et al. (2003) examine a case where a student who has a mindset that believes 'I can improve my intelligence' is able to improve as opposed to one whose mindset says 'I was born with a fixed IQ'. Thus, when individuals adopt one mindset or the other this has an impact on psychological, behavioural and physiological outcomes in a variety of spheres including work (Crum and Langer, 2007, Crum et al., 2011). Therefore, relevant to this research it follows that a stress is enhancing mindset bears enhancing

consequences for an individual's health and performance whilst the opposite is true (Crum et al., 2013); thus, making it an important variable.

In life, stress is generally portrayed in a negative light, be it in work or in health classes (Crum, et al., 2013). Some researchers (e.g. Hammen, 2005, Schneider et al., 1980) suggest that stress is responsible for a host of causes of deaths, such as heart diseases, lung ailments, accidents and cancers (Crum et al., 2013). A number of researches (e.g. Hammen, 2005, Schwabe and Wolfe, 2010) note that stress is associated with cognitive impairment, depression and other mental conditions. Crum and Langer (2007) and Crum et al. (2013) believe that this supposed pervasive negative nature of stress is not necessarily a correct generalisation. They believe that the assertion that stress has negative consequences is one side of the 'stress paradox'. This leads Crum et al. (2013) to argue that this fixation with stress results in destructive stress in itself. Therefore, Crum et al. (2013) open a new avenue by suggesting that 'stress about stress' is a mindset that fuels its negative effects. This brings a paradigm shift which posits that to improve one's response to a stress-riddled environment there has to be a change of mindset about stress.

This perspective brings the operational definition of a stress mindset which states that it is the extent to which an individual believes that exposure to stress has enhancing consequences for any stress related outcome. These are as follows; (1) performance and productivity; (2) learning and growth; and (3) learning and well-being. These are collectively referred to as a stress enhancing mindset. However, in explaining the 'stress paradox' stress can be viewed as having debilitating effects for stress-related outcomes and this is referred to as a stress debilitating mindset (Crum et al., 2013). They, Crum et al. (2013) predicate the stress mindset argument on the 'stress paradox' and propose that; (1) a stress mindset is in its own right a distinct and independent variable. This means that it has the capacity to influence an individual's stress response in a unique way different from other important variables, such as the magnitude of stress an individual is confronted with, among others; (2) a stress mindset has a bearing on outcomes such as health and performance; making it a significant variable worthy of serious consideration in work (Crum et al., 2013).

In empirical research Crum et al. (2013) test their proposition that a stress mindset is a distinct variable using three studies on health and performance outcomes. These studies aim to achieve the following; (1) establish reliability and validity of the 8-item measurement tool,

the Stress Mindset Measure (SMM); (2) test whether it is possible to alter an individual's stress mindset; and (3) test the suggested mechanism that links a stress mindset to health and performance outcomes. The third study aims to determine those variables that underpin a stress mindset, such as feedback. The data for study 1 and study 2 are collected from a large international financial institution with offices in the north-eastern US. The sample sizes for studies 1 and 2 are the same, composed of 388 respondents. The third study has a sample size of 63 respondents drawn from undergraduate students in a personality psychology course in the north-western US. Through their work in study 1, they establish that the SMM is internally consistent whilst confirmatory factor analysis establishes a simple structure of SMM; which means the SMM is unifactorial.

To test whether a stress mindset is a distinct variable, Crum et al. (2013) perform discriminant validity tests in study 1. The study yields Pearson correlations that are small to moderate, showing that a stress mindset is not redundant construct; but that it has influence on individual behaviours. They proceed to execute a structural model to compare different models incorporating coping, appraisal and a stress mindset. The model fit for a stress mindset yields a good fit; hence, Crum et al. (2013) conclude that a stress mindset is an independent construct separate from, for instance, coping. The second study entails an investigation into whether a stress mindset alters via intervention. The participants with a mindset designated as stress is enhancing and stress is debilitating are exposed to three videos covering impact of stress in relation to health, performance and growth. Here Crum et al. (2013) observe that participants in the stress is enhancing group improve psychologically and their work performance gets better whilst those in the stress is debilitating group do not show any improvement. It follows that a stress mindset changes through external stimuli (Crum et al., 2013, Dweck, 2008). This forms one of the key investigations of this research, to establish how external stimuli, such as low organisational justice dimensions affect job outcomes (e.g. job involvement and OCBs).

In study 3, Crum et al. (2013) set out to establish the moderating effect of a stress mindset when individuals are exposed to stress. They did this using the area under the curve (AUC) analysis. The study reveals that there is significant intervention taking effect between stress mindset and cortisol reactivity. The significant observation of study 3 is that a stress is enhancing mindset boosts cortisol response to stress for low cortisol responders and buffers cortisol response to stress for high cortisol responders (Crum et al., 2013). This study also

reveals that individuals with a stress enhancing mindset are amenable to receiving feedback as opposed to those with a stress debilitating mindset. The inference arising from this is that an individual handles well a stress related situation implying the use of stress to achieve goal related outcomes.

In a nutshell, the three studies by Crum et al. (2013) suggest that a stress mindset is a unique variable that helps to understand individuals' stress responses. Thus, the three studies considered together confirm that a stress mindset is an important variable when attempting to understand psychological symptoms and performance in the face of stressful situations. Through an understanding of issues that affect CSRs' performance this research helps to provide strategies on how to foster a good working relationship between CSRs and their proximal managers. On another level the research findings will help to develop recruitment strategies built around an understanding of the mindset of a prospective CSR. This research helps to develop new ideas that impact job outcomes of CSRs and in turn influence productivity in the service sector *per se* and the economy at large.

1.4 The gap of knowledge in the research

The literature review in Chapter 2: Pages 15-54 reveals a gap of knowledge in the application of organisational justice and mindset theories in UK service sector. These organisational justice perceptions are the degree to which job outcomes by CSRs and the belief they hold about treatment in work match (Cole et al., 2009). Thus, broadly, the focus of this research is to investigate how organisational justice perceptions influence job outcomes in UK call centres. The research on stress theory has shown that stress and job outcomes are moderated by, for example, coping (e.g. Demerouti et al., 2001, Schaufeli, 2007) and supervisory support (Wegge et al., 2006). This research seeks to investigate other moderating variables in the stress-outcome relationship by considering a stress mindset (Crum et al., 2013). Mindset theory posits a belief that stress has negative consequences for job outcomes is mostly misplaced (Crum and Langer, 2007, Crum et al., 2011). Therefore, stress is viewed in two ways (i.e. as having positive or negative consequences) (Crum et al., 2013). The research into a stress mindset reveals that stress influences job outcomes (e.g. job involvement and OCBs) (Crum et al., 2013) as is shown in studies in Chapter 2, Pages 31-37. There are several studies carried out looking at how individuals use coping strategies to deal with stress in work (e.g. Demerouti et al., 2001, Schaufeli, 2007). However, a mindset as a mechanism for handling

stress has not been dealt with particularly after Crum et al. (2013) establishing the SMM and the distinction between a stress is enhancing and a stress is debilitating mindset.

The gap of knowledge in this research arises from two areas; (1) examining the mediating effect of burnout constructs (i.e. emotional exhaustion and depersonalisation) between organisational justice constructs (i.e. distributive, procedural, interpersonal and informational justice) as an antecedent or exogenous variables and job outcomes (e.g. job involvement and OCBs) as endogenous variables. The gap emanates from the fact that this is one of the first researches to investigate the mediating role of burnout on organisational justice and job outcome constructs in the service sector in the UK. This research is important in that it is conducted in an organisation that has recently undergone extensive restructuring; a process prompted by the credit crunch and the subsequent economic recession.

The insurance company under investigation is part of a large financial services entity comprising banking, insurance, funeral, retail, farming and pharmaceutical subsidiaries. This research is useful in establishing how the gap of knowledge is constituted in relation to significant dimensions of organisational justice, burnout and job outcomes in the insurance industry call centre environment. This is also critical on another level where it entails a positivist perspective (Tuli, 2010) which addresses the question of how results can be generalised so that inference can be drawn from the research to other areas; (2) the role of an individual's mindset as a moderator. This research endeavours to fill this gap by investigating the moderating effects of a stress mindset in the insurance industry. The research by Crum et al. (2013) on a stress mindset is based on a financial services (banking) organisation used to develop the SMM in the north-west of the US. The SMM has not been applied in any type of business model in any country nor sectors within the US.

This research intends to close the gap of knowledge by applying mindset theory to a call centre in the service sector in the UK. This addresses issues around the key question of validity (Saunders et al., 2003, Saunders et al., 1978, Sica, 2006) and reliability (Revelle and Zinbarg, 2009, Streiner, 2003, Zinbarg et al., 2006) of the SMM. The gap of knowledge exists with respect to testing generalisability of the SMM across; (1) industries; (2) cultures; (3) countries; and (4) continents. This research seeks to affirm a positivist perspective; where to add value a research of this magnitude must be tested for its claims on a host of scenarios and beyond the initial object of Crum et al.'s (2013) study which was to develop the SMM

itself. Thus, there is a gap of knowledge from their proposition that stress is enhancing or stress is debilitating that needs to be investigated.

1.5 The key issues for the research

The aim of this research is to investigate the moderating effects of a stress mindset on the relationship between organisational justice and job outcome constructs in UK service sector. In accordance with the aim (Table 1: Chapter 1, Page 12) this research attempts to address issues of **how** and **why** a stress mindset must be considered by organisations operating call centres in the UK to influence job outcomes. This research is set out in **two phases** to perform a rigorous test of theory through research questions as stated in Table 1. Stage one, **preliminary research**, aims to develop and analyse the conceptual models (Figure 2 and Figure 3: Chapter 3, Page 73-74) of the mediating effect of burnout and moderating effect of a stress mindset on organisational justice and job outcomes constructs as in Table 1.

This research investigates the extent to which a stress mindset has an enhancing and debilitating effect on CSRs in a UK service sector. Second, research on organisational justice (e.g. Adams, 1965, Colquitt et al., 2009, Leventhal, 1980, Thibaut and Walker, 1975) shows the impact on job outcomes (e.g. Allen and Meyer, 1990, Organ, 1990, Tubre and Collins, 2000) mediated by burnout (e.g. Maslach, 1998, Maslach and Schaufeli, 1993, Wright and Bonett, 1997, Wright and Cropanzano, 1998). This research builds on that to explore how organisational justice influences job outcomes in the service sector in the UK. Finally, research has shown that in work different dimensions of organisational justice take hold (e.g. Arbuckle, 1999, Colquitt, 2001, Colquitt et al., 2009). Thus, following Colquitt (2001) and Colquitt et al. (2009) this research looks at dimensions relevant to call centres in the UK. Hence, from these emerge the **hypotheses** (Table 8: Chapter 3, Pages 64 and Table 12: Chapter 3, Pages 72) tested to answer research questions posed in Table 1.

Thus, following on from this are stage two; the **core research** aims to confirm the conceptual model (i.e. Figure 1 and Figure 2) of the mediating and moderating effect of a stress mindset on organisational justice and burnout that is undertaken. The research objectives and questions are developed therefrom, informing the setting of research hypotheses (Table 8 and Table 12) that are tested to understand the phenomena at hand. The proposed processes for this research can be seen in Table 2: Chapter 1, Pages 14. The research is presented in seven chapters: Chapter 1: Introduction, Chapter 2: Literature Review, Chapter 3: Conceptual

Framework and Hypotheses Development, Chapter 4: Research Methodology, Chapter 5: Data Analysis and Findings, Chapter 6: Discussion on Research Findings, Chapter 7: Conclusions, Recommendations, Limitations of the Research and Areas of Further Research. These are broken into segments relevant to issues covered here.

Table 1: Aim, research objectives and research questions

Aim	Research objectives	Research questions
1: To investigate the moderating effect of a stress mindset on the relationship between organisational justice and job outcomes.	<p>1: To understand what influence a stress mindset has in the service sector.</p> <p>2: To know how organisational justice influences job outcome.</p> <p>3: To know the dominant dimensions of organisational justice in the service sector.</p>	<p>1: To what extent does a stress mindset influence the relationship between organisational justice and job outcomes?</p> <p>2: In what way does organisational justice influence job outcomes?</p> <p>3: What are the dimensions of organisational justice present in the service sector?</p>

1.6 The philosophy adopted in the research

This research deals with complex relationships amongst call centre CSRs and their proximal managers. The researcher ensures CSRs offer their personal perceptions without influence during data collection. This is central to the success of the research to understand the psychological reality required to deliver new knowledge. Hence, objectivism which implies reality is objective and constructed from the ontological perspective is suitable for this research (Table 13: Chapter 4, Page 77, Table 15: Page 79, Bryman and Bell, 2007, Saunders et al., 2009, Table 14: Page 78, Collis and Hussey, 2009).

This research adopts a positivist approach from the epistemological assumption. Positivism is a belief that social reality is highly objective since it is formed by measurable constructs (Tuli, 2010). A positivist researcher is one who seeks to understand objective reality of the research participants then develop hypotheses tests (Ulin et al., 2009). The researcher in this case is independent of research subjects and does not interfere with the process as shown in Table 13; an important supposition for a positivist approach in this research. The separation

of the researcher from the subjects of the research enables generalisations to be drawn from outcomes as there is no contamination of the results (Popkewitz et al., 1984).

1.7 The approach adopted in the research

Tuli (2010) describes a deductive approach as a systematic technique for analysing quantitative data where analysis is guided by precise objectives. In keeping with the literature review on a stress mindset (Crum and Langer, 2007), the research adopts a deductive approach. The research uses a questionnaire for data collection rated on a 7-point Likert-type scale (Likert, 1932); and from the ensuing analysis compute results that are generalisable and applicable with a universal appeal (Bartlett et al., 2001) across other service sectors from within and without the UK. A Likert-type scale enables investigation of human interactions at work in the service sector. Whilst research results are applied widely (Table 13: Page 77) the structure adopted offers an opportunity for improvement as the research progresses (Table 14: Page 78, Collis and Hussey, 2009).

1.8 The strategy employed in the research

This research applies a survey technique using questionnaires (Appendices 1-3: Pages 224-228, respectively) to collect data from CSRs and their proximal TMs in an inbound call centre operation. The way questionnaires are administered is discussed in detail in Chapter 4: Page 81-82 and Chapter 5: Page 90-102. The administration of questionnaires is done by a team of trained research assistants. The main focus of a survey in research is the collection of data on contemporary events to allow generalisation of results (Bartlett et al., 2001). Thus, taking a quantitative approach to a survey makes inferences possible (Bartlett et al., 2001) contrary to a qualitative approach (Table 13). A quantitative approach is most suited for generalisations because it is possible to check for reliability and validity (Tuli, 2010, Twycross and Shields, 2004). This research fits the description because it is based on a contemporary phenomenon afflicting organisations and CSRs in the service sector.

The interest of any rational organisation (Lucas, 1977) is to boost its performance and consequently improve profits through the delivery of good customer service, whilst CSRs want to work in an environment that helps them grow and enjoy work (Unison, 2012). Therefore, organisations are confronted with a dilemma in that they have to balance these two opposing interests whilst trying maintaining viability. What makes this research important is

the fact that it seeks to help organisations in the service sector to make the most of their employees. Thus, by collecting the relevant data appropriately this allows the conduct of an accurate and in-depth understanding of the situation on the ground.

1.9 The proposed thesis structure

To ensure clarity of content the research is organised in seven chapters presented in the attached **thesis structure** in Table 2 and as discussed in Chapter 1: Pages 11-12. The main focus is that the research concludes in the time specified in Appendix 6: Page 231.

Table 2: Thesis structure

No.	Title	Description/Purpose
One	Introduction	The chapter prefaces the aim and objectives, research questions and contribution to knowledge.
Two	Literature review	The chapter reviews the literature on conceptual models and critiques studies tackling the topic.
Three	Conceptual framework and hypotheses development	The chapter discusses the conceptual framework and hypotheses development linking that to theory.
Four	Research methodology	The chapter details methodological approaches used in this research.
Five	Data analysis and findings	The chapter describes the data analysis process and presents the findings.
Six	Discussion on research findings	The chapter discusses findings of current research in light of previous research work.
Seven	Conclusions, Recommendations, limitations and areas of further research	The chapter presents the research recommendations and limitations, and areas of further research.

1.10 A Summary of the thesis introduction

This chapter has given a background to work in the service sector and call centres in particular, an introduction to key issues on the rationale, approach, strategy and philosophy of the research and the proposed thesis structure. The next chapter on literature review seeks to investigate some of the issues raised in this Chapter 1, Pages 1-14 to build a clearer and succinct picture of work done thus far on organisational justice, burnout, stress mindset, job involvement and OCBs. The chapter shall also explain the gap of knowledge identified and briefly discussed in this Chapter 1.

2 Chapter 2: Literature Review

2.1 Introduction

This chapter explores theoretical and empirical foundations of key variables used in this research. The review is carried out in three stages and these are covered as follows; (1) a review of attitude theory; (2) a review of key model variables; and (3) a discussion on CSR experiences working in call centres in the UK. The use of attitude theory is relevant for this research as an overarching theory because it takes into account the ability of an individual to evaluate a situation and form intentions to perform an act (Bagozzi, 1992). This is relevant for this research which deals with the impact of organisational justice and job outcomes. The chapter will consequently explore literature on the following model variables; organisational justice (Adams, 1965, Bies and Moag, 1986, Greenberg, 1993a, Greenberg, 1993b, Thibaut and Walker, 1975); burnout (Demerouti et al., 2001, Demerouti et al., 2003, Hockey, 1993, Schaufeli and Bakker, 2004b); job involvement (Ashforth and Mael, 1989, Brief et al., 1979); OCBs (Organ, 1988a, Organ, 1990); and stress mindset (Alpert and Haber, 1960, Crum et al., 2013). Through this process the literature review explores the work done thus to ascertain the gaps in knowledge. There is a particular focus on the characteristics of model variables and how they relate with each other in the conceptual model. The chapter will close with a discussion on experiences in UK call centres to contextualise the literature review chapter.

2.2 The conceptual framework of the research

The conceptual framework in this research is explained by the attitude theory (Bagozzi, 1992, Perugini and Bagozzi, 2004). Through use of attitude theory (Bagozzi, 1992) this research seeks to investigate how CSRs respond to stress induced by low organisational justice.

2.2.1 Theoretical foundations of attitude theory

The relationship between attitude and behaviour has been of interest to psychology and behavioural science researchers for some time now (Bagozzi and Burnkrant, 1979). This causal relationship manifests in two ways (Bagozzi, 1981). The first and simplistic

view is that the relationship between attitude and behaviour is contextual. The reason for this is that there is no particular form, but rather it depends on other factors, such as how much experience an employee has had with the focal behaviour (Fazio and Zanna, 1978a, Regan and Fazio, 1977), how much confident one's attitude is (Fazio and Zanna, 1978b), attitude stability (Schwartz, 1977) and the level of consistency between affective and cognitive responses (Norman, 1975), *inter alia*. The second view is that the relationship between attitude and behaviour is causal. In this case the causality is a nomothetic one. Three key elements describing this link are; (1) parallelism between attitude and behaviour (Ajzen and Fishbein, 1977, Bagozzi and Baumgartner, 1989); (2) the most relevant attitude underlying a behaviour is one's attitude in relation to the act rather than the object (Fishbein and Ajzen, 1975) and (3) the degree of behavioural criterion as a factor (Fishbein and Ajzen, 1974, Weigel and Newman, 1976). Thus, the ability to predict the act as a multiple rather than a single one depends on how general the attitude is (Bagozzi, 1981).

There are several researchers (e.g. Ajzen and Fishbein, 1977, Bagozzi, 1992, Fishbein and Ajzen, 1974, Perugini and Bagozzi, 2004) who point out that the cause of a weak relationship between attitude and behaviour is due to the inadequacy of the link between attitudinal factors and the behaviour of interest. This situation arises because the relationship between the general attitude in relation to an object and performance of a particular behaviour with respect to that object is not always obvious (Fishbein, 1973, Perugini and Bagozzi, 2004). This prompts Bagozzi (1981) to go further and build on Ajzen and Fishbein (1977) work by exploring the relationship between attitude, intention and behaviour. In this research Bagozzi (1981) takes the view that attitude is not unidimensional as proposed by Ajzen and Fishbein (1977) but is rather a multi-dimensional phenomenon. Thus, Bagozzi (1981) argues that by assuming multi-dimensionality it enables an employee to prefer or favour one act or object as opposed to the other. Therefore in the spirit of the expectancy-value model (Fishbein, 1973) this means that an employee can form an evaluation of different consequences of a particular choice of action. In this vein Bagozzi (1981) advances an argument on creation of a mediating role of intentions on attitude and behaviour.

Thus, conative self-regulation formation of an intention to act is a consequence of an individual's own attitude (Bagozzi, 1992). This is so because an individual holds the

view that there are positive consequences from acting out one's intentions. It can still be argued that maintaining a positive attitude does not necessarily engender an intention. That is, it takes more to create motivation to act. The motivational link between attitude and intention is embodied in desire to do something. Thus, an attitude is merely an evaluation which needs to be complemented by a desire in order for an intention to act to take hold. This means that Bagozzi (1992) views desire and intentions as two independent mental events and states. Therefore, to conclude, self-regulation theory (Bagozzi, 1992) proposes a mechanism that includes the following; appraisal process, emotional reactions and coping strategies. Thus, self-regulation theory raises the attitude of an individual in a given situation to another level by giving a better understanding of evaluative and appraisal processes and emotional responses by the individual. This research fits into self-regulation theory given that it presents a mechanism through which individual CSRs are able to deal with any stress imposed on them by low organisational justice of any dimension.

2.3 An explanation of the theoretical underpinnings of model variables

This second stage discusses significant theories and constructs underpinning latent variables used in this research. The latent variables covered are; organisational justice dimensions (i.e. distributive justice, procedural justice, and interactional justice which are sub-divided into informational justice and interpersonal justice), burnout dimensions (i.e. emotional exhaustion and depersonalisation), stress mindset (i.e. stress is enhancing and stress is debilitating) and job outcomes (i.e. job involvement and OCBs). This review of literature sets the scene for the efficacy of each latent variable used in the conceptual framework.

2.3.1 A discussion on the nature of organisational justice

The perceptions of organisational justice are the degree to which job outcomes by an employee correspond to the beliefs the employee holds about the treatment received in work (Cole et al., 2009). Through these perceptions an employee is able to map out (e.g. via self-regulation, Perugini and Bagozzi, 2004) a particular course of action as a 'stress response' to counter the perceived treatment (Masterson et al., 2000). The notion of justice dominates existence of humans (Sandel, 2009) dating as far back as the times of Socrates and Plato (Ryan, 1993). There are a *plethora* of studies that enrich the

understanding of organisational justice, though in much of literature most researchers are believed to “miss the forest for the trees” (Colquitt et al., 2009) given their focus on perceived non-significant issues in this area.

In consideration of the fast pace of technological advancement and the proliferation of organised work and industry, employees are exposed to decisions that have a significant impact on their lives on a day-to-day basis in workplace (Colquitt, 2001) and beyond (Deutsch, 1975, Leventhal, 1976). These modern work-settings naturally have implications for how employees perceive organisational justice (Maas and van den Bos, 2009). The decisions by those in managerial positions, depending on how they are perceived at employee level, have serious implications from within and without organisations (Cropanzano and Schminke, 2001).

Thus, on this backdrop it is of material interest organisations to ensure that employees perceive them as a ‘just’ entities (Colquitt et al., 2009) lest there are undesirable consequences on employees and organisations’ outcomes in general (Adams, 1965, Colquitt, 2001, Colquitt et al., 2009) These undesirable consequences, for instance, emotional exhaustion (Cole et al., 2009). Maas and Van der Bos (2009) pose a myriad of challenges for the exchange relationships (Adams, 1965, Demerouti et al., 2001) within and without the workplace (Folger and Cropanzano, 1998, Lind and Tyler, 1988, van den Bos and Tyler, 2002). These would affect job outcomes such as; job satisfaction (Dailey and Kirk, 1992, Lowe and Vodanovich, 1995, McFarlin and Sweeney, 1992), organisational commitment (Allen and Meyer, 1990, Lowe and Vodanovich, 1995), Organisational Citizenship Behaviours (OCBs) (Ball et al., 1993, Organ, 1990), withdrawal (Dailey and Kirk, 1992, Hom et al., 1984) and performance (Ball et al., 1994, Kanfer et al., 1987, Masterson et al., 2000).

The notion of organisational justice is preoccupied with ‘unique predictability’ of different types of justices and what impact these forms of justice have on outcome variables (Ambrose and Schminke, 2009). Thus, organisational justice has evolved over years and there is discourse on its constructed (Bies and Moag, 1986, Leventhal, 1980, Leventhal et al., 1980). There are efforts to consolidate organisational justice literature given fragmentation of the works thus far (Colquitt et al., 2009). There is confusion on whether organisational justice should be 1-, 2-, 3- or 4-dimensional. However,

notwithstanding these concerns, there is acquiescence that 4-dimensional construct offers a better construct (Bies and Moag, 1986, Colquitt, 2001, Colquitt et al., 2009). Thus, it is said to be constituted as; (1) distributive justice (Adams, 1965, Leventhal, 1976); (2) procedural justice (Leventhal, 1980, Thibaut and Walker, 1975); interactional justice (Bies and Moag, 1986); where interactional justice is broken into two parts, namely; (3) interpersonal justice and (4) informational justice (Greenberg, 1993b). These are universally acknowledged now in justice literature (Colquitt, 2001).

2.3.1.1 A discussion on organisational justice constructs

The first dimension of organisational justice, distributive justice, centres on the notion of equity by assessing the relationship between an employee's efforts against the employee's job outcomes. This means that an employee pays attention to the input-output ratios to assess fairness in the exchange relationship (Adams, 1965). This forms the fundamental significance of the equity theory by Adams (1965). The second dimension, procedural justice pays attention to third party dispute resolution processes in the exchange relationship (Thibaut and Walker, 1975, Thibaut and Walker, 1978). In this case there is more focus on mediation and arbitration processes in dispute resolution rather than outcomes of the process. The third dimension, interactional justice proposed by Bies and Moag (1986) focuses on the nature of interactions between employees and organisational systems. In further research interactional justice is broken into 2 dimensions; first, interpersonal justice which focuses on whether employees feel they are treated with respect, dignity and politeness (Colquitt, 2001, Colquitt et al., 2009); second, informational justice relates to whether employees feel the organisation offers clear explanations on why given procedures are implemented in a particular way.

The early construct of organisational justice, prior to 1975 is predicated on the exploratory work of Adams (1965). This is coined under the social exchange framework. In Adam's view distributive justice is driven by an assessment of fairness at equity and equality levels (Colquitt, 2001, Homans, 1961). The main goal of an employee in an exchange relationship is not based on an absolute value of outcomes, but rather a sense of fairness *vis-à-vis* job outcomes (Colquitt et al., 2009). The perception that one is treated fairly has direct implications for employee and organisational outcomes (Bies and Moag, 1986, Colquitt et al., 2009). In their work

Leventhal and Michaels (1969) establish that when employees feel there is an imbalance on the input-output ratio to their disadvantage it invokes an equally natural response by the employees to conserve resources. However, Leventhal (1976) takes a different path to explain distributive justice by suggesting that the relationship is on equality versus need (Colquitt, 2001, Colquitt et al., 2009) with the analysis pitting organisational goals against the employees'. It is clear that the individual's perception of justice can never rest solely on the input-output relationship or distributive justice as propounded by Adams' (1965) equity theory.

In the case of procedural justice it unravels the significance of the two-stage process in dispute resolution at work (Leventhal, 1980, Thibaut and Walker, 1975). The concern of an employee in work is not only about the input-output relationship (Adams, 1965, Thibaut and Walker, 1975); but the process in which disputes about the input-output are handled. If there is dispute regarding the input-output relationship, what then? The answer to this question gives rise to the genesis of the two-stage dispute resolution life cycle, manifesting as; (1) process stage; followed by (2) the decision stage (Bies and Moag, 1986, Colquitt, 2001, Colquitt et al., 2009, Thibaut and Walker, 1975). In this purview observance of procedural justice entails; an ethical approach to issues, unbiased handling of issues and an unquestionable level of precision (Colquitt et al., 2009, Leventhal, 1980, Leventhal et al., 1980). Thus, procedural justice is inherent when a third party has a voice during a decision-making process or ability to influence it (Thibaut and Walker, 1975). Therefore, Folger (1993) and Lind and Tyler (1988) designate the term 'fair process effect' or 'voice effect' to this ability to fully participate in the dispute resolution processes (Folger and Cropanzano, 1998).

Whilst distributive and procedural justice tend to dominate the early evolution of organisational justice, they lack a personal feel needed to extract proximal emotions of how employee feels (Colquitt, 2001, Colquitt et al., 2009). In an attempt to fill this void another dimension referred to as interactional justice has arisen (Bies and Moag, 1986). This third dimension of focuses on the nature of the relationships between employees and those in positions of authority – both proximal and distal (Bies and Moag, 1986). In further formulations Greenberg (1993a) and Greenberg (1993b) further breaks interactional justice into two components; (1) interpersonal justice which focuses on the treatment of employees by those in authority (Colquitt, 2001, Colquitt et al., 2009); and

(2) informational justice – which relates to the engendering to the employees reasons why certain procedural formats are followed (Greenberg, 1993b).

2.3.1.2 The theoretical foundations of organisational justice

There are several organisational justice theoretical foundations that have evolved (Cropanzano et al., 2001b, Fortin, 2008) since the social-exchange theory (Blau, 1964). The central theoretical underpinnings of organisational justice since emergence of the social exchange theory are; the equity theory (Adams, 1965); the fairness theory (Folger, 1987, Folger, 1986b); the fairness heuristic theory (Lind and van den Bos, 2002); instrumental theory (Adams, 1965, Fao and Fao, 1974, Fao and Fao, 1980, Homans, 1961, Thibaut and Walker, 1975, Thibaut and Walker, 1978); the agent-system theory (1986), the relational theory (Lind, 1995, Tyler and Lind, 1992, Tyler, 1997, Tyler et al., 1996); moral theory (Folger and Cropanzano, 1998, Folger, 2001); uncertainty management theory (Crawshaw et al., 2013, Lind and van den Bos, 2002, Shao et al., 2013, van den Bos and Miedema, 2000); and referent cognitions theory (Folger, 1986b, Folger, 1987, Folger, 1993).

Under an instrumental theoretical proposition the major concerns and driving force in the motivation of employees is ‘self-interest’ (Shao et al., 2013), whilst maximisation of outcomes is leveraged by employee’s perceptions of fairness or lack of it in work (Fao and Fao, 1974, Fao and Fao, 1980, Lind and van den Bos, 2002, Shao et al., 2013, Thibaut and Walker, 1975, Thibaut and Walker, 1978). Instrumental theory has been placated by a preponderance of empirical works (Ambrose et al., 1991, Noe and Steffy, 1987, Ployhart and Ryan, 1998) and this has been augmented by the view that distributive justice and procedural justice perceptions are founded and rooted in instrumental theory (Conlon, 1993) suggesting that employees are more concerned about immediate gains from work.

On the contrary relational theory proposes that when employees feel their organisation recognises them in high standing and status in work, they feel that they are being treated justly (Shao et al., 2013). Once they are imbued with this feeling of being valued by their organisation the resultant effect is a sense of self-worth and self-esteem (Lind, 1995, Shao et al., 2013, Tyler, 1997, Tyler et al., 1996, Tyler and Lind, 1992) and thus impacts on their relationship with the organisation. The relational theory has spawned

three models over the years built around whether employees feel that they are being valued or not, which are; (1) relational model of authority (Tyler and Lind, 1992); (2) group engagement model (Tyler and Blader, 2003); and (3) group value model (Lind and Tyler, 1997). The centre-point for relational theory and consequent models is that in a group the employee is seized with the importance and value placed on them; hence ‘just’ treatment is important in transmission of that sense of one’s value and importance in the group setting (Cropanzano et al., 2001).

The third theory that has had some traction in explaining organisational justice is the uncertainty management theory with its precursor, the fairness heuristic theory (Shao et al., 2013). The two theories are hinged on the notion that the appetite in employees for predictability in work creates a need for informational justice as this provides information to help employees understand their work environment therefore quell uncertainty. Thus, drawn from this van den Bos and Miedema (2000) and van den Bos and Tyler (2002) believes that any perceptions of justice or lack of it help to reduce or heighten uncertainty respectively (Shao et al., 2013).

Folger and Cropanzano (1998) and Folger (2001) proposes moral theory which presupposes that a key objective of an employee is to be treated fairly as a moral and ethical norm (Shao et al., 2013). In their earlier works (e.g. Folger, 1986b, Folger, 1987, Folger, 1987, Folger, 1993, Shao et al., 2013) propose building blocks for moral theory through fairness theory and referent cognitions theory where they suggest a ‘three-step counter-factual thought process’ through which employees discern justice or injustice (Folger and Cropanzano, 1998, Folger and Cropanzano, 2001, Folger et al., 2005) and thus inform their behaviour relative to job outcomes (Shao et al., 2013). Therefore, any feeling by CSRs for instance, based on moral theory has negative ramifications if they feel they are not being treated fairly.

2.3.2 The burnout construct

2.3.2.1 A discussion on the theoretical foundations of burnout

There are several definitions of burnout that have been proffered over the years. It has been defined as a ‘complex phenomenon’ characterised by 3 dimensions; emotional exhaustion, cynicism and inefficiency (e.g. Cieslak et al., 2008, Maslach et al., 2001).

Alternatively, it is said to manifest in drainage of mental energy, cynicism and reduced professional efficacy (Maslach et al., 2001). Whilst in some circles it is defined as that feeling of emotional, physical and mental exhaustion arising from continuous engagement in emotionally draining situations (e.g. Enzmann et al., 1998, Pines and Aronson, 1988). There is a different definition offered by Toppinen-Tanner et al. (2002) which describes burnout as a 'severe syndrome' which develops as a consequence of facing prolonged stress situations at work.

In research there is evidence that burnout is associated with people who engage in some form of work (Maslach, 1998, Maslach and Schaufeli, 1993, Wright and Bonett, 1997, Wright and Cropanzano, 1998). In the case of Maslach et al. (2001) they highlight empirical studies that investigate construct validity of burnout by examining the difference between burnout and depression (Bakker et al., 2000, Leiter and Durup, 1994, Glass and McKnight, 1996). Their research suggests that burnout is a phenomenon akin to work situations (Wright and Cropanzano, 1998). Whilst on the contrary depression is of a much wider scope transcending work situations (Maslach et al., 2001, Warr, 1987). An important aspect of burnout is that since its early formulation, emotional exhaustion, depersonalisation and reduced personal accomplishment were associated with human services (Demerouti et al., 2001, Maslach, 1982) amongst people who perform some form of work (Demerouti et al., 2001, Maslach, 1982, Wright and Bonett, 1997). However, the belief that burnout dimensions (emotional exhaustion, depersonalisation (cynicism) and reduced personal accomplishment (professional inefficacy)) are only restricted to human services has been quashed (Demerouti et al., 2001).

Three dimensions of burnout described in literature are; (1) emotional exhaustion; (2) depersonalisation; and (3) reduced personal accomplishment. The main dimension, emotional exhaustion, is defined as a state of being drained of an employee's mental energy. In its nature emotional exhaustion proxies traditional stress-responses manifesting in the form of fatigue, anxiety and depression normally associated with occupational stress (Buunk and Schaufeli, 1993). On the other hand, depersonalisation, sometimes referred to as cynicism is characterised by negativity towards one's work (e.g. Langelan et al., 2006, Maslach et al., 2001). The third dimension, reduced professional accomplishment (i.e. professional inefficacy), arises when employees no

longer feel they can dispense of their job responsibilities effectively. There is ample evidence abound that emotional exhaustion and depersonalisation (cynicism) are significant drivers of burnout (e.g. Langelaan et al., 2006, Lee and Ashforth, 1996), whilst there is also evidence to the contrary suggesting that professional inefficacy is tangential to emotional exhaustion and cynicism (e.g. Leiter, 1992).

Whilst some researchers define burnout as a 3-dimensional construct (e.g. Houkes et al., 2008, Toppinen-Tanner et al., 2002, Wright and Bonett, 1997, Zellars et al., 2000), others believe that it is a 2-dimensional construct. They argue that the main components of burnout are emotional exhaustion and cynicism (e.g. Green et al., 1991, Langelaan et al., 2006). This is a view supported by empirical studies (e.g. Langelaan et al., 2006, Lee and Ashforth, 1996) where professional inefficacy has low correlations with emotional exhaustion and cynicism (e.g. Langelaan et al., 2006, Leiter, 1992). The dimension emotional exhaustion is most critical hence forms the core component of burnout (Zellars et al., 2000). In much of the research emotional exhaustion is the most prevalent in many workplaces (e.g. Maslach et al., 2001). This primarily because of the belief that emotional exhaustion is a function of an employee's over-extension in 'emotionally charged' working environments (Zellars et al., 2000) which is exacerbated by a combination of frustrating and tense working environment. This occurrence prompts other researchers, such as Shirom (1989) to suggest that the other dimensions are just superfluous. Feasible as it might sound, there is still strong empirical evidence to the contrary as averred by Maslach et al. (2001) to suggest that a singular construct of burnout fails to encapsulate and articulate the importance of the relationship between employees and their work.

When looking at emotional exhaustion, the most critical dimension of burnout, it is evident that from a conceptual point of view it signifies traditional stress reactions by employees in work environments. The stress reactions which manifest in the forms of fatigue, anxiety and job-linked depression, psychosomatic complaints are studied in occupational stress research (e.g. Buunk and Schaufeli, 1993, Demerouti et al., 2001, Kahn and Byosiore, 1992, Warr, 1987). Lee and Ashforth (1996) suggest that emotional exhaustion and other job related stressors (e.g. work over-load, role problems and some behavioural and attitudinal outcomes, such as turnover intentions and absenteeism (Demerouti et al., 2001)) have implications for job related outcomes (e.g. job

involvement and OCBs). This ties in well with Bagozzi (1992) attitude theory in how this influences intentions of the individual to act out certain behaviours.

As for depersonalisation in other roles (other than human relations services) it comes across as cynicism, alienation or disengagement with respect to work roles (e.g. Cherniss, 2002, Demerouti et al., 2001, Kanter and Mirvis, 1989, Lang, 1985). In the case of the third dimension of burnout, reduced personal accomplishment, this is mostly viewed as an appendage to core dimensions of burnout (i.e. emotional exhaustion and depersonalisation) as it is considered very weak with a strong correlation to the other two (Demerouti et al., 2001, Green et al., 1991, Lee and Ashforth, 1996, Schaufeli and Enzmann, 1998). The argument given is that when individual are confronted with emotional exhaustion and depersonalisation that then prompts reduced personal accomplishment as a consequence (Lee and Ashforth, 1996). It is by examining this relationship that it clear the synopsis extends burnout beyond human services occupations which allows a more general application of the concept.

2.3.2.2 A discussion of empirical studies on burnout

There are several theories advanced over the years in a quest to understand this all important phenomenon of burnout. At the centre of these theories are antecedent stressors (e.g. Demerouti et al., 2004, Zellars et al., 2000). In its most rudimentary form stress is defined as an external factor that destabilises the inner state of equilibrium of the cognitive-emotional-environmental system (Demerouti et al., 2004, Lazarus and Folkman, 1984, Monnier et al., 2002). Given that this is the focal point of this research it is worthwhile to mention that stress does not only result in generation of negative effects on employees in the workplace but can also precipitate positive consequences for the same employees facing it (Demerouti et al., 2004). This research is thus concerned with the theoretical framework around both positive and negative effects of antecedent stressors.

In early literature a number of theories focusing on the relationship between job stressors, employee and organisational outcomes have explored the existence of causal relationships (Houkes et al., 2008). Amongst the early models are Karasek and Theorell's (1990) Job Demand-Control (JD-C) model (Demerouti et al., 2004, Harter et al., 2002, Houkes et al., 2008, Karasek and Theorell, 1990). The JD-C model and others

similar to it are drawn on a premise that stress is a product of two basic job characteristics which are job demands and job control (Castanheira and Chambel, 2010, Houkes et al., 2008, Neveu, 2007, Schaufeli and Bakker, 2004b). In this model job demands are explained as psychological job stressors manifesting in the form of how much control an employee has on work the employee is performing, effort and pace of work being performed (Hobfoll, 2002, Schaufeli and Bakker, 2004b). On the other hand job control relates to how much control an employee in work situation has over work that employee is carrying out (Castanheira and Chambel, 2010, Houkes et al., 2008, Schaufeli and Bakker, 2004b).

The JD-C model is perceived to work through a performance protection strategy (Demerouti et al., 2001, Hockey, 1993) where employees seek to minimise the cost to themselves of performing ‘perceived’ high demand tasks (Demerouti et al., 2001), or in instances where there is high environmental stress in the form of noise, high workload, heat and time pressure. Hockey (1993) states that when employees are in this ‘protection mode’ the body releases hormones that control the information processing mechanism. There is a suggestion from empirical studies that there is a positive relationship between the levels of the activation of hormonal system and that associated physiological costs to that individuals concerned (e.g. Demerouti et al., 2001, Hockey, 1993).

Whilst Hockey’s (1993) theory is plausible it is difficult to assess its impact on primary task performance (Demerouti et al., 2001, Schaufeli and Bakker, 2004b). However, indirect consequences are observed in empirical studies and are referred to as ‘strategy adjustments’ where the worker narrows attention and redefines tasks; in addition to this, there is fatigue which results in subjectivity and risky behaviour on the part of the employee (e.g. Demerouti et al., 2001, Schaufeli and Bakker, 2004b).

The Job Demand-Resources (JD-R) models are composed of those physical, social and psychological or those organisations that facilitate or assist in functional accomplishment of tasks. This has the net effect of minimising the impact of job demands with respect to related psychological and physiological costs and subsequently lead to promotion of an employee’s growth and development (Demerouti et al., 2001, Neveu, 2007). These job resources are classified into two distinct categories, which are;

(1) internal job resources (these are normally perceived as cognitive features and action patterns); and (2) external job resources (these manifest in the form of organisational and social elements in nature) (Ritcher and Hacker, 1998). There is a belief that when there is a deficiency or shortage of organisational resources (which are job control, involvement in decision-making process, task differentiation, potential for qualification for a position in an organisation) and social resources (like family, colleagues and peer group support) it is difficult for an employee to cope with stressful environmental exertions of tasks or workload demands (Crawford et al., 2010, Demerouti et al., 2001, LePine et al., 2005). This situation sets up an employee for failure in terms of achieving workplace goals.

Unlike the JD-C model where an employee seeks to minimise costs, the JD-Rs model, in the face of such adversity in the form of high job demands, job resources are attributed with triggering a process of motivation in an employee. This process can then lead to an employee's growth, learning and development via perceived resources. This very development naturally results in a boost in an employee's competence level and autonomy, which consequently encourages higher performance and thus significantly influences achievement of desired goals (Crawford et al., 2010). It is clear that unlike the JD-C model where there is no mechanism for job engagement, the JD-R model does offer this unique platform hence enabling the link-up with engagement (Bakker and Demerouti, 2007, Crawford et al., 2010). This makes the JD-R model a better and more desirable model of the two given its leveraging ability. This position is equally augmented by empirical evidence (e.g. Bakker et al., 2005, Demerouti et al., 2003, Schaufeli and Bakker, 2004b) which uncovers the fact that there is a reciprocal link between job resources and burnout (Crawford et al., 2010) manifesting in a direct relationship between job resources and engagement.

There is an attempt by Crawford et al. (2010) to sanitise the JD-R model by drawing on the transactional theory of stress (Lazarus and Folkman, 1984). At its core the transactional theory of stress posits that employees that find themselves in a stressful environment undertake an assessment by looking at how it affects their well-being. In so doing they draw on two attributes of stress, that is whether stress is; (1) challenging; or (2) threatening (Crawford et al., 2010, Lazarus and Folkman, 1984). This view is augmented by the empirical studies of Cavanaugh et al. (2000) who designated

challenge stressors as those that enhance and promote personal growth, skills development and gains in the future (these can manifest in the form of high levels of job responsibility, time pressure and high levels of workload). In this regard, these are perceived by employees as providing that leverage to learn, grow and develop one's self and poise them for more rewards in the future (Cavanaugh et al., 2000, Crawford et al., 2010).

On the other hand, hindrance stressors (those that threaten an employee's situation) have a diametrically opposite effect as they undermine the ability of an employee to learn, and grow, thus curtail rewards towards the employee in future (Crawford et al., 2010). Cavanaugh et al. (2000) identify a number of hindrance stressors such as role conflict and ambiguity and existence of politics in the organisation. These, according to Cavanaugh et al. (2000) tend to present obstacles to employees in their quest to achieve their targets thus consequently affect the flow of rewards to these employees (Crawford et al., 2010). This means that in order for employees, in this case call centres, to take advantage of their involvement in their work it is important to minimise or reduce levels of hindrance stressors in work that would seem to hamper their job involvement. Therefore, based on the discussion above any obstacles to job involvement in the form of hindrance stressors must be addressed in the workplace to enhance an employee's job involvement.

Transactional theory (Lazarus and Folkman, 1984) shows that an assessment by employees of job demands as challenges or hindrances has consequences for emotional and cognitive state of the employees (Crawford et al., 2010, Lazarus and Folkman, 1984, LePine et al., 2005). This subsequently influences how employees develop their own coping strategies in the face of such job stress (LePine et al., 2005). Crawford et al. (2010) say that by their very nature challenging job demands enhance positive emotions solely because they encourage personal growth and gains (LePine et al., 2005). It thus follows that an employee in work faced with challenging job demands has confidence to confront the challenges and succeed in achieving own work objectives by taking these challenges as developmental and growth objectives from an individual point of view (Kahn, 1990). In order to address the shortcomings of job demand models (JD-C and JD-R models) another line of thinking has emerged. This new direction encapsulates burnout as characterised by job resources (Neveu, 2007).

Out of several empirical works (e.g. DeJonge and Schaufeli, 1999, Jurissen and Nyclicek, 2001, Warr, 1994, Warr, 2002) there arises a notion that burnout is characterised by resources depletion under the conservation of resources (CoR) theory (Halsesleben and Buckley, 2004, Hobfoll, 1988, Hobfoll, 1989, Hobfoll and Freedy, 1993, Shirom, 1989, Shirom, 2003). In its most general formulation the CoR theory posits that an employee is not motivated by the desire to attain psychological equilibrium but instead an appetite for creative accomplishment. By taking this view the focus on understanding the relationship between job demands and burnout has shifted. The focus is now on what an employee is able to bring into the exchange relationship and this automatically infuses psychological health issues into play within the transactional process (Hobfoll, 2001, Neveu, 2007). Another positive attribute of the CoR theory is that it links burnout with an employee's developmental failures and exposes the temptation for self-preservation through resource frugality (Neveu, 2007).

This element of resource depletion is a key differentiating characteristic with the JD-R model (Demerouti et al., 2001, Schaufeli and Bakker, 2004a) which is driven by a positive relationship between burnout and job demands. This is also assumed to be positively correlated to engagement which draws resources from internal and external sources (Ritchter and Hacker, 1998). The CoR theory perceives four types of resources aligned with four types of personal investments (Hobfoll, 1989, Hobfoll et al., 1992, Neveu, 2007). The four resources are; (1) stress mediating conditions (job security, social support and seniority); (2) resources generating energy (time, money, knowledge and competence); (3) valued objects (housing, clothing, tangible benefits); and (4) stress aiding personal characteristics (traits and skills) (Neveu, 2007).

Other than the job demand-based theories (JD-C and JD-R models) and the CoR model (Halsesleben and Buckley, 2004, Hobfoll, 1988, Hobfoll, 1989, Hobfoll and Freedy, 1993, Shirom, 2003) is the self-determination theory (SDT) (Deci and Ryan, 2002). The SDT assumes that employees are active human beings who are growth-oriented. The prime motive of employees is to partake of enjoyable and interesting activities (van Beek et al., 2012). The SDT builds on the view that employees want to exploit their natural talents or capabilities to their fullest potential (van Beek et al., 2012). In doing so, these employees seek to relate with others in extreme harmony at an interpersonal and intrapersonal levels (Deci and Ryan, 2000, van Beek et al., 2012). This

interpersonal and intrapersonal interactive environment places the SDT at the mercy of social environment within which an employee is a social agent (van Beek et al., 2012). It is fair therefore to suggest that factors that drive the employee as a social agent (in the form of motivational behaviour and direction of personal growth) are predicated on the nature of and interaction between that employee and the ensuing social environment (Deci and Ryan, 2000, van Beek et al., 2012).

The SDT goes beyond the CoRs theory in its analysis of motivation as a determining variable of the relationship between job demands and burnout. The SDT dissects motivation into two components, which are; (1) intrinsic; and (2) extrinsic motivation (Gagne and Deci, 2005, Ryan and Deci, 2000a, Sonnentag, 2003, van Beek et al., 2012). The proposition is that intrinsically motivated employees are driven to excel in work because they experience and derive enjoyment from work. This means that intrinsic motivation is self-determined. Therefore, intrinsic motivation, put differently implies the employee performs work for the sake of it and nothing else as this employee derives joy, enjoyment and a rewarding experience from it (Gagne and Deci, 2005, Ryan and Deci, 2000a). On the contrary, a social agent who is extrinsically motivated is driven by environmental factors other than the work itself. The subtle message from this is that work may not be enjoyable but employees are driven to do it because they need, for instance, to earn an income to survive (Deci and Ryan, 1985, Deci and Ryan, 2002, Gagne and Deci, 2005), van Beek et al., 2012).

Thus, to sum up, the SDT propounded by Deci and Ryan, (2000) is important in the main for suggesting the ambient social environment plays a significant part in upholding or undermining processes of internalisation, integration, intrinsic motivation and personal growth. This can happen through three ‘innate psychological needs’ stated by (Deci and Ryan, 2000) as; (1) the need for relatedness (this occurs when there is a desire to belong, gain respect and fit in (Baumeister and Leary, 1995)); (2) the need for competence (in this case an employee seeks success through accomplishment of tasks at hand (White, 1959)); and (3) the need for autonomy (here the employee wants to be a free social agent making his or her own choices and making decisions on what actions to take (Deci and Ryan, 2000, van Beek et al., 2012)). It is imperative that for an employee to achieve one or more of these three psychological needs an employee must be functioning at an optimum level of well-being (van Beek et al., 2012). This

underlines what van Beek et al. (2012) suggest that to meet these three psychological needs and autonomous motivation in work context the preconditions of positive outcomes, positive work attitude and psychological well-being, superior performance, among others, must be fulfilled (Gagne and Deci, 2005).

2.3.3 The role of individual stress mindset

2.3.3.1 The theoretical foundations and constructs of stress mindset

In work situations employees respond in different ways to stress (Zellars et al., 2000). Thus, personality differences do have a significant influence on an individual employee's response and reaction to stress (Binsardi and Ekwulugo, 2003, Saunders et al., 1978). It is critical that extensive research is conducted given there is such a discrepancy in results garnered thus far. Thus, in assessing for instance, the relationship between employee personality and burnout it is evident that in the case of investigations done on female employees who have low self-esteem there is evidence of burnout, particularly in human services sector (Reisinger and Mavondo, 2014, Zellars et al., 2000). This makes it important to understand further the human services sector to establish the underlying causes for this. On the other hand, in another study on hardiness, a personality trait, in relation to burnout it is established that there is a sympathetic relationship with personal accomplishment (Muthen and Muthen, 1998). In another empirical study Leyman (1996) establishes that hardiness is negatively associated with emotional exhaustion and depersonalisation (even though some studies have not been able to establish any link between personality traits and individual difference) such is the case in Tubre and Collins (2000). In their research there is no relationship found in a sample of 250 critical care nurses between personality trait hardiness and burnout (Schneider et al., 1980, Zellars et al., 2000).

In view of the above, it is clear that the general perception that stress has negative consequences is to some extent misplaced as it depends on the individual (Crum et al., 2013). There has been a view that stress is a problem, particularly in work where it is linked to deaths (Crum et al., 2013, Rees and Freeman, 2009). Thus, taking the above into cognisance it is clear that it is not difficult to convince anyone about the negative consequences of stress in work (Crum et al., 2013). Whilst the argument that stress has these enumerated consequences is well documented (Crum et al., 2013) and quite

popular amongst occupational psychologists there is a paradigm shift. This shift suggests that the belief or perception that stress has negative effects is in itself a 'mindset' that gives credence and legitimacy to the phenomenon (Crum et al., 2013).

In the same vein, Crum et al (2013) believe that it is of paramount importance that employees attempt to alter their mindset to change their response to stress. Through this reconfiguration to a stress mindset an employee develops the capacity to determine the extent to which stress has the capacity to enhance different stress-linked job outcomes. These job outcomes could be performance, productivity, health and well-being (Crum et al., 2013, Zellars et al., 2000). The two dimensions of stress mindset arising from this exposition are that a stress mindset can be perceived as either; (1) stress is enhancing; or (2) stress is debilitating (Crum et al., 2013). A stress is enhancing mindset believes that there are positive gains to be achieved from encountering stress; a view which is not shared with a stress is debilitating mindset.

In personality and individual difference literature a mindset is defined 'as that mental frame or lens that selectively organises and encodes information thereby orienting an individual towards a unique way of understanding an experience and guiding one towards corresponding action and responses' (Cartwright, 2003, Crum et al., 2013). It is therefore true to say that when an individual employee adopts a particular mindset this has consequences downstream for his or her health, judgements, behaviour and even his or her evaluative capacity (Crum et al., 2013, Harris and Reynolds, 2003, Mulholland, 2002), which fit into one of the offshoots of attitude theory (Ajzen and Madden, 1986, Bagozzi, 1992, Perugini and Bagozzi, 2004) known as the self-regulation theory (Ajzen and Fishbein, 1980, Bagozzi, 1992, Perugini and Bagozzi, 2004). Thus, individuals in their nature respond differently to their situations (Schneider et al., 1980). This response variation is underpinned by personality and individual differences (Zellars et al., 2000).

In the case of Crum et al. (2013) they go further to suggest that a stress mindset is a unique variable, therefore different from coping and other appraisal mechanisms assessing the severity of the stress itself (Zellars et al., 2000). When the body readies itself to tackle this stress via the 'stress response' mechanism it in effect prepares the individual's mental and physiological faculties to confront the ensuing demands (Crum et al., 2013, Rees and Freeman, 2009). The ability of the body to prepare itself to

successfully handle the impending stress both mentally and physically is normally referred to as ‘good stress’ (Crum et al., 2013). In stress theory this state of readiness to confront stressful situations in a ‘positive’ manner is called ‘eustress’ and this is underpinned by positive consequences arising therefrom (Crum et al., 2013, Crum et al., 2015). The ‘eustress’ phenomenon is noted extensively in stress literature for its ability to allow the body to mobilise resources through physiological arousal processes which triggers and enables the individual to build a capability to deal with the challenge at hand (Crum et al., 2013).

Through this mechanism of physiological arousal, a consequence of ‘eustress’, other scholars (e.g. Weiss and Cropanzano, 1996) take a view that stress in itself becomes a motivator (Crum et al., 2013). The motivational properties arise from the fact that individual employees faced with a stressor invoke a defensive mechanism creating a ‘membrane’ of defensive pessimism (Weiss and Cropanzano, 1996). This defensive pessimism mechanism gives employees that unique ‘window’ to weigh-up options and consider them carefully and rationally to establish the most appropriate way of dispensing the situation at hand (Crum et al., 2013, Rees and Freeman, 2009, Weiss and Cropanzano, 1996). Therefore, employees develop capabilities to handle problems that they anticipate to occur in their different work environments and settings (Rees and Freeman, 2009). To augment the above ‘eustress’ effects of stress on individual employee it is important to note that when individuals are exposed to stress there is a likelihood that it may catapult several characteristics to the fore. Some of the characteristics that may emerge are improved appreciation for life, and mental toughness, among others (Brown and Maxwell, 2002, Harrison and Smith, 1996). Harrison and Smith (1996) believe that another consequence of stress is it hastens the ability of the brain to handle information (Crum et al., 2013).

Thus, besides the ability of the individual to handle stress *per se*, there is an added ability of how fast and quick the individual is able to do this, which is the argument of Harrison and Smith (1996). These consequences have ramifications for memory and retention capacity of individuals in different work settings (Barnes, 2001, Crum et al., 2013). It is right and plausible thus to concur with Matterson and Ivancevich (1999) and Schwabe and Wolfe (2010) when they state that the body gains strength due to synthesis of proteins via anabolic hormonal release (Beauchamps and Bray, 2001,

Bettencourt and Brown, 2003, Crum et al., 2013). It is this process of biological activity that is credited with physiological stimulation that brings about mindset dimension of stress is enhancing (Crum et al., 2013).

2.3.3.2 A review of empirical studies on role of a stress mindset

In management theory a mindset helps individuals to operate effectively in situations that are riddled with complexity. This helps individuals to decipher this complex, and in most cases opposing information to draw a sensible course of action (Richardson, 1994, Richardson et al., 2000). Therefore, drawing from this view it is clear that a mindset akin to an individual has ramifications for job outcomes. This is so because it affects an individual's judgemental capacity to evaluate given situations (Kruml and Geddes, 2000, Mahesh, 1993) which means the individual's mindset becomes an important variable vis-à-vis job outcomes. This fits well into attitude theory (Bagozzi, 1992) as it allows an individual to evaluate the effects of stress and based on that form intentions.

A *plethora* of empirical studies (e.g. Richardson et al., 2000, Richardson, 1994) performed to investigate the significance of mindset reveals that individuals who have a mindset that says 'intelligence is a malleable trait' show improvement in performance of the individuals as well as their behaviour by displaying a higher semblance of motivation in their learning (Cartwright, 2003). This is not the case on the contrary for those individuals who believe 'intelligence is a fixed trait' as they lack the same motivation as the former group and also lack enjoyment in their work as those in the former group that believes 'intelligence is a malleable trait'. Therefore, drawing from this analysis it is clear that mindset has a role to play here.

An interesting research on mindset was undertaken to investigate the link between mindset and food consumption. This study reveals that a mindset that believes that drinking a milkshake provides nourishment helps to reduce hunger-inducing hormones (Teas, 1983). On the other hand, a mindset that believes the contrary view that the drinking of a milkshake is not nourishing increases hunger-inducing hormones (Sergeant and Frenkel, 2000, Teas, 1983). These studies show that when individuals adopt a particular mindset, this mindset consequently has an impact on a varied set of domains and facets of their lives. These consequences on an individual are in relation to psychological, behavioural and physiological aspects of their work (Sergeant and

Frenkel, 2000, Teas, 1983). This constitutes can be explained the context of mindset theory where the individual makes an evaluation of their situation before action.

Through these studies it is possible to see a common thread cutting across stress situations in work. This springs to life a historical notion of the 'stress paradox'. That is as indicated before, in early stress management theory belief that the level of stress and magnitude of external source of stress is the main determinant of how the stress paradox is perceived and consequently resolved. Alpert and Haber (1960) believe that external stressors, in terms of their intensity and frequency are the key factors in determining whether stress is enhancing or debilitating to an individual exposed to that perceived stressor. This therefore creates that platform on which Crum et al. (2013) have built the theory on stress mindset.

This theoretical posture posits that stress does have benefits (stress is enhancing) at its on-set but as the stress continues to manifest and mounts to reach a critical point (normally referred to as the allostatic load) it has debilitating effects (Sergeant and Frenkel, 2000). This proposition, for instance, by Alpert and Haber (1960) builds on the ideas around Yerkes-Dodson (1908) law. In Yerkes-Dodson (1908) is the implied view that a certain dose of stress does attract a particular response action rather than determine outcomes, be they physical or psychological (Gronroos, 1997, Zapf et al., 1999). Therefore, when employees are stressed they are bound to respond in a way that is beneficial to the organisation contrary to the popular view that this is always bad.

This analogy in effect brings into the fray the exigent differences between stress mindset and coping strategies. It is through understanding this disparity that enables a move from this sense of the impact of stress on outcomes (at individual and organisational level) to how individuals manage stress and thus invoke a paradigm shift. To start with, coping in its most crude form is defined as that process of appraising and building one's resources, both cognitive and behavioural to counter the stress to which one is subjected. Whilst understanding coping and subsequent strategies that one can invoke, it (i.e. coping) does not necessarily endow individuals with much understanding of how to deal with stressful environments or situations (Duke et al., 2009). Therefore, coping strategies as a way of dealing with stress are considered to be avoidance-based strategies that do not address the issue, which is the stressor itself.

Crum et al. (2013) realise the weaknesses of using coping strategies in dealing with stress. They advance the view that an individual's mindset is at the centre of determining how stress is perceived by an individual. An individual, according to Crum et al. (2013) has two possible reactions to stress. The two reactions would be either a mindset that says; (1) stress can be enhancing; or (2) stress can be debilitating. In their view the notion of a stress mindset occurs irrespective of whether the individual is facing stress or not; this consequently means a stress mindset goes beyond coping strategies. Crum et al. (2011) and Crum et al. (2013) in their view proffer that this means stress mindset unlike coping do not present any form of assessment of a stress-ridden environment. In that regard, a stress mindset is poignantly focused on the nature of stress as either enhancing or debilitating and this is contrary to coping strategies which are more of an appraisal of stress itself (Bowen and Lawler, 1992, Cartwright, 2003, Crum et al., 2013). These two perspectives are complete opposites and look at stress differently. This distinction is important in as it informs how the individual decides to act in the face stress.

This is why stress in the form of a looming deadline is perceived as a stressful situation by one individual whilst at the same time it invokes a different reaction from another individual. To an individual that believes stress is enhancing a looming deadline invokes a stress is enhancing mindset. This only emanates from the fact that the individual views this stress as an enabler as it can boost outcomes (Crum et al., 2013). On the contrary, the opposite is true for an individual who has a mindset that believes that stress is debilitating. To this individual a looming deadline provokes a diametrically opposing mindset that says stress is debilitating. This is a result of the belief by the individual that stress has a negative impact on the individual's health and energy (Crum et al., 2013, Richardson, 1994, Teas, 1983, Wegge et al., 2006).

In an empirical, research Dweck (2008) succeed in establishing that together, stress mindset coupled with intelligence help or enable individuals to envisage goals as well as responses to challenges and consequently impacting outcomes (Crum et al., 2013, Richardson, 1994). It is clear that from this view flows the theoretical implication that stress mindset has the propensity to create different motivations and psychological processes via the ability of stress mindset to influence health and performance (Crum et al., 2013, Teas, 1983. Therefore, it holds water to argue that a stress mindset (i.e. stress

is enhancing or stress is debilitating mindset) does bear down on the behavioural and physiological experience of stress. Thus, arising from these short-term consequences of stress on the individual's motivational and physical being are long-term ramifications for health as well as those performance outcomes (Bowen and Lawler, 1992, Crum et al., 2013, Teas, 1983). Thus, a conclusion is drawn that stress mindset can be of good effect to performance based on this logic and therefore be given due consideration in work.

It is evident that a stress mindset moderates the effects of stress on job outcomes. If an individual is exposed to stress it does not necessarily follow that there is a negative impact on job outcomes. An obstinate mindset is one that believes stress is enhancing and sees an individual in a state of 'eustress'. In this state an individual has an enhanced ability to achieve job outcomes (Crum et al., 2013, Teas, 1983, Wegge et al., 2006). In the same vein moderating effects of mindset are discussed in *volte-face*. This can be that when an individual is exposed to stress that individual chooses to conserve resources thus minimising the negative impact from a stressful situation on health and other outcomes as explained under CoR theory (Hobfoll, 1988, Shirom, 1989). In taking this decision employees therefore naturally reduce their achievement level in work.

2.3.4 A discussion on job outcomes

2.3.4.1 The theoretical framework of job involvement and OCBs

By definition, job involvement relates to how far an individual identifies with the job that they are doing. In some way it entails the value that an individual places on the job in question in relation to that individual's view of self-worth (Brief et al., 1979, Tubre and Collins, 2000). On the other hand Organ (1988a) defines OCBs, another form of job outcome as a behaviour that is of an 'extra-role' nature beneficial to other employees in the organisation and the organisation itself. Bandura (1999) believes that OCBs are not constituted by formal demands of the supervisor let alone the organisation. It is clear that a state in which an employee has high levels of job involvement does arise when there is deliberate engagement by the employee to the main tasks of the job in a positive manner (Little et al., 2006). The opposite, a state of alienation of the employee also arises when there is no attachment to the job by the employee, hence there is no semblance of individuality at play (Bagozzi, 1981,

Bandura, 1977, Mandell, 1956). Therefore, the two job outcomes (i.e. job involvement and OCBs) are important in assessing the impact of in-role and extra-role outcomes of employees in work.

Little et al. (2006) believe that OCBs are that behaviour is driven by an employee's own discretionary behaviour which has the propensity to benefit the organisation as well as the other employees. These benefits manifest in a psychological and social form (Borman and Motowidlo, 1993, Little et al., 2006). It is important to separate OCBs from in-role job performance (e.g. job involvement); OCBs are not by nature a prescribed but rather a deliberate and discretionary behaviour and offer benefits to other employees and work groups as well as the organisations (Aitken and West, 1991, Aguinis et al., 2005, Norman, 1975). It is discretionary because the employee chooses to engage in this behaviour given that it is not manifestly a behaviour underpinned by contractual obligation. Rego and et al. (2010) argue that OCBs antecedents differ significantly across cultures. This view is presented in other works, for instance, McFarlin and Sweeney (1992), but perceived by others as premature (Perrow, 1965). Podsakoff et al. (2003) say that there are four distinct areas relating to antecedents that have implications for OCBs. These antecedents are explained as follows; (1) leadership characteristics; (2) individual dispositions; (3) organisational characteristics; and (4) citizenship behaviours. It is acknowledged in literature that most work done on antecedents of OCBs other than the dispositional characteristics have tended to build their framework around the social exchange theory. In some studies use is made of this social exchange theory to explain the relationship between justice perceptions and OCBs (e.g. Ajzen and Fishbein, 1977, Cohen-Charash and Spector, 2001).

In research conducted thus far on job involvement focus has been on how personal characteristics are correlated to job aspects such as the nature of organisational design, supervisory behaviours, job enrichment and how these connect with job outcomes at both employee and organisational level (Bandura, 1977). Whilst there is discussion on job engagement and burnout there has been criticism (Bagozzi and Baumgartner, 1989, Bandura, 1977, Mandell, 1956) based on the fact that there is a clouded understanding of the subject matter (Bandura, 1977). A lot of this criticism is centred on the uncertainty arising from the application of the Lodahl and Kejner scale (Bandura, 1977). The net effect is the confusion over the ability to interpret massive amounts of

data during manipulation and analysis. This prompts one to be careful when dealing with large quantities of data as these risks creating problems in relation to the interpretation of results.

Understanding the relationship between organisational justice and OCBs in organisational settings has proven to be a popular area of research (Fishbein and Ajzen, 1974, Perrow, 1965). Through OCBs the organisation's performance is enhanced in relation to its functioning (Fishbein and Ajzen, 1974). In a nutshell, Adams (1965) argues that when there is a feeling of inequity in the way an employee views the exchange relationship (i.e. the employee's job performance *vis-à-vis* reward) it prompts the individual to not part in their OCBs (Fishbein and Ajzen, 1974).

The *raison d'être* for this tendency to withhold OCBs is to restore the balance in the social-exchange relationship. Moorman (1991) says in situations where an individual employee feels that they are being treated fairly by their superiors they are most likely to be involved in discretionary behaviour therefore positively favouring the organisation – this is the typical manifestation of OCBs (Fishbein and Ajzen, 1974). Equally true is the proposition by Blau (1964) that in cases where employees feel that the organisation is giving them fair compensation for work performed, they consequently respond by performing a range of OCBs (Bandura, 1991, Colquitt, 2001, Davis, 1951, Fishbein and Ajzen, 1974).

The construct of job involvement has seen significant evolution since conception by Lodahl and Kejner (1965) and has seen a lot of studies (both theoretical and empirical) spawned out in different work situations (e.g. Little et al., 2006). In its nature job involvement is defined as a situation where there is total engagement by an employee in a job and this is predicated on the importance employees place on jobs in their lives (Bagozzi and Burnkrant, 1979, Little et al., 2006, Weaver et al., 2001). On the contrary, a converse of job involvement is job alienation which is characterised by an individual employee losing that attachment to the core elements of the job within the work environment (Bagozzi, 1981, Little et al., 2006, Mandell, 1956).

Brown and Leigh (1996) also note that the ideas of job involvement and job alienation cut across several spectra of life such as parenthood and family, among others. In an effort to unravel the nature of job involvement it is essential to have a deep-rooted

understanding of one's psychological needs as this is part of core-drivers of an employee where it pertains to how they are involved in a job situation (Little et al., 2006, Roethlisberger, 1965). It follows therefore that to have a wholesome knowledge of the construct of job involvement it is an indispensable fact that social, industrial-organisational and clinical psychology must be given due credence (Little et al., 2006).

Historical understanding of the nature of job involvement over the last four decades has revealed that there are a series of personal attributes (characteristics) that link in with job involvement. This has on the whole paid attention to the link of job enrichment, organisational design and supervisor behaviour coupled with the consequences on outcomes for the employee and the organisation (Bagozzi and Baumgartner, 1989). The construct of job involvement has been however mired in confusion since Lodahl and Kejner's (1965) exploratory work. Kanungo (1982), who tries to improve on the Lodahl and Kejner (1965) proposition, argues that there is a multiplicity of conceptual ambiguities in the construct and hence the need to come up with a more focused construct of job involvement. In navigating through how job involvement has been constructed and measured it is imperative go back to its genesis. In much of the early foundations of job involvement it has been grounded in Allport's (1947) work. It is this work that allows Lodahl and Kejner (1965) to generate the first of the two dimensions that have seen extensive use.

The first dimension focuses on how performing a particular job impacts on an individual's self-esteem. This is referred to as the performance-self-esteem contingency (Brown and Leigh, 1996). Lodahl and Kejner define a second dimension which concerns the extent to which an individual's view of self is related to his or her work (Tubre and Collins, 2000, Zawacki, 1963). This view of one's image *vis-à-vis* job involvement is underpinned by the work of Tubre and Collins (2000) and Wang (2009). Like with most pioneering works the two dimensional construct by Lodahl and Kejner (1965) falters in that it does not originate from a singular conceptual construct and therefore culminates in the confusion raised earlier (Ajzen and Madden, 1986, Zawacki, 1963). There are several pieces of empirical work done that are based on the work by Lawler and Hall's (1970) and Lodahl and Kejner (1965) reduced version of the original 20-item scale. Nonetheless, there has been some serious criticism of the use of the reduced scale. The reduced scale based on Lawler and Hall's (1970) and Lodahl and

Kejner (1965) is mainly criticised for being the cause of ambiguities raised earlier on which has resulted in its lack of wide application in most research works in social sciences (Brown and Paterson, 1993).

It is clear from the above mentioned studies that the one-dimensional construct, which excludes performance-self-esteem contingency, helps to do away with the rampant ambiguities that are prevalent in the extended version (Little et al., 2006). Some further work has also been done by Saleh and Hosek (1976). In their work they postulate a multi-dimensional proposition of job involvement. Theirs is based on a four dimensional construct composed of; (1) work as a central life interest; (2) the extent of the person's active participation at work; (3) extent of performance-self-esteem contingency; and finally (4) consistency of job performance with the self-esteem. Unfortunately there are vehement and scathing attacks on this construct by Brown and Leigh (1996) and Kanungo (1982).

The criticism is mainly on the fact that there is so much fixation on the psychological state of the individual as well as the causes and resultant outcomes from this ensuing psychological state (Little et al., 2006). In this category of multi-dimensional constructs of job involvement are views of Bagozzi (1981), Bandura (1977) and Bandura (1989). However, these works have been relegated to non-significance (Bagozzi and Baumgartner, 1989, Little et al., 2006). Other than the operationalisation of job involvement constructs there is a third approach offered by Kanungo (1982). In this approach consideration is given to job involvement based on the psychological identification belief (Brief et al., 1979, Little et al., 2006).

In formulating this construct Kanungo (1982) bears in mind the limitations of the multi-dimensional propositions by Lodahl and Kejner (1965) and Saleh and Hosek (1976). Kanungo's (1982) view of job involvement is that there are two facets upon which an individual's identification is hinged upon in their in-role function. These are; (1) need for salience, as well as; (2) the individual's belief of how the job satisfies the same individual's personal needs. Through this proposition Kanungo (1982) is able to bring more clarity into the conceptualisation of job involvement (Little et al., 2006). This version of job involvement construct is devoid of contamination from the influence of scale items that are considered to be outside the meaning of job involvement which

consequently makes it an effective construct (Little et al., 2006); making it a more effective measurement of the construct.

2.3.4.2 An empirical framework of job involvement and OCBs

The theory on job involvement does indeed revolve around attitudinal and behavioural involvements of individuals in achieving their outcomes (Brief et al., 1979). When these involvements are invoked a number of individual behaviours arise such as job involvement and proximity-seeking behaviours. These extend the individual beyond the normal demands in question (Pearsall et al., 2009). The theory on job involvement suggests that given that an organisation has its own identity, the members of the organisation tend to have their own views about this identity and consequently this has ramifications for how their (the individuals) behaviours and attitudes are formed. This relationship between the organisation and the individual's perception has been found to affect job involvement outcomes.

In equal measure, an individual who believes that their image is enhanced by their association with the job will be highly involved in that particular job (Brief et al., 1979, Tubre and Collins, 2000). Ashforth and Mael (1989) and Pearsall et al. (2009) also concur with this view by suggesting that in organisations that are mission-driven individuals that align themselves with the management philosophy are highly involved in their work. The Ashforth and Mael (1989) proposition allows a deduction that when there is natural identification by an employee with an organisation due to its management philosophy the employee is bound to apply himself or herself beyond the demands of their formal job. It is fair to then suggest that there is a link between identification with a particular philosophy in the workplace and different forms of job involvement (Brief et al., 1979, Zika-Viktorsson et al., 2006).

The work of Pearsall et al. (2009) gives an analogy where an organisation that cherishes protection of environment as its ethos has propensity to entice employees to drive their effort. When employees see this organisational attitude they reciprocate by reducing air pollution whilst undertaking their job roles Pearsall et al. (2009). Thus, this means employees have to apply themselves diligently to achieve these individual outcomes – and of course precipitating in job involvement. Another conceptual framework of job involvement uses classifications chosen on the basis of personality traits drawn from a

plethora of supervisory behaviours as well as job characteristics (Bandura, 1977). The conceptual framework also encompasses how individuals in a role perceive the antecedent influences on job involvement. Thus, individual differences have been at the centre of most job involvement theories that are underpinned by personality traits and have their genesis anchored in individual and social circumstances (Judd et al., 2001, Marsh et al., 2011). This scenario highlighted above builds up to one of the theories key in explaining job involvement – the interactionist perspective, which states that that job involvement is jointly impacted on by personality and situational variables. Here there is recognition that employees are all different and because of that they are driven by different motives.

The interactionist perspective avers that job involvement is jointly impacted on by personality and situational variables. The individual difference perspective views those antecedents of job involvement, such as socialisation processes designed to generate a belief amongst employees that work is a virtue and must be done – this brings to the fore the relationship between job involvement and work ethic (Kraemer et al., 2002, Little et al., 2006). Thus, the individual differences perspective presents a *prima facie* view that employees are by inclination more job involved. In other studies, some personality variables in relation to job involvement, such as internal motivation, self-esteem and loci of control are found to be important (e.g. Bandura, 1977). With all these personality variables evidence from research has been that there is a sympathetic relationship between them and job involvement. Taking intrinsic motivation, it is evident that when an individual has confidence in his or her competence and ability to influence their work environment then consequently there are positive ramifications for job involvement (Deci and Ryan, 1985, Kenny et al., 2014). Job involvement has also been seen to be influenced by self-esteem in that those employees in the workplace who experience high self-esteem exude confidence and tend to be highly involved in their jobs as well (Bandura, 1977).

Whilst antecedents connected to personality traits have been lauded in explaining the nature of job involvement by an individual, another variable that has been viewed as central is motivation. Motivation though has sprung up more divergent theoretical perspectives in the understanding of job involvement. The three key perspectives that have seen extensive application in unravelling the significance of motivation as an

antecedent of job involvement are; (1) the individual difference; (2) the situationist; and lastly (3) the interactionist perspectives.

According to the individual difference perspective, those employees who bear the hallmark of work ethic endorsements, self-esteem and internal motivation, tend to be much more highly involved in their jobs irrespective of the prevailing conditions (Bandura, 1977). In this individual difference perspective, motivation is perceived to be an antecedent. On the contrary, under the situationist perspective motivation is viewed as a consequence of job involvement – that when employees are highly involved in their jobs it gives them ultimately some motivation to do well (Lazarus and Folkman, 1984). Lazarus and Folkman (1984) go further to suggest that it is cognitive appraisal of the implications rather than anything else that arouses motivation. This is important because it place the individual at the centre of the drivers of motivation, a view that is popular amongst other researchers.

Thus, following on from this, there has been extensive research to understand the impact of job characteristics and supervisory behaviour. In this regard research has sought to establish the relationship existing between job involvement and situational characteristics (Little et al., 2006). The predominantly covered job characteristics are task identity, feedback, autonomy and this has also incorporated supervisory behaviour like communication levels, participative decision-making, *inter alia* (Kraemer et al., 2001, Netemeyer et al., 1990). Typically, the situational perspective points out that the way an individual is involved in his or her work alters once some elements of that job have changed. Thus, the relationship between job involvement and the environmental factors is harmonised by the ability to satisfy those salient psychological needs (Kelloway and Barling, 1990, Mandell, 1956).

Besides the situational perspective on job involvement against job characteristics and supervisory behaviours is the psychological perspective (Bagozzi, 1992). Under this perspective it is posited that job involvement is driven by how much an individual feels about work accomplishment as a personal prerogative (Little et al., 2006). This even extends to how the same individual feels about the meaningfulness of the job and whether there is adequate feedback to support the work being done. Thus, in Kahn (1990) new job involvement is predicated on an individual's psychological perception

of safety and meaningfulness (Little et al., 2006). This definition adds a new dimension to the perception of job involvement because if there is lack of safety in the job itself there might be intention to withhold behaviour (Bagozzi, 1992).

Finally, this review of the theory on job involvement will not be complete without considering the sociological perspective (Fazio and Zanna, 1978a, Fazio and Zanna, 1978b, Little et al., 2006). This perspective is built around the diametrical opposite of involvement – alienation (Weaver et al., 2001). The sociological perspective postulates that there are five conditions that are characteristic of deprivation and hence precipitate alienation at work. These five characteristics are; (1) isolation; (2) self-estrangement; (3) powerlessness; (4) normlessness; and (5) meaninglessness. In defining isolation the sociological perspective says it arises from a state of lack of affiliations.

As for self-estrangement it occurs because the individual does not get personal fulfilment from doing their work. In terms of powerlessness it arises because the individual employee feels helpless because of a lack of control over the environmental circumstances and denied autonomy. Normlessness manifests where as a consequence of environmental circumstances what is considered normal does not prevail anymore. Finally, meaninglessness is conceived to be that situation where the individual perceives himself or herself as insignificant and his or her contribution is not important anymore. It is also a situation where an individual feels that he or she does not identify with the organisational systems and processes anymore. These sociological facets have been linked by others (e.g. Fazio and Zanna, 1978a, Fazio and Zanna, 1978b, Little et al., 2006) to unfulfilled psychological needs that consequently give rise to job alienation which has consequences for performance.

The OCBs by definition are described as that act whereby an individual engages in behaviour that is of discretionary nature. This behaviour is not in any way recognised by the organisation's formal reward system but tends to however enhance the effective functioning of that organisation (OCB-O) (Organ, 1988a, p.4). This naturally betrays the norm that humans always do what gives them financial benefit as it is (Taylor and Bain, 2001). In that regard this pro-social behavioural tendency has preoccupied psychologists and philosophers minds alike. This has led to extensive research on individual differences, in particular, paying attention to the five-factor conceptualisation

of personality (e.g. Bentler, 1985, Cascio, 1982). It is believed that these individual differences are critical in allowing varied responses to organisational systems (Schroeder, 2005). This also underpins the role of stress mindsets in influencing the attitude of an individual if they have either an enhancing or debilitating mindset.

Out of these five-factors are the following key aspects; (1) agreeableness; and (2) conscientiousness. In the case of conscientiousness employees that display this trait are more focused and are results orientated and this fosters the notion of personal accomplishment which thus promotes OCBs (Organ, 1990). In-so-far as agreeableness is concerned there is a feeling that individuals have a propensity to influence others to do well for the benefit of the organisation. It is believed that this drives them to be cooperative and altruistic (Ajzen and Fishbein, 1980) and through this they desire a work climate that is hospitable and hinged on collaborativeness (Rizzo et al., 1970).

Given this extent of agreeableness these individuals seek to foster OCBs to engender their feelings (Cascio, 1982, Rigopoulou et al., 2012). Substantive suppositions have been developed particularly through the social exchange theory (Blau, 1964). Blau (1964) averred that where relationships do not form forward-looking commitment it gives rise to social exchange liaisons in the organisation (Rigopoulou et al., 2012). Using social exchange theory to explain the relationship between organisational justice and OCBs, Davis (1951) argues that because of the fact that an organisation is a 'melting-pot' of social exchanges it is most probable that this will culminate in OCBs manifesting themselves (Rigopoulou et al., 2012). This manifestation of OCBs though depends on how the individual perceives the way they are treated in the organisation.

These OCBs are broadly discussed using the social exchange theory given the very nature of the duality of the relationship prevailing in organisations (Rigopoulou et al., 2012). This brings into the fray the organisational identification perspective. Jude and Kenny (2010) have advocated the use of the social identification theory to explain the relationship between procedural justice and OCBs. This perspective brings in an interesting dimension to explain the dynamics between the individual and the organisation. The key point of departure between the social exchange and the social identification perspectives is that with the latter the citizenship behaviours are invoked by the individuals endearing themselves to the organisation (Rigopoulou et al., 2012).

They even further state that for those individuals that identify with the organisation it is not a prerequisite that the organisation must offer anything of extrinsic value, nonetheless that strong attachment persists anyway - this behaviour is self-replicating within the individual. The social exchange theory is however more on the basis of the gains that the individual perceive to accrue from engaging in OCBs.

It is therefore logical, from the above, to suggest that through the social identity theory organisational identification allows individual employees, *ceteris paribus*, to understand what is happening around them in the organisation. This ability to understand their surroundings thus allows the same individuals to make their own judgements about their significance in the organisation. Equally important also and arising from the social identification perspective as discussed through social identity theory is that individuals in an organisation are able to see what those within the intra-group setting believe in, in terms of their behavioural outcomes (Cohen et al., 2003, Rigopoulou et al., 2012). As a consequence, most research works have tended to favour the application of the social identity theory as a means to explain OCBs through the social identification perspective (Rigopoulou et al., 2012) given its robustness.

2.4 An empirical exposition of CSR experiences in call centres in the UK

There has been varied experience for CSRs working in call centres across the UK (Unison, 2012). In a study of three companies operating call centres in the UK, employees expressed concern about the level of job pressure and the attitude of management (Brown and Maxwell, 2002). Most employees interviewed believe that there is high level of monitoring that aggravates the levels of stress in call centres (Brown and Maxwell, 2002, Holman, 2002, Unison, 2012); this results in most employees feeling trapped in the job (Brown and Maxwell, 2002). These feelings and perceptions have ramifications for the way attitudes towards work are formed. On the other hand, whilst employees are viewed as a 'very significant' part of the delivery of good customer service, they feel that they are not however considered when organisations are looking at employee experience (Brown and Maxwell, 2002, Unison, 1998).

In another research Brown and Maxwell (2002) conducted three studies; (1) at Bravo Insurance Services the levels of staff turnover are much higher than they are at industry

level; (2) at Charlie Insurance the levels of customer retention are low; (3) at Alpha Insurance Services there is convergence between employee and senior management perspectives. There is evidence here that in the UK the success of call centres is based on the level of customer service offered (Brown and Maxwell, 2002, Pollitt, 2011, Unison, 2012). Thus, given the role played by CSRs their performance is critical in ensuring good customer service (Brown and Maxwell, 2002, Unison, 2012). Using Affective Events Theory (Weiss and Cropanzano, 1996) in their empirical study of 'Affective Experiences in Call Centre Work', Wegge et al. (2006) explore the factors that invoked positive and negative feelings in CSRs in a UK-based call centre. They set a primary objective of investigating how employees view different facets of their work, such as, workload, welfare and autonomy. The result shows that a positive relationship between supervisory support and concern for welfare is established with job satisfaction and experience of positive emotions (Wegge et al., 2006).

The same study by Wegge et al. (2006) establishes that there is a strong link between job features and job satisfaction for call centre operatives. The study also reveals the mediating role of positive job emotions on job satisfaction. The implication of this is that, according to Wegge et al. (2006), some aspects of work, such as perceptions of high levels of autonomy in role, having voice (procedural justice) – a dimension of organisational justice (Colquitt, 2001, Colquitt et al., 2009) – are correlated to job satisfaction. The main sources of this correlation are the affective experiences by CSRs at work (Wegge et al., 2006). Wegge et al. (2006) aver that it is not only the emotional experiences at work by CSRs that influences job satisfaction there are other factors. In keeping with the empirical research by Karasek (1979), Wegge et al. (2006) find that in cases where CSRs are exposed to high levels of autonomy, supervisory support and participation in their work settings they do feel lower levels of negative emotions (Wegge et al., 2006). This also explains the fact that job satisfaction is not only mediated by emotions at work.

The study by Wegge et al. (2006) also brings out an interesting observation that for CSRs who experience higher workloads they report more negative emotions compared with their colleagues who have lower workloads. In spite of this, these CSRs are still more satisfied with their jobs (Wegge et al., 2006). Continuance commitment of CSRs, which is normally a proxy of low turnover intentions, has a higher correlation with job

satisfaction as opposed to positive emotions. Whilst this is true for continuance commitment, it is not so for the relationship between positive emotions in work and job satisfaction on one hand, and affective commitment and job satisfaction on the other. Holman (2002) carried out an empirical study in the UK in a call centre focusing on customer-employee interaction. In this empirical work it is clear that customer-employee interaction does indeed have implications for CSRs' well-being (Brotheridge and Grindey, 2002). This study cements the early works on how an attempt by employees to regulate their emotions in return for a wage underpins emotional labour (Hochschild, 1983, Tschan, et al., 2005). Work in call centres, the UK included, demands that emotions be experienced in a certain way which originates from theories of emotional labour (Kinman, 2009, Rafaeli and Sutton, 1990, Sutton, 1991).

There is a consensus generated from reviewing several studies focusing on UK call centres (Barnes, 2001, Higgs, 2004, Kessler, 2002) the work that CSRs are exposed to, gives rise to personnel related problems, ranging from mental, emotional and physical breakdown (Crum et al., 2013). Therefore, to deal with these problems businesses have tried to develop commitment fostering strategies (Pollitt, 2011, Richardson, 1994, Unison, 2012). Malhotra et al. (2007) argue that whilst call centres have become a popular source of employment they are also perceived as 'dead-end' jobs. CSR jobs are viewed as of poor quality where prospects of promotion are even non-existent (Deery and Kinnie, 2004).

In call centres CSRs have shown that they respond well to situations where they are involved in the decision-making process (Colquitt et al., 2009, Herzberg, 1965, Herzberg, 1966). This participation in the decision-making processes relates to the degree that CSRs believe that they can influence decisions regarding their jobs (Colquitt et al., 2009, Teas, 1983). Thus, given that in call centres work is much more standardised through the use of technology as well as procedures and guidelines, the employees need to be familiar with the internal process (Malholtra et al., 2007). This brings to the fore the importance of the perception of organisational justice, particularly of a procedural nature (Colquitt, 2001, Colquitt et al., 2009). In their study, Malhotra et al. (2007) found that there is a direct and significant impact from affective commitment when employees feel that they are part of the decision making processes.

The reasoning by Sergent and Frenkel (2000) is that in call centres the opportunity for participation in decision making is low. Thus, if CSRs are given the opportunity to participate in making these decisions this will be valued. When employees are offered these opportunities it helps to foster attachment to the organisation. Malhotra et al. (2007) further argue that when CSRs are involved in decision-making, it helps to foster affective commitment to the organisation. When CSRs are attached to the organisation in this way there is a high inclination for them to accept the goals of the organisation (Rigopoulou et al., 2012).

There are some empirical studies on UK call centres have established on another level, that social support moderates burnout (e.g. Choi et al., 2012, Cordes and Dougherty, 1993, Halbasleben and Buckley, 2004). Thus, social support does have a direct relationship with burnout in-so-far as the main effect is concerned (Choi et al., 2012). Halbasleben and Buckley (2004) state an indirect mitigating effect from social support to job stressors on burnout. In several studies (e.g. Choi et al., 2012, Demerouti et al., 2001, Duke et al., 2009, Rees and Freeman, 2009) it has emerged that social support in the workplace reduces the negative effects of role stressors on burnout. On the other hand, some empirical studies on call centres in the UK reveal that social support has a mitigating effect on burnout itself (Muhammad and Hamdy, 2005). This is so because supervisors perform an important part in relation to CSRs and management of call centres in general. When CSRs believe that there is adequate support from their supervisor they consequently extend their tenure with the organisation.

In a significant number of empirical studies on UK call centres (e.g. Choi et al., 2012, Lee and Ashforth, 1996, Maslach, 1982) it is acknowledged that burnout is mainly a consequence of an adverse relationship between the customer and CSRs. As stated by Holman (2003) and Unison (2012) call centres are breeding grounds for customer hostility and abuse towards CSRs. This is mainly precipitated by the fact that most inbound calls are driven by complaints from disgruntled customers (Choi et al., 2012, Holman, 2003, Mahesh and Kasturi, 2006, Unison, 2012).

There is substantial empirical literature thus far (e.g. Crome, 1998, Fernie and Metcalf, 1997, Mahesh and Kasturi, 2006, Mulholland, 2002, Taylor and Bain, 1999) on control, with most of them suggesting that the most classical cases of call centres are driven

under the control paradigm (Holder and Fairlie, 1999). This view has been contrasted with the need to drive empowerment in call centres in the UK. A significant number of empirical studies (e.g. Bowen and Lawler, 1992, Gronroos, 1990, Mahesh, 1993, Mahesh and Kasturi, 2006) have focused on the notion of empowerment as a means to enhance performance.

Maheshi and Kasturi (2006) in a research on call centres in the UK discuss how agents manage stress within these settings. In their view, call centre agents manage stress by invoking an array of actions or behaviours that assist them in handling stress levels (Crum et al., 2011) also referred to as emotional labour (Kinman, 2009). Thus, CSRs engage in, for instance, humour to dampen stress, whilst at the same time monitoring the level of calls – which would heighten stress levels (Mahesh and Kasturi, 2006). In call centres in the UK, Weatherly and Tansik (1993) explore a set of tactics that CSRs employ to ameliorate stress. In this set of tactics raised by the Weatherly and Tansik (1993) self-management attributes are not included.

In a separate study covering stress, empowerment and job satisfaction it is apparent that there is no relationship between empowerment and stress (Holdsworth and Cartwright, 2003). An element close to the focus of the research on how stress mindset can moderate burnout is raised by Weatherly and Tansik (1993) who observed that CSRs in UK call centres are not invariably different from their counterparts elsewhere but the distinguishing aspect is that they have initiative as well as self-management. Whilst not synonymous with stress mindset, Maheshi and Kasturi (2006) argue that CSRs in the UK call centres had the same tasks as their colleagues but they approach work differently. Thus, CSRs' effectiveness is a result of a variety of behaviours that enables them to handle their emotions and stress levels (Mahesh and Kasturi, 2006).

The empirical work by Maheshi and Kasturi (2006) finds that CSRs who are intrinsically motivated experience lower levels of stress; however, this is a result of their ability to manage stress levels. This is a departure point with this research which perceives that stress will be experienced by CSRs but it is their stress mindset which matters rather than the avoidance of the stress itself (Crum et al., 2013). Malhotra and Murkerji (2004) argue that most organisations have not given deserved attention to establishing the character of organisational commitment and job satisfaction of CSRs.

Call centres have admittedly been associated with high levels of ‘phone-roles’ thus making it one of the most stressful jobs in modern economies (Meyer et al., 2002).

2.5 The lessons from empirical studies in call centres in the UK

The empirical literature review on the UK call centres points to the fact that CSRs are not immune to the vagaries of stress from occupational pressure and management attitudes (Brown and Maxwell, 2002). In different situations when CSRs are confronted with stress they develop intentions (Bagozzi, 1992, Perugin and Bagozzi, 2004) on whether to stay with the organisation (Malhotra and Murkerji, 2004) or reduce their participation in work (Wegge et al., 2006). The empirical literature here has shown that there is no question regarding the negative impact of call centre work on CSRs (Ferne and Metcalf, 1997, Garson, 1998, Unison, 2012) but the debate is on how to handle it.

2.6 A summary of the literature review

A *plethora* of work has been done on organisational justice, burnout, job involvement and OCBs in terms of theory and empirical research; nonetheless the same cannot be said about stress mindset which has seen very little application since the paradigm shift introduced by Crum et al. (2013). They fused together eustress, adding a stress is enhancing component to the long held view that stress is debilitating to understanding of what drives individuals. This opens a gap in literature at a theoretical and empirical level which is important to establish how viable stress mindset theory is and how widely applicable it is beyond the Stress Mindset Measure (SMM) by Crum et al. (2013) at an empirical level. This chapter informs Chapter 3: Pages 55-74 and Chapter 4 Pages 75-88 to follow. These will cover the development of the conceptual framework based on attitude theory (Bagozzi, 1992) by explaining how the research hypotheses are grounded in theory and the research methodology. A summary of theories discussed in this chapter is in Table 3: Pages 53-54.

Table 3: A summary of theories, models and perspectives for latent variables covered in literature review

Organisational justice theories, models and perspectives	
Social exchange theory	Blau (1964)
Equity theory	Adams (1965)
Instrumental theory	Homans (1961), Thibaut & Walker (1975)
Fairness theory	Folger (1987), Folger (1986b)
Referent cognitions theory	Folger, 1987
Relational theory	Tyler (1997), Lind (1995)
Moral theory	Folger & Cropanzano (1998), Folger (2001)
Uncertainty management theory	Lind & van den Bos (2002)
Burnout theories, models and perspectives	
Transactional theory	Lazarus & Folkman (1984)
Job demand-control model	Karasek & Theorell (1990), Hockey (1993), Demerouti et al. (2004)
Job demand-resources model	Demerouti et al. (2001), Neveu, 2007
Conservation of resources (CoRs) theory	Hobfoll (1988), Hobfoll (1989), Shirom (1989), Hobfoll & Freedy (1993), Shirom (1993)
Self-determination theory (SDT)	Deci & Ryan (2000), Ryan & Deci (2000a), , Deci & Ryan (2002)
Stress theories, models and perspectives	
Stress management theory	Yerkes & Dodson (1908), Alpert & Haber (1960), Dweck (2008), Crum et al. (2013)
Mindset theory	Weis & Cropanzano (1996), Cartwright (2003), Dweck (2008), Crum et al. (2013)
Stress mindset theory	Dweck (2008), Crum et al. (2013)
Job involvement theories, models and perspectives	

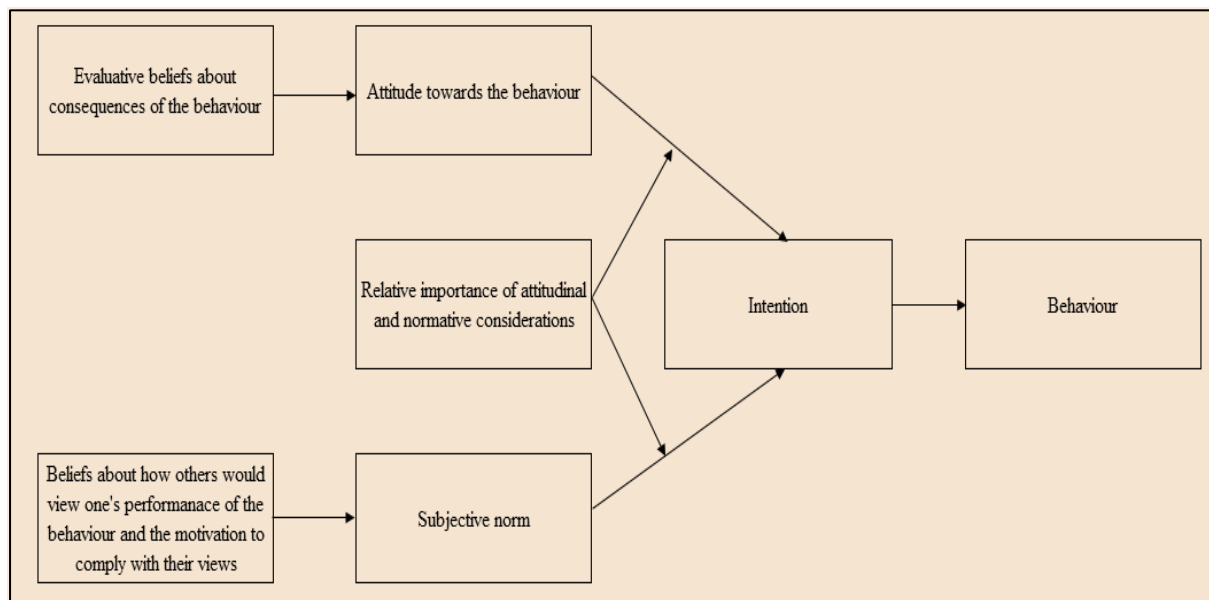
Social exchange theory	Blau (1964)
Equity theory	Adams (1965)
Organisational identification theory	Brief et al. (1979), Ashforth & Mael (1989), Tubre & Collins (2000)
Situational perspective	Kraemer et al. (2001), Netemeyer et al. (1990)
Sociological perspective	Zanna (1978a), Fazio & Zanna (1978b), Little et al. (2006)
Psychological perspective	Mandell (1956), Kelloway & Barling (1990)
Individual differences perspective	Bandura (1977), Lazarus & Folkman (1984)
Organisational citizenship behaviour theories, models and perspectives	
Social exchange theory	Blau (1964)
Social identification theory	Jude & Kenny (2010)
Organisational identification theory	Brief et al. (1979), Ashforth & Mael (1989), Tubre & Collins (2000)
Affective events theory	Karasek (1979), Weiss & Cropanzano (1996), Wegge et al. (2006)
Organisational commitment theory	Meyer et al. (2002), Malhotra et al. (2007)

3 Chapter 3: Conceptual Framework and Hypotheses Development

3.1 Introduction

This chapter explains the conceptual framework and the development of hypotheses that flow from it. The conceptual framework is underpinned by 9 latent variables; organisational justice (i.e. distributive, procedural, interpersonal and informational); burnout (i.e. emotional exhaustion and depersonalisation); job outcomes (i.e. job involvement and OCBs) and stress mindset (i.e. stress is enhancing and stress is debilitating).

Figure 1: Attitude theory as perceived by Bagozzi 1992



The conceptual framework on the impact of organisational justice on job outcomes is drawn from attitude theory (Bagozzi, 1992, Perugini and Bagozzi, 2004). Attitude theory states that an individual's behaviour is volitional. These intentions are perceived to be a consequence of a summation of; (1) the individual's attitude towards the behaviour, referred to as attitudinal dimensions; and (2) the subjective norm which is related to the beliefs the individual holds about how others perceive them in relation to their attitude towards the goal. Therefore, an individual's attitude towards a particular behaviour is defined as the evaluative belief about the consequences of performing the behaviour in question. Thus, an individual's desire to act out a particular behaviour is linked to their intentions which are a consequence of the individual's evaluative beliefs about consequences of the behaviour and perceptions formed by others (Bagozzi, 1992, Perugini and Bagozzi, 2004).

The perceptions formed by CSRs working in a call centre about organisational justice of different dimensions and how they believe their colleagues perceive them helps in shaping their intentions, which in turn impacts on their behaviour. The evaluation performed by an individual can be viewed via the expectancy-value model of decision making (Fishbein and Stasson, 1990). Thus, the expectancy-value model helps the individual to decide on their course of action via formed intentions; these are based on whether a particular consequence is likely or not, whilst the value element addresses the nature of the consequences that the individual is likely to face (Fishbein and Ajzen, 1980).

3.2 A discussion on emotional exhaustion and depersonalisation mediation hypotheses

The pre-exploratory factor analysis model is drawn from 9 latent variables, which are; organisational justice (i.e. distributive, procedural, interpersonal and informational); burnout (i.e. emotional exhaustion and depersonalisation), stress mindset and job outcomes (i.e. job involvement and OCBs). The conceptual model shows organisational justice dimensions as antecedent variables (i.e. stressors); burnout dimensions as mediators (i.e. intervening variables) and job outcome variables (i.e. job involvement and OCBs). This section explains and draws the mediation link between the variables in the development of the hypotheses; then explain the theoretical foundations of the hypotheses. This is discussed the context of attitude theory as developed by Bagozzi (1992).

3.2.1 A discussion on hypotheses H1a-H1d for mediation effects of emotional exhaustion

The variable emotional exhaustion is defined as a lack of energy which results in emotional resources being depleted (Cordes and Dougherty, 1993). This normally arises when employees over-extend themselves in emotionally charged work environments (Maslach and Jackson, 1981) which results in feelings of fatigue, anxiety and tiredness. This links with the job demand-control (JD-C) model (Karasek and Theorell, 1990). The JD-C model states that stress in work is premised on two basic job characteristics; (1) job demands; and (2) job control (Castanheira and Chambel, 2010). When employees are in work, particularly in the service sector where there are persistent direct demands if they lack control in the decision-making process, this can precipitate emotional exhaustion, which may lead to a sense of detachment from their work (Hockey, 1993). Thus, as a consequence, employees enter a protection mode as the body releases hormones that control the information processing

mechanism (Crum et al., 2013). As Demerouti et al. (2001) and Hockey (1993) put it; there is a positive relationship between the levels of activation of this hormonal system and the associated physiological costs for the individual concerned. Therefore, the JD-C model explains hypotheses H1a-H1d in a way that if an employee is confronted with distributive, procedural, interpersonal or informational justice, this eliminates a feeling of control, making them feeling fatigued, anxious and tired as argued by Maslach and Jackson (1991).

The job demand-resources (JD-R) model (Crawford et al., 2010) extends this analysis further by predicating it on two pedestals; (1) exposure to job demands can result in employees feeling sapped of energy and therefore they have to dispense of high levels of effort (Bakker et al., 2000) to meet the perceived high demands; (2) consequently, the employees have to dispense energy due to compensatory physiological and psychological costs which result in emotional exhaustion. This again explains why in-role behaviours such as job involvement are said to be mediated by emotional exhaustion where it relates to antecedents such as organisational justice in its different dimensions.

Thus, when faced with these job demands the question then becomes one of whether the employees have the resources to tackle the stressors at hand. The views of Crawford et al. (2010) are that these resources are important in terms of creating a motivational element for employees to still push on with their work in spite of the high levels of stress. The employees may perceive stressors as offering growth, learning and development opportunities hence would not mind performing at their best (Crum et al. 2015, Schaufeli, 2007). Therefore, the mediation effect of emotional exhaustion shown in Table 4 is grounded in theory in that faced with job demands, where there is no job control (JD-C model) or lack of job resources (JD-R model) the risk is high that they are burnt out due to emotional exhaustion. This research explores whether these hypotheses on the mediation link between the different dimensions of organisational justice and job outcomes in the pre-exploratory factor model can hold; exploring each dimension to understand the theoretical link to the hypothesis.

Table 4: The mediation effects of emotional exhaustion on organisational justice and job involvement

H1a:	Emotional exhaustion mediates the relationship between distributive justice and job involvement.
H1b:	Emotional exhaustion mediates the relationship between procedural justice and job involvement.
H1c:	Emotional exhaustion mediates the relationship between interpersonal justice and job involvement.
H1d:	Emotional exhaustion mediates the relationship between informational justice and job involvement.

Therefore, in the case of distributive justice, it is defined as the evaluation by an employee of fairness and equity. The main goal of the employee is not to determine absolute value of the job outcomes, but rather to establish a sense of fairness *vis-à-vis* job outcomes; a perceived lack of equity in that input-output relationship creates a strain under the JD-C and JD-R models which consequently triggers emotional exhaustion (Schaufeli, 2007). Thus, hypothesis H1a shows that when this happens the employee is forced to reduce his or her participation rate in work. The same phenomenon can also be explained under the CoRs model (Hobfoll, 1988, Hobfoll and Freedy, 1993) where the employee perceives (whether justified or not) an imbalance between the input-output relationship and consequently endures emotional exhaustion resulting in performance altering behaviour (Demerouti et al, 2001).

In the case of procedural justice, it is about how an employee feels disputes are resolved in an organisation (Leventhal, 1980). In their view, Thibaut and Walker (1975) believe that it is not only the input-output relationship (distributive justice) that matters, but also how disputes arising therefrom are resolved. Thus, hypothesis H1b states that when disputes arise about the input-output relationship a lack of leverage for the employee concerned (i.e. lack of ‘voice’) may trigger emotional exhaustion under JD-C and JD-R models. This has been termed the ‘fair process effect’ or ‘voice effect’ by Folger (1993) and Lind and Tyler (1988). There is therefore a link between procedural justice, emotional exhaustion and performance of job outcomes, in this case, job involvement (Folger and Cropanzano, 1995).

Interpersonal justice and informational justice were developed by Greenberg (1993a) and Greenberg (1993b). In his view, Greenberg (1993a) and Greenberg (1993b) believe that interactional justice (Bies and Moag, 1986) does not give a succinct understanding of organisational justice construct. Thus, arising from this, hypothesis H1c relates to the treatment of an employee by those in authority (i.e. how does an employee perceive the relationship with immediate manager); whilst hypothesis H1d is about offering information on why certain procedures and processes are in place (i.e. whether the employee believes enough information is given about procedures in work) (van den Bos, 2002). The view is that a low interpersonal justice and informational justice, according to Greenberg (1993a) and Greenberg (1993b) informs the behaviour of an employee, particularly on managing job resources hence the relevance of the JD-C and JD-R models and CoRs theory (Hobfoll, 1988). Thus, theory and evidence confirm that hypotheses H1a-H1d for the mediation effect of emotional exhaustion and job involvement can be tested in this research.

3.2.2 A discussion on hypotheses H2a-H2d for mediation effects of emotional exhaustion

As discussed under job involvement (i.e. an in-role job outcome) emotional exhaustion is attributed to employees not engaging in job involvement due to fatigue, anxiety and tiredness. In the case of emotional exhaustion and extra-role job outcomes (e.g. OCBs) as in hypotheses H2a-H2d (Table 5: Page 60), the employees tend to confine themselves to the behaviours that are in-role as a way of conserving job resources (Neveu, 2007). When employees are confronted with a perception that; (1) the input-output matrix is skewed towards the employer (distributive justice); (2) the employee does not have a 'voice' (procedural justice); (3) the employee's relationship with their manager not ideal (interpersonal justice); and (4) the manager is not providing enough information to the employee in relation to the work at hand (informational justice) the employee struggle to perform at his or her best (Hobfoll, 2001). The employee seeks to conserve resources as explained under the conservation of resources (CoRs) theory (Hobfoll, 1988, Shirom, 1989). The proponents of the CoRs theory argue that there is a shift in the eyes of the employee from the transactional element of the relationship to a focus on psychological health issues. Thus, an employee who perceives low organisational justice dimensions in relation to OCBs is tempted to conserve resources under CoRs theory as a way of managing exposure to a stressor (Neveu, 2007).

The self-determination theory (SDT) by Ryan and Deci (2000a) assumes that employees are active human beings that are growth-oriented. This theory presupposes that employees have a desire to partake of enjoyable and interesting activities (van Beek et al. 2012); thus they want to exploit their natural talent or capabilities to the fullest potential (Gagne and Deci, 2005). The SDT suggests that employees seek to relate at interpersonal and intrapersonal levels (Deci and Ryan, 2002) and thus create a setting for extra-role job outcomes (e.g. OCBs). These OCBs that are outside the employment contract offer employees an opportunity to fulfil their 'social animal instinct' to interact at interpersonal and intrapersonal levels. Thus, if employees perceive the presence of low organisational justice of any dimension (i.e. distributive, procedural, interpersonal and informational) the risk of withdrawal of extra-role behaviours (e.g. OCBs) is greater as these are not sanctioned by an employment contract – they are solely undertaken as some form of expression of enjoyment. Therefore, one can say that employees are bound to perform OCBs in circumstances where they perceive high organisational justice of any dimensions. The CoRs and SDT theories show that employees

have emotions and can engage in other social activities other than what they are paid to do, provided the organisation clears stressors such as low organisational justice from work, whether real or perceived. This is important in the broader scheme of things as this encapsulates the real drivers of formation of intentions by employees.

Table 5: The mediation effects of emotional exhaustion on organisational justice and OCBs

H2a:	Emotional exhaustion mediates the relationship between distributive justice and OCBs.
H2b:	Emotional exhaustion mediates the relationship between procedural justice and OCBs.
H2c:	Emotional exhaustion mediates the relationship between interpersonal justice and OCBs.
H2d:	Emotional exhaustion mediates the relationship between informational justice and OCBs.

When an employee perceives low distributive justice the net effect is that this negatively affects OCBs. This comes about because a perception of low distributive justice means the employee feels that the input-output relationship is skewed more in favour of the employer than the employee; which consequently results in emotional exhaustion. When faced with this situation an employee seeks to conserve resources as propounded under the CoRs (Neveu, 2007) to redirect resources to where they are needed most, if at all (Hobfoll, 2001). Therefore, for hypothesis H2a, this means OCBs, being a volitional behaviour (Perugini and Bagozzi, 2004, Organ, 1988a), they tend to suffer in the face of emotional exhaustion. This is also true for hypothesis H2b, which is the case of procedural justice, where an employee may feel unfairly treated in the manner in which disputes arising from work in general, and from the input-output relationship in particular are perceived not to be dealt with fairly. This triggers emotional exhaustion as discussed under the SDT (Gagne and Deci, 2005) and consequently negatively affect the performance of OCBs (Pearsall et al., 2009).

A presence of low interpersonal justice means an employee can feel that the relationship with his or her manager is not yielding favourable outcomes or is strained. This explains hypothesis H2c in that this leaves the employee emotionally exhausted and depleted of energy hence seeking to conserve resources as postulated by the CoRs theory (Shirom, 1989) and consequently impacts on the performance of volitional behaviour, such as OCBs (Shirom, 2003). The same argument holds for informational justice, where the employee feels constrained by the lack of information thus triggering emotional exhaustion resulting in the employee regulating job resources as suggested by the JD-R model by trying to conserve them; this explains hypothesis H2d). It is evident that hypotheses H2a-H2d show that there is

a *prima facie* case for the mediation role of emotional exhaustion between organisational justice dimensions and job outcome (i.e. OCBs).

3.2.3 A discussion on hypotheses H3a-H3d for mediation effects of depersonalisation

The dimension depersonalisation, a component of burnout is characterised by cynicism, alienation or disengagement in one's job role (Cherniss, 2002). This is normally associated with negativity and dehumanising treatment of the organisation's clientele (Jackson et al., 1987). Thus, a direct consequence of depersonalisation is poor customer service given the employees' detachment from his or her work (Wright and Bonett, 1997). The JD-C and JD-R models of burnout do not do much justice in developing an understanding of the relationships at hand. The behaviour under depersonalisation is analysed using the CoRs theory of Hobfoll (1988) and Shirom (1989) as it relates to burnout and stress. The CoRs theory proposes that in an exchange relationship individuals are fixated with their resources hence employees with low motivation neither suffer nor experience burnout (Hobfoll, 1988) as they just avoid it altogether and this consequently translates into to depersonalisation.

The dimension depersonalisation is perceived differently by other researchers (e.g. Enzmann et al., 1998, Wright and Bonett, 1997, Zellars et al., 2000) who state that employees who are subjected to stress in work attempt to minimise or counter the loss of resources. Thus, in hypotheses H3a-H4d (Table 6: Page 62) a perception of low organisational justice (i.e. distributive, procedural, interpersonal or informational) triggers depersonalisation which consequently affects job outcomes (i.e. job involvement) as employees withhold their job resources in a bid to cope with the stress imposed on them by low organisational justice. The process of withholding resources can take many forms; such as prolonged or extended breaks and in some instances employees may have extended chats with co-workers (Maslach and Leiter, 1997). Thus, in view of how employees facing depersonalisation behave towards the organisation's customers, it is important to address this since it has implications for performance as employees become ineffective in their roles (Zellars et al., 2000). There is evidence that depersonalisation has a link to antecedent stressors and in-role job outcomes (e.g. job involvement) as lack of motivation results in employees disengaging from their work. Whilst a distinct impact of depersonalisation has been discussed here, empirically it has been proven that it is highly correlated with emotional exhaustion (Koeske and Koeske, 1989, Lee and Ashforth, 1993a). This correlation exists in spite of their conceptual form

confirming that they are independent entities (e.g. Bandura, 1989, Maslach and Jackson, 1981). Whilst the CoRs theory explains depersonalisation to a good degree, the SDT also takes this further, dwelling on the motivational element at length.

Table 6: The mediation effects of depersonalisation on organisational justice and job involvement

H3a:	Depersonalisation mediates the relationship between distributive justice and job involvement.
H3b:	Depersonalisation mediates the relationship procedural justice and job involvement.
H3c:	Depersonalisation mediates the relationship between interpersonal justice and job involvement.
H3d:	Depersonalisation mediates the relationship between informational justice and job involvement.

The SDT (Deci and Ryan, 2000a) is crucial for suggesting that the social environment plays an important part in determining how internalisation, integration, intrinsic motivation and personal growth of employees occur. This is determined by the nature of motivation driving the individual; that is whether it is intrinsic or extrinsic (Ryan and Deci, 2000a, Sonnetag, 2003). The SDT proposes that intrinsically motivated employees are driven to excel in their in-role jobs (e.g. job involvement) because they experience and derive enjoyment from their work; hence intrinsic motivation is self-determined. On the other hand employees who are extrinsically motivated are driven by other factors other than job role.

The second view can be construed to mean that employees are in work not because they enjoy it but because they have a need such as earning an income to survive (Gagne and Deci, 2005). Thus, in the face of stress such as low organisational justice, employees risk detachment leading to depersonalisation particularly if motivation is not self-determined, but is rather extrinsic (van Beek, 2012). Therefore, on the basis of the arguments presented above and the theoretical exposition given the hypotheses need to be tested to establish whether they hold true for this research.

In hypothesis H3a, the relationship between distributive justice and job involvement is mediated by depersonalisation as evidenced by Deci and Ryan (2000a) under the SDT. This arises from the nature of motivation an individual employee is amenable to. Thus, for an employee who is intrinsically motivated there is a drive to succeed in-role, which translates to high job involvement (van Beek, 2012); whilst on the other hand this can't be true for extrinsically motivated employees. The mediation effect of depersonalisation between procedural justice and job involvement in hypothesis H3b draws from the fact that when

extrinsically motivated employees feel that the dispute resolution mechanism in work is not fair; that is, if the employee feels a lack of ‘voice’ (Folger and Cropanzano, 1998, Lind and Tyler, 1988) this depersonalisation creeps in and has a negative effect on the employee’s job involvement as postulated under SDT. Equally, a poor relationship with one’s manager under interpersonal justice explains hypothesis H3c; whilst a lack of information about the dispute resolution is explained by hypothesis H3d. Thus, perceptions of low interpersonal justice and informational justice, for an employee who is extrinsically motivated, have detrimental effects on the level of job involvement (Sonnetag, 2003). Therefore, the relationships between organisational justice dimensions is thus, from a theoretical point of view, mediated by depersonalisation and can be tested for this data to see if they hold true.

3.2.4 A discussion on hypotheses H4a – H4d for mediation effects of depersonalisation

The OCBs are defined as an act where an employee engages in behaviours that are discretionary as these are not recognised by an organisation’s formal reward system even though they enhance the functioning of the organisation (Organ, 1988a, organ, 1990). The social exchange theory has been used to analyse the exchange relationship between employees and their organisations. In the case of the 4 dimensional construct of organisational justice, procedural justice is linked to OCBs (Rigopoulou et al., 2012). The rationale for this is that where employees perceive the existence of procedures set that may be acceptable; they tend to be externally motivated to engage in activities (e.g. OCBs) beyond their contractual obligations (Cohen-Charash and Spector, 2001).

There are others who believe that if there is stress in work this consequently results in depersonalisation where employees are alienated from both customers and colleagues, consequently meaning that they won’t engage in any OCBs (Ivancevich and Matterson, 1980). Thus, in extending Dalton’s (1955) social exchange identity theory one can say that it is driven by self-esteem-based features that are aimed at generating social inclination within certain groups in an organisation. However, failure for this to happen due to stress may cause depersonalisation which may consequently alienate the same employees from the organisation and everything that it stands for – even OCBs (Cohen et al., 2003).

Thus, through the social identity theory emerges organisational identification which may allow an employee *ceteris paribus* to understand what is happening around them, hence giving them an idea about their importance in the organisation (Judd and Kenny, 2010).

Table 7: The mediation effects of depersonalisation on organisational justice and OCBs

H4a:	Depersonalisation mediates the relationship between distributive justice and OCBs.
H4b:	Depersonalisation mediates the relationship between procedural justice and OCBs.
H4c:	Depersonalisation mediates the relationship between interpersonal justice and OCBs.
H4d:	Depersonalisation mediates the relationship between informational justice and OCBs.

This underpins why in a case where an employee facing stress in work (e.g. low organisational justice) endures depersonalisation and not only detaches from in-role behaviours (e.g. job involvement) but also negates anything extra-role in nature (e.g. OCBs). Thus, hypotheses H4a-H4d (Table 7) suggest that in the face of low organisational justice of any dimension depersonalisation mediates that relationship. However, as stated earlier, in the view of Koeske and Koeske (1989) and Lee and Ashforth (1993a) depersonalisation is highly correlated with emotional exhaustion and in most burnout literature the latter is considered the most significant dimension of the burnout construct (Demerouti et al., 2001).

Table 8: A consolidation of mediation hypotheses from the conceptual model

H1a:	Emotional exhaustion mediates the relationship between distributive justice and job involvement.
H1b:	Emotional exhaustion mediates the relationship between procedural justice and job involvement.
H1c:	Emotional exhaustion mediates the relationship between interpersonal justice and job involvement.
H1d:	Emotional exhaustion mediates the relationship between informational justice and job involvement.
H2a:	Emotional exhaustion mediates the relationship between distributive justice and OCBs.
H2b:	Emotional exhaustion mediates the relationship between procedural justice and OCBs.
H2c:	Emotional exhaustion mediates the relationship between interpersonal justice and OCBs.
H2d:	Emotional exhaustion mediates the relationship between informational justice and OCBs.
H3a:	Depersonalisation mediates the relationship between distributive justice and job involvement.
H3b:	Depersonalisation mediates the relationship procedural justice and job involvement.
H3c:	Depersonalisation mediates the relationship between interpersonal justice and job involvement.
H3d:	Depersonalisation mediates the relationship between informational justice and job involvement.
H4a:	Depersonalisation mediates the relationship between distributive justice and OCBs.
H4b:	Depersonalisation mediates the relationship between procedural justice and OCBs.
H4c:	Depersonalisation mediates the relationship between interpersonal justice and OCBs.
H4d:	Depersonalisation mediates the relationship between informational justice and OCBs.

3.3 A summary of mediator variables on hypotheses pre-exploratory factor analysis

The hypotheses in Table 8 show the way emotional exhaustion and depersonalisation are grounded in theory analysing how the relationship between organisational justice dimensions (i.e. distributive, procedural, interpersonal and informational justice) relate with job outcomes (i.e. job involvement and OCBs). The extant of literature has exposed how and why emotional exhaustion and depersonalisation impact job outcomes in the face of low organisational justice. It is clear that a *prima facie* case, where emotional exhaustion and

depersonalisation influence job outcomes has been established from theory. A consolidation of mediation hypotheses in the conceptual model in Figure 2: Page 74 is in Table 8: Page 64.

3.4 A discussion on stress mindset moderation hypotheses

This research seeks to investigate the moderation effects of a stress mindset on organisational justice dimensions (i.e. distributive, procedural, interpersonal and information justice), burnout dimensions (i.e. emotional exhaustion and depersonalisation) and job outcomes (i.e. job involvement and OCBs). To start with one needs to revisit the definition of a mindset. A mindset is defined as a mental frame or lens that selectively organises or encodes information thereby orienting an individual towards a unique way of understanding an experience and guide one towards corresponding action or responses (Crum et al., 2013, Crum et al., 2015). Thus, a mindset enables an individual to choose the best possible way to respond through appraisal processes as propounded under attitude theory in Figure 1: Chapter 3, Page 55 (Bagozzi, 1992, Perugini and Bagozzi, 2004). This is important where stress is concerned, because stress by its nature relates to that experience of anticipating or encountering adversity in one's goal related efforts (Carver and Connor-Smith, 2010). In all this, a stress mindset is when a body readies itself to tackle this stress through a 'stress response mechanism' so that in effect it prepares the individual's mental and physiological faculties to confront the ensuing demands (Rees and Freeman, 2009).

The stress response is normally referred to as a natural and automatic response by the body readying itself to tackle demands that a stressor mounts against it at any time (Crum et al., 2015). To understand the moderation effect of a stress mindset it is important to explore its character briefly. A stress mindset by definition can either be stress is enhancing or stress is debilitating (Crum et al., 2013). The traditional view of stress in stress theory is that it is destructive, therefore viewed in a negative light by many; but following Crum et al. (2013) it has been possible to explore the enhancing attributes of stress using the Stress Mindset Measure (SMM). The possibility that a stress mindset can either be viewed as enhancing or debilitating means that it is possible to explore a stress mindset as a moderator variable (Crum et al., 2013, Crum et al., 2015). The hypotheses propounded here, as shown in Table 12: Page 72, seek to help investigate whether these theoretical suppositions about a stress mindset hold true empirically, particularly on the relationship between organisational justice, burnout and job outcome dimensions.

3.4.1 A discussion on hypotheses H5a-H5d on moderation effect of a stress mindset

The fact that a stress mindset can either be enhancing or debilitating means that when employees are confronted with a stress-riddled situation they conduct an evaluation or appraisal of consequences arising therefrom, as argued by Bagozzi (1992) under attitude theory; based on this the individual then forms an intention to act in a certain way, which might mean performing or not to performing a particular behaviour (Perugini and Bagozzi, 2004). In a situation where there is a perception that stress can precipitate burnout of an emotional exhaustion dimension, which is characterised by fatigue, anxiety and tiredness, an individual with a stress is debilitating mindset ordinarily moves in to curb loss of job resources via the mechanism discussed under the JD-C and JD-R models in an effort to evade the risk of succumbing to emotional exhaustion.

Table 9: The moderation effect of a stress mindset on organisational justice and mediators

H5a:	A stress mindset moderates the relationship between distributive justice and emotional exhaustion.
H5b:	A stress mindset moderates the relationship between procedural justice and emotional exhaustion.
H5c:	A stress mindset moderates the relationship between interpersonal justice and emotional exhaustion.
H5d:	A stress mindset moderates the relationship between informational justice and emotional exhaustion.
H6a:	A stress mindset moderates the relationship between distributive justice and depersonalisation.
H6b:	A stress mindset moderates the relationship between procedural justice and depersonalisation.
H6c:	A stress mindset moderates the relationship between interpersonal justice and depersonalisation.
H6d:	A stress mindset moderates the relationship between informational justice and depersonalisation.

The situation is different where the employee has a stress mindset that believes that stress is enhancing. This employee does not see stress in a negative light, thus, as discussed under attitude theory, in forming an intention to act the individual sees stress as an enabler (Brown and Maxwell, 2002). Thus, the individual does not see the negative side of emotional exhaustion, but instead, this spurs the individual to engage in his or her work (Meyer et al., 2002) by fostering more commitment in work. A stress mindset in low organisational justice situations depends on the nature of the perception the employee holds about stress against emotional exhaustion. An employee who believes that stress is enhancing will not see a need to conserve resources as in CoRs theory (Hobfoll, 1988, Shirom, 1989), and in that case, instead of responding negatively to emotional exhaustion in the face of stress there is a moderating effect (Crum et al., 2015) where the employee will not be fatigued, anxious or tired (Buunk and Schaufeli, 1993). The hypotheses H5a-H5d (Table 9) stating that

organisational justice dimensions and emotional exhaustion are moderated by a stress mindset is plausible *prima facie* as these are underpinned by mindset and burnout theory.

The same argument can be advanced in the case of organisational justice and depersonalisation, where depersonalisation relates to a sense of cynicism, alienation and disengagement (Kanter and Mirvis, 1989). The SDT explains the fact that an employee may detach himself or herself from their work environment if there is depersonalisation. This sense of alienation may mean that the employee feels not worthy of the respect, which may have further consequences (Lang, 1985). However, if an employee has a mindset that believes that stress is enhancing, depersonalisation does not afflict him or her as the employee might see this as an opportunity to focus on other things that he or she considers important. Whilst the SDT does hold true for those employees who believe that stress is debilitating in that they feel the full effects of depersonalisation, for those who believe stress is enhancing depersonalisation does not even creep in (Crum et al., 2015). The hypotheses H6a-H6d (Table 9: Page 66) would be dampened or moderated by a stress mindset that believes that stress is enhancing – which is what this research seeks to establish.

A stress mindset in hypothesis H5a moderates the relationship between distributive justice and emotional exhaustion. According to Crum et al. (2013) a stress mindset can either be debilitating or enhancing. These two properties are crucial in setting apart individuals in the case of emotional exhaustion and depersonalisation. Thus in hypothesis H5a, when an individual who believes that stress is debilitating is confronted by emotional exhaustion, the individual succumbs to it and this consequently impacts job outcomes (i.e. job involvement and OCBs) as the employee manages his or her job resources to conserve them as under the CoRs theory (Hobfoll and Freedy, 1993). This means the employee does not have the energy to handle this level of stress induced by low distributive justice; however, the opposite is true for an employee who believes that stress is enhancing as this employee sees growth opportunities presented by the stressful situation (Buunk and Schaufeli, 1993).

This analysis is true for hypothesis H5b (if the employee feels that he or she does not have a ‘voice’ in the exchange relationship – low procedural justice); hypothesis H5c (if the employee feels the relationship with his or her manager is littered with mistrust and a lack of supervisory support – low interpersonal justice); hypothesis H5d (if there is a lack of information about procedure governing work – low informational justice). It is clear that the

role of a stress mindset has a theoretical basis as a moderator between organisational justice dimensions and emotional exhaustion.

On another level, the same argument can be advanced for the moderating effects of a stress mindset on organisational justice dimensions and depersonalisation. As discussed earlier, depersonalisation via SDT results in an employee being detached from his or her job role (Kanter and Mirvis, 1989). However, in the case of hypothesis H6a, an employee who believes that stress is enhancing sees growth opportunities and consequently, irrespective of low distributive justice, remains focused on job outcomes (i.e. job involvement and OCBs); the opposite is also true though for a stress is debilitating mindset (Lang, 1985). The same analogy holds for hypothesis H6b (if the employee feels that he or she does not have a 'voice' in the exchange relationship – low procedural justice); hypothesis H6c (if the employee feels the relationship with his or her manager is fraught with mistrust and a lack of supervisory support – low interpersonal justice); hypothesis H6d (if there is a lack of information about procedure governing work – low informational justice). It is therefore possible, based on theoretical evidence, to test these hypotheses on for this data.

3.4.2 A discussion on hypotheses H7a-H7d and H8a-H8d on moderation of a stress mindset

There is a belief that certain levels of stress have positive effects on an organisation, particularly in the way in which employees perform their in-role functions (Yerkes and Dodson, 1908). In view of this argument and taking mindset theory as suggested by Crum et al. (2013) and Crum et al. (2015) a stress mindset can view stress as enhancing or debilitating. Nonetheless, in the natural order of things, when there is stress in the work environment an employee may succumb to emotional exhaustion thus consequently impacting job outcomes (e.g. job involvement and OCBs). When there is a perception of low organisational justice of any given dimensions this can impact job outcomes (e.g. job involvement and OCBs). This can happen through either emotional exhaustion via the JD-C and JD-R models or depersonalisation through the SDT and interactionist theory (Ryan and Deci, 2000a).

Under ordinary circumstances these would impact job outcomes. If the employee has a stress mindset that believes that stress is debilitating that employee will either succumb to emotional exhaustion (i.e. fatigue, anxiety and tiredness) which would impact the employee's

in-role behaviour (job involvement) or the employee will give in to depersonalisation (i.e. cynicism, alienation and disengagement) in a way to conserve resources as averred by the JD-C, JD-R models and CoRs theory. It is clear in stress and organisational justice theory as to the consequences of stress on job outcomes (e.g. job involvement and OCBs) and how the process plays itself out through burnout (i.e. emotional exhaustion and depersonalisation). However, a stress mindset that believes stress is enhancing does dampen this effect given that the employee does not succumb to burnout as a result of ‘eustress’ or ‘good stress’ (Alpert and Haber, 1960). The hypotheses (Table 10) that a stress mindset moderates the relationship between organisational justice and job outcome dimensions is well grounded in theory and thus worthy of investigating.

Table 10: The moderation effect of a stress mindset on organisational justice and job outcomes

H7a:	A stress mindset moderates the relationship between distributive justice and job involvement.
H7b:	A stress mindset moderates the relationship between procedural justice and job involvement.
H7c:	A stress mindset moderates the relationship between interpersonal justice and job involvement.
H7d:	A stress mindset moderates the relationship between informational justice and job involvement.
H8a:	A stress mindset moderates the relationship between distributive justice and OCBs.
H8b:	A stress mindset moderates the relationship between procedural justice and OCBs.
H8c:	A stress mindset moderates the relationship between interpersonal justice and OCBs.
H8d:	A stress mindset moderates the relationship between informational justice and OCBs.

A stress mindset in hypothesis H7a moderates the relationship between distributive justice and job involvement. Ordinarily, as explained by the JD-C, JD-R models and CoRs theory, when there is low distributive justice there are consequences for job involvement as the employee seeks to minimise job resource loss. Nonetheless, a stress mindset plays a role in dampening the negative effects depending on the nature of stress mindset that employee holds (i.e. either stress is enhancing or stress is debilitating). The same argument holds for hypothesis H7b (if the employee feels that he or she does not have a ‘voice’ in the exchange relationship – low procedural justice); hypothesis H7c (if the employee feels the relationship with his or her manager is that of mistrust and a lack of supervisory support – low interpersonal justice); hypothesis H7d (if there is a lack of information about procedure governing work – low informational justice). Thus, as evidenced above, there is a theoretical basis to suggest that a stress mindset does moderate the effects of low organisational justice and job involvement. There is enough theoretical grounding as well as evidence to allow the testing of these hypotheses in this research.

In explaining the moderating effects of a stress mindset on OCBs it is important to underpin the fact that unlike job involvement, OCBs are extra-role in nature. Thus, a stress enhancing mindset in hypothesis H8a would moderate the relationship between distributive justice and OCBs even though the employee might feel the relationship is skewed more towards the employer. This means in spite of emotional exhaustion and depersonalisation, the employee is not tempted to conserve resources as prescribed under the CoRs theory. This behaviour is hence explained under the SDT which is driven by the nature of an individual's motivation (i.e. whether intrinsic or extrinsic motivation). The same argument holds for hypothesis H8b (if the employee feels that he or she does not have a 'voice' in the exchange relationship – low procedural justice); hypothesis H8c (if the employee feels the relationship with his or her manager is littered with mistrust and a lack of supervisory support – low interpersonal justice); hypothesis H8d (if there is a lack of information about procedure governing work – low informational justice). On the basis of the above theoretical expositions hypothesis H8a-H8d can be tested to see if they hold for this data.

3.4.3 A discussion on hypotheses H9a-H9d on the moderation effects of a stress mindset

When employees are exposed to burnout, in any of its forms, e.g. emotional exhaustion and depersonalisation, this has implications for job outcomes (i.e. job involvement and OCBs). The impact of emotional exhaustion is that employees feel fatigued, anxious and tired, which subsequently leads to non-performance of job outcomes (e.g. job involvement and OCBs) as postulated under the JD-C and JD-R models. On the contrary, if an employee succumbs to depersonalisation (i.e. cynicism, alienation and disengagement) the impact might be non-performance of OCBs as discussed under the SDT and the interactional perspective. The employee who believes that stress is enhancing does not succumb to alienation as proffered under the SDT and therefore continues to perform OCBs as a volitional act. The hypotheses H9a-H9d (Table 11) are grounded in theory and empirical evidence; therefore, these can be tested as part of the conceptual framework.

Table 11: The moderation effect of a stress mindset on mediators and job outcomes

H9a:	A stress mindset moderates the relationship between emotional exhaustion and job involvement.
H9b:	A stress mindset moderates the relationship between emotional exhaustion and OCBs.
H9c:	A stress mindset moderates the relationship between depersonalisation and job involvement.
H9d:	A stress mindset moderates the relationship between depersonalisation and OCBs.

In hypothesis H9a and H9b a stress mindset moderates the relationship between job outcomes (i.e. job involvement and OCBs). In burnout theory when an employee is emotionally exhausted due to a perceived stressor (e.g. any low organisational justice dimension) the natural course of action is to reduce or not even perform any of the job outcomes (i.e. job involvement and OCBs). This is the case because an employee considers the relationship between job demands and job resources he or she has got (Cieslak et al., 2008, Maslach et al., 2001). By so doing the employee's intentions are to conserve resources as discussed under the CoRs theory (Gagne and Deci, 2005). However, depending on the one's stress mindset, responses to stress vary. Thus, where the employee has a mindset that believes stress is enhancing the effect of emotional exhaustion on hypotheses H9a and H9b is dampened, which supports the proposition by Alpert and Haber (1960) and Crum et al. (2013).

As for hypothesis H9c and H9d, a stress mindset moderates the relationship between depersonalisation and job outcome variables (i.e. job involvement and OCBs, respectively). In burnout theory, depersonalisation results in an employee being alienated and disengaged from work as averred by the SDT. The employee questions the organisation, therefore lacks commitment to the organisation (Meyer, 2005). Thus, in the case of job involvement, the employee is withdrawn and may mistreat the organisation's clientele (Meyer and Herscovitch, 2001). Whilst for OCBs the employee does not care to perform these at all as these are not part of the formal reward structure (Organ, 1988a, Organ, 1990). However, depending on the employee's stress mindset, emotional exhaustion and depersonalisation may not matter. Thus, if the employee has a mindset that believes stress is enhancing, no matter the level of stress inherent in the role, emotional exhaustion and depersonalisation will be dampened; nonetheless, the opposite is true. It is thus evident that hypotheses H9c and H9d are supported by theory; therefore, these can be tested to see if they hold for this data.

3.5 A summary of hypotheses on stress mindset moderation effects

The hypotheses in Table 12: Page 72 shows the augmented hypotheses for a stress mindset as a moderator variable on the relationships between organisational, burnout and job outcome dimensions pre-confirmatory factor analysis. These hypotheses are grounded in theory as discussed in this chapter, which justifies their development and relevance to the research. The key theories relate to the JD-C, JD-R, CoRs and the SDT. These are underpinned by mindset theory developed by Crum et al. (2013) arguing that an individual's mindset plays a crucial

role in how that individual views stress. That is when an individual believes that stress is enhancing there is eustress, for instance, resulting in personal growth; this is not so for the individual who might believe that stress is debilitating as the individual might invoke coping strategies. These evaluations undertaken by the individual are considered in the realm of attitude theory (Bagozzi, 1992, Perugini and Bagozzi, 2004).

Table 12: A consolidation of moderation hypotheses from the conceptual model

H5a:	A stress mindset moderates the relationship between distributive justice and emotional exhaustion.
H5b:	A stress mindset moderates the relationship between procedural justice and emotional exhaustion.
H5c:	A stress mindset moderates the relationship between interpersonal justice and emotional exhaustion.
H5d:	A stress mindset moderates the relationship between informational justice and emotional exhaustion.
H6a:	A stress mindset moderates the relationship between distributive justice and depersonalisation.
H6b:	A stress mindset moderates the relationship between procedural justice and depersonalisation.
H6c:	A stress mindset moderates the relationship between interpersonal justice and depersonalisation.
H6d:	A stress mindset moderates the relationship between informational justice and depersonalisation.
H7a:	A stress mindset moderates the relationship between distributive justice and job involvement.
H7b:	A stress mindset moderates the relationship between procedural justice and job involvement.
H7c:	A stress mindset moderates the relationship between interpersonal justice and job involvement.
H7d:	A stress mindset moderates the relationship between informational justice and job involvement.
H8a:	A stress mindset moderates the relationship between distributive justice and OCBs.
H8b:	A stress mindset moderates the relationship between procedural justice and OCBs.
H8c:	A stress mindset moderates the relationship between interpersonal justice and OCBs.
H8d:	A stress mindset moderates the relationship between informational justice and OCBs.
H9a:	A stress mindset moderates the relationship between emotional exhaustion and job involvement.
H9b:	A stress mindset moderates the relationship between emotional exhaustion and OCBs.
H9c:	A stress mindset moderates the relationship between depersonalisation and job involvement.
H9d:	A stress mindset moderates the relationship between depersonalisation and OCBs.

3.6 A conclusion on the conceptual framework and hypotheses development

This chapter explains attitude theory by Bagozzi (1992) as the overarching theory forming the conceptual models (Figure 2: Page 73 and Figure 3: Page 74). This states that individuals form intentions to act in the face of stress based on the evaluation of the stressor and the way they believe they will be viewed by others (Fishbein and Stasson, 1990). This evaluation determines a 'suitable' course of action the individual takes (Perugini and Bagozzi, 2004). It is from this conceptual framework that a set of hypotheses are drawn (Table 8: Page 64) and also shown in illustrations in Figure 2 (mediation effects of emotional exhaustion and depersonalisation on organisational justice and job outcomes dimensions) and Table 12 shown in Figure 3 (moderation effect of a stress mindset on organisational justice, burnout and job outcomes dimensions). This chapter therefore informs Chapter 4 (Research Methodology), Chapter 5 (Data Analysis Results) and Chapter 6 (Discussion on the Results).

Figure 2: Diagram of burnout mediation hypotheses pre-exploratory factor analysis

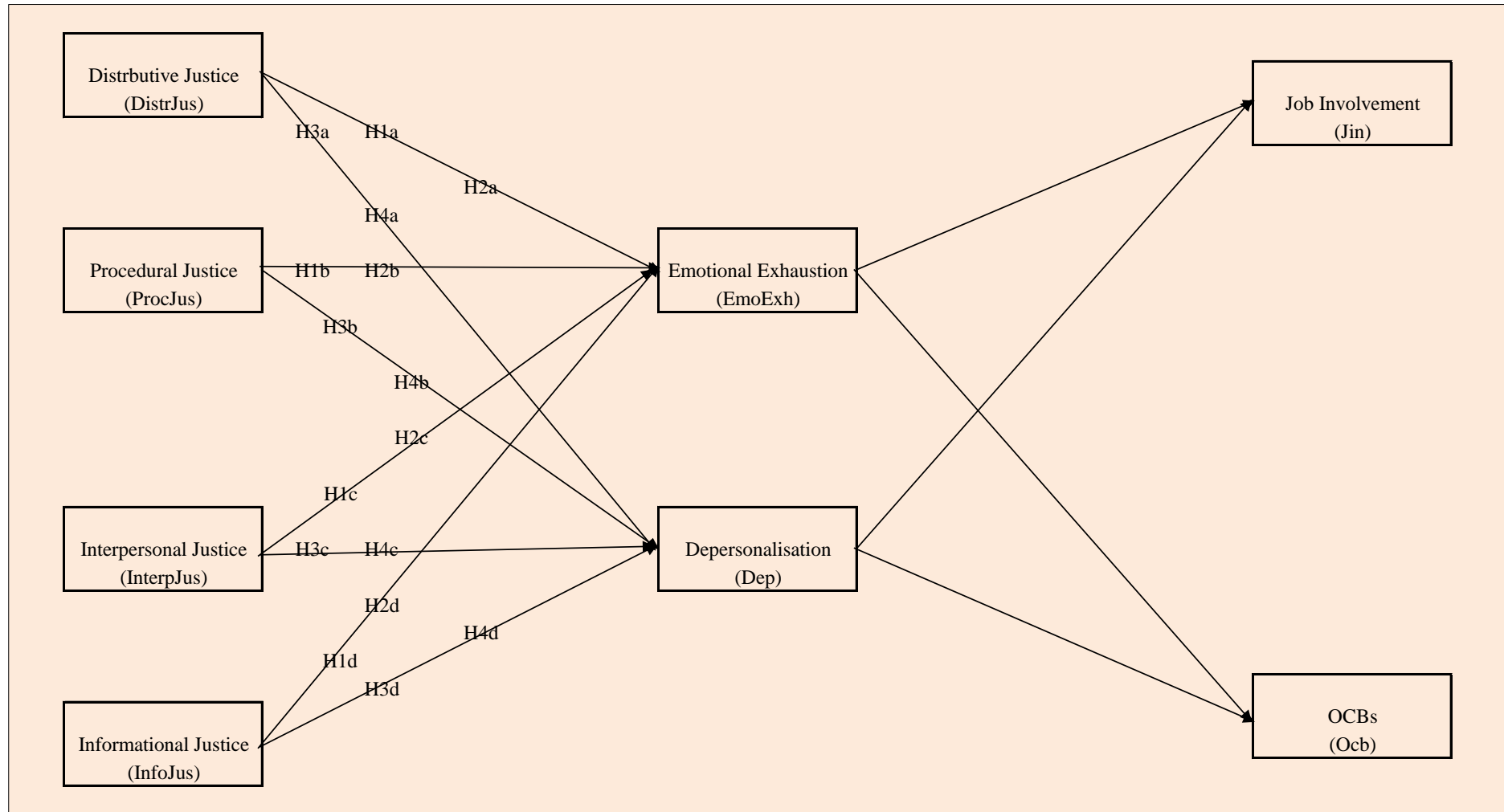
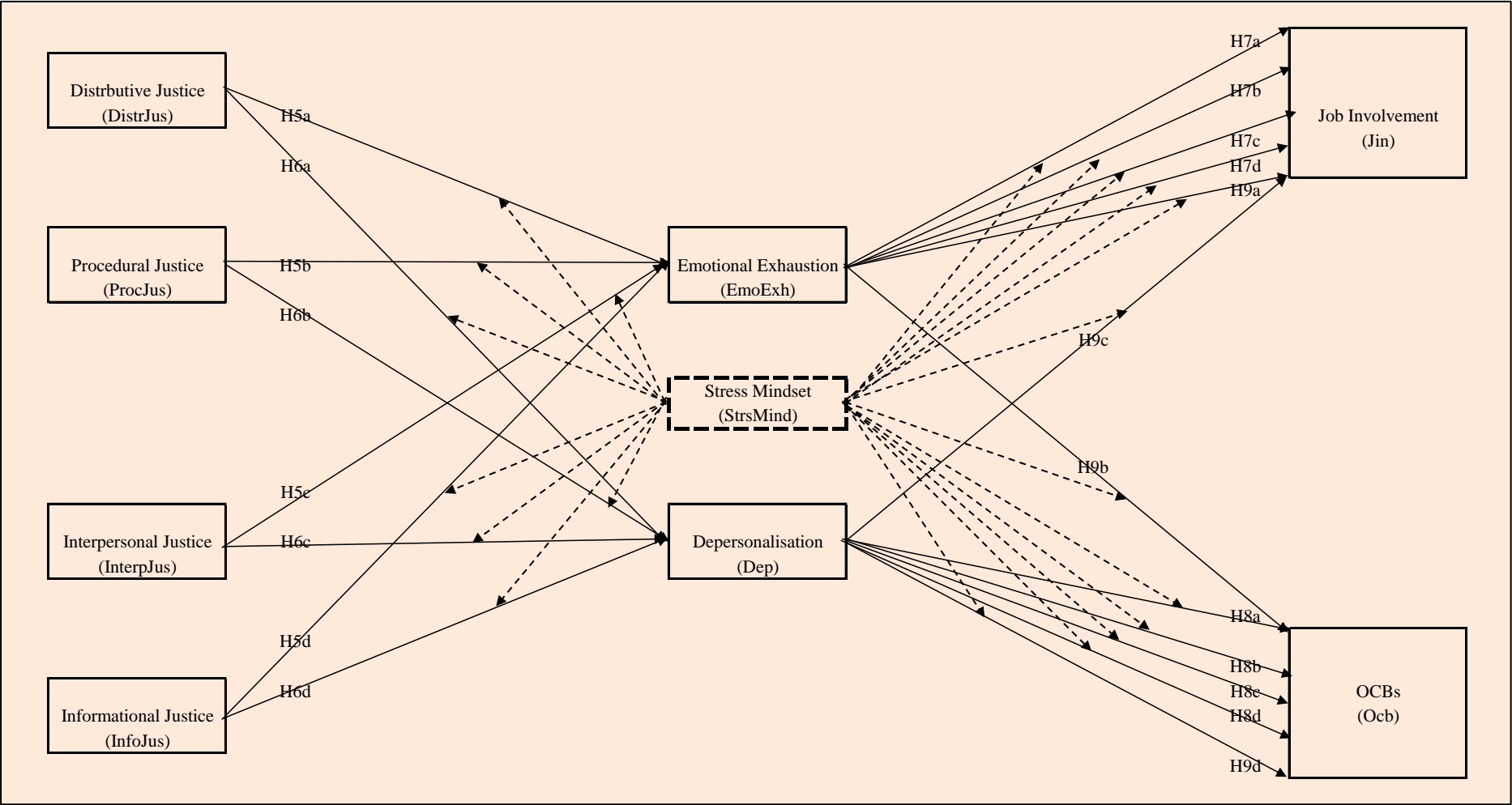


Figure 3: Diagram of stress mindset moderation hypotheses pre-exploratory factor analysis



4 Chapter 4: Research Methodology

4.1 An introduction to data analysis

This chapter is predicated on four cornerstones central to this research. The four elements are; (1) the research is based on objectivism; (2) the research adopts a positivist perspective; (3) the research adopts a deductive approach; and (4) the research adopts a survey strategy. This research deals with complex relationships amongst and between call centre CSRs, their proximal managers and the organisation at large. Therefore, given that it is based on objectivism and positivism it seeks to maintain the independence of the participants from the researcher. This means objectivism, whereby reality is perceived as objective and constructed from an ontological perspective, is suitable for this research (Bryman and Bell, 2007).

In social sciences, researchers are faced with a challenge of choosing from a variety of research methodologies to answer research problems they deal with (Schulze, 2003). When researchers choose a particular research methodology this depends for the most part on the researcher's beliefs about the nature of reality and humanity (ontology), the theory of knowledge that informs the research (epistemology) as well as the way that knowledge is processed (methodology) (Tuli, 2010). This makes the consideration of ontological, epistemological and methodological issues central elements of any social science research as these define the shape and scope of any enquiry (Popkewitz et al., 1979).

On the other hand, ontological questions are related to the nature of reality (table 6: Page 80). There are two positions that can be adopted which are that reality can either be objective or subjective. When reality is perceived as objective it is believed to be independent; whilst subjective reality is a consequence of social processes (Neuman, 2003). In this regard a researcher, such as is the case in this research, who has a positivist view believes that reality is out there and waiting to be discovered through the basic scientific methodologies (Bassey, 1995); on the contrary an interpretivist is one who sees reality as a human construct (Mutch, 2005). Therefore, for the positivist, knowledge is a given and needs to be studied applying objective methods, whilst on the contrary, for the interpretivist people make their own sense of reality hence use qualitative research methodologies to investigate, interpret and describe social realities (Table 5: Page 80) (Cohen et al., 2000). Whilst the qualitative methodology treats people as research participants, the positivist's research approach perceives them to be

objects where they are not empowered but rather treated as objects of the research; hence, the research maintains his or her distance (Bassey, 1995, Casey, 1993, Mutch, 2005).

This research takes a positivist approach from the epistemological perspective (Table 14: Page 78). This approach takes a view that the purpose of research is scientific explanation. Thus, positivism believes that social sciences are organised methods for combining deductive logic (Table 13: Page 77) with distinct empirical observations of individual behaviours to discover and confirm a set of causal laws (Neuman, 2003). Therefore, from a positivist perspective the nature of social reality is that empirical facts are separate from personal ideas of thought. This implies that they are governed by laws of cause and effect. Using a positivist approach from an epistemological perspective this research aims to develop the most objective methods to allow a close approximation of reality (Ulin et al., 2004). Thus, given this perspective this research explains the interaction between variables in quantitative terms as well as the way they shape events and cause outcomes (Tuli, 2010).

This research, as argued by Lincoln and Guba (2000) takes the view that reliable knowledge is generated from direct observation of natural phenomenon through empirical means. The approach taken in this research, that of positivism is contrary to interpretivism where the world is seen as a constructed and interpreted phenomenon experienced by people (Maxwell, 2006). Thus unlike under positivism, interpretivism does not allow for a generalisation of outcomes given that they are related to a specific or a particular situation (Farzanfar, 2005). This research therefore is more aligned to the general application of results given its quantitative approach (Table 15: Page 79). The research benefits bases are key considerations on validity, reliability and objectivity which is important in the generalisability of the results. Thus, this research views reality as objective, singular and separate from the researcher. It is based on positivism given that it uses a large sample. The end goal is to test a set of hypotheses set out based on theory (Table 14). Therefore, this research seeks to produce precise and objective quantitative data that will culminate in results or an outcome with high and reliability to allow for the generalisation of sample results to the population (Collis and Hussey, 2009).

The methodology adopted by a researcher rests on the ontological and epistemological principles guiding the research (Marczyk et al., 2005). Thus, the positivist researcher (as is the case in this research) uses a quantitative methodology (Table 14 and Table 15) where the

objectivist ontology and empiricist epistemology underpin the research; in this case the researcher places emphasis on measurement of variables with hypothesis tests that are related to the causal explanations (Sarantakos, 2005). This is contrary to qualitative methodology which is of constructionist ontology and interpretivist epistemology. In this case the participants' experiences are embedded whilst the researcher's own perceptions are important in processing information (Merriam, 1998). As stated earlier, this research adopts a positivist research paradigm grounded in quantitative methodology. There is emphasis on measuring variables and testing hypotheses that have a link to general causal explanations. The data techniques applied here are driven by the need for 'hard data' to allow presentation of evidence in a quantitative form in order to test the set hypotheses (Sarantakos, 2005).

Table 13: The differences between deductive and inductive approaches

Deductive approach	Inductive approach
Scientific principles	Gaining an understanding of the meaning humans attach to events
Moving from theory to data	A close understanding of the research context
The need to explain the causal relationship among variables	The collection of qualitative data
The collection of quantitative data	A more flexible structure to permit changes of research emphasis as research processes
The application of controls to ensure validity of data	A realisation that the researcher is part of the research process
The operationalisation of concepts to ensure clarity of definition	Less concern with the need to generalise
A highly structured approach	
Researcher's independence of what is being researched	
The necessity to select samples of sufficient size in order to generate a conclusion	

Source: Saunders et al (2000:p.91)

The data analysis in this research is guided by the above and is based on predetermined research objectives (Table 1: Chapter 1, Page 12) suggesting a deductive approach (Saunders et al., 2009). A deductive approach is defined by Bassey (1995) as a systematic technique for analysing quantitative data guided by precise objectives. In using a deductive approach, it allows this researcher the ability to apply scientific principles whilst moving from theory to data, where quantitative data is used. Also, a deductive approach allows this researcher to apply controls to ensure validity of data and the operationalisation of concepts to ensure

clarity of definition. To deliver effective results this researcher uses a highly structured approach and maintains his independence from those being research, as stated earlier, to avoid undue influence.

Table 14: The key features of positivism and interpretivism paradigms

Positivism tends to: -	Interpretivism tends to: -
Use large samples	Use smaller samples
Have an artificial location	Have a natural location
Be concerned with hypothesis testing	Be concerned with generating theories
Produce precise, objective quantitative data	Produce 'rich', subjective, qualitative data
Produce results with high reliability but low validity	Producing findings with low reliability but high validity
Allow results to be generalised from the sample to the population	Allow findings to be generalised from one setting to another similar setting

Sources: Collis & Hussey (2009:p.62)

This researcher also applies a survey strategy. This allows collection of data on contemporary issues (Tuli, 2010) and permits the generalisation of results (Bartlett et al., 2001, Collis and Hussey, 2009). This chapter details the methodology adopted which incorporates data analysis. The data analysis process is organised through three specific levels. These levels are annotated as follows; (1) preliminary data analysis; (2) measurement model analysis; and (3) structural model analysis; which then leads to mediation and moderation tests using structural equation modelling. The first level, intends to check for data entry accuracy, description and explanation of characteristics of research sample, exploration of research variables and performance of statistical assumption tests. This preliminary analysis is essential because in any structural equation modelling process it is crucial to address certain assumptions as well as other data-related issues. Any failure to address these issues has consequences for model fit which may lead to poor results (Klainin-Yobas et al., 2014, Kline, 2011).

The second level, measurement model analysis intends to establish construct validity of scales. This is achieved through good-fitting models (Anderson and Gerbing, 1988, Klainin-Yobas et al., 2014). The third level, the structural model (path model) analysis considers the relationships between model variables. These relationships are tested using a structural equation model AMOS software package (Byrne, 2010, Klainin-Yobas et al., 2014). In the process of structural modelling measurement errors are taken into account (Byrne, 2010, Klainin-Yobas et al., 2014). Using a structural model in this phase, tests for mediating effects

of burnout constructs are executed in AMOS based on the recommendations of Baron and Kenny (1986) and Brown and Maxwell (2002) and Gaskin (2012). The mediation tests are executed for indirect effects (Bollen and Stine, 1990, Gaskin, 2012, Preacher and Hayes, 2008, Shrout and Bulger, 2002). The results from indirect mediation tests (using bootstrap approach) are compared with those from the Baron and Kenny (1986) approach. These are followed by tests for interaction-moderation effects of a stress mindset on the relationship between organisational justice dimensions and job outcomes using the bootstrap approach (Bollen and Stine, 1990, Gaskin, 2012, Preacher and Hayes, 2004). The outputs from the interaction-moderation effects subsequently use to plot the moderation effects if a stress mindset on organisation justice, burnout and job outcomes dimensions.

Table 15: The key assumptions of the two research paradigms

Assumptions	Questions	Quantitative	Qualitative
Ontological	What is the nature of reality?	Reality is objective and singular, apart from the researcher.	Reality is subjective and multiple as seen by participants in a study.
Epistemological	What is the relationship of the researcher to that researched?	Researcher is independent from that being researched.	Researcher interacts with that being researched.
Axiological	What is the role of values?	Researcher value free and unbiased.	Value-laden and biased.
Rhetorical	What is the language of the researcher?	Formal, based on set definitions. Personal voice. Use of accepted quantitative words. Focusing on measurement of the phenomena. Independent of the mind.	Informal. Evolving decisions. Personal voice. Use of accepted qualitative words. Focusing on the meaning of social phenomena. Dependent on the mind.
Methodological	What is the process of research?	Deductive process. Cause and effect. Static design-categories isolated before study. Context free. Generalisations leading to prediction, explanation and understanding. Accurate and reliable through validity and reliability.	Inductive process. Mutual simultaneous shaping of factors. Emerging design-categories identified during research process. Context-bound. Patterns and theories developed for understanding. Accurate and reliable through verification.

4.2 The characteristics of the research data

4.2.1 A discussion on the type of data

This research uses ordinal data. With ordinal data, using weights and criterion scores it is possible to manipulate qualitative data to achieve a set of desired objectives (Kenny et al., 2014, Nijkamp et al., 1990). The advantage to this research of using ordinal data is that it allows for the use of ranked data. Whilst it is true that the numerical quantity attached to a value does not bear much significance it allows this researcher to rank data on an ordinal scale, making it easy to work with (Nijkamp et al., 1990). Therefore, considering these factors it goes without saying that ordinal data presents the best type of data for this research.

4.2.2 The importance of understanding the source of data

The data for this research are gathered from an organisation in the financial services industry in the North West of England; operating in the insurance sector. The key participants in the research are telephone operatives referred to as CSRs and their Team Managers (TMs). The TMs are important and will be discussed later in relation to problems of self-reporting. This organisation operates call centres across the South East and other parts of the North West of England. A significant number of its call centres are in London. The call centre from which data are collected is an in-bound operation. An in-bound call centre is one to which customers (existing and new) phone-in to take out insurance policies, service existing ones (i.e. raise any queries or enquiries), register new claims and follow-up on existing claims.

For purposes of this research the proximal manager who has a bearing on the relationship with CSRs is a TM. Therefore, TMs are deliberately targeted to respond to Supervisor Questionnaires (designed to collection data on CSR job outcomes – job involvement and OCBs) to avert self-reporting bias (which could be a source of common method bias). This strategy is necessary because TMs are likely to give accurate ratings of CSRs' attitudes in relation to job involvement and OCBs; hence reducing common method bias. The collection of performance-related data about CSRs from their immediate or proximal supervisors (TMs) is supported by literature dealing with problems of self-reporting (e.g. Podsakoff et al., 2012, Podsakoff et al., 2003, Viswanathan and Kayande, 2012). The assumption is that a supervisor, barring any animosity with a given CSR, would be more objective in his or her opinion of the performance of the CSR (Viswanathan and Kayande, 2012).

4.2.3 A discussion on the nature of the data

Since data used here are ordinal (Rietveld and Ouwersloot, 1992) it is ranked using a suitable scale. The scale chosen for this research is Likert-type scale (Likert, 1932, Gob et al., 2007). This scale is used extensively in research in the field of psychology and behavioural sciences (e.g. Colquitt, 2001, Colquitt et al., 2009, Crum and Langer, 2007, Crum et al., 2011, Crum et al., 2013). A Likert-type scale is drawn from the original Likert scale (Likert, 1932, Gob, et al, 2007). A Likert-type scale allows for a summative approach to establish if there is internal consistency on a number of scale items when they are used together (Likert, 1932).

To collect data from the organisation about CSRs' and TMs feelings, perceptions and attitudes so as to explain latent variables this research uses existing scale items (Table 16 and Table 17: Page 82, respectively) which are extracted from empirical research. The process is however underpinned by a serious consideration for selection of scale items, which is that the scale items have to have Cronbach's alpha values of 0.70 or greater for reliability.

4.2.4 A discussion on the process of data collection

This research administers questionnaires to an entire workforce of CSRs and their TMs within the GI proposition of the target organisation assisted by trained research assistants. This means 894 CSRs and 75 TMs in the call centre are given an opportunity to respond to questionnaires. A host of ethical considerations are met before the questionnaires are dispatched with approval from the College of Ethics Panel at the University of Salford (Appendix 4: Page 229). This is done to comply with data protection guidelines as laid out in the Data Protection Act (DPA) (1998), and as stipulated by the source of data as well as to conform to the university's ethical requirements for research.

To uphold DPA (1998) questionnaires carry a caption explaining to the respondents that they are not permitted to write their names anywhere or leave any marks that may indicate who they are. This is meant to guarantee anonymity. It is made clear on the questionnaire that completed copies of questionnaires are to be surrendered to the Salford Business School for safe keeping once the research is complete. In place of CSRs' and TMs' names each questionnaire is coded with a number to align it with the questionnaires that are completed by the CSRs and their immediate TMs. The reason for this is to ensure that when data capturing takes place the questionnaires (i.e. CSRs' and TMs' questionnaires) can be matched.

Table 16: A summary of latent variables for CSR questionnaires (Wave 1 and Wave 2)

Organisational Justice	
Distributive justice	Adams (1965)
Procedural justice	Thibaut and Walker (1975)
Interpersonal and informational justice	Bies and Moag (1986)
Interactional justice	Greenberg (1993a) and Greenberg (1993b)
Stress Mindset	
Stress Mindset Measure (SMM)	Crum et al. (2013)
Burnout	
Maslach Burnout Inventory	Maslach (1982) and Brouwers et al. (2001)
In-role Job Outcome	
Job involvement	Lawler and Hall (1970)
Extra-role Job Outcome	
Organisational Citizenship Behaviours	Di Paolo and Neves (2006)

In an attempt by this researcher to curb common method bias (Viswanathan and Kayande, 2012, Podsakoff et al., 2003) CSRs' questionnaires are administered in two waves (i.e. Wave 1 and Wave 2, Appendices 1-2: Pages 224-227). This is done to avoid unwarranted discrepancies in observations with respect to means, variances and covariances (Bagozzi, 1981, Bagozzi, 1992, Podsakoff et al., 2003). Once data are collected they are inputted into SPSS version 21. The questionnaires for TMs (Appendix 3: Page 228) are administered on a single wave as there are fewer scale items to cover; this is intended not to overload TMs.

Table 17: A summary of latent variables for team manager questionnaire (Wave 1)

In-role Job Outcome	
Job involvement	Eisenberger et al. (2010)
Extra-role Job Outcome	
Organisational Citizenship Behaviours	LePine et al. (2002) and Rego and Cunha (2009)

4.3 A review on data entry accuracy

4.3.1 The data screening process

This researcher considered a number of issues before proceeding to perform any sophisticated data analysis. Some of the key questions considered here are as follows; (1) are participants' responses accurately reflected in the data? (2) could there be a particular pattern that can be established from the data? (3) have all data collected been put in place and properly accounted for? (4) are there any distortions arising from data due to some extreme responses that may undermine the research outcome? (5) what remedies are available to address any violations of statistical assumptions before executing the structural (path) model?

The process of data cleansing in this research was conducted using computerised computational packages SPSS and MS Excel (Gaskin, 2012, Preacher and Hayes, 2008). SPSS software package was most suitable because it offers several formats of outputs that help this researcher handle the data (Tabachnick and Fidell, 2001, Meyers, 2005) as it deals effectively with issues in descriptive statistics during the initial stages of data analysis.

4.3.2 The tests for skewness and kurtosis in data

Meyers (2005) states that a lack of consensus amongst statisticians regarding what is acceptable in relation to skewness and kurtosis has created challenges in the area of statistical analysis. Skewness is a measure of whether a distribution is symmetric or not, whilst kurtosis looks at how the scores are clustered around the centre of a distribution (Meyers, 2005). In view of these challenges this researcher set a threshold of ± 0.5 (Gaskin, 2012) as an acceptable measure of drift from normality (e.g. Hair et al., 2002, Runyon and Zakocs, 2000).

4.3.3 The process of checking for missing values

This researcher was aware that the presence of missing values in data is due to a number of reasons. A few of the common reasons are; (1) respondents may feel that the questions are of a personal nature, particularly if these dwell on current illegal drug usage or sexual orientation; (2) there may be a lack of competence to tackle questions on a particular section of a questionnaire (Gold and Bentler, 2000); (3) in longer research activities where respondents are inundated with questionnaires fatigue may creep in and results in respondents failing to complete questionnaires (Meyers, 2005).

This researcher endeavours to minimise missing variables given the impact on the outcome of this research. To this end, questionnaires are made clearer with well annotated scale items for the respondents. Once completed, the questionnaires are checked carefully by research assistants during collection from CSRs and TMs to reduce the risk of missing variables, a problem that may result in some responses being discarded. As a way to guarantee that all the data was captured at the beginning there would be another round of checking on the data by an independent person to ensure that there no human errors. This researcher does perform a final check once the data are captured on SPSS to ensure that all the information about the research variables is entered correctly. This is the first stage of the data cleansing process before exploratory, confirmatory factor analysis and structural equation modelling.

4.4 The presentation of descriptive statistics from data

This researcher displays the data in the form of descriptive statistics to help understand the nature of data collected for this research. the descriptive statistics include; (1) the distribution of CSRs across departments; (2) the distribution of CSRs by skills across departments; (3) the distribution of CSRs by age across gender; (4) the length of service across gender; (5) the length of service across age; (6) the distribution of CSRs by educational qualifications across gender; (7) the distribution of annual salary across age; and (8) the distribution of income across gender. This information was useful as it was used as controls in the structural equation model before mediation and interaction-moderation effects tests.

4.5 A discussion on importance of exploratory factor analysis

Through exploratory factor analysis Henson and Robertson (2006) state that it is possible to retain inherent characteristics (i.e. individual variability and covariances) of an initial or original data set. They also say that it is possible to eliminate any ‘noises’ arising from either sampling or measurement errors that include existence of any unwarranted information. Thus, exploratory factor analysis can also be viewed as an instrument intended for consideration of those latent variables that are significant in explaining variations. It is useful when looking at any interrelationships between variables hence offering support in development of new theories (Henson and Roberts, 2006, Matsunaga, 2010). This researcher performs exploratory factor analysis in SPSS to yield a ‘clean’ pattern matrix. This involved factor extractions as well as generating key outputs, including; Kaiser-Meyer-Olkin (KMO) measure, Communalities, Total Variance Explained (TVE), Goodness-of-fit Test, Pattern Matrix and the Correlation Matrix. This process of generating a ‘clean’ pattern matrix involves going through several iterations until there were no cross-loading between scale items; which is central to determine discriminant validity.

4.6 A discussion on importance of confirmatory factor analysis

Once exploratory factor analysis is complete (which yields a ‘clean’ pattern matrix) the next logical step for this researcher is to undertake confirmatory factor analysis. Confirmatory factor analysis makes it possible to develop a measurement model that is explicit using the factor structure underlying the data (Matsunaga, 2010, Russell et al., 2011). This researcher also utilises AMOS software package to test for model fit for each latent variable and the

entire data set to develop a complete measurement model before moving into structural equation modelling. This is a precursor to the design of the questionnaires.

The measurement model (i.e. confirmatory model) can be developed in AMOS using two approaches. The first approach is manual orientated (Gaskin, 2012). This involves the researcher applying tools on the interface in AMOS. The second approach (adopted in this research) uses a plug-in called a 'Pattern Matrix Model Builder' (Gaskin, 2012). The procedure involves copying the pattern matrices generated in SPSS (during exploratory factor analysis) and pasting it into the 'Pattern Matrix Model Builder' in AMOS software package. This creates a measurement model diagram. This is then followed by selection of parameters of choice estimates and then running the model. The process of checking for model fit is done after running the measurement model (Kline, 2005, Gaskin, 2012). The model validation process undertaken by this researcher involved use of the correlation and regression weights from the generated output from the measurement model into the 'Validity Master Tab' in the 'Stats Tools Package'. This process is important and this researcher it to establish if there was any validity concerns.

4.6.1 The test for discriminant validity

The reason for performing discriminant validity test is to establish that measures that are not in any way related are in real life are also not related in this research (Gaskin, 2012, Kenny, 2013). The intention for this is to be in harmony with theory. This is normally used to check for cross-loadings from the pattern matrix (Gaskin, 2012); it is a procedure that is conducted in SPSS through the inspection of that pattern matrix. This can be checked in data output tables; that are the 'pattern matrix' and 'factor correlation matrix'. Whilst on the 'factor correlation matrix' it is important to check for any correlations between factors that are greater than 0.70 (Gaskin, 2012).

4.6.2 The computation of reliability tests

The test for reliability is measured by Cronbach's coefficient (Cronbach and Maeehl, 1955, Kenny et al., 2014). A Cronbach's alpha coefficient is an important measure of internal consistency. This reliability test helps to remove redundant scale items when measuring latent variables in research. This researcher computed Cronbach's alpha coefficient in SPSS (Cronbach, 1987, Cronbach and Maeehl, 1955, Kline, 2010). This researcher is ware that it is

important to get Cronbach's alpha values right as this helps to establish, within a latent variable, the proximity between a set of scale items explaining that latent variable; failure to do so might mean under-explanation or over-explanation of the latent variable (Kline, 2011).

4.6.3 The determination of measurement model fit

Once the measurement model is developed this researcher checked for model fit. The determination of model fit using an empirical approach must use a suite of these indices to ensure validity (Bentler, 2006, Hu and Bentler, 1999). A number of indices have been developed with the following 5 main ones; (1) chi-square test (which must include degrees of freedom); (2) root mean square error of approximation (RMSEA); (3) standardised root mean square residual (SRMR); (4) comparative fit index (CFI); and (5) Tucker-Lewis Index (TLI) normally referred to as a non-normed fit index (NNFI). This researcher used these indices at the behest of Bentler (2006) and Hu and Bentler (1999) as part of confirming model fit for the measurement model (Gaskin, 2012).

4.7 The process of developing the structural equation model

This researcher first built a structural model in AMOS using the CMB-adjusted variables generated from the measurement model earlier. The process also involved applying controls to the structural model. The key aspect the researcher focused on was model fit using the suite of 5 model fit indices by Bentler (2006) and Hu and Bentler (1999). Preacher and Hayes (2008) have advocated for use of the bootstrap technique when testing for indirect effects due to its non-imposition of assumptions of normality. The first before developing the structural model was to ensure that key assumptions are met, which meant executing the following tests; (1) checking for outliers in the data; (2) establishing linearity between variables; (3) explaining the position on homoscedasticity; (4) testing for the presence of multicollinearity between variables in the model (the processes for reviewing each assumption is below).

4.7.1 The presence of outliers in data

There are several reasons as to why outliers are present in data and four key reasons suggested by Hair et al. (1998) are; (1) entry error or improper coding of variables. These are not a major problem as they can be picked up in data cleansing process prior to undertaking any analysis (Meyers, 2005); (2) outliers without plausible reason for their existence. These

must be eliminated forthwith as there is no justification for their existence; (3) instances of extraordinary circumstances or events. This depends on the situation as these can either be eliminated or if they are a reflection of the characteristics of the sample they can be retained (Hair et al., 2002, Meyers, 2005) and (4) some outliers arise from intricate combinations of some values on a number of variables (Gaskin, 2012, Tabachnick and Fidell, 2001) and therefore must be retained. This researcher uses Box's plot diagram created in SPSS to deal with the problem of outliers in data.

4.7.2 The importance of linearity between latent variables

The key assumption in most multivariate relationships, particularly under multivariate analysis of variance (MANOVA) and multiple regressions is the existence of a linear relationship between variables (Tabachnick and Fidell, 2001b). This researcher performs linearity tests for each relationship in the model using the composite data common method adjusted variables (CMB-adjusted variables) generated during confirmatory factor analysis. This was executed in SPSS under 'Curve Estimation' option. All model choices (i.e. linear, logarithmic, compound, quadratic, inverse and cubic) were selected to determine whether the linear relationship is strong and significant. This test for linearity is important because the algorithm in AMOS only works with linear relationships between latent variables.

4.7.3 The process of addressing multicollinearity in data

The problem of multicollinearity arises when two or more variables are not independent of each other (Bacon, 1997, Kenny et al., 2014). To deal with this problem this researcher performs multicollinearity tests in SPSS run under 'Linear Regression'. The key output considered here was the 'Coefficients Table' paying attention to the 'Variance Inflation Factor' (VIF).

4.7.4 The rationale of the position on homoscedasticity

Homoscedasticity assumptions state that there are congruent levels of variables over a range of categorical and continuous independent and dependent variables (Hair et al., 2002, Hair et al., 2006, Meyers, 2005, Tavakol and Dennick, 2011). When homoscedasticity does not hold it is referred to as heteroscedasticity. The presence of heteroscedasticity means that a variable's distribution is not normal (Tabachnick and Fidell, 2001). Others (e.g. Kenny et al.,

2014, Keppel et al., 1992) state that the assumption of homoscedasticity may result in the observance of equal variance of a dependent variable witnessed through different independent variables and which is referred to as homogeneity of variance (Meyers, 2005, Tabachnick and Fidell, 1996). In this research heteroscedasticity is not considered to be a problem due to the nature of data - that is the data are based on individual opinions hence variance is not a weakness but a useful attribute of data (Gaskin, 2012).

4.8 The execution of mediation analysis using a structural equation model

This research applies the Baron and Kenny (1986) approach as opposed to Sobel test for direct mediation effects (i.e. with and without moderator) and the bootstrap approach for indirect mediation effects (Bollen and Stine, 1990, Shrout and Bulger, 2002). The Baron and Kenny (1986) and bootstrap approaches are preferable here for mediation analysis over the Sobel test because the later, though good with large samples (e.g. the case in this research has (721 respondents) it does impose distributional assumptions on data (Bollen and Stine, 1990, Preacher and Hayes, 2008).

4.8.1 The tests for interaction-moderation effect using a structural model

Most researchers use two approaches when looking at the effects of moderator variables. The first method entails stratification of data into different levels of the moderator (Gaskin, 2012). The second method involves creation of a cross-product from a predictor variable and a moderator variable to generate a new variable, normally referred to as an 'interaction-term'. This new interaction-term is consequently included into the path model (Gaskin, 2012, Wall and Amemiya, 2007b, Wall and Amemiya, 2007a).

In this research the moderator and predictor variables are latent variables, therefore making it possible to use the second method. The moderator variable is mean-centred then standardised to allow regression analysis to proceed in AMOS (Cohen et al., 2003, Cronbach, 1987, Little et al., 2006, Gaskin, 2012). To its own credit mean-centering helps to reduce multicollinearity between variables (Gaskin, 2012, Little et al., 2006). On another level the benefits of mean-centering are that it alleviates concerns over interpretability of estimates from output. Mean-centred predictor regression coefficients are more meaningful than otherwise (Little and Rubin, 2002, Little et al., 2006, Little et al., 2003); therefore they give better plots of the predicted relationship (Gaskin, 2012).

Whilst there are some good attributes from mean-centering, in cases where there are reliability issues concerning detection of measurement errors (Little et al., 2006) this may cause other parameters estimated to have bias (Busemeyer and Jones, 1983, Little et al., 2006). Equally problematic could be issues associated with low power (Ganzach, 2007, Little et al., 2006, Maccallum and Mar, 1995). This research conducts rigorous tests for reliability and validity; therefore it is presumed that problems of low power are of no consequence. When all things are considered with unstandardised estimates generated from the structural model these are inputted into the 'Stats Tools Tab' in the '2-Way Interactions Plotter' to depict the interaction-moderation effect (Gaskin, 2012).

A summary of methodologies used in the research

This chapter covers the key methodological approaches to this research. The research uses exploratory factor analysis to determine the factor structure of latent variables, and then moves to confirmatory factor analysis to develop the measurement model. The chapter also sets out how the conditions necessary and sufficient for structural equation modelling (linearity, multicollinearity and homoscedasticity and model fit) are met before setting out to develop the structural model. The chapter discusses the processes of mediation (direct and indirect effects) and interaction-moderation effects designed to test the hypotheses developed in Chapter 3: Pages 55-74. This chapter informs the following chapter where the discussed methodologies shall be applied to the data. The coming chapter shall inform the general handling of data in the way of data and variable screen which constitutes pre-exploratory and pre-confirmatory factor analysis. The process of mediation shall be handled in the next chapter using regression analysis (Gaskin, 2012, Field, 2009); whilst interaction-moderation diagrams shall be plotted using the '2-Way Interaction Tab' in the 'Stats Tools Package' (Gaskin, 2012, Kenny, 2013).

5 Chapter 5: Data Analysis Results

5.1 Introduction to data analysis results

This chapter presents the results of data analysis executed in SPSS version 21, MS Excel version 2010 and AMOS. The results are presented in two broad categories; (1) the preliminary measurement model validation analysis and results; this presentation of results covers internal consistency, dimensionality and confirmatory factor analysis of latent variables used in this research. This helps us to decide whether scale items in the questionnaires are suitable to fulfil the aims and objectives of the research; (2) the next category covers data analysis and results from the substantive sample of 721 respondents that are drawn from an entire sample of 894 respondents. The results produced in this category cover the following areas; descriptive statistics, exploratory factor analysis (i.e. sample adequacy, convergent validity, discriminant validity and reliability), confirmatory factor analysis (i.e. measurement model, invariance tests, validity and reliability tests, common method bias test, measurement model fitness and imputation of composites) and structural equation modelling (i.e. multivariate assumptions of linearity, multicollinearity and homoscedasticity), mediation (direct effects without mediator, direct effects with mediator and bootstrapping for indirect effects with mediator), interaction moderation (computation of interactions and plotting significant interactions), and reporting of findings from analysis. These results are drawn on the basis that reality is objective and thus the ultimate aim is to test hypotheses and consequently develop generalisations that can be applied across situations about the phenomena.

5.2 The measurement model validation process

As stated in Chapter 4: Pages 75-89 on Methodology, the measurement model validation is done to determine model fit to data. Thus, the focus is on establishing internal consistency, dimensionality and confirmatory factor analysis for each latent variable. Whilst it is clear in Chapter 4: Pages 85-86 that dimensionality is not adequately determined using a pilot sample of 50 respondents it is necessary to perform the test so as to establish a *prima facie* case for suitability of scale items going into data analysis and structural equation modelling for the entire sample. Therefore, establishing unidimensionality under each latent variable is an important part of guaranteeing questionnaire integrity.

5.2.1 The tests for internal consistency for measurement model validation

The measurement model validation indicates that scale items for latent variables are internally consistent. There are initially 9 latent variables for which Cronbach's alpha coefficient is determined. These are; (1) distributive justice (10 scale items); (2) procedural justice (8 scale items); (3) informational justice (6 scale items); (4) interpersonal justice (7 scale items); (5) emotional exhaustion (8 scale items); (6) depersonalisation (7 scale items); (7) stress mindset (8 scale items); (8) job involvement (5 scale items); and (9) OCBs (6 scale items).

Table 18: Cronbach's alpha for measurement model validation

Latent variable	Cronbach's alpha
Distributive justice	0.95
Procedural justice	0.92
Interpersonal justice	0.93
Informational justice	0.94
Emotional exhaustion	0.95
Depersonalisation	0.89
Stress mindset	0.95
Job involvement	0.82
OCBs	0.78

Table 18 shows Cronbach's alpha coefficient results for latent variables from pilot data analysis for internal consistency. Cronbach's alpha estimates for latent variables are between 0.70 and 0.95. These are reported as; distributive justice (0.95); procedural justice (0.92); informational justice (0.94); interpersonal justice (0.93); emotional exhaustion (0.95); depersonalisation (0.89); stress mindset (0.95); job involvement (0.82); and OCBs (0.78). These Cronbach's alpha estimates indicate good-to-excellent degree of internal consistency from scale items measuring each latent variable (Gaskin, 2012, Kline, 2010). This means the scale items in the questionnaire are indeed measuring what they are supposed to – a good outcome!

5.2.2 The tests for dimensionality under measurement model validation

Table 19: Chapter 5, Page 92 shows the results from SPSS in 'total variance explained' table for latent variables. It is evident from Table 19 that scale items measuring a given latent variables are unidimensional since 'total variance explained' values are incremental towards

100 percentage point (Gaskin, 2012). This is a good result because it shows that each set of scale items explains the corresponding latent variable in question. When internal consistency and dimensionality are considered together for corresponding latent variables they offer robust understanding of the effectiveness of a questionnaire as a tool for data collection for this research.

Table 19 shows the KMO Criterion, where, even though in this case of measurement model validation the sample is small (50 respondents) sample adequacy measure ranges from good to excellent. The KMO estimates for latent variables are; distributive justice (0.86), procedural justice (0.86); informational justice (0.71), interpersonal justice (0.85); emotional exhaustion (0.91); depersonalisation (0.80); stress mindset (0.91), job involvement (0.73); and OCBs (0.70). KMO estimates help establish sample adequacy hence validate the argument for unidimensionality established from pilot sample used during initial measurement model validation process. These results must be accepted as sample is of the right size. If sample adequacy measure are less than 0.70 then there are issues as to whether model fit results for each latent variable are correct.

Table 19: Tests for unidimensionality under measurement model validation

	Latent variables								
	Proc Jus	Distr Jus	Info Jus	Interp Jus	Strs Mind	Emo Exh	Dep	Ocb	Jin
KMO*	0.855	0.85	0.70	0.84	0.91	0.92	0.80	0.70	0.73
	67.16	88.83	79.38	89.54	92.42	82.50	69.69	53.93	56.20
	79.28	94.36	89.56	95.95	96.13	87.31	85.21	85.52	77.45
	86.54	97.90	94.79	98.86	97.44	91.72	94.31	91.82	87.81
	91.08	100.0	98.91	100.0	98.40	94.70	98.76	96.44	94.16
	94.81		100.0		98.96	96.63	100.00	99.30	98.13
	97.90				99.40	98.22		100.00	100.00
	100.00				99.57	99.45			
					100.0	100.00			
* KMO is Kaiser-Meyer-Olkin measure of sampling adequacy									

5.2.3 The process of confirmatory factor analysis for measurement model validation

The first step in confirmatory factor analysis is to run the algorithm with observed dependent variables specified to explain latent variables. Once the output is generated next step is to look at estimated values to determine whether they meet specified critical values under each

test (Hu and Bentler, 1999, Kline, 2010). At the time of developing the programme to perform confirmatory factor analysis in AMOS version 21 a condition to isolate correlated variables is included and specified as ‘mod-indices’. Where estimated values violate set criteria it is necessary to check for and eliminate correlated observed dependent variables. The results from confirmatory factor analysis for latent variables are shown in Tables 20-24: Chapter 5, Pages 93-96. The columns in Tables 20-24 show estimate values pre-modification (i.e. before modification indices are applied) and post-modification (i.e. after modification indices are applied).

In this research distributive justice is initially measured by 11 scale items before confirmatory factor analysis but following preliminary confirmatory factor analysis model proves to offer a poor fit to data. The estimate values as shown in Tables 20-24 are far from acceptable critical values for the chi-square, RMSEA, TLI, CFI and SRMR thresholds. In order to bring model in line with five goodness-of-fit tests, 1 observed dependent variable that is deemed correlated to other variables (based on modification indices) is removed. When this variable is removed model is considered sympathetic to critical values set out in five goodness-of-fit tests. The results are collaborated by Tables 20-24 showing pre-modification and post-modification effects on goodness-of-fit. Several of the pre-modification chi-square values in Table 20 appear to be non-significant. This is an indication that these chi-square values have imperceptibly small p-values for this goodness-of-fit test before taking modification indices into account.

Table 20: The chi-square p-values for measurement model validation

Latent variable	Pre-modification	Post-modification
Distributive justice	0.01	0.28
Procedural justice	0.01	0.35
Interpersonal justice	0.44	0.44
Informational justice	0.32	0.46
Emotional exhaustion	0.02	0.24
Depersonalisation	0.08	0.08
Stress mindset	0.24	0.35
Job involvement	0.01	0.37
OCBs	0.21	0.35

The latent variable procedural justice is measured by 8 scale items before confirmatory factor analysis. When pre-modification confirmatory factor analysis is conducted results indicate

presence of correlated variables that result in model's poor fit to data (Table 20: Chapter 5, Page 93). In this case, only 1 observed dependent variable is removed from model to improve goodness-of-fit to data. This helps adjust goodness-of-fit estimate values, therefore yielding a level of conformance to critical values of each test. This result is supported by Tables 18-24: Chapter 5, Pages 93-96 which show invaluable impact of eliminating a correlated variable (Gaskin, 2012). The latent variable interpersonal justice is measured by 7 scale items before confirmatory factor analysis. Once preliminary confirmatory factor analysis is performed it emerges that model is a good fit to data and therefore there is no need for removal of any of the observed dependent variables (scale items). This outcome is supported by results shown in Tables 20-24.

Table 21: The RMSEA estimates for measurement model validation

Latent variable	Pre-modification	Post-modification
Distributive justice	0.17	0.07
Procedural justice	0.21	0.05
Interpersonal justice	0.23	0.07
Informational justice	0.06	0.06
Emotional exhaustion	0.18	0.06
Depersonalisation	0.05	0.05
Stress mindset	0.34	0.07
Job involvement	0.54	0.06
OCBs	0.29	0.01

The latent variable informational justice is initially measured by 5 scale items before execution of confirmatory factor analysis. However, once initial confirmatory factor analysis is performed results indicate a model that is a good fit to data. The results across the five goodness-of-fit tests (chi-square, RMSEA, TLI, CFI and SRMR) indicate that the model is inadvertently of a good fit to data. Therefore, given this outcome there is no reason to make any further adjustments to the model since there are no correlated scale items. The decision criteria for model fit under confirmatory factor analysis are shown in Tables 20-24.

A stress mindset is measured by 8 scale items before performing confirmatory factor analysis. Once initial confirmatory factor analysis is performed and this generates output which indicates that there are no correlated scale items measuring the latent variable. Therefore, drawing from this confirmatory factor analysis result it means the model is a good fit to data.

In this case it is not necessary to perform adjustments or manipulation to the model. This outcome is depicted in Tables 20-24: Chapter 5, Pages 93-96 which indicates results for pre-modification and post-modification adjustments are the same.

Table 22: The TLI estimates for measurement model validation

Latent variable	Pre-modification	Post-modification
Distributive justice	0.93	0.95
Procedural justice	0.80	0.96
Interpersonal justice	0.91	0.91
Informational justice	0.95	0.95
Emotional exhaustion	0.86	0.93
Depersonalisation	0.81	0.81
Stress mindset	0.81	0.91
Job involvement	0.54	0.90
OCBs	0.76	0.91

The latent variable emotional exhaustion is initially measured by a suite of 10 scale items before performing confirmatory factor analysis. However, these 10 scale items do not yield a model that fits the data. Thus, following initial confirmatory factor analysis the correlated scale items are identified and removed from the initial model before undertaking the next phase of confirmatory factor analysis. The adjustment of the model sees it reduced from 10 scale items to 8 scale items; a reduction of 2 observed dependent variables. When this is done, results across 5 goodness-of-fit tests show a model that is a good fit to data as shown in Tables 20-24.

In the process of initial model validation depersonalisation is measured by 7 observed dependent variables prior to confirmatory factor analysis. Preliminary confirmatory factor analysis is performed and this generates output which indicates that there are no correlated scale items measuring this latent variable. Therefore, drawing from this confirmatory factor analysis result it means that the model is a good fit to data. In this case it is therefore not necessary to perform any adjustments or manipulation to the model. This outcome is portrayed in Tables 20-24 which indicates that the results for pre-modification and post-modification adjustments are the same. Thus, this means that depersonalisation is therefore explained by the same scale items established before confirmatory factor analysis. This result means no further action needs to be taken at this stage; this means that the variable depersonalisation developed by Brouwers et al. (2001) and Maslach (1982) holds.

In the case of the latent variable job involvement it is explained by 8 scale items before performing confirmatory factor analysis. However, after performing initial confirmatory factor analysis it is clear that the model is a poor fit to data because model fit criteria are violated. In this case estimated values violate conditions set for a good fit to data; therefore rejecting the null hypothesis is the only option (Kline, 2010). There are 2 correlated variables that must be removed from the model to enhance its fit to data. When these 2 scale items are eliminated the decision criteria are met giving a desired model with a good fit to data. This outcome for job involvement is clearly shown in Tables 20-24: Chapter 5, Pages 93-96.

Table 23: The CFI estimates for measurement model validation

Latent variable	Pre-modification	Post-modification
Distributive justice	0.84	0.95
Procedural justice	0.87	0.94
Interpersonal justice	0.94	0.94
Informational justice	0.96	0.96
Emotional exhaustion	0.85	0.96
Depersonalisation	0.82	0.82
Stress mindset	0.87	0.95
Job involvement	0.72	0.94
OCBs	0.65	0.96

The latent variable OCBs is measured by 7 scale items before undertaking confirmatory factor analysis. However, the results generated following the execution of the initial confirmatory factor analysis indicate that there is poor model fit across all the five goodness-of-fit tests (i.e. chi-square, RMSEA, SRMR, TLI and CFI).

Table 24: The SRMR estimates for measurement model validation

Latent variable	Pre-modification	Post-modification
Distributive justice	0.05	0.01
Procedural justice	0.06	0.03
Interpersonal justice	0.01	0.01
Informational justice	0.02	0.02
Emotional exhaustion	0.03	0.02
Depersonalisation	0.04	0.04
Stress mindset	0.03	0.00
Job involvement	0.12	0.03
OCBs	0.16	0.05

Therefore, following confirmatory factor analysis it is evident that there is 1 variable that appears correlated to other variables which has to be removed. A second test across the five goodness-of-fit tests (chi-square, RMSEA, TLI, CFI and SRMR) confirms model fit and therefore no further action is required.

Thus, after the measurement model validation analysis and having taken into account the necessary adjustments to latent variables (as summarised in Table 25) questionnaires (CSRs: Appendix 1 and 2, TMs: Appendix 3, Pages 224-228) are adjusted accordingly.

Table 25: The latent variable adjustments post-measurement validation analysis

Latent variable: Preparation for the questionnaire	Number of scale items: Pre-modification	Number of scale items: Post-modification	Scale items removed or eliminated
Distributive justice	11	10	1
Procedural justice	8	7	1
Interpersonal justice	9	9	0
Informational justice	6	6	0
Emotional exhaustion	10	8	2
Depersonalisation	7	7	0
Stress mindset	8	8	0
Job involvement	8	6	2
OCBs	7	6	1

5.3 An introduction to substantive sample results

This phase involves the following processes; (1) descriptive data analysis; (2) exploratory factor analysis (sample adequacy, convergent validity, discriminant validity and reliability); (3) confirmatory factor analysis (measurement model, invariance tests, validity and reliability checks, common method bias, measurement model fit and the imputation of composites); (4) structural equation modelling (multivariate assumptions of linearity, multicollinearity and homoscedasticity); (5) mediation (direct effects without mediator, direct effects with mediator and indirect effects – bootstrapping with mediator); (6) interaction-moderation (regression analysis and plotting significant interactions); and (7) reporting of findings.

5.3.1 The descriptive statistics for substantive sample results

The descriptive statistical analysis in this section gives an insight into the characteristics of the sample. This helps to paint a picture about the sample in preparation for the discussion of

results from data analysis. The key variables under consideration for descriptive statistical data analysis are control variables (these are useful in path analysis). These control variables are: age, gender, annual salary, time employed (length of service) and educational background. To draw meaningful information from the data these variables are combined in tabular presentations (e.g. age and annual income, gender and educational/academic qualifications).

Table 26: CSRs within departments (numerical and percentile terms)

Departments	Number of CSRs	Percentage of entire sample
Home	299	41
Motor	422	59
Total sample size	721	100

Table 26 shows the total number of CSRs working under each department in the call centre. In the Motor Department there are 422 CSRs representing 59% of CSRs. In the Home Department there are 299 CSRs making a total of 41% of CSRs working in the call centre. Table 26 breaks down the number of CSRs in each department, for instance, there are 299 CSRs in the Home Department, of these 89 (30%) are in Quotes (New Business) Section. Under Motor Department, there are 422 CSRs, of these, 102 (24%) are in Quotes (New Business) Section.

Table 27 shows the number of CSRs with a given set of skills in each department as a percentage of the sample. In the Motor Department 14% CSRs do quotes for new business, whilst in the Home Department there are 12% who do home quotes for new business.

Table 27: Distribution of CSRs by skills across departments

	Departments			
	Home		Motor	
CSR skills	CSRs	%	CSRs	%
Quotes (New business)	89	30	102	24
Serving and renewals	110	37	140	33
New claims	60	20	100	24
Existing claims	40	13	80	19
Total	299	100	422	100

Table 28: Page 99 shows skills in Home and Motor Departments and presents them as percentages of the entire sample. Of the 721 respondents there are 191 CSRs in Home and Motor departments involved in setting up new policies. This constitutes 26% of sample.

There are 250 CSRs in Home and Motor Servicing and Renewals and this constitutes 35% of the sample data.

Table 28: CSRs in departmental sections as a percentage of the sample

	CSRs as a percentage of entire sample	
	Departments	
CSR skills	Home	Motor
Quotes (New business)	12	14
Serving and renewals	15	20
New claims	8	14
Existing claims	6	11
Sub-Total	41	59

Table 29 shows there are 160 CSRs in New Claims Section involved in registering new claims in both Home and Motor Departments. This number constitutes 22% of the entire sample. In the Existing Claims Department, in both Home and Motor Departments there are 120 CSRs representing 17% of the sample in Table 29.

Table 29: CSRs by skill (home and motor) as a percentage of the sample

	CSRs by skills set as a percentage of data	
	Home and motor	
CSR skills	Number of CSRs	Percentage
Quotes (New business)	191	26
Serving and renewals	250	35
New claims	160	22
Existing claims	120	17
Total	721	100

Table 30 shows the distribution of in CSRs in the organisation according to age and gender; under the 18-25 year age group there are 96 and 90 male and female CSRs respectively. This makes a total of 186 CSRs who are under this age group. The same analysis can also be applied for 26-35, 36-45 and 46+ age groups to explain the same results shown in Table 30 that is shown below.

Table 30: Distribution of age across gender amongst CSRs

		Age			
		18 - 25	26 - 35	36 - 45	46 +
Gender	Male	96	147	117	31
	Female	90	144	80	16

Table 31 shows educational background of CSRs according to age; age group 18-25 there are 146 CSRs without a university qualification; 40 CSRs with a first degree; and none have a second university degree. There are 186 CSRs in this age group.

Table 31: Distribution of educational qualifications across age groups

		Education background		
		Without degree	First degree	Second degree
Age	18 - 25	146	40	0
	26 - 35	108	181	2
	36 - 45	44	148	5
	46+	10	25	12

Table 32 show variations in length of service across age groups; age group 18-25 years there are 106, 71, 7, 2, 0 and 0 CSRs who have been employed in the call centre for 0-1, 2-3, 4-5, 6-7, 8-9 and 10+ years respectively. The least number of CSRs is seen in age group 46+.

Table 32: Distribution of length of service across age groups

		Length of service Years					
		0 - 1	2 - 3	4 - 5	6 - 7	8 - 9	10+
Age	18 - 25	106	71	7	2	0	0
	26 - 35	29	163	62	32	3	2
	36 - 45	13	50	52	61	17	4
	46 +	2	1	2	9	20	13

Table 33 shows length of service depicted according to gender; an illustration shows that: 76 CSRs have 0-1 year of service; 151 CSRs have 2-3 years of service; 66 CSRs have 4-5 years of service; 57 CSRs have 6-7 years of service; 30 CSRs have 8-9 years of service; and 11 CSRs have 10+ years of service. This makes a total number of 391 male CSRs in the call centre that is under review.

Table 33: Distribution of length of service across gender

		Length of service Years					
		0 - 1	2 - 3	4 - 5	6 - 7	8 - 9	10+
Gender	Male	76	151	66	57	30	11
	Female	74	134	57	47	10	8

Table 34: Page 101 depicts the annual salary distribution according to age illustrated as follows: CSRs in £10,001-£13,000 – 103 CSRs in 18-25 age groups; 26 CSRs in 26-35 age

group; 7 CSRs in 36-45 age group and 2 CSRs in the 46+ age group. The same approach explains the other income bands in Table 34.

Table 34: Annual salary distribution across age groups

		Annual salary £			
		10,001 – 13,000	13,001 – 16,000	16,001 – 19,000	19,001+
Age	18 - 25	103	74	9	0
	26 - 35	26	202	63	0
	36 - 45	7	91	94	5
	46 +	2	4	26	15

Table 35 shows education background of CSRs according to gender depicted as follows: 164 male and 144 female CSRs without a university degree; 213 male and 181 female CSRs with a first university degree; and 14 male and 5 female CSRs with a second university degree.

Table 35: Distribution of educational qualifications across gender

		Education background		
		Without degree	First degree	Second degree
Gender	Male	164	213	14
	Female	144	181	5

The distribution of annual salary across gender is shown in Table 36 as follows: 71 male and 67 female CSRs in £10,001-£13,000 range; 200 male and 171 female CSRs in £13001-£16,000 range; 106 male and 86 female CSRs in £16,001-£19,000 range; and 14 male and 6 female CSRs in £19,000+ range.

Table 36: The distribution of annual salary across gender

		Annual salary £			
		10,001 – 13,000	13,001 – 16,000	16,001 – 19,000	19,001+
Gender	Male	71	200	106	14
	Female	67	171	86	6

5.4 The case screening process post-measurement model validation

5.4.1 The exploration of missing data post-measurement model

The data collected are checked for any missing observations as part of case screening for substantive sample for this research. This is done after data are imputed into SPSS software.

In order to make the process easy data are exported to MS Excel (Gaskin, 2012). The data are checked and passed as complete by physical inspection across data set in MS Excel. This result is only possible because of the decision to involve research assistants in the data collection process. The importance of this to the entire process is that respondents give responses to all points covered in the questionnaires. The fact that there are no missing data means there is no further action required (Gaskin, 2012, Meyers, 2005).

5.4.2 The investigation of unengaged respondents post-measurement validation

This operation is executed in MS Excel with data moved from SPSS. To decide whether or not a respondent is engaged, the standard deviations for scale items rated on a Likert-type scale are computed (Gaskin, 2012). This process is repeatedly executed in MS Excel given it is easy to conduct a visual inspection of standard deviations once these are computed. Any observed variable or item with a standard deviation of less than 0.5 is deleted (Gaskin, 2012). In the data set the smallest standard deviation is 0.92 whilst the largest is 2.63. A look at the decision criterion set out in Table 20-24: Page 93-96, Chapter 5 (Gaskin, 2012) it is clear that respondents are engaged as they completed questionnaires fully.

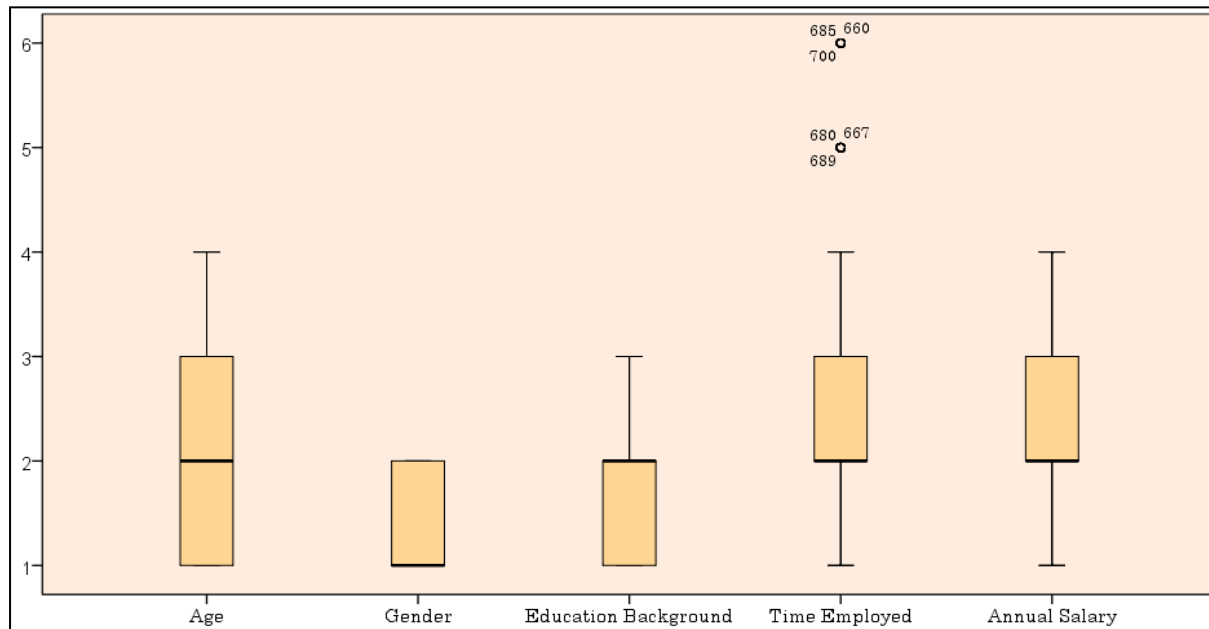
5.4.3 The establishment of the existence of outliers post-measurement validation

This research uses latent variables rated on Likert-type scale of 1-7. Thus, given the nature of Likert-type scales (Gob, 2007) it is impossible to consider a respondent's views or circumstances as an outlier as this is based on a respondent's values, perceptions and beliefs (Gaskin, 2012). This creates a challenge when dealing with latent variables because they are, for the most part, guided by individual values, perceptions and beliefs (Gaskin, 2012, Kenny et al., 2010). This research takes the same view that whilst individuals may rate views on one extreme of the Likert-type scale and come across as unreasonable it is how they perceive reality, hence must be accepted. Therefore, on this basis latent variables are excluded from adjustment for outliers in the data.

There are outliers in the data that must be subjected to this analysis, for instance, control variables, such as age, length of service (time employed), educational background and annual salary. The need to perform outlier analysis for these control variables is to understand the structure of data. The control variable that does not need any interrogation is gender. The exclusion of gender from outlier analysis is because it is a binary response (i.e. 1 or 2) as

there are no other possibilities for it therefore there can be no outliers (Gaskin, 2012, Kenny et al, 2010).

Figure 4: The existence of outliers post-measurement model validation



The results from the boxplot in Figure 4 indicate that there are no further outliers across the data except for 'time employed'. However, looking through 'length of service' there is no cause for concern as there are CSRs who are much older. Therefore, based on boxplot results and the argument put forward earlier (Page 102) no further action is needed on outliers.

5.5 The process of variable screening post-measurement validation

5.5.1 The detection of missing variables in data

The operation to detect missing variables is performed in SPSS using the 'frequency' option (Gaskin, 2012). This option confirms that there are no missing variables in data. Therefore, there is no further action needed (Gaskin, 2012, Kenny et al., 2014).

5.5.2 The tests for skewness and kurtosis in data

The skewness and kurtosis tests are performed in SPSS with the output moved to MS Excel. The reason for moving the output to Excel makes it easy to detect values less than -2 and those greater than 2 (Gaskin, 2012). The operation confirmed a central tendency towards the median (Gaskin, 2012); therefore the data are not skewed. The same procedure is applied to

test for kurtosis where it is confirmed that none of the values are less than -2 or greater than 2. The determined high and low values for skewness are 0.87 and -1.45 respectively. On the other hand determined high and low values generated for kurtosis are -1.98 and 1.26 respectively. This confirms that there are no further concerns for skewness or kurtosis. (Gaskin, 2012).

5.6 The execution of exploratory factor analysis post-measurement validation

This research conducts exploratory factor analysis in SPSS (v21) to establish sample adequacy, convergent validity, discriminant validity and reliability. This is useful in producing a pattern matrix needed for confirmatory factor analysis (Gaskin, 2012, Preacher and Hayes, 2008).

5.6.1 The determination of sample adequacy for the data

The first step entails performing factor analysis to generate a clean pattern matrix through a series of iterations (Table 42: Chapter 5, Page 108). In order to determine sample adequacy results of KMO and Bartlett spherical tests (Table 37), communalities (Table 38: Chapter 5, Page 105), total variance explained (Table 39: Chapter 5, Page 106), pattern matrix (Table 42) and goodness-of-fit (Table 41: Chapter 5, Page 107) are considered.

Table 37: KMO and Bartlett's measure of sample adequacy

Kaiser-Meyer-Olkin measure of sampling adequacy.		.940
Bartlett's Test of Sphericity	Approx. Chi-Square	38186
	df	990
	Sig.	.000

Table 37 depicts a good result for KMO and Bartlett's test of 0.94 which is significant (0.00). This result shows that the sample size is adequate for structural equation modelling (Gaskin, 2012, Kenny and McCoach, 2003). The communalities in Table 38 are equally important in the determination of sample adequacy. They represent the proportion of variance of each variable that are explained by the factors. Therefore, based on condition those variables with high values under communalities are well represented in the common factor space, while variables with low values are not well represented. Thus, to support sample adequacy none of the communalities must be less than 0.30 (Gaskin, 2012). Table 38 shows that extractions are above minimum value of 0.30.

Table 38: Communalities for determination of sample adequacy

Communalities ^a		
	Initial	Extraction
ojd1	.87	.81
ojd2	.88	.82
ojd3	.86	.87
ojd4	.83	.82
ojd5	.74	.63
ojd6	.68	.58
ojd7	.64	.53
ojd8	.68	.54
ojd9	.60	.49
ojp2	.92	.99
ojp3	.91	.92
intj1	.84	.83
intj2	.87	.85
intj3	.86	.84
intj4	.82	.79
intj5	.83	.78
intj6	.77	.70
intj7	.80	.76
intj8	.81	.75
eme1	.87	.86
eme2	.88	.85
eme3	.82	.81
eme4	.87	.84
eme5	.68	.62
eme6	.77	.74
eme7	.79	.76
eme8	.79	.76
jjin1	.65	.64
jjin2	.80	.89
jjin3	.76	.80
jjin4	.68	.67
jjin5	.59	.57
ocb2	.86	.88
ocb5	.86	.96
Extraction Method: Maximum Likelihood.		

Total variance explained table confirms sample adequacy as shown in Table 39: Page 106 where variance of 76.29 per cent is explained after several iterations to determine a clean pattern matrix shown in Table 42, Page 108 (Gaskin, 2012). The fact that more variance is explained as shown in the ‘Cumulative % Variance’ column means that the extraction achieved from the data is good.

Table 39: Total variance explained for determination of sample adequacy

Total variance explained							
Factor	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	13.15	38.69	38.67	10.02	29.48	29.48	7.86
2	5.56	16.35	55.01	3.69	10.85	40.33	9.79
3	4.25	12.51	67.53	4.76	14.00	54.33	10.29
4	2.03	5.97	73.50	3.84	11.31	65.64	5.86
5	1.26	3.71	77.21	2.57	7.55	73.17	3.67
6	1.00	2.94	80.15	1.05	3.10	76.29	6.20
7	.78	2.30	82.46				
8	.55	1.62	84.08				
9	.49	1.45	85.52				
10	.42	1.23	86.75				
11	.39	1.14	87.88				
12	.36	1.06	88.94				
13	.34	.99	89.93				
14	.33	.97	90.90				
15	.32	.94	91.84				
16	.30	.89	92.71				
17	.27	.78	93.49				
18	.22	.66	94.16				
19	.21	.63	94.79				
20	.19	.57	95.36				
21	.18	.53	95.87				
22	.17	.51	96.40				
23	.15	.45	96.90				
24	.15	.43	97.28				
25	.14	.41	97.70				
26	.13	.38	98.08				
27	.12	.37	98.43				
28	.11	.33	98.76				
29	.10	.28	99.04				
30	.08	.24	99.28				
31	.07	.21	99.49				
32	.07	.20	99.69				
33	.06	.19	99.87				
34	.04	.13	100.00				
Extraction Method: Maximum Likelihood.							
a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.							

5.7 The determination of reliability and dimensionality for substantive sample

The entire set of 6 latent variables has Cronbach's alpha values above 0.70 (Table 40). This means they are internally consistent. In Table 39, Page 106, under 'Cumulative %' column scale items are unidimensional, meaning that scale items are moving in the same direction.

Table 40: Cronbach's alpha for reliability test

Cronbach's alpha values						
DistrJus	ProcJus	InteracJus	EmoExh	Jin	Ocb	StrsMind
0.95	0.94	0.95	0.92	0.83	0.91	0.90

In the wake of exploratory factor analysis the goodness-of-fit test (Table 41) confirms that it is significant which is attributable to a large sample size (Gaskin, 2012).

Table 41: Goodness-of-fit test for adequacy

Goodness-of-fit test		
Chi-square	df	Sig.
4711	659	.00

5.8 The tests for convergent validity post-measurement validation

The test for convergent validity seeks to establish whether scale items load highly on their factors in the pattern matrix (Gaskin, 2012). A pattern matrix is the main link between factor analysis in SPSS and confirmatory factor analysis in AMOS. The pattern matrix from this data has established that organisational justice construct is a 3-dimensional construct as proposed by Bies and Moag (1986). This result is contrary to propositions of Greenberg (1993a) and Greenberg (1993b) that organisational justice is a 4-dimensional construct. Whilst burnout is viewed as a 3-dimensional construct in burnout theory, for this research it is proposed to be a 2-dimensional construct (emotional exhaustion and depersonalisation); which in the wake of exploratory factor analysis assumes a 1-dimensional construct, namely emotional exhaustion. The other constructs (i.e. job involvement and OCBs) have remained intact though they subsequently dropped some of the scale items (Table 25: Chapter 5, Page 97). The reorganisation of scale items through the removal of some items through the removal of some of these has managed to bring parsimony to the latent variable in relation to this data. The scale items as well as the variables that remain effectively explain the variables suitable for this data.

Table 42: The pattern matrix to establish convergent and discriminant validity

Pattern matrix ^a						
	Factor					
	1	2	3	4	5	6
eme1	.95					
eme2	.93					
eme3	.91					
eme4	.89					
eme8	.88					
eme7	.87					
eme6	.84					
eme5	.79					
ojd3		.94				
ojd4		.91				
ojd1		.89				
ojd2		.88				
ojd5		.79				
ojd6		.72				
ojd7		.71				
ojd8		.70				
ojd9		.69				
intj1			.94			
intj2			.94			
intj3			.92			
intj4			.86			
intj5			.83			
intj6			.81			
intj7			.79			
intj8			.77			
jln2				.97		
jln3				.91		
jln1				.74		
jln4				.71		
jln5				.64		
ocb5					.98	
ocb2					.92	
ojp2						.99
ojp3						.93
Extraction Method: Maximum Likelihood.						
Rotation Method: Promax with Kaiser Normalization. ^a						
a. Rotation converged in 8 iterations.						

5.9 The tests for discriminant validity

The discriminant validity test looks at the presence of cross loading between factors. In Table 39 there are no cross-loadings, implying the condition for discriminant validity is met. An

inspection of factor correlation matrix (Table 43 shows there correlations between factors in the order of 0.70 or more. The factor correlation matrix shows no alarming correlations – the highest is 0.389 (0.612²) is less than 0.70 (Gaskin, 2012, Kenny et al., 2014).

Table 43: The factor correlation matrix for discriminant validity test

Factor correlation matrix							
Factor	1	2	3	4	5	6	7
1	1.0	.14	-.22	.43	.45	-.28	-.49
2	.14	1.0	-.33	.61	.18	-.44	-.37
3	-.22	-.33	1.0	-.20	-.23	.50	.42
4	.48	.61	-.20	1.0	.14	-.44	-.34
5	.45	.18	-.23	.14	1.0	-.26	-.46
6	-.28	-.44	.50	-.44	-.26	1.0	.39
7	-.49	-.37	.42	-.34	-.46	.39	1.0
Extraction Method: Maximum Likelihood.							
Rotation Method: Promax with Kaiser Normalization.							

5.10 The development of the conceptual model post-exploratory factor analysis

The pattern matrix (Table 42: Chapter 5, Page 108) shows that the conceptual model (Figures 7 and 8: Chapter 5, Pages 113-114) has altered from the pre-exploratory factor analysis conceptual models in Figure 2 and Figure 3: Chapter 3, Pages 73-74). In organisational justice theory it argues that organisational justice is a monolithic construct (Adams, 1965) composed of distributive justice whilst on the other hand, Thibaut and Walker (1975) propose a 2-dimensional construct composed of distributive justice and procedural justice. However, Bies and Moag (1986) suggest that organisational justice is a 3-dimensional construct composed of distributive, procedural and interactional justice. In recent empirical work (e.g. Greenberg, 1993a, Greenberg, 1993b) organisational justice is viewed as a 4-dimensional construct, where interactional justice is split into two; (1) interpersonal justice (2) informational justice. As for burnout it is viewed as a 3-dimensional construct in burnout theory (Demerouti et al., 1982).

This research conceptualises a scenario where organisational justice is 4-dimensional (Greenberg, 1993a, Greenberg, 1993b); whilst burnout is conceived as a 2-dimensional construct (Leventhal, 2005). These propositions are not sustainable after exploratory factor analysis (Table 42) which reveal organisational justice as a 3-dimensional construct (Figures

7 and 8: Pages 113-114); with burnout conceived as a 1-dimensional construct (Leventhal, 1980) rather than a 2-dimensional construct.

The variables used in this have been adapted from previous research (Table 16 and 17: Page 82), therefore to determine the factor structure of the latent variables with this data exploratory factor analysis is necessary (Gaskin, 2012). The results shown in the pattern matrix (Table 42: Page 108) has determined organisational justice as 3-dimensional construct as interpersonal and informational justice have been removed from organisational construct. This 3-dimensional proposition is supported by Bies and Moag (1986) who argue that organisational justice is a 3- rather than a 4-dimensional construct as suggest by Greenberg (1993a) and Greenberg (1993b). In the pre-exploratory factor analytic definition of burnout it was defined as a 2 dimensional construct following Langelaan et al. (2006). However, following exploratory factor analysis burnout is deemed to be a 1-dimensional construct measured only by emotional exhaustion. This resulted in Table 44 which shows 6 hypotheses now reduced from the pre-exploratory factor analysis of 16 hypotheses (Table 8, Page 64).

The hypotheses for the mediation effect of burnout (i.e. emotional exhaustion) on organisation justice (i.e. distributive, procedural and interactional justice) and job outcomes (i.e. job involvement and OCBs) have been altered following exploratory factor analysis. The hypotheses from pre-exploratory factor analysis when organisational justice was defined a 4-dimensional construct and burnout as a 2 dimensional construct 9 but now these have come down to just 6 latent variables. These hypotheses are also shown on the conceptual model diagram post-exploratory factor analysis in Figure 5: Page 113.

Table 44: The post-exploratory factor analysis mediation hypotheses

H1a:	Emotional exhaustion mediates the relationship between distributive justice and job involvement.
H1b:	Emotional exhaustion mediates the relationship between procedural justice and job involvement.
H1e:	Emotional exhaustion mediates the relationship between interactional justice and job involvement.
H2a:	Emotional exhaustion mediates the relationship between distributive justice and OCBs.
H2b:	Emotional exhaustion mediates the relationship between procedural justice and OCBs.
H2e:	Emotional exhaustion mediates the relationship between interactional justice and OCBs.

The post-exploratory factor analysis change to variables has affected the hypotheses for moderation effects of a stress mindset on the relationship between organisational justice, burnout and job outcomes. There were 20 hypotheses for on the moderation effects of a stress mindset (Table 12: Chapter 3, Page 72) pre-exploratory factor analysis but these have now reduced to 11 post-exploratory factor analysis Table 45: Page 112).

The process of exploratory factor analysis resulted in the elimination of hypotheses H1c, H1d and H2c, H2d; these have now been replaced by H1e and H2e respectively. The results from exploratory factor analysis are supported by organisational justice theory (Bies and Moag, 1986). It was Greenberg (1993a) and Greenberg (1993b) who split interactional justice dimension into two dimensions (i.e. interpersonal and informational justice). This move is contrary to earlier theoretical proposition by Bies and Moag that these constituted a single dimension called interactional justice. This data has thus upheld that earlier view by Bies and Moag (1986); hence the replacement of hypotheses H1c and H1d with hypothesis H1e and hypotheses H2c and H2d with hypothesis H2e (Figure 6: Page 114). In the case of hypothesis H1e it focuses on the nature of the relationship between an employee and his or her manager. The view held by Bies and Moag (1986) is that under the relational theory when an employee does not feel valued, when confronted with emotional exhaustion there are consequences for job involvement hence the non-performance of in-role behaviours (Shao et al., 2013). This argument extends to hypothesis H2e in relation to OCBs. The fact that an employee feels that he or she is not valued in the organisation results in emotional exhaustion which consequently results in the employee giving up non-contractual obligations (such as OCBs) in work (Bies and Moag, 1986, Organ, 1988a, Organ, 1990). The new latent variable interactional justice is supported by justice theory and the data used in this research as confirmed by exploratory factor analysis; whilst it is also a precursor to interpersonal and informational justice (Greenberg 1993a, Greenberg, 1993b).

Post-confirmatory factor analysis moderation hypotheses

A stress mindset in hypothesis H5e moderates the relationship between interactional justice and emotional exhaustion. According to Crum et al. (2013) an employee has a stress mindset that is either enhancing or debilitating. Thus, in the face of emotional exhaustion an employee with a stress is enhancing mindset does not succumb to emotional exhaustion and will therefore continue to perform job outcomes (e.g. job involvement and OCBs). On the contrary, for an employee who has a mindset that believes stress is debilitating the natural instinct in the face of emotional exhaustion is to conserve resources as explained under the CoRs theory (Hobfoll, 1988). In the case of hypothesis H7e and H8e the employee who has a mindset that believes stress is debilitating fears loss of job resources as explained under the

JD-C and JD-R models, therefore in the face of high job demands due to low interactional justice. Thus, the employee would succumb to emotional exhaustion and seeks to manage the resources for fear of resource depletion via the conservations of resources under the CoRs theory (Hobfoll, 2002, Hobfoll and Freedy, 1993). Whilst the employee might engage in time wasting antics to avoid job involvement (hypothesis H7e), this might not be the case for OCBs (hypothesis H8e) as it is a volitional act (Organ, 1990). The hypotheses H7e and H8e are grounded in theory, therefore can be tested for this data.

Table 45: Post-exploratory factor analysis moderation hypotheses

H5a:	A stress mindset moderates the relationship between distributive justice and emotional exhaustion.
H5b:	A stress mindset moderates the relationship between procedural justice and emotional exhaustion.
H5e:	A stress mindset moderates the relationship between interactional justice and emotional exhaustion.
H7a:	A stress mindset moderates the relationship between distributive justice and job involvement.
H7b:	A stress mindset moderates the relationship between procedural justice and job involvement.
H7e:	A stress mindset moderates the relationship between interactional justice and job involvement.
H8a:	A stress mindset moderates the relationship between distributive justice and OCBs.
H8b:	A stress mindset moderates the relationship between procedural justice and OCBs.
H8e:	A stress mindset moderates the relationship between interactional justice and OCBs.
H9a:	A stress mindset moderates the relationship between emotional exhaustion and job involvement.
H9b:	A stress mindset moderates the relationship between emotional exhaustion and OCBs.

5.11 The execution of confirmatory factor analysis

5.11.1 The test for model fit for the measurement model

The results from initial confirmatory factor analysis show a good model fit as shown in Tables 46. The results in Table 46 show the chi-square, p-value and other fit indices in acceptable ranges as prescribed by Kline (2010).

Table 46: The model fit estimates for the measurement model

Chi-square	P-value	RMSEA	Pclose	SRMR	CFI	TLI
2.45	.00	.05	.49	.04	.93	.90

The chi-square must be significant and less or equal to 3, though it can go to 5 under liberal considerations (Gaskin, 2012, Kline, 2010, Hu and Bentler, 1999). In Table 46 the computed chi-square (2.45) satisfies the decision criterion (i.e. less than 3) whilst significant (p-value: 0.00). The SRMR (0.04), CFI (0.93) and TLI (0.90), RMSEA (0.05) with pclose (0.49) all meeting their model fit conditions. This means that going forward there is no further action needed with respect to model fit for the measurement model.

Figure 5: Diagram of emotional exhaustion mediation hypotheses post-exploratory factor analysis

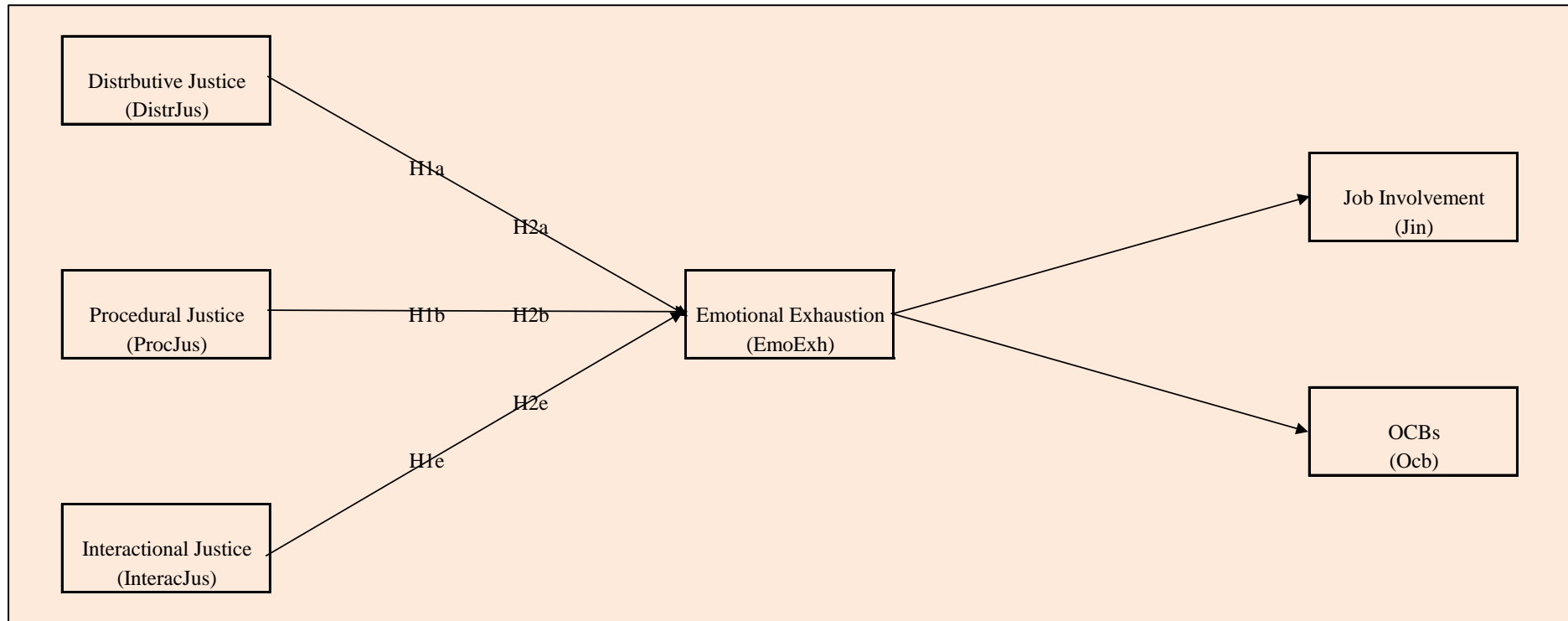
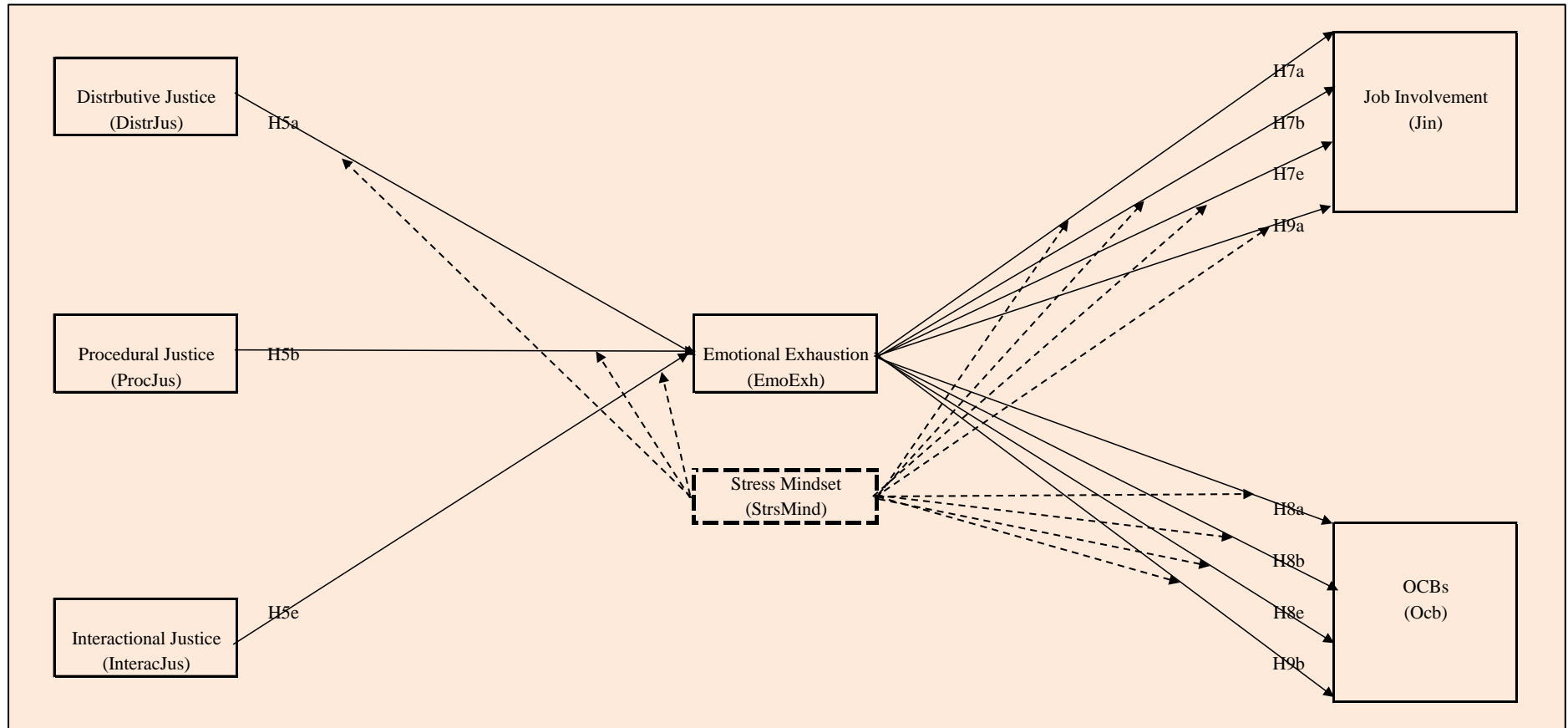


Figure 6: Diagram of a stress mindset moderation hypotheses post-exploratory factor analysis



5.12 The invariance test under confirmatory factor analysis

The invariance test results show a good fit suggesting the groups have an equivalent factor structure; hence there is configural invariance (Gaskin, 2012). A chi-square difference test is performed which confirms metric invariance (Tables 47).

Table 47: An invariance test for measurement model in confirmatory factor analysis

			Male		Female		
			Estimate	P	Estimate	P	z-score
eme1	--->	EmoExh	0.97	0.00	0.94	0.00	-0.63
eme3	--->	EmoExh	1.00	0.00	0.98	0.00	-0.42
eme2	--->	EmoExh	0.94	0.00	0.92	0.00	-0.34
eme8	--->	EmoExh	1.02	0.00	0.96	0.00	-0.95
eme7	--->	EmoExh	0.99	0.00	0.88	0.00	-2.21**
eme6	--->	EmoExh	0.96	0.00	0.87	0.00	-1.87*
eme4	--->	EmoExh	0.85	0.00	0.80	0.00	-0.93
ojd4	--->	DistrJus	1.04	0.00	0.96	0.00	-1.95*
ojd1	--->	DistrJus	0.88	0.00	0.91	0.00	0.47
ojd2	--->	DistrJus	0.91	0.00	0.93	0.00	0.37
ojd8	--->	DistrJus	0.85	0.00	0.81	0.00	-0.54
ojd7	--->	DistrJus	0.77	0.00	0.79	0.00	0.30
ojd6	--->	DistrJus	0.72	0.00	0.66	0.00	-1.19
ojd5	--->	DistrJus	0.68	0.00	0.67	0.00	-0.13
ojd3	--->	DistrJus	0.72	0.00	0.56	0.00	-2.76***
intj4	--->	InterJus	1.05	0.00	1.04	0.00	-0.28
intj2	--->	InterJus	1.10	0.00	1.11	0.00	0.12
intj7	--->	InterJus	0.97	0.00	1.00	0.00	0.69
intj3	--->	InterJus	1.03	0.00	1.13	0.00	1.47
intj5	--->	InterJus	0.98	0.00	0.98	0.00	-0.08
intj6	--->	InterJus	0.98	0.00	1.12	0.00	2.11**
intj1	--->	InterJus	0.99	0.00	1.06	0.00	1.01
jin3	--->	Jin	0.94	0.00	0.90	0.00	-0.69
jin1	--->	Jin	0.74	0.00	0.86	0.00	2.13**
jin2	--->	Jin	0.76	0.00	0.81	0.00	0.83
Jin3	--->	Jin	-0.77	0.00	-0.73	0.00	0.49
ocb2	--->	Ocb	0.88	0.00	1.12	0.00	3.73***
ojp4	--->	ProcJus	1.01	0.00	0.99	0.00	-0.57
Notes: *** p-value < 0.01; ** p-value < 0.05; * p-value < 0.10							

To explain discriminant validity Table 48 is used and shows that scale items are greater than the AVE and the CR are above 0.50 across constructs; there are no validity (i.e. discriminant and convergent) concerns (Gaskin, 2012). This is collaborated by Table 49: Chapter 5, Page 117. Thus, all scale items converge on that variable.

Table 48: The standardised estimates for scale items under measurement model

Item	S.E. ¹	P-value
Construct: Distributive Justice - DistrJus		
My salary compares well with that of other advisers with the same skills.	.72	.01
My salary is appropriate for the work I have completed.	.89	.04
My salary is fair given the work I have completed.	.76	.00
My salary is justified given my performance.	.89	.05
My salary is what I expect given my role.	.67	.02
My salary reflects my position in the organisation.	.71	.02
My salary reflects my skills and experience.	.74	.01
My salary reflects the effort I have put into my work.	.93	.02
My salary reflects what I have contributed to the organisation.	.89	.01
AVE		.65
Cronbach's alpha		.90
Composite reliability		.94
Construct: Procedural Justice – ProcJus		
I am able to express my feelings during these procedures.	.98	.04
I have influence over the targets arrived at by these procedures.	.97	.00
AVE ²		.95
Cronbach's alpha		.94
Composite reliability		.98
Construct: Interactional Justice – InteracJus		
My salary is fair given the work I have completed.	.90	.01
My salary reflects what I have contributed to the organisation.	.91	.04
My team manager communicates details in a timely manner.	.87	.01
My team manager communicates directly with me if he wants me to perform a task.	.86	.03
My team manager refrains from improper remarks or comments.	.86	.01
My team manager treats me in a polite manner.	.88	.02
My team manager treats me with dignity.	.88	.03
My team manager's explanations regarding the procedures are fair.	.82	.00
AVE		.77

¹ Standardised Estimates

² Average Variance Extracted

Cronbach's alpha		.91
Composite reliability		.96
Construct: Emotional Exhaustion – EmoExh		
I feel emotionally drained from my work.	.92	.01
I feel used up at the end of the workday.	.89	.00
I feel fatigued waking each morning for another day at work.	.91	.02
I feel working with people all day is really a strain for me.	.89	.02
I feel burned out from my work.	.87	.01
I feel frustrated by my work.	.87	.00
I feel I am working too hard on my job.	.88	.02
I feel like I am at the end of my rope.	.80	.01
AVE		.77
Cronbach's alpha		.92
Composite reliability		.96
Construct: Job involvement – Jin		
If something malfunctions the adviser finds alternative solutions.	.70	.05
If the adviser has an unpleasant task (s)he passes it to others.	.92	.01
If things do not work out (s)he justifies it with mistakes of others.	.91	.03
The adviser is mentally ready to work when (s)he arrives in work.	.78	.01
The adviser solves problems before passing them to a manager.	.81	.01
AVE		.68
Cronbach's alpha		.77
Composite reliability		.82
Construct: OCBs – Ocb		
Adviser makes innovative suggestions to improve organisation.	.96	.04
The adviser voluntarily helps co-workers.	.96	.01
AVE		.92
Cronbach's alpha		.93
Composite reliability		.96

The depiction in Table 48: Chapter 5, Page 116-117, is augmented by an alternative approach using the 'Validity Master Tab' in the 'Stats Tools Package' in MS Excel (Gaskin, 2012). This shows that there are no discriminant validity issues since the inter-construct correlations are less than the square root of the AVE (Field, 2009).

Table 49: The validity test for the measurement model

	CR	AVE	MSV	ASV	Ocb	EmoExh	DistrJus	InteracJus	Jin	ProcJus
Ocb	0.96	0.92	0.22	0.09	0.96					
EmoExh	0.96	0.77	0.23	0.09	-0.22	0.88				
DistrJus	0.94	0.65	0.45	0.15	0.17	-0.29	0.81			
InteracJus	0.96	0.77	0.45	0.20	0.22	-0.21	0.67	0.88		
Jin	0.82	0.68	0.22	0.11	0.47	-0.19	0.11	0.47	0.82	
ProcJus	0.98	0.95	0.24	0.16	-0.27	0.48	-0.41	-0.49	-0.26	0.98

5.13 The handling of common method bias under the measurement model

The problem of common method bias (CMB) is handled in AMOS using a common latent factor (CLF) (Gaskin, 2012). The CLF improves model fit and generates a new set of standardised regression weights. These are referred to as common method adjusted variables (i.e. CMB-adjusted variables); which are created by the imputation of composites in AMOS. This suggests that the CLF must be retained moving into structural equation modelling and path analysis.

Table 50: The model fit test for CMB-adjustment in confirmatory factor analysis

Chi-square	P-value	RMSEA	Pclose	SRMR	CFI	TLI
2.28	.00	.05	.63	.04	.91	.89

The CLF helps to reduce the chi-square (2.28) with a significant p-value (0.00) enhancing model fit. The SRMR (0.04), CFI (0.91), TLI (0.89), RMSEA (0.05) and pclose (0.63) are within their acceptable boundaries (Gaskin, 2012, Kenny et al., 2014).

5.14 An examination of path analysis multivariate assumptions

5.14.1 The tests for linearity between latent variables

The algorithm in AMOS only works with variables that have a linear relationship (Field, 2009, Gaskin, 2012, Kenny, et al., 2010). It is important to establish linearity between latent variables in SPSS before structural equation modelling.

Table 51: The results for linearity on distributive justice and emotional exhaustion

Model summary and parameter estimates									
Dependent variable: EmoExh									
Equation	Model summary					Parameter estimates			
	R Square	F	df1	df2	Sig.	Constant	b1	b2	b3
Linear	.19	141.81	1	72	.00	3.50	-.13		
Logarithmic	.01	9.89	1	72	.00	3.74	-.56		
Inverse	.06	77.15	1	72	.01	2.40	2.06		
Quadratic	.02	6.78	2	72	.00	2.64	.24	-.04	
Cubic	.05	34.96	3	72	.00	.57	1.62	-.32	.02
The independent variable is DistrJus.									
a. The dependent variable (EmoExh) contains non-positive values. The minimum value is -.38. Log transform cannot be applied.									

In Table 51: Page 118 distributive justice and emotional exhaustion have a strong and significant linear relationship given a high R-squared and F-statistic that is significant (Kenny et al., 2010). The other relationships are weak hence of no consequence (Gaskin, 2012), therefore making it suitable for structural equation modelling.

Table 52: The results for linearity on procedural justice and emotional exhaustion

Model summary and parameter estimates									
Dependent variable: EmoExh									
Equation	Model summary					Parameter estimates			
	R Square	F	df1	df2	Sig.	Constant	b1	b2	b3
Linear	.15	122.61	1	72	.00	2.03	.37		
Inverse	.00	1.97	1	72	.16	2.84	-.01		
Quadratic	.15	61.42	2	72	.00	2.09	.30	.01	
Cubic	.16	46.65	3	72	.00	2.32	-.34	.35	-.05
The independent variable is ProcJus.									

The variables procedural justice and emotional exhaustion in Table 52 show a sufficiently linear relationship given a comparatively high R-squared and a significant F-statistic in comparison to the other relationships and therefore this is suitable to be tested using a structural model.

Table 53: The results for linearity on interactional justice and emotional exhaustion

Model summary and parameter estimates									
Dependent variable: EmoExh									
Equation	Model summary					Parameter estimates			
	R Square	F	df1	df2	Sig.	Constant	b1	b2	b3
Linear	.14	107.06	1	72	.00	3.81	-.21		
Logarithmic	.03	45.56	1	72	.00	3.99	-.77		
Inverse	.05	20.99	1	72	.00	2.26	2.34		
Quadratic	.04	33.51	2	72	.00	3.82	-.22	.00	
Cubic	.07	19.21	3	72	.00	2.83	.63	-.22	.02
The independent variable is InteracJus.									

A high R-squared and significant F-statistic shown in Table 53 for interactional justice and emotional exhaustion purport to show a sufficiently linear relationship in relation to the other relationship, which makes it suitable for use in structural equation modelling to follow.

Table 54: The results for linearity on emotional exhaustion and OCBs

Model summary and parameter estimates									
Dependent variable: Ocb									
Equation	Model summary					Parameter estimates			
	R Square	F	df1	df2	Sig.	Constant	b1	b2	b3
Linear	.22	75.38	1	72	.00	5.32	-.14		
Inverse	.00	.53	1	72	.47	4.93	-.01		
Quadratic	.02	7.93	2	72	.00	5.44	-.25	.02	
Cubic	.03	8.01	3	72	.00	4.90	.61	-.32	.04
Compound	.02	11.07	1	72	.00	5.06	.97		
The independent variable is EmoExh.									

The latent variables emotional exhaustion and OCBs in comparison to the other relationships in Table 54 show a sufficiently linear relationship given a strong R-squared and a significant F-statistic.

Table 55: The results for linearity on emotional exhaustion and job involvement

Model summary and parameter estimates									
Dependent variable: Jin									
Equation	Model summary					Parameter estimates			
	R Square	F	df1	df2	Sig.	Constant	b1	b2	b3
Linear	.10	82.67	1	72	.00	5.42	-.30		
Inverse	.00	.26	1	72	.61	4.58	.00		
Quadratic	.10	41.33	2	72	.00	5.46	-.34	.01	
Cubic	.12	31.10	3	72	.00	5.99	-1.18	.34	-.04
Compound	.08	64.91	1	72	.00	5.44	.92		
The independent variable is EmoExh.									

The linearity results in Table 55 show relatively weak R-squared and non-significant F-statistic estimates for the other relationships of emotional exhaustion and job involvement except for the linear equation.

In summary the results for curve linear estimation for relationships in the model performed in SPSS determines that all relationships are normal (Gaskin, 2012). Therefore, these relationships are sufficiently linear to be tested using a covariance-based structural equation modelling algorithm such as the one used in AMOS (Gaskin, 2012, Kenny et al., 2014). This also means the other relationships are not worth considering in relation to the aims of this research.

5.15 The results for multicollinearity tests between antecedent latent variables

The variables to be tested for multicollinearity are distributive justice, procedural justice and interactional justice. The presence of multicollinearity between latent variables following linear regression in SPSS is determined by variance inflation factor (VIF) if less than 3. However, in rare cases a VIF of greater than 3 but less than 10 is acceptable (Gaskin, 2012, Kenny et al., 2010).

Table 56: A multicollinearity test for distributive justice with interactional justice and procedural justice

Coefficients ^a								
Model		Unstandardised coefficients		Standardised coefficients	t	Sig.	Collinearity statistics	
		B	Std. error	Beta			Tolerance	VIF
1	(Constant)	.77	.19		4.12	.00		
	InteracJus	.91	.03	.82	28.92	.00	.74	1.35
	ProcJus	.15	.03	.15	5.30	.00	.74	1.35
a. Dependent variable: DistrJus								

The results in Table 56 show that when distributive justice is the dependent variable with procedural and interactional justice are the independent variables the VIF is 1.35. This means that there is no multicollinearity; therefore distributive justice is not correlated with procedural and interactional justice.

Table 57: A multicollinearity test for procedural justice with distributive justice and interactional justice

Coefficients ^a								
Model		Unstandardised coefficients		Standardised coefficients	t	Sig.	Collinearity statistics	
		B	Std. error	Beta			Tolerance	VIF
1	(Constant)	4.46	.19		23.54	.00		
	InteracJus	-.79	.05	-.69	-14.66	.00	.75	2.24
	DistrJus	.26	.05	.25	5.30	.00	.75	2.21
a. Dependent variable: ProcJus								

When procedural justice is the dependent variable and distributive and interactional justice are the independent variables the VIF is 2.24 (Table 57). This outcome suggests

that procedural justice is not correlated with distributive and interactional justice; which implies that there is no multicollinearity.

Table 58: A multicollinearity test for interactional justice with distributive justice and procedural justice

Coefficients ^a								
Model		Unstandardised coefficients		Standardised coefficients	t	Sig.	Collinearity statistics	
		B	Std. error	Beta			Tolerance	VIF
1	(Constant)	2.13	.13		16.39	.00		
	DistrJus	.59	.02	.66	28.92	.00	.93	1.08
	ProcJus	-.29	.02	-.33	-14.66	.00	.93	1.08
a. Dependent variable: InteracJus								

In Table 58, when interactional justice is the dependent variable whilst distributive and procedural justices act as independent variables the VIF is 1.08. The result shows that there is no multicollinearity between interactional justice with distributive and procedural justices.

5.16 The decision on homoscedasticity in the pre-structural modelling stage

The fact that this research uses a theoretical model that is moderated by different groups, expectation is there are heteroscedastic relationships between residuals and values for each variable (Gaskin, 2012). Therefore, to suggest a need for homoscedasticity is to miss the statistical connection as this involves multi-group moderation (Kenny, 2013).

5.17 The test for model fit for structural model

The following step after the testing statistical assumptions is determining the structural model. This is set up as a structural model including control variables (i.e. educational background, annual salary, age, gender, and time employed). The structural model is tested for model fit; the results are shown in Table 59.

Table 59: The results for model fit for the structural model

Chi-square	P-value	RMSEA	Pclose	SRMR	CFI	TLI
1.86	.11	.04	.96	.04	.87	.84

The structural model fit results in Table 59: Page 122 are as follows; chi-square (1.86) non-significant (0.11), SRMR (0.04), CFI (0.87), TLI (0.84) and the RMSEA (0.04) with a pclose (0.96). The results show that there is good fit for the structural.

5.18 The mediation test results for direct effects without mediator

When testing for mediation the initial process involves the removal of the mediator (i.e. emotional exhaustion) and executing the model with CMB-adjusted variables (Gaskin, 2012). This is followed checking for model is fit across the key fit indices (Kline, 2014).

Table 60: The model fit estimates for path model without the mediator

Chi-square	P-value	RMSEA	Pclose	SRMR	CFI	TLI
1.06	.39	.01	.47	.04	.90	.87

The model fit estimates without the mediator variable are as follows; the chi-square (1.06) and a p-value (0.39) non-significant; SRMR (0.04), TLI (0.90), CFI (0.87) and the RMSEA (0.01) with a pclose (0.47). Thus, model fit confirms the suitability of the structural model to explain the mediation effect of emotional exhaustion on organisational justice dimensions (i.e. distributive, procedural and interactional) job involvement and OCBs (Table 60).

5.18.1 The results for direct effects without mediator

Table 61 shows the estimates to be extracted to check for direct effects without mediator after establishing model fit. The process is done by observing standardised regression weights and regressions weights in Table 61. The significant relationships (i.e. based on p-values and the estimates) are extracted to explain the direct effects without mediator as shown in Table 61: Chapter 5, Pages 123-124. These are compared with direct effect results when the mediator is added on.

Table 61: The standardised regression weights for path model without mediator

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
DistrJus	--->	Ocb	-.02	.05	-.29	.77
DistrJus	--->	Jin	-.42	.04	-9.44	.00*

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
ProcJus	--->	Jin	-.09	.03	-2.39	.02 [*]
ProcJus	--->	Ocb	-.22	.04	-5.44	.00 [*]
InteracJus	--->	Ocb	.13	.06	2.41	.02 [*]
InteracJus	--->	Jin	.75	.05	16.22	.00 [*]

5.19 The mediation test results for direct effects with mediator

The structural model is executed to test for direct mediation effect with mediator *in situ*. This process is intended to test for direct effects. This is followed by confirmation of model fit to ascertain the legitimacy of estimates shown in Table 61: Page 123-124.

Table 62: The model fit estimates for structural model with the mediator

Chi-square	P-value	RMSEA	Pclose	SRMR	CFI	TLI
1.28	.16	.02	.99	.03	.86	.82

The model fit results for the structural model with the mediator are; chi-square (1.28) and a p-value (0.16) which is non-significant; the SRMR (0.03), CFI (0.86), TLI (0.82) and the RMSEA (0.02) with a pclose (0.99). This confirms that the structural model is appropriate to explain the mediation effect of emotional exhaustion on the relationship between organisational justice and job outcomes (i.e. job involvement and OCBs).

5.19.1 The test results for direct effects with mediator

The next stage after confirming model fit is the extraction of significant estimates (p-values: < .05) to check if there are direct effects with the mediator variable present. The significant estimates are compiled and tabulated in the composite Table 64: Page 125 for comparison with direct effects without mediator.

Table 63: The standardised regression weights and regression weights

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
DistrJus	--->	Ocb	-.04	.05	-.81	.42
DistrJus	--->	Jin	-.45	.04	-10.26	.01 [*]
ProcJus	--->	Jin	-.00	.03	-.08	.94
ProcJus	--->	Ocb	-.16	.04	-3.58	.01 [*]

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
InteracJus	--->	Ocb	.15	.06	2.82	.01*
InteracJus	--->	Jin	.78	.05	16.96	.01*

The direct mediation effects without and with the mediator in Table 64 are intended to examine effects of emotional exhaustion on organisational justice dimensions (i.e. distributive, procedural and interactional justice) and job outcomes (job involvement and OCBs) using the Baron-Kenny (1986) approach (Kenny et al., 2014, Preacher and Hayes, 2004, Preacher and Hayes, 2008).

The mediation effect of emotional exhaustion on distributive justice and job involvement is very weak, (given that the estimate is negative). This weak standardised estimate though significant implies very little is happening there. The same is true for the mediation effect of emotional exhaustion on the following relationships; (1) procedural justice and job involvement (H1b); (2) procedural justice and OCBs (H2b); (3) distributive justice and OCBs (H2a). This is because the standardised estimates for these relationships are negative. Whilst the standardised estimates are significant for (H1b) and (H2b) and non-significant for (H2a); however, in these three cases (i.e. H1b, H2b and H2a) the standardised estimates are negative implying that there is weak mediation effect in these cases.

This means that when using direct effects, emotional exhaustion does not have a mediation effect in these cases (Preacher and Hayes, 2013, Hayes, 2004). The results from direct effects without and with mediator using the Baron and Kenny (1986) approach show a weak role of emotional exhaustion in the foregoing relationships.

Table 64: Mediation (direct without mediator and direct with mediator)

Hypothesis	Relationship	Direct without mediator	Direct with mediator	Indirect
H1a	DistrJus EmoExh Jin	-0.42 (0.00)	-0.45 (0.01)	0.01 (S)
H1b	ProcJus EmoExh Jin	0.09 (0.02)	-0.00 (0.94)	0.00 (S)
H1e	InteracJus EmoExh Jin	0.75 (0.00)	0.78 (0.01)	0.01 (S)
H2a	DistrJus EmoExh Ocb	-0.02 (0.77)	-0.04 (0.42)	0.01 (S)
H2b	ProcJus EmoExh Ocb	-0.22 (0.00)	-0.16 (0.01)	0.01 (S)
H2e	InteracJus EmoExh Ocb	0.13 (0.02)	0.15 (0.01)	0.00 (S)

5.20 The mediation tests: indirect effects using the bootstrap approach

The indirect effects using the bootstrap approach (Bollen and Stine, 1990, Preacher and Hayes, 2004, Shrout and Bolger, 2002) paint a different picture from that under the Baron-Kenny (1986) approach. There is evidence (Table 64 and Table 65: Pages 125-126) that the mediator, emotional exhaustion mediates the relationship between the 3-dimensions of organisational justice (i.e. distributive, procedural and interactional justice) and job outcomes (i.e. job involvement and OCBs). This upholds the theoretical proposition of Leventhal (1976, Demerouti et al. (2004) and Demerouti et al. (2003) *inter alia*.

Table 65: The standardised indirect effects-two tailed significance

	Tim Emp	Ann Sal	Educ Bac	Age	Gender	Distr Jus	Proc Jus	Interac Jus	Emo Exh
Emo Exh
Emp Jin004	.002	.012	...
Emp Ocb003	.005	.003	...

5.21 The test results for interaction-moderation effects of a stress mindset

The tests for interaction-moderation are executed in AMOS (v21). First, the scale items under each latent variable are summed and mean-centred in MS Excel which is followed by the standardisation of these mean-centred variables in SPSS (Gaskin, 2012). This process generates a new set of variables. The interaction-terms are generated from products of dependent variables and moderator. The use of z-scores is recommended by Gaskin (2012) because this helps to reduce multicollinearity between variables which may undermine results.

5.21.1 H5a: The impact of a stress mindset on distributive justice and emotional exhaustion

The antecedent distributive justice and endogenous variable emotional exhaustion are moderated by a stress mindset. The interaction-moderation effect is tested using regression analysis yielding a set of regression weights shown in Table 66: Page 127.

Table 66: The regression weights for a stress mindset on distributive justice and emotional exhaustion

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
ZM_DistrJus	--->	ZM_EmoExh	-.15	.04	-4.11	.01*
DistrJus_x_StrsMind	--->	ZM_EmoExh	-.03	.03	-.83	.02*
ZM_StrsMind	--->	ZM_EmoExh	-.37	.04	-9.94	.00*

To measure the impact of a stress mindset on distributive justice and emotional exhaustion the three variables are regressed on each other. The p-values must be less than 0.05 for the estimates to be deemed significant. Table 66 shows that these are significant at 0.02 level which means the relationship between distributive justice and a stress mindset holds.

5.21.1.1 The model fit for a stress mindset on distributive justice and emotional exhaustion

The results for model fit tests in Table 67 are as follows; chi-square (1.33) with a p-value (0.36) is non-significant; the SRMR (0.01), CFI (0.93), TLI (0.91), and the RMSEA (0.02) with pclose (0.65) confirm model fit is satisfied.

Table 67: The model fit estimates for stress mindset on distributive justice and emotional exhaustion

Chi-square	P-value	RMSEA	Pclose	SRMR	CFI	TLI
1.33	.36	.02	.65	.013	.93	.91

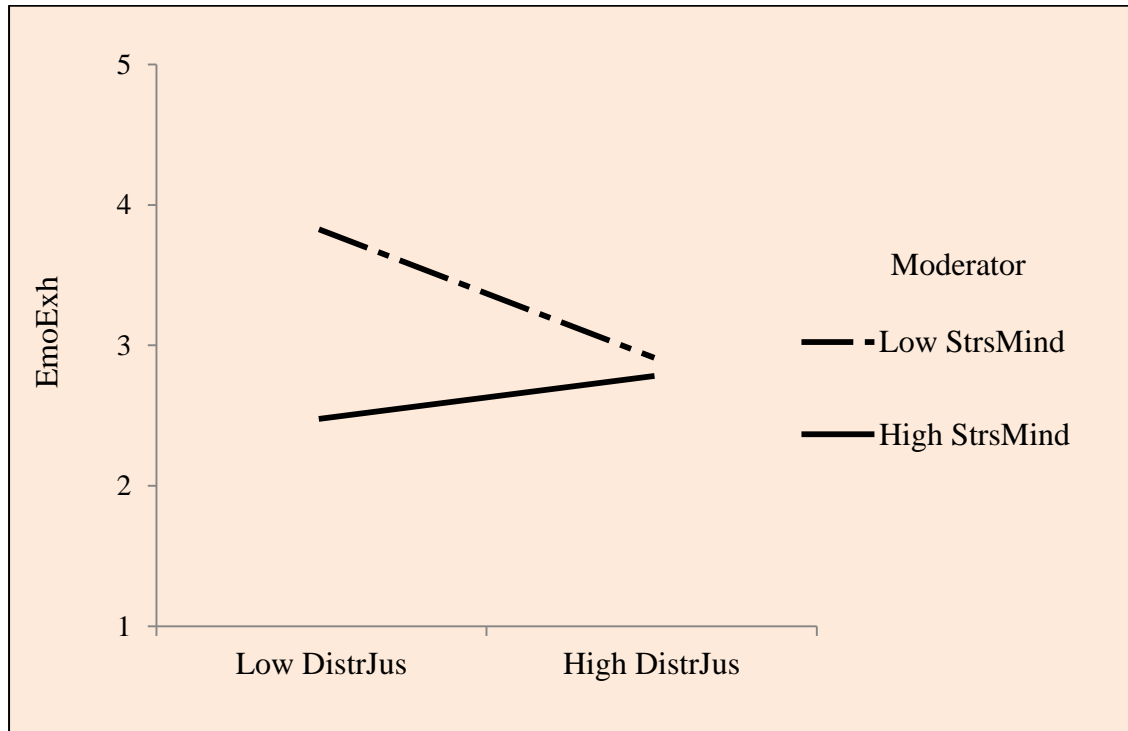
A stress mindset has a significant effect on the relationship between distributive justice and emotional exhaustion. The unstandardised estimates from the regression analysis are inputted into the 2-Way Interaction Tab in the Stats Tools Package to plot Figure 7: Chapter 5, Page 128 (Gaskin, 2012).

Table 68: The unstandardised estimates for stress mindset on distributive justice and emotional exhaustion

ZM_EmoExh (Independent variable)	ZM_StrsMind (Moderator)	EmoExh_x_StrsMind (Interaction effect)
-0.15	-0.03	0.23

The output in Figure 7 from data in Table 68: Page 127 shows that a stress mindset dampens the negative relationship between distributive justice and emotional exhaustion. This shows that when there is low distributive justice CSRs with a low stress mindset (i.e. stress is debilitating) are more vulnerable to emotional exhaustion.

Figure 7: The impact of a stress mindset on distributive justice and emotional exhaustion



5.21.2 H5b: The impact of a stress mindset on procedural justice and emotional exhaustion

The moderating effect of a stress mindset on procedural justice and emotional exhaustion is tested using regression analysis. The initial results are in Table 69 shown below.

Table 69: The regression weights for a stress mindset on procedural justice and emotional exhaustion

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
ZM_ProcJus	--->	ZM_EmoExh	.41	.07	6.06	.00*
ProcJus_x_StrsMind	--->	ZM_EmoExh	.02	.04	.57	.01*
ZM_StrsMind	--->	ZM_EmoExh	-.09	.07	-1.23	.01*

In Table 70 the p-values are less than 0.05 which means the estimates are significant therefore not necessary to eliminate any but rather proceed to check for model fit. The first step to consider when assessing significance from regression weights table is to look at p-value of product-terms of z-score variables distributive justice and stress mindset; this is significant at a 0.01 level. This suggests that the relationship between distributive justice and stress mindset is sustainable.

Table 70: The model fit estimates for a stress mindset on procedural justice and emotional exhaustion

Chi-square	P-value	RMSEA	Pclose	SRMR	CFI	TLI
2.15	.17	.03	.72	.01	.90	.87

The model fit tests Table 70 yields the following results; chi-square (2.15) with p-value (1.65) is non- significant; SRMR (0.03); CFI (0.90); TLI (0.87) and the RMSEA (0.03) suggesting there is model fit and therefore to generate unstandardised estimates to be plotted in the 2-Way Interaction Tab in the Stats Tools Package in MS Excel (Gaskin, 2012).

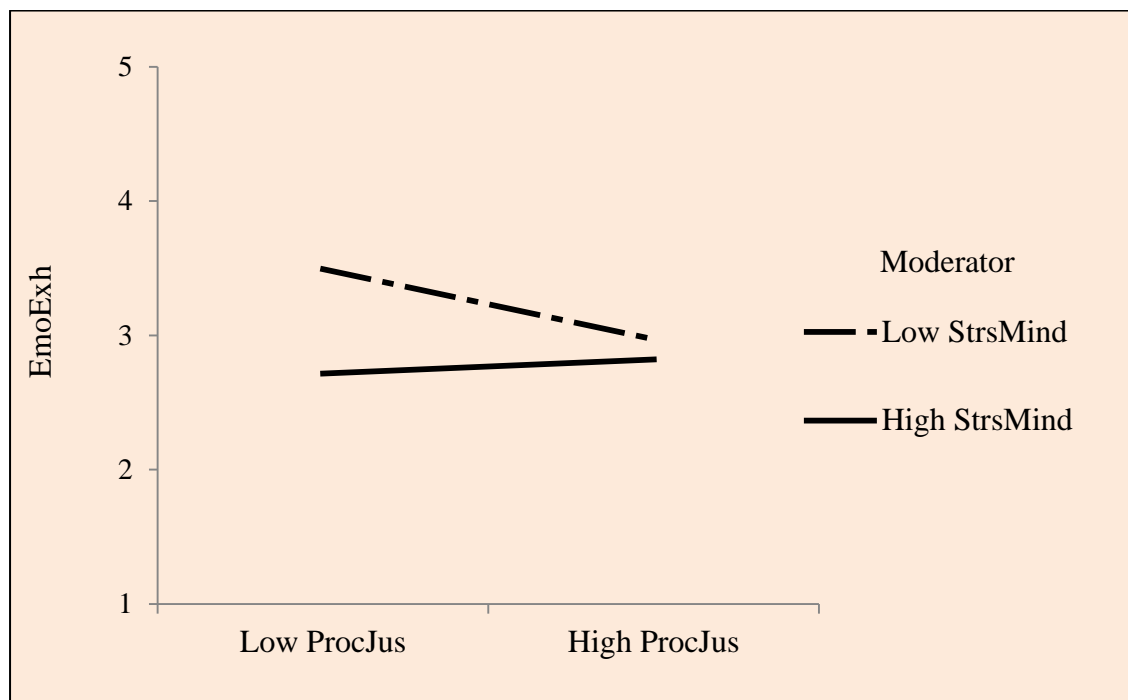
Table 71: The unstandardised estimates for a stress mindset on procedural justice and emotional exhaustion

ZM_EmoExh (Independent variable)	ZM_StrsMind (Moderator)	EmoExh_x_StrsMind (Interaction effect)
-0.10	-0.23	0.16

The determination of model fit is followed by the computation of unstandardised estimates from the regression model which is shown in Table 71. The unstandardised estimates are then inputted into the ‘2-Way Interaction Tab’ in the ‘Stats Tools Package’ to generated Figure 8 (Gaskin, 2012).

The output in Figure 8: Chapter 5, Page 130 shows that a stress mindset dampens negative relationship between procedural justice and emotional exhaustion. This shows that when there is low procedural justice in work CSRs with a low stress mindset (i.e. stress is debilitating) are prone to emotional exhaustion. Those with a high stress mindset (i.e. stress is enhancing) are less likely to feel similar levels of emotional exhaustion.

Figure 8: The impact of a stress mindset on procedural justice and emotional exhaustion



5.22 H8e: The impact of a stress mindset on interactional justice and emotional exhaustion

The impact of a stress mindset on interactional justice and emotional exhaustion is tested using regression analysis to establish interaction-moderation effects. The focus of regression analysis is to establish the effect of a stress is enhancing and a stress is debilitating mindset on the relationship between interactional justice and emotional exhaustion. Initial results from regression analysis are in Table 72 showing the computed p-values and estimates. The following step will involve assessing the p-values to check if they are significant.

Table 72: The regression weights for stress mindset on interactional justice and emotional exhaustion

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
ZM_InteracJus	--->	ZM_EmoExh	-.01	.04	-.28	.02*
InteracJus_x_StrsMind	--->	ZM_EmoExh	-.04	.03	-1.12	.02*
ZM_StrsMind	--->	ZM_EmoExh	-.43	.04	-10.90	.00*

Table 73 shows p-values of less than 0.05 implying that they are significant. This suggests that there is no need to eliminate any variables but instead proceed with adjusting for modification indices to establish model fit (Gaskin, 2012).

5.22.1.1 The model fit estimates for a stress mindset on interactional justice and emotional exhaustion

The results (Table 73) from model fit tests are as follows; the chi-square (1.48) with p-value (0.27) is deemed non-significant; SRMR (0.04), CFI (0.94), TLI (0.91) and the RMSEA (0.03) with a pclose (0.72) are within the desired critical values for model fit for the computation of unstandardised estimates from regression analysis.

Table 73: The model fit estimates for a stress mindset on interactional justice and emotional exhaustion

Chi-square	P-value	RMSEA	Pclose	SRMR	CFI	TLI
1.48	.27	.03	.72	.04	.94	.91

The unstandardised estimates (Table 74) from regression analysis comes after model fit is achieved. The unstandardised estimates are subsequently inputted into the 2-Way Interaction Tab in Stats Tools Package to generated Figure 9: Page 132.

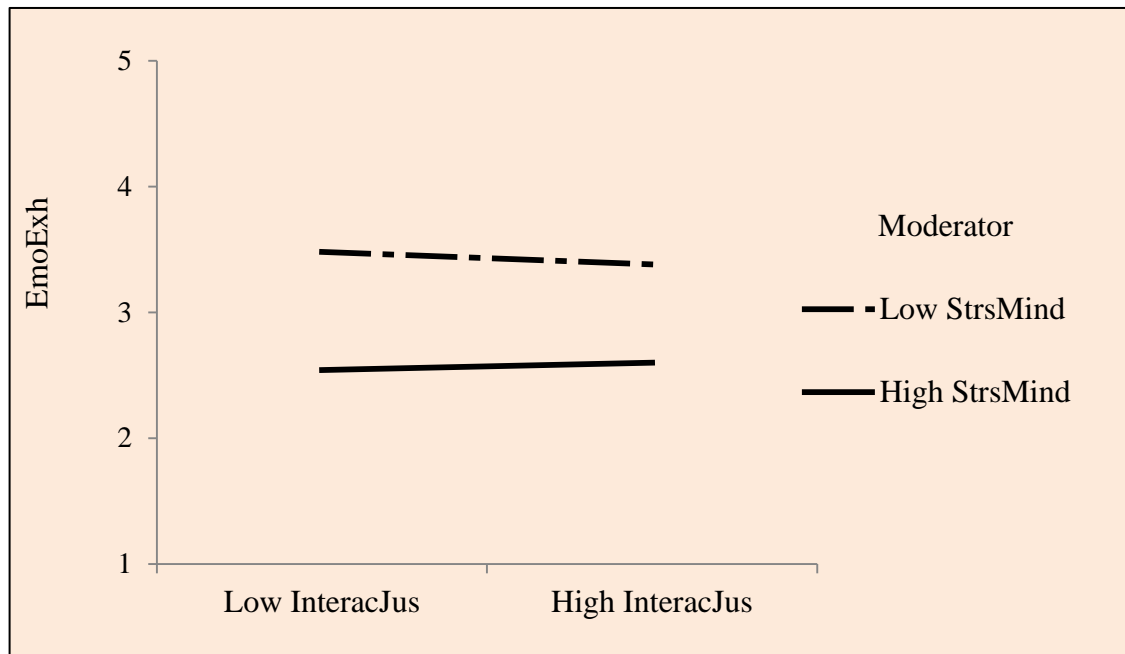
Table 74: The unstandardised estimates for a stress mindset on interactional justice and emotional exhaustion

ZM_InteracJus (Independent variable)	ZM_StrsMind (Moderator)	EmoExh_x_StrsMind (Interaction effect)
-0.01	-0.43	0.04

The results in Figure 9 depicts that a stress mindset dampens the negative relationship between interactional justice and emotional exhaustion. In Figure 9 it evident that when there is low interactional justice CSRs with a low stress mindset (a stress is debilitating) are more inclined to be emotionally exhausted. However, CSRs with a stress is enhancing mindset are able to balance out the effects emotional exhaustion at low levels of interactional justice hence it is of no consequence whether there is low or high interactional justice. The theory by Ryan and Deci (2000a), the SDT, suggests that employees faced with poor relationships in work face emotional exhaustion which may

undermine performance of job outcomes. However, Crum et al. (2013) and Crum et al. (2015) believe that this is moderated by a stress mindset if it stress is enhancing.

Figure 9: The impact of a stress mindset on interactional justice and emotional exhaustion



5.22.2 H7e and H8e: The impact of a stress mindset on interactional justice and job involvement and OCBs

The moderation effects of a stress mindset are performed using a regression model to establish its impact on interactional justice and job involvement and OCBs. The results from the regression model shown in Table 75: Chapter 5, Page 133 depicts a regression weights table showing significant and non-significant p-values and the corresponding estimate values. The regression weights obtained shown in Table 75 depict that the product-term of procedural justice and a stress mindset is significant in relation to job involvement (p-value: 0.01) and OCBs (p-value: 0.01).

Therefore, there is no reason to eliminate variables further. The logical stage after this is to check for model fit before unstandardised estimates are generated for plotting interaction the graph as suggested by Gaskin (2012). The model fit tests are checked to establish whether the model fit the data. This follows Kenny et al. (2014) and Kline (2010) who suggests that a suite of 5 model fit tests is best used as this can help make

for the deficiencies of the others. A case in point is when using very large samples the chi-square test tends to be compromised therefore using other model fit tests is useful as it closes the gaps from the chi-square limitations, as shown in Table 76.

Table 75: The regression weights for interactional justice and job involvement and OCBs

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
ZM_InteracJus	--->	ZM_Jin	.17	.02	7.13	.00 [*]
ZM_StrsMind	--->	ZM_Ocb	.17	.04	4.71	.00 [*]
ZM_StrsMind	--->	ZM_Jin	.70	.03	28.60	.00 [*]
InteracJus_x_StrsMind	--->	ZM_Jin	-.08	.02	-4.03	.00 [*]
InteracJus_x_StrsMind	--->	ZM_Ocb	-.13	.04	-3.68	.00 [*]
ZM_InteracJus	--->	ZM_Ocb	.09	.04	2.28	.02 [*]

5.22.2.1 The model fit results for a stress mindset on interactional justice and job outcomes

The computation of unstandardised estimates from regression analysis follows consideration of model fit. Thus, modification indices are applied and the regression model is executed and checked for model fit (Field, 2009, Kenny et al., 2010).

Table 76: The model fit estimates for a stress mindset on interactional justice and OCBs

Chi-square	P-value	RMSEA	Pclose	SRMR	CFI	TLI
2.64	.41	.01	.32	.04	.93	.90

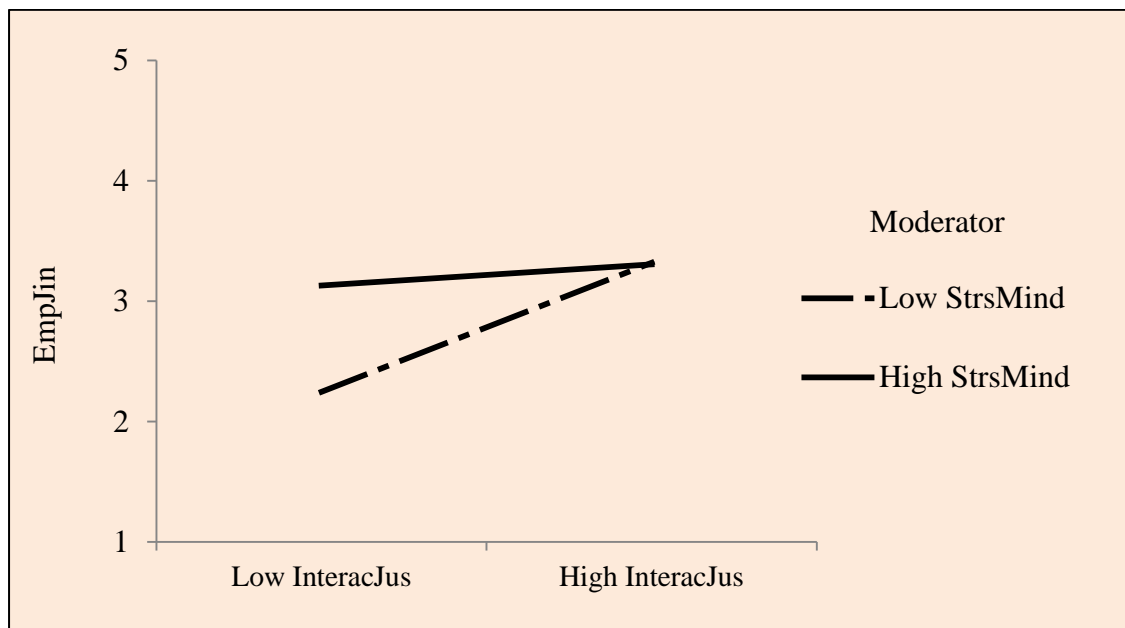
The model fit results are shown in Table 76 as follows; the chi-square (2.64) and p-value (0.41) is non-significant, SRMR (0.04), CFI (0.93), TLI (0.90) and the RMSEA (0.01) with a pclose (0.32) are within the desired critical value. Thus, the regression model is appropriate for the computation of unstandardised estimates to determine the graphical presentation of the moderation effects of a stress mindset.

Table 77: The unstandardised estimates for a stress mindset on interactional justice and job involvement

ZM_InteracJus (Independent variable)	ZM_StrsMind (Moderator)	InteracJus_x_StrsMind (Interaction effect)
0.31	0.22	-0.22

The unstandardised estimates from the regression analysis shown in Table 77: Page 133 are inputted into the 2-Way Interaction Tab in Stats Tools Package giving rise to Figure 10. The depiction in Figure 10 is that a stress mindset dampens the positive relationship between interactional justice and job involvement. Thus, when there is low interactional justice in work CSRs with a low stress mindset (i.e. a stress is debilitating) are less likely to engage in work which negatively affects job involvement.

Figure 10: The impact of a stress mindset on interactional justice and job involvement



The opposite is true for CSRs with a high stress mindset (stress is enhancing) as are more likely to engage in their work which is shown in Figure 10. Therefore, CSRs who believe stress is debilitating when confronted by a situation of high interactional justice are more likely to engage in their work as they would still do in the face of low interactional justice. This explains why a stress mindset for this data has a dampening effect on the positive relationship between interactional justice and job involvement.

5.22.3 H8a: The impact of a stress mindset on distributive justice and OCBs

The moderating effect of a stress mindset is tested by in a regression model. The first regression model tests for the moderation effect of a stress mindset on distributive justice and OCBs with the results in Table 78: Page 135. The equity theory by Adam (1965) suggests that when employees feel that the input-output ratio is skewed in favour

of the organisation there is a risk that via the SDT they may not engage in job outcomes, at both in-role and extra-role levels. This view however may be curtailed by the mindset that individual may have (Crum et al., 2013) which may be stress is enhancing. This hypothesis is designed to test this assertion.

Table 78: The regression weights before deletion of non-significant variables

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
DistrJus_x_StrsMind	--->	ZM_Ocb	-.12	.04	-3.27	.01*
ZM_StrsMind	--->	ZM_Ocb	.22	.04	5.43	.00*
ZM_StrsMind	--->	ZM_Jin	.80	.03	32.75	.00*
ZM_DistrJus	--->	ZM_Ocb	.10	.04	2.54	.01*
ZM_DistrJus	--->	ZM_Jin	-.01	.02	-.22	.83
DistrJus_x_StrsMind	--->	ZM_Jin	-.04	.02	-1.75	.08

The initial regression weights obtained from the regression model in Table 78 show that the product-term of distributive justice and a stress mindset is non-significant in relation to job involvement (p-value > 0.05). Therefore, this has to be deleted with new regression weights generated from execution of the regression model once more as shown Table 79: Pages 135-136.

The process of eliminating non-significant variables continues until the product-term(s) are significant which results in a set of new regression weights shown in Table 79. To be significant the p-values in regression weights must be less than 0.05. In Table 80: Page 135, the p-values for the remaining product-terms are less than 0.05. This implies that the relationships that matter are significant; therefore not necessary to execute further elimination of non-significant variables. This paves the way for the next stage of checking for model fit shown in Table 80: Page 136.

Table 79: The regression weights for stress mindset on distributive justice and OCBs

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
DistrJus_x_StrsMind	--->	ZM_Ocb	-.07	.02	-2.99	.00*
ZM_StrsMind	--->	ZM_Ocb	.23	.04	6.05	.00*

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
ZM_StrsMind	--->	ZM_Jin	.81	.02	37.32	.00*
ZM_DistrJus	--->	ZM_Ocb	.11	.03	4.15	.00*

5.22.4 The model fit results for the effect a stress mindset on distributive justice and OCBs

The computation of unstandardised estimates from regression models to establish model fit is a prerequisite. Therefore, modification indices are checked and applied where necessary. This is followed by an assessment of model fit indices (Table 80) for compliance (Hu and Bentler, 1999, Kenny et al., 2014).

Table 80: The model fit estimates for a stress mindset on distributive justice and OCBs

Chi-square	P-value	RMSEA	Pclose	SRMR	CFI	TLI
1.65	.19	.03	.64	.02	.94	.92

The model fit results (Table 80) show that; the chi-square value (1.65) and p-value (0.19) is non-significant; the SRMR (0.02), CFI (0.94), TLI (0.91) and the RMSEA (0.03) pclose (0.64) are within their acceptable limits for model fit.

Table 81: The unstandardised estimates for a stress mindset on distributive justice and OCBs

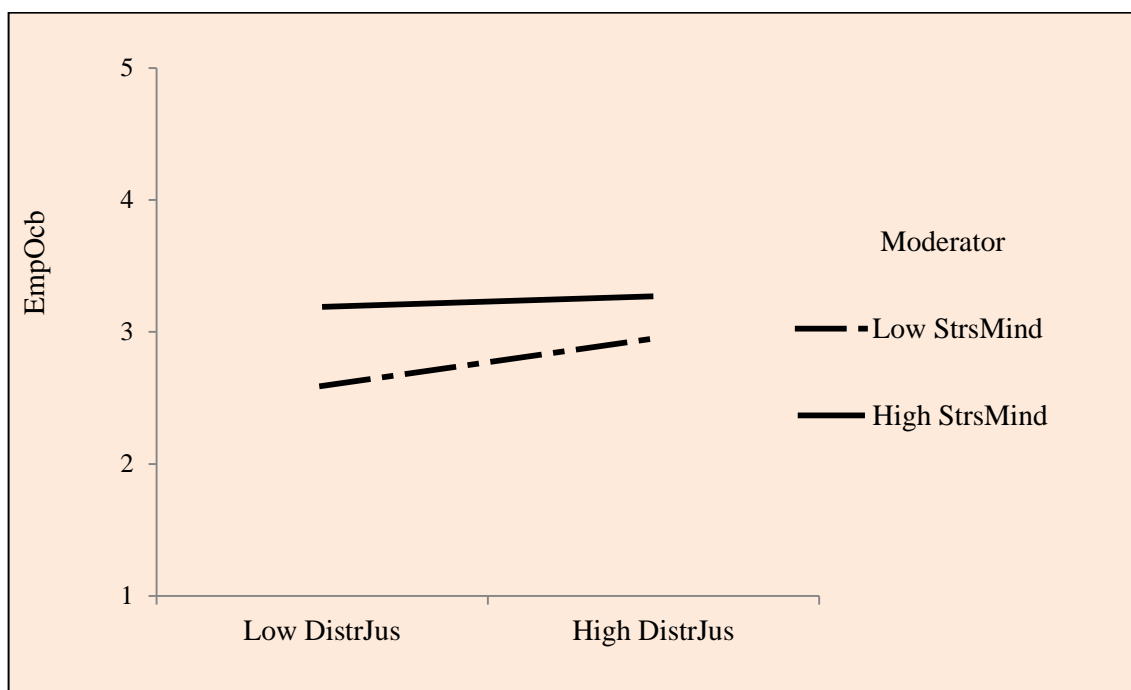
ZM_DistrJus (Independent variable)	ZM_StrsMind (Moderator)	DistrJus_x_StrsMind (Interaction effect)
0.11	0.23	-0.07

The computation of unstandardised estimates from the regression model confirms as significant the moderation effect of a stress mindset on distributive justice and OCBs as shown in Table 81. The unstandardised estimates are plotted onto the '2-Way Interaction Tab' in the 'Statistical Tools Package' in MS Excel (Gaskin, 2012) creating Figure 11: Page 137.

Figure 11 shows that a stress mindset dampens the positive relationship between distributive justice and OCBs. This suggests that when there is low distributive justice in work CSRs with a low stress mindset (i.e. a stress is debilitating) are less likely to engage in OCBs. However, in cases where CSRs have a high stress mindset (i.e. stress

is enhancing) they are likely to engage in OCBs. This explains why a stress is enhancing mindset for this data has a dampening effect on the positive relationship between distributive justice and OCBs. This can be related to theory in that whilst it is true that in the face of low distributive justice an employee may feel they want to conserve resources as explained under the CoRs (Hobfoll, 1988, Shirom, 1989) there is the moderating effect of the individual's mindset. Thus, if the employee believes that stress is enhancing there is a likelihood that that employee would continue to perform OCBs even though these are not related to the work the employee is paid to perform.

Figure 11: The impact of a stress mindset on distributive justice and OCBs



5.22.5 H8b: The impact of a stress mindset on procedural justice and OCBs

The moderating effect of a stress mindset on procedural justice and OCBs is tested via a regression model to establish the impact of an enhancing and a debilitating mindset on procedural justice and OCBs.

Table 82: The regression weights before deletion of non-significant variables

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
ZM_ProcJus	--->	ZM_Ocb	-.07	.07	-.95	.34
ProcJus_x_StrsMind	--->	ZM_Ocb	.09	.05	1.93	.04*

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
ZM_StrsMind	--->	ZM_Jin	.84	.05	17.61	.01*
ZM_StrsMind	--->	ZM_Ocb	.17	.08	2.11	.04*
ZM_ProcJus	--->	ZM_Jin	.04	.04	.92	.36
ProcJus_x_StrsMind	--->	ZM_Jin	.01	.03	.20	.84

The regression weights generated from the regression analysis are shown in Table 82: Page 137-138 which depict that the product-term of procedural justice and a stress mindset is non-significant in relation to job involvement. The fact that this relationship is non-significant (i.e. $p\text{-value} > 0.05$) suggests that it must be deleted from the regression model.

Thus, once product-terms are significant this is followed by final run of the regression model which generates a new set of regression weights (Table 83). In Table 83: Page 138 the p-values are less than 0.05 implying that these are now become significant; therefore no more elimination is needed. The results show that the product-term for procedural justice and a stress mindset is significant at 0.01.

Table 83: The regression weights for a stress mindset on procedural justice and OCBs

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
ZM_ProcJus	--->	ZM_Ocb	-.12	.05	-2.54	.01*
ProcJus_x_StrsMind	--->	ZM_Ocb	.08	.03	2.73	.01*
ZM_StrsMind	--->	ZM_Jin	.81	.02	37.32	.01*
ZM_StrsMind	--->	ZM_Ocb	.13	.06	2.18	.03*

5.22.5.1 The model fit for impact of a stress mindset on procedural justice and OCBs

The computation of unstandardised estimates from the regression model is performed after confirmation of model fit. This comes after final regression model with the inclusion of the modification indices as determined. The result from the regression analysis confirms that model fit indices are within the critical values (Field, 2009, Gaskin, 2012, Kenny et al., 2010). The results from the model fit tests are shown in the Table 84: Page 139.

Table 84: The model fit estimates for a stress mindset on procedural justice and OCBs

Chi-square	P-value	RMSEA	Pclose	SRMR	CFI	TLI
1.27	.64	.04	.92	.04	.95	.92

The model fit is met as follows; the chi-square estimate (1.27) and a p-value (0.64) is non-significant; SRMR (0.04), CFI (0.95), TLI (0.92) and the RMSEA (0.04) and a pclose (0.92) which confirms model fit (Table 84).

Table 85: The unstandardised estimates for a stress mindset on procedural justice and OCBs

ZM_ProcJus (Independent variable)	ZM_StrsMind (Moderator)	ProcJus_x_StrsMind (Interaction effect)
0.12	0.32	-0.13

These unstandardised estimates computed from the regression model are plotted onto the ‘2-Way Interaction Tab’ in the ‘Statistical Tools Package’ in MS Excel (Gaskin, 2012) to generate Figure 12. Figure 12 shows that a stress mindset dampens the positive relationship between procedural justice and OCBs. Thus, when there is low procedural justice in work CSRs with a low stress mindset (i.e. a stress is debilitating) are not likely to engage in OCBs.

Figure 12: The impact of a stress mindset on procedural justice and OCBs

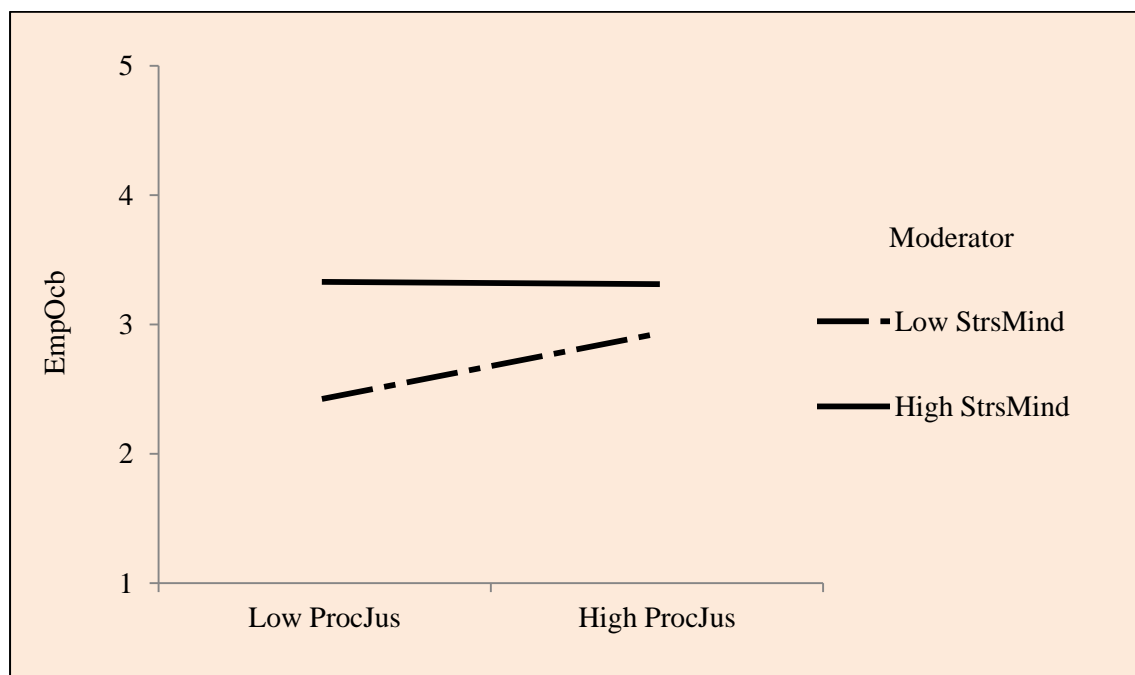
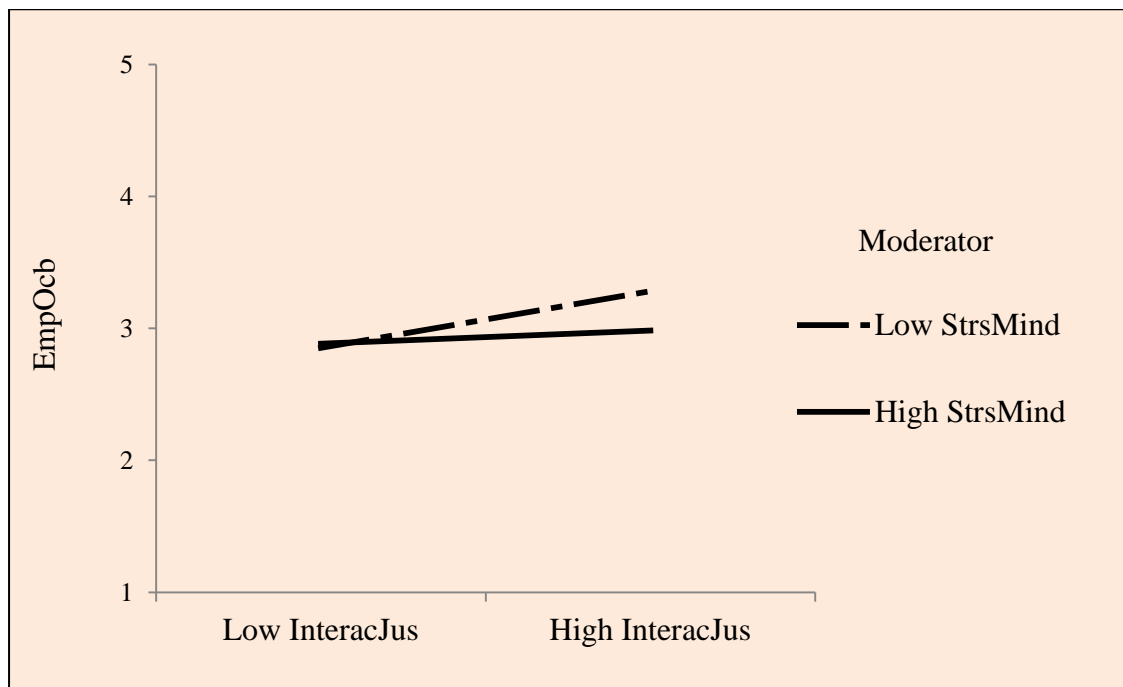


Table 86: The unstandardised estimates for a stress mindset on interactional justice and OCBs

ZM_InteracJus (Independent variable)	ZM_StrsMind (Moderator)	InteracJus_x_StrsMind (Interaction effect)
0.13	-0.67	-0.08

A stress mindset is found to have a significant effect on relationship between interactional justice and OCBs with a p-value (0.10). The unstandardised estimates shown in Table 86: Chapter 5, Page 140 from regression analysis are entered into the 2-Way Interaction Tab in the Stats Tools Package (Gaskin, 2012) and generates Figure 13 below.

Figure 13: The impact of a stress mindset on interactional justice and OCBs



5.22.6 H9a: The impact of a stress mindset on emotional exhaustion and job involvement and OCBs

To test for moderation effect of a stress mindset on emotional exhaustion and job outcomes (i.e. job involvement and OCBs) regression analysis is performed using standardised variables that were generated from SPSS (Field, 2009, Gaskin, 2012). The regression weights from this regression analysis show that the product-term of emotional exhaustion and stress mindset is significant in relation to OCBs at a 0.01

level. This therefore suggests that the product-term must be retained in the regression model and no new regression weights needed.

Table 87: The regression weights before the elimination of non-significant variables

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
ZM_StrsMind	--->	ZM_Ocb	.23	.04	5.68	.01*
ZM_StrsMind	--->	ZM_Jin	.80	.03	31.76	.01*
ZM_EmoExh	--->	ZM_Ocb	-.11	.04	-2.89	.00*
EmoExh_x_StrsMind	--->	ZM_Ocb	.01	.04	.25	.01*
ZM_EmoExh	--->	ZM_Jin	-.04	.02	-1.56	.01*
EmoExh_x_StrsMind	--->	ZM_Jin	-.01	.02	-.39	.69

The same set of regression weights in Table 87 show that the product-term of emotional exhaustion and stress mindset is non-significant at a 0.69 suggesting it has to be eliminated then generate another set of new regression weights in Table 88.

Table 88: The regression weights for a stress mindset on emotional exhaustion and OCBs

Independent variable		Dependent variable	Estimate	S.E.	C.R.	P
ZM_StrsMind	--->	ZM_Ocb	.25	.038	6.56	.00*
ZM_StrsMind	--->	ZM_Jin	.81	.022	37.32	.00*
ZM_EmoExh	--->	ZM_Ocb	-.07	.026	-2.61	.01*
EmoExh_x_StrsMind	--->	ZM_Ocb	.02	.023	.84	.00*

The elimination of the non-significant relationships continues until the remaining variables are significant. Table 88: Page 141 shows that the p-values for relationships are less than 0.05 level. This implies that estimates are now significant and no longer necessary to perform further elimination of variables except model fit.

5.22.6.1 The model fit estimates for a stress mindset on emotional exhaustion and OCBs

The regression analysis executed established; the chi-square (1.33) with a p-value (0.27) is non-significant; SRMR (0.01); CFI (0.95); TLI (0.92); RMSEA (0.34) with a pclose (0.72) confirm that model fit is satisfied (Table 89: Page 142).

Table 89: The model fit estimates for a stress mindset on emotional exhaustion and OCBs

Chi-square	P-value	RMSEA	Pclose	SRMR	CFI	TLI
1.33	.27	.04	.72	.01	.95	.92

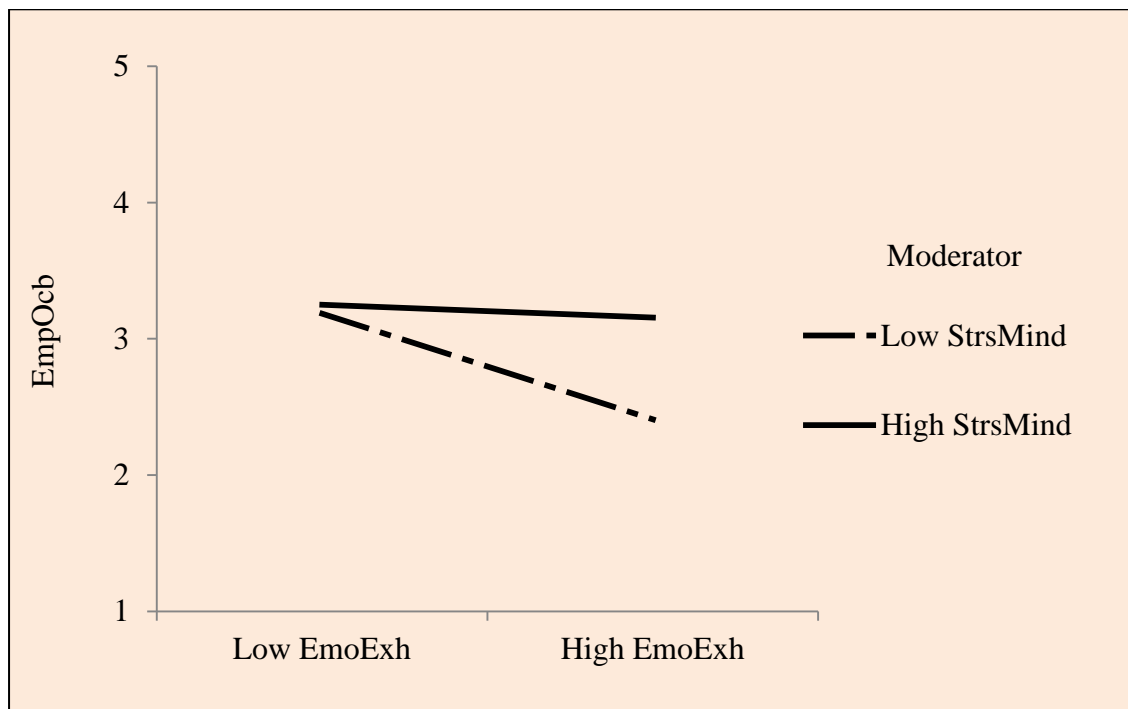
The model fit results in Table 89 above confirm that the model does fit the data.

Table 90: The unstandardised estimates for a stress mindset on emotional exhaustion and OCBs

ZM_EmoExh (Independent variable)	ZM_StrsMind (Moderator)	EmoExh_x_StrsMind (Interaction effect)
-0.22	0.20	0.17

Figure 14 generated shows that a stress mindset dampens negative relationship between emotional exhaustion and OCBs. This shows that if there is low emotional exhaustion CSRs with a low stress mindset are likely to show more OCBs.

Figure 14: The impact of a stress mindset on emotional exhaustion and OCBs



5.23 A summary of the interaction-moderation effects

The results in Table 91: Chapter 5, Page 143 show a summary of interaction-moderation results from which the interaction graphs (i.e. Figures 8-15) have been

plotted; these show how a stress mindset impacts latent variables used in the model in line with stress mindset theory as espoused by Crum et al. (2013). This helps to draw inference as to how a stress mindset moderates organisational justice and job outcomes.

Table 91: Summary of interaction-moderation results for a stress mindset

Hypothesis	Moderation effect of a stress mindset on:	Figure	Description
H5a	Distributive justice and emotional exhaustion	Figure 7	Significant
H5b	Procedural justice and emotional exhaustion	Figure 8	Significant
H5e	Interactional justice and emotional exhaustion	Figure 9	Significant
H7a	Distributive justice and job involvement	-	Non-significant
H7b	Procedural justice and job involvement	-	Non-significant
H7e	Interactional justice and job involvement	Figure 10	Significant
H8a	Distributive justice and OCBs	Figure 11	Significant
H8b	Procedural justice and OCBs	Figure 12	Significant
H8e	Interactional justice and OCBs	Figure 13	Significant
H9a	Emotional exhaustion and job involvement	-	Non-significant
H9b	Emotional exhaustion and OCBs	Figure 14	Significant

5.24 A summary of the data analysis results

This chapter has set out the results from the data analysis. The case and variable screen processes have established that all the data management issues were addressed adequately with no missing data, no kurtosis and skewness, *inter alia*. The latent variables were internally consistent and unidimensional (Gaskin, 2012). The exploratory factor analysis yielded constructs for organisational justice and burnout that have factor which is consistent with theory and practice. The measurement model has excellent model fit suggesting it is conducive for structural equation modelling after CMB adjustments (Gaskin, 2012, Kenny, 2013). This chapter tests for mediation and interaction-moderation effects carried. The next chapter (Chapter 6: Pages 144-174) discusses data analysis results and links these to theory and empirical evidence.

6 Chapter 6: Discussion on Research Findings

6.1 Introduction to research findings

This chapter discusses the results from data analyses undertaken in Chapter 5: Pages 90-143. The chapter is organised in two parts as follows.

1. A discussion on preliminary data analysis results. This carries a discussion of results and rationale behind different steps taken during preliminary data analysis. This discussion helps to set the tone for analyses of results from the entire sample to answer hypotheses under consideration in the research.
2. A discussion on the results from the entire sample focusing on the following; (a) theoretical foundations of the research; (b) tested hypotheses; and (c) how the research addresses the gap of knowledge discussed in Chapter 1: Pages 9-11.

6.2 A discussion on the measurement validation data analysis

The instruments used for data collection (i.e. questionnaires) are developed through literature through theoretical and empirical research reviewed in Chapter 2: Pages 15-54. The instruments are validated through confirmatory factor analysis following data collection. The variables under review are; organisational justice, burnout, job outcomes (i.e. job involvement and OCBs) and stress mindset. Whilst latent variables and their respective scale items in this research have been used in previous research establishing reliability and validity of scale items measuring each latent variable is crucial. The scale items used to measure latent variables for this research have been confirmed to be internally consistent meaning they are effectiveness to be used for data collection (Bollen and Stine, 1990).

The determination of internal consistency is done through Cronbach's alpha lying between 0.70 and 0.95 critical values as in Table 20: Chapter 5, Page 93. This is augmented by the results from confirmatory factor analysis for each latent variable (Tables 20-24: Chapter 5, Pages 93-96). The decision criterion for a suitable sample size is based on the sample adequacy measure and KMO (Table 20: Chapter 5, Page 93). These tests serve to confirm that a sample of 721 (i.e. 391 males and 330 females) is adequate and bears the desired properties allow robustness of results in relation to

model power (Gaskin, 2012, Kenny et al., 2014). The adjustments to the questionnaires are carried out based on Cronbach's alpha and confirmatory factor analysis results. The questionnaires are given to the participants in the entire sample after removing the scale items that Cronbach alpha less than 0.70 or above 0.95. The rationale for performing reliability tests and confirmatory factor analysis with pilot sample is for the removal of the scale items that are superfluous, thereby guaranteeing sufficient model power for structural equation modelling. This approach is in line with Kenny et al. (2014) and Kline (2010) in relation to securing robustness of model results.

The data analyses with an interim sample of 50 CSRs yields significant results when seeking to establish unidimensionality (Table 19: Chapter 5, Page 92). The unidimensionality test is important in interim data analyses as suggested by Gaskin (2012) as it augments the measurement of internal consistency using Cronbach's alpha. Whilst Cronbach's alpha is important in determining whether scale items are measuring the intended latent variables, dimensionality tests ensure that scale items are moving in the same direction. Thus, the interim data analysis shows evidence that these necessary and sufficient conditions to determine optimal scale items for the latent variables are fulfilled. The successful completion of the two tests means there is certainty regarding the effectiveness of the questionnaires used in primary data collection for this research (Podsakoff et al., 2012).

6.3 A discussion on the data collection process for the research

The target population for this research comprises 894 CSRs working within an in-bound call centre operation in the North West of England. There are 51 teams, with each having between 11 and 16 CSRs. Thus, given the extent of this research (i.e. numbers of CSRs involved), involvement of research assistants is deemed crucial to assist with data collection. The decision to involve research assistants is to ensure respondents get support when needed given the huge numbers of CSRs involved in this research. Their involvement is important as this help in checking for any errors and omissions during the completion of questionnaires (Gaskin, 2012, Podsakoff et al., 2003). The research assistants are given basic training to ensure that they understand the expectations of the researcher and for them to anticipate problems that may arise as CSRs complete questionnaires. Key to the role of research assistants is ensuring that the risk from

common method bias (CMB) is minimised (Kenny et al., 2012, Podsakoff et al., 2003) by reducing or eliminating the number of unengaged respondents, *inter alia*. The questionnaires are distributed in two waves (i.e. wave 1: Appendix 1: 224-225 and wave 2: Appendix 2: 226-227) with a 1-week interval – each to be completed within 40 minutes). This aims to reduce problems associated with self-reporting a source of CMB (Podsakoff et al., 2014).

The reason for using a 2-wave approach is to minimise CMB in data. There are 2 variables that are not collected from CSRs for fear of undermining the integrity of data from self-reporting errors. Therefore, given the lack of prudence in attempting to collect data on CSR-performance for variables such as job involvement and OCBs, TMs are used to placate the dilemma. There are 51 TMs involved in providing data on the performance of CSRs working within designated teams. The TMs complete a single questionnaire (Appendix 3: Page 228) for each CSR working under them within an 8-hour shift (i.e. in one working day). This is important as it is another way of combating CMB (Gaskin, 2012).

6.4 A discussion on the research data analyses results

The discussion in this section explains the results of the entire sample. The entire sample is composed of 721 respondents out of the 894. This gives a response rate of 81%. The 173 (19%) who did not respond to the questionnaires failed to do so for a variety of reasons, namely; (1) they lacked interest and did not see the importance of this research; (2) they may not have been on the premises at the time of collection of questionnaires by research assistants; (3) they may not have finished completing questionnaires at the time of collection. However, this is not a major concern given the 81% response rate which is good enough to guarantee sample adequacy and model power (Gaskin, 2012, Kenny et al., 2003).

The discussion in this section is sub-divided into 5 parts, namely; (1) a discussion on descriptive data analyses results which highlights the general nature of data; (2) a discussion on exploratory factor analyses and confirmatory factor analyses results to determine nature of latent variables used in conceptual model; (3) a discussion on structural model; (4) a discussion on mediation effect results; and (5) a discussion on interaction-moderation effect results to assess the moderating effects of a stress mindset

on the relationship between different organisational justice dimensions and job outcome constructs (e.g. job involvement and OCBs). This section links the results of this research to theory and empirical research which that is discussed in Chapter 2: Pages 15-54. This exercise is meant to strengthen results from this research and give a contextual setting for broader application as outlined in the knowledge gap discussion in Chapter 1: Pages 9-11 and Chapter 2: Pages 15-54.

6.4.1 A discussion on descriptive data analyses results for the research

The results from descriptive data analyses show a variety of characteristics from the sample of 721 respondents. The results on gender distribution from the sample suggest that there are more female CSRs at 54.2 per cent compared with 45.8 per cent males. The descriptive statistics show that there are more CSRs, 413 out of 721 who are endowed with a university degree working in the organisation under scrutiny. This is the case because the organisation is researched at a time when the economy is in recovery, implying that there are fewer job opportunities for those leaving university to take up work in their respective academic and professional fields. Whilst there is no particular scale item on the questionnaires covering this, there is a possibility for others, particularly mature CSRs with single university degrees or more to work as part time CSRs to supplement incomes. Alternatively, it might be a case of frictional unemployment where CSRs join call centres as an interim stop-gap measure whilst looking for suitable employment commensurate with qualifications elsewhere. This is an area of potential research in future to establish the reasons why people seek employment in call centres. The descriptive results show distribution of income indicating a skewness towards ranges of £10 001 - £13 000 and £13 001 - £16 000 with male CSRs in these categories on a total of 271 whilst there are 328 females CSRs in same ranges.

As part of the entire sample analysis a number of case screening tests are performed. It is evident that there are no issues when missing data tests are undertaken following imputation of data in SPSS (Gaskin, 2012, Preacher and Hayes, 2004). Thus, examinations performed reveal that the data collection process at source is meticulous – thanks to the help from research assistants. The process of case screening is crucial as this infuses reliability and validity (Kenny et al., 2014). The implication of this is that it

gives more observations to work with (Gaskin, 2012). The results from MS Excel after checking for unengaged respondents are good in relation to the attitude of the respondents towards the questionnaires used in this research (Gaskin, 2012, Kenny et al., 2010).

There is a high level of engagement from the respondents given that the values generated are greater than 0.5. This is an indication of how the questionnaire scale items were easy to understand. This shows that the quality and nature of data are good to excellent based on the received responses from CSRs. The tests for outlier determination indicate that there are no wild responses which underpin the results from the engagement tests (Gaskin, 2012). However, there are outliers on the 'time employed' variable, which is acceptable as the bulk of CSRs are relatively young. The skewness and kurtosis tests are performed and they yield results that confirm that there are no issues of the data being skewed or kurtosed in any way, hence allowing structural equation modelling to go ahead without risking further reviews for mediation and interaction-moderation tests to follow (Gaskin, 2012, Kenny et al., 2014).

6.4.2 A discussion on exploratory factor analyses results for the research

The measurement model analyses results confirm that there is internal consistency and unidimensionality (Gaskin, 2012, Kenny, 2013). The tests are executed several times for the entire sample and confirm that there is a high levels of internal consistency as Cronbach's alpha for the model latent variables is between 0.70 and 0.95 (Table 16: Chapter 5, Page 82 and Table 17: Page 82). In the case of unidimensionality, it is guaranteed as shown from the 'total variance explained' data (Table 39: Chapter 5, Page 106). This underscores the fact that the scale items for the respective latent variables from the entire sample are measuring the intended respective variables in the conceptual model. Equally important is the case that under the measurement model validation stage where the sample is considered adequate (Table 37: Chapter 5, Page 104) given that the KMO values are between 0.70 and 0.95 and significant, with a sample adequacy of 0.94 which is supported by communalities above 0.5 across the latent variables (Gaskin, 2012, Kenny et al., 2010, Preacher and Hayes, 2009).

The main reason for undertaking exploratory factor analyses is to determine the factor loadings under each latent variable hence performing convergent and a discriminant

validity test is unquestionable (Gaskin, 2012). The results from the pattern matrix are important for this purpose (Table 42: Chapter 5, Page 108). The results in Table 42 show values greater than 0.5 for scale items under each latent variable. These results demonstrate that these scale items are effective in measuring the latent variables in question. This is also augmented by the fact that when scale items under latent variables are added and averaged out the results are greater than 0.70 (Gaskin, 2012, Kenny et al., 2010). With respect to discriminant validity there are no cross-loadings from output in Table 42. This result is corroborated in Table 43: Chapter 5, Page 109 where correlations generated from the correlation matrix are less than 0.70. Therefore, these results indicate that there is no factor correlation meaning each latent variable is making a unique contribution to the model, hence occupying its rightful place in the relationships shown.

6.4.3 A discussion on the conceptual model post-exploratory factor analysis

The conceptual model for this research is based on attitude theory (Bagozzi, 1992, Perugini and Bagozzi, 2004) as the over-arching theory. Therefore, attitude theory informs how CSRs respond to stress in the face of an antecedent (i.e. organisational justice). The external stimuli, organisational justice is defined as; distributive, procedural and interactional justice (Adams, 1965, Bies and Moag, 1986). The attitude theory (Perugini and Bagozzi, 2004) transmission mechanism is underpinned by intentions of CSRs as they face a stressor (e.g. any dimension of organisation justice in this case). Thus, it is these intentions that determine how CSRs respond to any dominant dimension of burnout (defined in this research by a 1-dimensional construct, emotional exhaustion) (Langelaan et al, 2006, Leiter, 1992) and consequently determines the impact on job outcomes (i.e. job involvement and OCBs).

The hypotheses (Table 8: Chapter 3, Pages 62) on the mediating effects in presentation of results (Chapter 5, Pages 123-126) are explained in the context of attitude theory to investigate how CSRs respond to stress. The role of a stress mindset is tested in the conceptual framework underpinned by attitude theory (Perugini and Bagozzi, 2004) to investigate how intentions of CSRs are influenced by a stress mindset. The moderating effects of a stress mindset (Crum and Langer, 2007, Crum et al., 2013) are explained through the hypotheses investigated in the presentation of results (Chapter 5, Pages

126-143) and outlined in Table 12: Chapter 3, Page 72 including revised hypotheses post-exploratory factor analysis (Table 45: Chapter 5, Page 112).

The results from the pattern matrix show a reduction in the number of latent variables from the original 9 to just 7 latent variables. An exploratory factor analytic process results in the elimination of depersonalisation, a measure of burnout which is, for the purpose of this research is measured by 2 dimensions (i.e. emotional exhaustion and depersonalisation). A dimensional construct of burnout composed of only emotional exhaustion is acceptable at theoretical and empirical levels (Langelaan et al., 2006, Maslach et al., 2001, Zellars et al., 2002). Thus, the result conforms to empirical research by Koeske and Koeske (1989), Maslach and Schaufeli (1993) and Zellars et al. (2000) who state that emotional exhaustion and depersonalisation are highly correlated, therefore using emotional exhaustion does represent the situations effectively and does away with a superfluous dimensions – depersonalisation. The argument advanced is that when an employee is faced with emotional exhaustion there is a direct link with how the employee relates with customers (Demerouti et al., 2003). The idea of linking emotional exhaustion and depersonalisation is explained by JD-C model (Demerouti et al., 2004, Hockey, 2003) and JD-R model (Neveu, 2007), in that when employees suffer burnout in the form of emotional exhaustion they seek to minimise costs or conserve resources respectively thus precipitate depersonalisation (Schaufeli, 2007) as they seek to minimise contact with customers. The views raised here underscore the validity and value of a 1-dimensional construct the model (Zellars et al., 2000).

The pattern matrix shows organisational justice measured by 4-dimensions (i.e. distributive, procedural, informational and interpersonal justice) according to Colquitt (2001) and Colquitt et al. (2009) reduced to a 3-dimensional construct (i.e. distributive, procedural and interactional justice) as proposed by Bies and Moag (1986). The proposition by Bies and Moag (1986) is that whilst distributive justice and procedural justice cannot be coalesced into a single dimension; it is proper to combine interpersonal and informational justice into interactional justice, a single dimension contrary to a 4-dimensional construct suggested by Greenberg (1993a) and Greenberg (1993b). The view that interpersonal justice and informational justice can be broken in 2 dimensions suggested by Greenberg (1993a) fails to gain traction in view of the results from exploratory factor analyses.

6.4.4 A discussion on conceptual model post-confirmatory factor analysis

The results from confirmatory factor analyses undertaken for the entire sample following model fit tests give standardised estimates greater than 0.50 with corresponding significant p-values. This means that the values measuring each scale item are greater than the average variance explained (AVE) and composite ratio (CR); hence no validity issues are reported based on Table 46: Page 118-119 and Table 47: Page 119 in Chapter 5 (Gaskin, 2012, Kenny et al., 2014). The validity tests are useful because they allow general application of the conceptual framework and the results that follow as these will be reliable and valid across samples (Bollen and Stine, 1990, Gaskin, 2012, Preacher and Hayes, 2008). The process of confirmatory factor analysis is underpinned by checking for common method bias (CMB) (Hu and Bentler, 1999, Podsakoff et al., 2012).

Though data collection for some latent variables (i.e. organisational justice, burnout and stress mindset) from CSRs are collected in two waves (wave 1 and wave 2) whilst that for job involvement and OCBs are collected from TMs to eliminate problems related to self-reporting; it is still imperative to treat the data for CMB as a matter of precaution (Podsakoff et al., 2012). This treatment of data for CMB in AMOS yields improved model fit results (Muthen and Muthen, 2007) as shown in Table 48: Chapter 5, Page 120.

6.5 A discussion on path analyses for the entire sample

There are a plethora of tests undertaken whose results are discussed here. In path analyses, to use the algorithm in AMOS variables must have a linear relationship (Field, 2009, Gaskin, 2012, Kenny et al., 2010). The results in Tables 51-55: Chapter 5, Pages 118-120 show that the relationships between latent variables are sufficiently linear to be used in AMOS. The decision is based upon the R-squared, the F-statistic and the level of significance (Field, 2009, Gaskin, 2012).

The results for multicollinearity (Tables 56-58: Chapter 5, Pages 121-122) computed on antecedent variables (i.e. distributive, procedural and interactional justice) show that there is no multicollinearity between the antecedent variables; therefore there are no concerns going into structural equation modelling (Gaskin, 2012, Kenny et al., 2010). (Colquitt et al, 2009). The results are assessed based on the variance inflation factor

(VIF) (Gaskin, 2012, Kenny et al., 2014). The VIF results are less than a critical value of 3 (Gaskin, 2012, Kenny et al., 2010) a sign that there is no presence of multicollinearity (Gaskin, 2012). The test is important because if there multicollinearity between latent variables there are issues around the effectiveness of antecedent variables in measuring what they are intended to in the first place (Kenny et al., 2014) making it a *sine qua non*.

The tests for homoscedasticity are not conducted because this research applies a theoretical model that is mediated and moderated by different groups (i.e. multi-group mediation and moderation). The expectation is that there are heteroscedastic relationships amongst residuals (Gaskin 2012, Kenny et al., 2014). Thus, to suggest under these statistical conditions that there is homoscedasticity is to miss the point given that multi-group mediation and moderation is taking place (Field, 2009, Gaskin, 2012, Kenny et al., 2013). Therefore, in the spirit of Gaskin (2012) this research is not concerned about the problems arising from heteroscedasticity (Field, 2009, Gaskin, 2012).

The model fit results for the path model following the determination of the multivariate assumptions confirm a fit to data. These processes are undertaken with control variables *in situ* (i.e. age, gender, annual salary and years of service) and are a preformed before mediation tests. The results on model fit for the path model are confirmed in Table 59: Chapter 5, Page 122 (Hu and Bentler, 1999, Kline, 2010). These model fit results confirm that the path model is suitable for use to test for mediation effects of emotional exhaustion on organisational justice and job outcome constructs (i.e. job involvement and OCBs); and interaction-moderation effects of a stress mindset on the relationship between organisational justice, emotional exhaustion and job outcome constructs (i.e. job involvement and OCBs). This conforms to the proposition of Crum and Langer (2007) and Crum et al. (2013).

6.6 A discussion on mediation tests for entire sample

Whilst the results from the Baron and Kenny (1986) approach are considered inferior to those from the bootstrap approach (Bollen and Stine, 1990), computing the two in this research sounds ideal for comparison purposes. The Baron and Kenny (1986) approach is considered effective where secondary data is used whilst the bootstrap approach is

appropriate when using raw or primary data (Preacher and Hayes, 2004). This research takes an interest in applying these mediation tests to add to empirical research with respect to their effectiveness in testing for mediation. Therefore, given that this research uses raw data, the results of interest are however from the bootstrap approach.

The mediation results from the path models (Table 64: Chapter 5, Page 125) focus on direct effects without and with mediator using the Baron and Kenny (1986) approach. This computes standardised regression weights and regression weights (i.e. estimates and p-values). The same table shows indirect effects computed using the bootstrap approach (Bollen and Stine, 1990, Preacher and Hayes, 2004). The tests for direct effects are executed without mediator (i.e. emotional exhaustion) using the structural model. The structural model is executed with CMB-adjusted variables to account for CMB present in data. The next stage is the replacement of mediator variable to compute the results in Table 60. The discussion on direct effects (i.e. without and with mediator) from the Baron and Kenny approach and indirect effects from the Bollen and Stine (1990) approach on the burnout construct (i.e. emotional exhaustion) is based on hypotheses (Table 8: Chapter 3, Page 64 and Table 44: Chapter 5, Page 110).

H1a: Emotional exhaustion mediates the relationship between distributive justice and job involvement.

The mediation results (Table 64: Chapter 5, Page 125) computed using the Baron and Kenny (1986) approach show a significant mediation effect when testing for mediation without mediator and with mediator. However, this significant mediation effect is not large enough judging by the size of estimates computed. The implication of this is that emotional exhaustion does not mediate the relationship between distributive justice and job involvement. When explained in the context of this research the results from the Baron and Kenny approach suggest that if CSRs feel that there is low distributive justice there is no effect on how they perform their work. This implies that CSRs remain focused on showing positive in-role behaviours and remain engaged in their roles in spite of feelings of unfair treatment with respect to how they are rewarded for their work (Adams, 1965, Colquitt et al., 2009, Cropanzano and Greenberg, 1997). This is contrary to Wright and Bonett (1997) and Zellars et al. (2000) who argue that experiencing emotional exhaustion results in a lack of energy and consequently depletes

emotional resources. To reject this view goes against the grain of burnout theory by Demerouti et al. (2001) and Maslach (1982) that emotional exhaustion as a dimension of burnout is akin to human services such as call centre environments. In Maslach et al. (2001) and Warr (1987) they go further to suggest that emotional exhaustion as a dimension of burnout goes beyond work into social lives.

However, a similar conclusion cannot be supported by results computed on indirect effects using the Bollen and Stine's (1990) approach. Thus, the situation is different for H1a when applying the bootstrap approach by Bollen and Stine (1990). Table 62 shows that there is impact from emotional exhaustion on the relationship between distributive justice and job involvement. This suggests that when CSRs feel emotionally exhausted there are consequences for how they perform their in-role behaviours. Therefore, when CSRs feel that there is low distributive justice their performance moves in sympathy with that; which is support burnout theory. There is evidence from empirical studies (e.g. Bakker et al., 2000, Cieslak et al., 2008, Maslach et al., 2001) that when employees feel that their resources are depleted via job demands and they do not have resources to match these demands it precipitates emotional exhaustion. The JD-C (Demerouti et al., 2004, Houkes et al., 2008, Karasek and Theorell, 1990) and JD-R (Demerouti et al., 2001, Richter and Hacker, 1998) models explore the importance of a balance between the way employees feel and their expectations in work. Explained further, H1a upholds theory in that emotional exhaustion is a consequence of emotional dissonance (Brotheridge and Grandey, 2002) where emotions are not aligned with expected behaviours. The fact that CSRs are expected to perform work in a certain way against perceived low distributive justice perceptions precipitates emotional exhaustion and links to CSRs' emotional labour (Kinman, 2009). Thus, without any form of recourse the only option is conservation of resources as proposed by CoRs (Hobfoll, 1988, Shirom, 1989) theory which affects job outcomes (e.g. job involvement).

The results from the bootstrap approach show a consistent pattern with theoretical propositions and empirical studies. Thus, accepting the hypothesis H1a on the strength of Bollen and Stine's (1990) bootstrap approach is an endorsement which suggests its superiority over the Baron and Kenny (1986) approach. The results from the bootstrap approach (i.e. indirect effects) therefore take precedence over those computed using direct effect without and with mediator. It is viewed as an effective approach to testing

for mediation (Preacher and Hayes, 2004). Hence, when CSRs faced low distributive justice they form intentions under attitude theory (Perugini and Bagozzi, 2004) to reduce performance.

H1b: Emotional exhaustion mediates the relationship between procedural justice and job involvement.

The results in Table 64: Chapter 5, Page 125 on direct mediation without mediator show that there is no mediation from emotional exhaustion on procedural justice and job involvement since there is little going on though it is significant. The implication of this is that there might be other latent variables that mediate this relationship. The same scenario prevails when the mediator is replaced implying that direct mediation is non-consequential and non-significant. The presence of low procedural justice is an antecedent with serious consequences for the emotional well-being of employees (Folger and Cropanzano, 1998, Leventhal, 1980, Leventhal et al., 1980). Where it is present, low procedural justice results in employees feeling alienated and tempted to withhold in-role behaviours (e.g. job involvement). This failure by employees to engage in job involvement negatively affects performance of the organisation (Cropanzano and Prehar, 1999, Thibaut and Walker, 1975).

This outcome negates theoretical and empirical foundations by suggesting that CSRs are not fazed by low procedural justice. The result from the Baron and Kenny (1986) approach can be due CSRs taking procedures and processes as a given in the grand scheme of things. This can also be explained by CSR confidence in the role of trade unions in negotiating sound procedures (Colquitt, 2001, Thibaut and Walker, 1975). The result for indirect effects of mediation on procedural justice and job involvement show significant indirect effect which is contrary to the results for direct effects. Under the instrumental proposition the driving force for motivation of employees is self-interest (Lind and van den Bos, 2002, Shao et al., 2013); lack of it leaves employees demotivated leading to emotional exhaustion as a way to reduce depletion of resources as under job demand models – JD-C and JD-R models (Demerouti et al., 2001, Demerouti et al., 2003, Houkes et al., 2008, Karasek and Theorell, 1990, Richter and Hacker, 1998). Further still, burnout theory suggests that due to emotional labour (Hochschild, 1983, Wegge et al., 2006) CSRs face emotional dissonance (Pennebaker,

2002) showing a mismatch between feelings from stress facing CSRs and the expectations in their roles. This is a key outcome of this research as it reinforces the effects of emotional exhaustion as a mediator (Demerouti et al., 2004).

This result suggests when there is low procedural justice CSRs become emotionally exhausted which affects their desire for job involvement. This consequently means CSRs won't perform at their best as they seek to minimise the effects of low procedural justice (Shao et al., 2013). The hypothesis H1b rejected under direct effects (without and with mediator) using the Baron and Kenny (1986) approach and is accepted under the bootstrap approach assessing indirect effects (Bollen and Stine, 1990, Preacher and Hayes, 2004) shown in Table 44: Chapter 5, Page 110.

H1e: Emotional exhaustion mediates the relationship between interactional justice and job involvement.

The results in Table 64: Chapter 5, Page 125 show that there is full and significant mediation effect when direct effects (i.e. without and with mediator) of emotional exhaustion are computed for interactional justice and job involvement using the Baron and Kenny (1986) approach. The implication of this result is that when there are perceptions of low interactional justice CSRs feel emotionally exhausted which has a bearing on job involvement as CSRs consequently respond by reducing participation in work. Whilst the Baron and Kenny (1986) approach is considered ineffective for mediation tests result for emotional exhaustion mediate the relationship between interactional justice and job involvement and conforms to theory. The indirect effects computed from the bootstrap approach (Bollen and Stine, 1990, Preacher and Hayes, 2008) also show that there is a significant indirect effect from emotional exhaustion on interactional justice and job involvement suggesting harmony.

The notion of interactional justice suggests that employees feel they have the necessary information needed to make decisions in role. This is informed by uncertainty management theory (e.g. Shao et al, 2013, van den Bos and Miedema, 2000, van den Bos and Tyler, 2002) and moral theory (e.g. Folger, 1986b, Folger, 1987, Folger, 1993, Folger, 2001, Shao et al., 2013). In burnout theory it is suggested that due to the nature of work CSRs deal with upset, angry and abusive customers (Unison, 2012) hence exposure to emotional labour (Hochschild, 1983, Wegge et al., 2006). The situation is

compounded as CSRs try to understand, tolerate and empathise with customers though they feel differently (Choi et al., 2013). If there is no formal support system from managers under interactional justice (i.e. low interactional justice) CSRs experience emotional exhaustion thus affecting in-role performance (e.g. job involvement). This is a fulfilment of the JD-C and JD-R theories of emotional exhaustion where without a form of moderating variable job outcomes may consequently suffer as a result of this low interactional justice.

Thus, when CSRs feel they are not treated fairly in call centres they succumb to emotional exhaustion consequently affecting job involvement. The mediation effect of emotional exhaustion for direct effects and indirect effects is confirmed for interactional justice and job involvement. Thus, hypothesis H1e is accepted on the basis of direct and indirect effects (Table 91: Chapter 5, Page 143). It is worth mentioning that interactional justice as proposed by Bies and Moag (1986) arises after collapsing informational justice and interpersonal justice into one which is contrary to the proposal by Colquitt et al. (2009) which conforms with Bies and Moag's (1986) proposition that organisational justice is a 3-dimensional construct.

H2a: Emotional exhaustion mediates the relationship between distributive justice and OCBs.

The results for direct mediation without and with mediator emotional exhaustion show that there is no mediation taking place. Thus, using the Baron and Kenny (1986) approach emotional exhaustion has no influence on the relationship between distributive justice and OCBs. The results in Table 64: Chapter 5, Page 125 show that the estimates are negative and non-significant, therefore inconsequential. This result is contrary to theory and empirical research as it contradicts the view that when employees are confronted by a skewed input-output reward structure (Adams, 1965) there must be negative impact on OCBs. This means that when CSRs feel hard done by low distributive justice they are not emotionally exhausted hence may continue to perform OCBs – a volitional behaviour. Thus, for data in this research using direct effects this would not see emotional exhaustion playing any part in influencing the participation of CSRs in extra-role behaviours such as OCBs – though extra-role behaviours result from an incentive to perform them as these are beyond formal work

(Ashill and Rod, 2011, Little et al., 2006, Mandell, 1956, Organ, 1990). As employees fight to conserve resources as explained under CoRs theory (Hobfoll, 1988) there is impact from emotional exhaustion; a similar view advanced for JD-C (Karasek and Theorell, 1990) and JD-R models (Ritchter and Hacker, 1998) where employees reduce both in-role and extra-role behaviours to reduce the effects of emotional exhaustion.

These results from the Baron and Kenny (1986) approach are not corroborated using the Bollen and Stine (1990) bootstrap approach. The indirect effect results for mediation effects of emotional exhaustion on distributive justice and OCBs show significant effect. The logical interpretation of these results is that there is a mediation effect by emotional exhaustion on distributive justice and OCBs. Therefore, under the bootstrap approach (Bollen and Stine, 1990, Preacher and Hayes, 2004) a perception of low distributive justice impacts CSR desires to engage in OCBs a result contrary to the Baron and Kenny (1986) mediation results.

The result from the bootstrap approach is corroborated by theory and empirical research (e.g. Rigopoulou et al., 2012). In theory, the reason why employees withhold citizenship behaviours arises from a desire to restore equilibrium in the social-exchange relationship (Bandura, 1991, Colquitt, 2001, Moorman, 1991). Therefore, any desire by employees to perform discretionary or volitional behaviours (Ajzen, 1991, Ajzen and Fishbein, 1980) (e.g. OCBs) is undermined as they seek to reduce emotional exhaustion (Blau, 1964, Meyer and Allen, 1991, Meyer et al., 2002, Podsakoff et al., 2003). In a case of low distributive justice employees feel that they are giving more than the compensation they are receive hence they reduce their engagement in OCBs (Bandura, 1991, Colquitt, 2001, Fishbein and Ajzen, 1974, Davis, 1951). The reason why CSRs disengage from extra-role behaviours (e.g. OCBs) is the withdrawal of affective commitment, which is supported by theory (Meyer et al., 2002).

The result from the bootstrap approach (Bollen and Stine, 1990) is in harmony with theory where it suggests that when employees feel they are not rewarded according what they believe is their self-worth (Blau, 1964, Ivancevich and Matterson, 1980) they do not engage in extra-role behaviours such as OCBs (Little et al., 2006, Tubre and Collins, 2000). The CSRs do not engage in anything outside their remit (e.g. OCBs) to benefit the organisation due to effects of burnout and this is in line with attitude theory where it relates to them forming intention on the act of a choosing a given behaviour .

This result is important for this organisation as it informs management on how to deal with perceptions of low distributive justice in this call centre.

H2b: Emotional exhaustion mediates the relationship between procedural justice and OCBs.

The results in Table 64: Chapter 5, Page 125 show that direct effects (i.e. without and with mediator) have a weak mediation effect for emotional exhaustion though it is significant. Therefore, it is not possible to say emotional exhaustion mediates the relationship between procedural justice and OCBs. Thus, using the Baron and Kenny (1986) approach when CSRs are faced with low procedural justice they are not necessarily burnout. However, this result is not supported by burnout theory and existing body of empirical research. The norm according to Shao et al. (2013) is that when employees feel there is an uneven terrain in work (i.e. due to low procedural justice) they withhold extra-role behaviours as a way of conserving their resources (Tyler and Blader, 2003) a way of reducing emotional dissonance (Connon, 1996, Kinman, 2009, Tschann et al., 2005). Whilst it is possible to reject hypothesis H2b (Table 8: Chapter 3, Page 64) based on direct effect results from the Baron and Kenny (1986) approach, the indirect effects computed from the Bollen and Stine (1990) bootstrap approach give a different view.

The results computed from indirect effects show that there is indeed a mediation effect on this relationship. This means that when CSRs have low procedural justice perceptions this manifests in emotional exhaustion which consequently impinges on OCBs (Organ, 1990). Thus, CSRs cease to perform extra-role activities not related to work they are paid to do. Thus, when there is low procedural justice CSRs won't go beyond the call of duty as they are tempted to withhold OCBs. These results from indirect effects can be explained by the relational theory (Huo et al., 1996, Lind and Tyler, 1988, Tyler and Blader, 2003, Tyler and DeGoey, 1995). When employees feel valued and fairly treated they relate positively to the organisation and may perform citizenship behaviours. The feeling of a sense of self-worth and being valued covers issues such as having a 'voice' (i.e. procedural justice). When CSRs perceive low procedural justice burnout theory states that they develop a sense of alienation (depersonalisation which is highly correlated to emotional exhaustion according to

Zellars et al., (2000)) and prompts emotional labour (Gross and Thomson, 2007, Hayward and Tuckey, 2011).

H2e: Emotional exhaustion mediates the relationship between interactional justice and OCBs.

The results from direct effects show significant and full mediation. This suggests that the presence of low interactional justice causes CSRs to conserve their resources as an attempt to reduce the effects of emotional exhaustion (Demerouti et al., 2001, Shirom, 2003). Under the CoRs theory an employee tries to minimise resource loss, which is a consequence of an employee trying to deal with work-related problems (Maslach and Schaufeli, 1993, Wright and Bonett, 1997) with the resultant effect that an emotional arousal process triggered by low interactional justice causes CSRs to avoid engagement in citizenship behaviours (Halsesleben and Buckley, 2004, Hobfoll, 1988, Hobfoll and Freedy, 1993, Shirom, 2003, van Beek et al., 2012). Therefore, direct effects confirm that there is a negative impact to extra-role activities (e.g. OCBs) from emotional exhaustion.

The Baron and Kenny (1986) approach confirms the hypothesis H2e, whilst the bootstrap approach by Bollen and Stine (1990) corroborates this result (i.e. without and with mediator) as shown in Table 91: Chapter 6, Page 143. This is explained by SDT (Deci and Ryan, 2002) which argues that employees are human beings who are growth oriented. Therefore, their prime motive is to undertake enjoyable and interesting activities (Organ, 1990, van Beek et al., 2012). Whilst they seek to exploit their natural talents to the fullest potential when low interactional justice impedes them at an interpersonal and intra-personal level citizenship behaviours are the ones to suffer through emotional exhaustion (Deci and Ryan, 2000, Organ, 1990, van Beek et al., 2012).

A conclusion on mediation effects of emotional exhaustion on organisational justice and job involvement and OCBs

The mediating effects of burnout are computed using a 1-dimensional construct of burnout (i.e. emotional exhaustion) as proposed by Maslach et al. (2001), Shirom (1989) and Zellars et al. (2000). This is against the original proposal from theory adopted prior to exploratory factor analysis where a 2-dimensional construct composed

of emotional exhaustion and depersonalisation was adapted (Green et al., 1991, Langelaan et al., 2006). The mediation tests are conducted at two levels; (1) direct effects without and with mediator using the Baron and Kenny (1986) approach; and (2) indirect effects using the Bollen and Stine (1990) approach. The direct mediation effects from emotional exhaustion are non-significant for H1b, H2a. These results strengthen empirical evidence suggesting that the Baron and Kenny (1986) approach is not ideal where raw data is used but rather that the bootstrap approach be used instead.

On the contrary, the Bollen and Stine (1990) bootstrap approach computed indirect effects give significant and larger estimates. These suggest that emotional exhaustion has indirect mediation effect across hypotheses H1a, H1b and H1e and H2a, H2b and H2e (Table 44: Chapter 5, Page 110). The knowledge gap on the mediation effects of burnout construct (e.g. emotional exhaustion) for hypotheses (Table 8: Page 64 and 44: Page 110) and aims, objectives and research questions (Table 1: Chapter 1, Page 12) have been answered. This research has also put to rest questions regarding the superiority of the Bollen and Stine's (1990) bootstrap approach *vis-à-vis* the Baron and Kenny (1986) approach.

The comparative results from the Baron and Kenny (1986) and the Bollen and Stine (1990) approach confirm that the later approach is superior and conforms to theory more than the former. In the same vein, the view that the Baron and Kenny (1986) approach is most suited to secondary data is also affirmed by the results here. The conclusions drawn from the mediation tests are that via bootstrapped indirect effects emotional exhaustion (a dimension of burnout) mediates the relationship between organisational justice and job outcome constructs (i.e. job involvement and OCBs); whilst the other dimensions of burnout (i.e. depersonalisation and self-inefficacy) have no relevance to this data for the reasons outlined earlier in the discussion.

A discussion on conceptual model post-exploratory factor analyses

The results from exploratory factor analysis in Table 42: Chapter 5, Page 108 confirm organisational justice as a 3-dimensional construct composed of distributive, procedural and interactional justice (Bies and Moag, 1986) as opposed to a 4-dimensional construct (i.e. distributive, procedural, interpersonal and informational justice) as suggested by Greenberg (1993a) and Greenberg (1993b). In their view Bies and Moag (1986) believe

that interactional justice is a composite dimension (composed of interpersonal and informational justice) whilst Colquitt et al. (2009) believe it is more effective when split into informational and interpersonal justice. This means hypotheses H1c-H1d, H2c-H2d, H3c-H3d and H4c-H4d in Table 8: Chapter 3, Page 64 must be replaced by a new set of hypotheses H1e and H2e (Table 44: Chapter 5, Page 110). The results from the pattern matrix (Table 42: Chapter 5, Page 108) show that for these data, interactional justice is measured as a monolithic dimension as opposed independent informational and interpersonal justice dimensions.

The factor analytic results (Table 42: Chapter 5, Page 108) show depersonalisation has fallen into oblivion and hypotheses H3a-H3d and H4a-H4d are eliminated from the model. The result is not surprising because in burnout theory emotional exhaustion is viewed as an important dimension of burnout (Maslach et al, 2001, Shirom, 1989, Zellars et al, 2000). Burnout theory and empirical evidence reveal that depersonalisation and self-inefficacy are highly correlated with emotional exhaustion therefore adding them when defining burnout is nothing but superfluous (Langelaan et al, 2006, Leiter, 1992).

6.7 A discussion on the interaction-moderation effects of a stress mindset

The research by Crum and Langer (2007) and Crum et al. (2013) proposes that a stress mindset is central in determining an individual's stress response as in stress mindset theory. They define a stress mindset as a 2-dimensional construct (i.e. stress is enhancing or stress is debilitating). This research, drawing on mindset theory looks at how a stress is enhancing or stress is debilitating mindset moderates the relationship between organisational justice dimensions (i.e. distributive, procedural and interactional justice) and job outcomes (i.e. job involvement and OCBs. This is computed by testing for interaction-moderation effects using the Bollen and Stine (1990) bootstrap approach (Bollen and Stine, 1990, Gaskin, 2012, Preacher and Hayes, 2008) to test a series of hypotheses (Table 12: Chapter 3, Page 72, Table 45: Chapter 5, Pages 112).

H5a: A stress mindset moderates the relationship between distributive justice and emotional exhaustion.

The depiction in Figure 7: Chapter 5, Page 128 shows that a stress mindset dampens the negative relationship between distributive justice and emotional exhaustion. A low

stress mindset signifying a stress is debilitating mindset suggests that when there is low distributive justice CSRs are significantly amenable to bouts of emotional exhaustion. This is unlike when a CSR has an inclination towards a stress mindset that believes stress is enhancing. This result from interaction-moderation in the '2-Way Interaction Tab' in the 'Stats Tools Package' (Gaskin, 2012) cements the views of Crum and Langer (2007) and Crum et al. (2013) that a stress mindset moderates the relationship between stress variables and job outcomes.

The implication of this outcome is that when CSRs face low distributive justice according Rees and Freeman (2009) and Savelsbergh et al. (2012) their state of mind plays a crucial role in how they perceive an impending stress-inducing event. This is underpinned by the stress paradox which posits that whilst there are positive gains from stress there are also negative consequences (Crum et al., 2013, Sergeant and Frenkel, 2000, Zapf et al., 1999). Thus, if CSRs feel the input-output ratio is not skewed in their favour a sense of demotivation creeps in as averred Adams' equity theory (Adams, 1965). A stress is debilitating mindset causes CSRs to succumb to the debilitating effects of stress as a result of emotional exhaustion (Bettencourt and Brown, 2003).

The situation for CSRs who believe stress is debilitating when confronted by low levels of distributive justice is that they yield to high emotional exhaustion which automatically has effects on job outcomes. The opposite is true for those CSRs who believe that stress is debilitating when faced with high levels of distributive justice. In these situations CSRs show low levels of emotional exhaustion and this is in line with theory (Bakker and Demerouti, 2007, Cordes and Dougherty, 1993, Crawford et al., 2010, Wright and Bonett, 1997).

This connects with results for indirect effects on mediation tests for emotional exhaustion using the bootstrap approach (Bollen and Stine, 1990) where emotional exhaustion plays a mediating role. The argument that when CSRs feel they are not receiving a fair deal from management they are at risk of emotional exhaustion depends on a stress mindset does hold true. The outcome is in sync with Adams' (1965) equity theory suggesting distributive justice as an important element organisational justice construct. Therefore, the organisation under consideration needs to take cognisance of this as management makes decisions of a distributive nature to influence CSR attitudes towards work. Thus, according to the equity theory (Adams, 1965) management must

ensure there is a balance between the input-output ratio or they must ensure that CSRs perceive it to be the case.

H5b: A stress mindset moderates the relationship between procedural justice and emotional exhaustion.

A stress mindset has a similar effect (H5a: Chapter 6, Page 164-166) on the relationship between procedural justice and emotional exhaustion. In cases of high procedural justice CSRs feel that issues are handled fairly, suggesting they have a 'voice' (Thibaut and Walker, 1975). The results in Figure 8: Chapter 5, Page 130 show that if CSRs have a stress is enhancing mindset when confronted with low procedural justice they are not fazed, they do not succumb to emotional exhaustion. This suggests that CSRs do not buckle to perceptions of not being treated fairly in relation to laid down procedures. This is explained in stress mindset theory as 'eustress' where the body has an ability to prepare itself to successfully handle impending stress both mentally and physically (Crum et al., 2013, Crum et al, 2015). Thus, through this mechanism of physiological arousal, a consequence 'eustress' other scholars (e.g. Weiss and Cropanzano, 1996) take the view that stress is a motivator that helps to overcome emotional exhaustion (Crum et al., 2013).

This is not true for CSRs with a stress is debilitating mindset. This research shows that when CSRs face low distributive justice if they have a stress is debilitating mindset they show high emotional exhaustion in the face stress-riddled situations (Bagozzi, 1992, Perugini and Bagozzi, 2004). This suggests that a stress is debilitating mindset succumbs to emotional exhaustion in the face of low procedural justice and affects job outcomes (e.g. job involvement and OCBs). The high levels of emotional exhaustion arise from emotional dissonance as explained in burnout theory Demerouti et al. (2001). However, looked at from another angle, when CSRs believe stress is debilitating if confronted with high procedural justice their levels of emotional exhaustion tend to be low. The result confirms the pioneering work of Crum et al. (2013) which asserts the role of stress mindset (i.e. stress is enhancing or stress is debilitating). This is an important result as it shows that a stress mindset (i.e. stress is enhancing or stress is debilitating) plays a crucial moderating role of the relationship between procedural justice and emotional exhaustion which is in line with the works Crum et al. (2013) and

Crum et al. (2015) with the implication of enabling the employee to perform better than otherwise in the face of stress.

This is so because with a stress enhancing mindset CSRs are not bothered by how low procedural justice is as they can take it in their strides. In mindset theory it is suggested that this is possible due to motivational properties that arise when employees facing a stressor invoke a defensive mechanism to create a 'membrane' of defensive pessimism (Weiss and Cropanzano, 1996). This defensive mechanism gives employees a unique 'window' to weigh-up options, consider them carefully and rationally to establish a most appropriate way of dispensing of the situation at hand (Crum et al., 2013, Rees and Freeman, 2009, Weiss and Cropanzano, 1996). Therefore, employees develop capabilities to handle problems they anticipate to occur in different work settings (Rees and Freeman, 2009).

The same cannot be said about a stress debilitating mindset where a slight perception of low procedural justice provokes a spike in emotional exhaustion which impacts the performance of CSRs as they absorb stress via emotional exhaustion to reduce impact (Choi et al., 2013). This has negative effects for job outcomes. However, if there is high procedural justice, CSRs who believe stress is debilitating show less emotional exhaustion. Therefore, hypotheses that stress mindset moderate the relationship between procedural justice and emotional exhaustion has credence. This ties-in with the results from indirect effects on the mediating role of emotional exhaustion using the bootstrap approach (Table 64: Chapter 5, Page 125).

H5e: A stress mindset moderates the relationship between interactional justice and emotional exhaustion.

The role of a stress mindset on the relationship between interactional justice and emotional exhaustion reveals that when CSRs with a stress mindset that believes stress is debilitating are faced with low interactional justice the level of emotional exhaustion is high. This is illustrated in Figure 9: Chapter 5, Page 132. This figure shows that when there is low interactional justice CSRs with a stress mindset that believes stress is debilitating are susceptible to emotional exhaustion, a dimension of burnout. The results for these data reveal that when there is a perception of high interactional justice CSRs show a marginal decline in emotional exhaustion. This outcome fits into the Bies and

Moag (1986) proposition that when CSRs believe managers do not respect or give them adequate information about work they feel burnout. This manifests in the most prevalent form of burnout which is emotional exhaustion (Bies and Moag, 1986). This scenario links with an outcome from indirect effects under mediation tests in Table 64: Chapter 5, Page 125. The fact that emotional exhaustion plays a mediating role between interactional justice and job outcomes (e.g. job involvement and OCBs) gives credence to the moderating effects of a stress mindset.

Whilst a stress is debilitating mindset shows CSRs succumbing to emotional exhaustion, this is not so with a stress is enhancing mindset. The depiction in Figure 9: Chapter 5, Page 132 shows that CSRs who believe stress is enhancing do not succumb to emotional exhaustion in the same way as those who believe stress is debilitating. In some empirical studies (e.g. Richardson, 1994, Richardson et al., 2000) performed to investigate the significance of mindset reveal that individuals who have a mindset saying intelligence is a malleable trait they show improvement in performance including their behaviour by displaying high levels of motivation in learning (Cartwright, 2003). This is not so for individuals who believe intelligence is a fixed trait as they lack similar motivation and enjoyment in learning. This explains why when CSRs have a stress is enhancing mindset they are highly motivated therefore they are able to withstand any lack of support and do not succumb to emotional exhaustion (Crum et al., 2013). Thus, with low interactional justice those CSRs who believe stress is enhancing do show lower levels of emotional exhaustion compared with those who have a stress is debilitating mindset, an important result!

On the other hand, with high interactional justice CSRs who believes stress is enhancing do not see much change in levels of emotional exhaustion, whilst those CSRs who believe stress is debilitating when less stressed they experience a dip in levels of emotional exhaustion. This shows that stress a mindset is important insofar as influencing how CSRs respond to interactional justice *vis-à-vis* emotional exhaustion in work. A stress is enhancing mindset in this research does show that CSRs with a stress is enhancing mindset do respond differently to those CSRs with a stress is debilitating mindset. In effect, this signifies the notion that a stress mindset dampens the relationship between interactional justice and emotional exhaustion holds (Richardson et al., 2000). This is supported by the uncertainty management theory and its precursor,

fairness heuristic theory (Shao et al., 2013) which argues for provision of information to help CSRs understand their environment to reduce uncertainty. Thus, van den Bos and Miedema (2000) and van den Bos and Tyler (2002) believe that a perceptions of interactional justice or lack of it helps to reduce or heighten uncertainty respectively (Shao et al., 2013). Therefore, depending on one's stress mindset, a CSR may see an opportunity to improve by proactively searching for information which may not be forthcoming (Crum and Langer, 2007, Crum et al., 2013)

H7a: A stress mindset moderates the relationship between distributive justice and job involvement

The interaction-moderation test to establish if a stress mindset dampens the relationship between organisational justice and job involvement is non-significant. This result is contrary to mindset theory (Alpert and Haber, 1960, Crum et al., 2013, Lazarus, 1974). This implies that CSRs don't see any value from 'eustress' (Alpert and Haber, 1960). This could mean that there are other latent variables that may need to be explored to investigate their moderation properties. Therefore, exploring the other moderation variables in this relationship may help human resources practitioners and operations managers in policy formulation. The discussion around how and why this is possible is explained by the argument that in organisations where salary structures are clear there are no consequences arising from whether a CSR's stress mindset is stress enhancing or stress is debilitating. Thus, CSRs behave in a similar way hence this non-significant outcome. Therefore, whether there is low or high distributive justice CSRs are not fazed. This brings into the fray theories such as Herzberg's 2-factor theory (Herzberg, 1965, Herzberg, 1966) where distributive justice is more aligned to hygiene factors rather than motivators hence inconsequential on in-role behaviours.

H7b: A stress mindset moderates the relationship between procedural justice and job involvement.

A stress mindset is envisaged as not having moderation effect on procedural justice and job involvement as regression analysis yields a non-significant result. This result is a surprise where it relates to treatment in large organisations and goes against mindset theory (Crum et al., 2013) and burnout theory (Halsesleben and Buckley, 2004, van Beek et al., 2012). The procedures laid down to assess work by CSRs are standardised

and calls are normally reviewed by independent advisors therefore eliminating any notion that stress mindset has any impact. This means that when CSRs feel that there is a uniform and standard process this alters how they look at things. This argument can be elevated to another level to infuse the notion of organisational commitment (Cooper-Hakim and Viswesvaran, 2005, Meyer and Allen, 1991) where, because of the recession (BBCNEWS 24, 2011) and high unemployment in the UK, it appears CSRs have to deliver in-role behaviours (job involvement) or risk losing jobs.

Thus, due to continuance commitment (Allen and Meyer, 1990, Cooper-Hakim and Viswesvaran, 2005, Meyer and Herscovitch, 2001) CSRs have to deploy emotional labour (Hayward and Tuckey, 2011, Hochschild, 1983, Kinman and Grant, 2011, Tschan et al., 2005, Wegge et al., 2006) to manage in-role challenges whether they believe stress is debilitating or stress is enhancing. Therefore, based on these arguments, the hypothesis that stress mindset moderates the relationship between procedural justice and job involvement is rejected (Table 91: Chapter 5, Page 143). In essence, it does not matter what nature procedural justice takes CSRs in this case have to deal with it head on regardless of their stress mindset or risk losing their jobs, which is not an option in a recession (Unison, 2012).

H7e: A stress mindset moderates the relationship between interactional justice and job involvement.

The variable job involvement covers the way CSRs perform in-role activities. Understanding the moderating effects of a stress mindset on the relationship between stressors (e.g. organisational justice dimensions) and job outcomes is important. The dimension interactional justice captures relational and informational issues *vis-à-vis* management and CSRs. If CSRs perceive a lack of interactional justice in the call centre it has a bearing on in-role performance (e.g. job involvement). The depiction in Figure 10: Chapter 5, Page 134 shows that when CSRs with a stress is debilitating mindset are faced with low interactional justice, job involvement is negatively affected.

This connects with the results from indirect effects computed under mediation effects of emotional exhaustion, where it is confirmed emotional exhaustion is a key measure of burnout. The transmission mechanism is that when CSRs feel there is low interactional justice this results in CSRs being emotionally exhausted which leads to less job

involvement hence impacts in-role performance. The opposite is true where there is high interactional justice implying that when CSRs have a stress mindset that believes stress is debilitating there are high levels of job involvement. The evidence from Figure 10: Chapter 5, Page 134 offers an insight in that even considering the gradient of the slope of low stress mindset it has a steep slope which is an indication of the extent to which CSRs respond to the presence of or lack of interactional justice. The outcome conforms to burnout theory where CSRs seek to minimise the impact of stress (Meyer and Herscovitch, 2001); supporting the relevance of emotional dissonance.

The situation is different for CSRs who believe that stress is enhancing in that whether there is low or high interactional justice there is a marginal response from CSRs which implies they can deal with whatever situation happens to confront them. The difference in how CSRs with a stress is enhancing mindset and those with a stress is debilitating mindset is testimony to the fact that a given stress mindset has implications for relationship between interactional justice and job involvement. This means that a stress mindset moderates the relationship between interactional justice and job involvement (Bies and Moag, 1986, Crum et al., 2013).

H8a: A stress mindset moderates the relationship between distributive justice and OCBs.

The role of a stress mindset is illustrated in the relationship between distributive justice and OCBs (Figure 11: Chapter 5, Page 137). When there is low distributive justice a CSR whose mindset believes that stress is debilitating shows low OCBs. This fits into reactions where if distributive justice is high there are low levels of emotional exhaustion. The response is different for CSRs who believe stress is enhancing. When distributive justice is low CSRs offer OCBs to the organisation relative for those who believe stress is debilitating. This result is explained in stress mindset and burnout theory (Crum et al. 2013, Zellars et al. 2000).

H8b: A stress mindset moderates the relationship between procedural justice and OCBs.

The notion of procedural justice entails whether employees feel that the systems and processes in an organisation are fair in relation to how others are treated on similar

matters affecting them (Thibaut and Walker, 1975, Thibaut and Walker, 1978). The depiction in Figure 12: Chapter 5, Page 139 shows that when CSRs have a stress mindset that believes stress is debilitating; if they perceive low distributive justice they do not engage in OCBs. The argument given is that emotional exhaustion mediates the relationship between procedural justice and OCBs; thus it follows that a CSR's stress mindset plays a crucial role in moderating the relationship given in Figure 9.

If CSRs believe that stress is debilitating then in the face of low procedural justice they succumb to emotional exhaustion which leads to a negative impact on OCBs. The graph in Figure 9 bears testimony to this salient transmission mechanism. When CSRs are assessed on both low and high procedural justice those with stress is debilitating mindset improve OCBs performance under high procedural justice than otherwise. A different picture emerges from Figure 12 where CSRs with a stress is enhancing mindset is concerned. When CSRs have stress is enhancing mindset they show high levels of OCBs. High stress mindset (i.e. stress is enhancing) shows that no matter the prevalent procedural justice CSRs continue to engage in OCBs.

Thus, it is fair to suggest that a stress mindset has implications for the relationship between procedural justice and OCBs (Crum et al. 2013). Therefore, stress mindset moderates relationship between procedural justice and OCBs. This stated differently means when a CSR has stress is enhancing mindset it does not matter whether there is low or high procedural justice in call centre, CSRs continue to engage in OCBs. This is contrary to the case of a CSR whose views are stress is debilitating, who only engages in OCBs when there is high procedural justice rather than otherwise. The data used here augments the views of Crum and Langer (2007) and Crum et al. (2013) that a stress mindset moderates the effects of a stress on job outcomes (e.g. OCBs).

H8e: A stress mindset moderates the relationship between interactional justice and OCBs.

When CSRs have a stress is debilitating mindset their response to low and high interactional justice in relation to OCBs is varied. In cases where there is low interactional justice, CSRs with a stress is debilitating mindset do not perform OCBs to the same levels as when there is high interactional justice. Their response when there is high interactional justice is a diametrical opposite as they perform more OCBs in

conformity with mindset (Crum et al. 2013) and burnout theory (Maslach and Schaufeli, 1993, Castanheira and Chambel, 2010). Thus, CSRs with a stress is debilitating mindset perform more OCBs under an environment of high interactional justice. This means, as shown in Figure 13: Chapter 5, Page 140, when there is low interactional justice CSRs feel emotionally exhausted hence the negative impact on OCBs as they conserve resources (Crawford et al., 2010, Demerouti et al., 2001, LePine et al., 2005, Shirom, 2003, van Beek et al., 2012).

However unlike those who believe that stress is debilitating, when there is high interactional justice they perform marginally less for some reason. The point remains that there is a different response from CSRs who believe that stress is debilitating and those that believe stress is enhancing. The behaviours from these distinct groups of CSRs of stress mindset show a difference in psychological states of mind; with those who believe that stress is enhancing having a consistent behavioural pattern of delivering more OCBs no matter what, whilst those with a stress is debilitating mindset choosing to perform more OCBs when there is high interactional justice and otherwise when it is low.

H9a: A stress mindset moderates the relationship between emotional exhaustion and job involvement.

The notion that a stress mindset moderate the relationship between emotional exhaustion and job involvement does not gain traction for this data which is a negation of burnout theory (Ryan and Deci, 2000a) and mindset theory (Crum and Langer, 2007). This relationship is translated to mean that when CSRs are emotionally exhausted this negatively affects in-role performance of job involvement. If a stress mindset moderates the relationship between emotional exhaustion and job involvement it means CSRs with a stress is enhancing mindset do not flinch whether there is emotional exhaustion or not. Whilst on the other hand CSRs who believe stress is debilitating do buckle when emotional exhaustion is high. Thus, they perform less in-role activities (e.g. job involvement) and subsequently perform more in-role activities (e.g. job involvement) when emotional exhaustion is low. This moderation effect is non-existent and does not matter whether CSRs have stress is enhancing or stress is debilitating mindset for there is no impact on job involvement in any way.

There is a common thread across job involvement for this data, though, which gives a potential link to emotional labour (Hayward and Tuckey, 2011, Hochschild, 1983, Kinman, 2011, Tschan et al., 2005, Wegge et al., 2006) where CSRs have to show the desired behaviour irrespective of how they feel (Hayward and Tuckey, 2011, Oschner and Gross, 2005). This situation, where CSRs have to show desired emotion rather than their actual feeling is referred to as emotional dissonance (Holman, 2003). This explains why a stress mindset for this data does not have a bearing on the relationship between emotional exhaustion and job involvement (Table 91: Chapter 5, Page 143).

H9b: A stress mindset moderates the relationship between emotional exhaustion and OCBs.

The interaction-moderation effects in Figure 14: Chapter 5, Page 142 show that a stress mindset impacts the relationship between emotional exhaustion and OCBs. Thus, when emotional exhaustion is low CSRs with a stress is debilitating mindset show high OCBs. On the contrary, when emotional exhaustion is high as shown in Figure 15 OCBs are reduced for CSRs with a stress is debilitating mindset. Therefore, when CSRs with a stress is debilitating mindset face high emotional exhaustion under CoR theory (Ryan and Deci, 2002) they conserve resources hence reduce performance of OCBs (Cohen-Charash and Spector, 2001, Organ, 1988a, Rego and Cunha, 2010, Rigopoulou et al., 2012). This is different for CSRs who have a stress is enhancing mindset. They react differently under stress for they do not succumb to emotional exhaustion because of ‘eustress’ – This means CSRs see a gain from overcoming emotional exhaustion (Alpert and Haber, 1960, Crum et al., 2013, Lazarus, 1974, Yerkes and Dobson, 1908).

Whether there is low or high emotional exhaustion, CSRs who believe that stress is enhancing are not influenced by this to reduce their OCBs. The reaction by CSRs with a stress is enhancing mindset and a stress is debilitating mindset confirm the moderation effect of a stress mindset on emotional exhaustion and OCBs. This result is supported by stress mindset theory as propounded by Crum and Langer (2007) and Crum et al. (2013). The risk for compensatory behaviour by CSRs is high due to emotional exhaustion (Maslach and Schaufeli, 1993). This view is also collaborated by Demerouti et al. (2001) who concurs that when job demands are high employees are depleted of energy prompting them to invoke coping strategies to reduce emotional exhaustion

(Demerouti et al., 2001, Schaufeli, 2007). This protection or coping mechanism is normally dispensed through health protecting factors (Demerouti et al., 2001, Richter and Hacker, 1998).

Whilst the risk of emotional exhaustion undermining OCBs is high (Organ, 1990), in case of stress is enhancing mindset the body readies itself to tackle this stress via 'stress response' mechanism (Crum and Langer, 2007). This in effect prepares an individual's mental and physiological faculties to confront any ensuing demands (Crum et al., 2013, Rees and Freeman, 2009). The ability of the body to successfully handle impending stress both mentally and physically is normally referred to as 'good stress' (Alpert and Haber, 1960, Crum et al., 2013). In stress theory this state of readiness to confront stressful situations in a 'positive' manner is called 'eustress' which is underpins the positive consequences to job outcomes, such as OCBs (Crum et al., 2013, Crum et al., 2015). In stress literature 'eustress' is noted extensively for allowing the body to mobilise resources through physiological arousal processes that enable individuals to deal with a challenge at hand (Crum et al., 2013). Whilst CSRs with a stress is debilitating mindset succumb to emotional exhaustion in relation to OCBs it is not so for CSRs who believe stress is enhancing as they continue to perform OCBs. Therefore, the moderation effect of a stress mindset on the relationship between emotional exhaustion and OCBs holds.

The consequences of exploratory factor analysis on hypotheses formulation

The hypotheses (Table 44: Chapter 5, Page 110 and Table 45, Page 112) have been drawn from Table 8: Chapter 3, Page 64 and Table 12: Chapter 3, Page 6 2, respectively) and have fallen away; therefore they are not considered here following exploratory factor analysis. The conceptual model for this research has been redrawn following factor analytic results (Figure 7 and Figure 8: Chapter 5, Pages 113-114), when it came to light that for these data that the proposition by Greenberg (1993a) and Greenberg (1993b) that organisational justice is a 4-dimensional construct (i.e. distributive, procedural, information and interpersonal justice) does not hold. Therefore, organisational justice is perceived as a 3-dimensional construct (i.e. distributive, procedural and interactional justice – interactional justice combined into informational and interpersonal justice). These hypotheses are not needed to explain the relationship

between organisational justice dimensions and job outcomes (i.e. job involvement and OCBs). On a different level burnout which is revealed as a 3-dimensional construct (Cieslak et al., 2008, Houkes et al., 2008, Wright and Bonett, 1997) in theoretical literature and for purposes of this research and is considered to be a 2-dimensional construct on strength of theory (Green et al., 1991, Langelaan et al., 2006) and empirical research (Langelaan et al., 2006). However, data for this research has revealed it is more effective as a 1-dimensional construct; only composed of emotional exhaustion (Maslach and Leiter, 2001, Shirom, 2003).

A conclusion on the interaction-moderation effects of a stress mindset

Whilst a stress mindset has not been proven to moderate hypotheses H7a, H7b and H9a (Tables 91, Chapter 5, Page 143) it is clear that the moderating role of a stress mindset for this data is solid as seen in the acceptance of 8 other hypotheses. The results of most of the interaction-moderating effects for a stress mindset show that it plays a pivotal role in this service sectors and organisations needs to address these to ensure they make the most of CSRs' stress mindset attributes. The results show that the gap of knowledge (Chapter 1, Page 9-11), aims, objectives and research questions (Table 1, Chapter 1, Page 12) are answered in Chapter 5: Pages 123-143 and the ensuing discussion on results (Chapter 6, Pages 144-174).

A summary of the discussion on the data analysis results

This chapter carried a discussion on data analysis conducted in Chapter 5: Pages 90-143. The highlights of this chapter are the mediation and interaction moderation effects for emotional exhaustion and stress mindset respectively. The results from indirect effects for mediation by emotional exhaustion confirm that it mediates the relationship between organisational justice and job outcomes; whilst the interaction-moderation effects of a stress mindset were confirmed for organisational justice, emotional exhaustion and job outcomes. This is a vital outcome for the SMM in measuring the moderation effect of a stress mindset. The following chapter (Chapter 7: Pages 175-184) draws some key conclusions and recommendations from this chapter. The chapter will also highlight some of the limitations of the research and suggest areas of further research.

7 Chapter 7: Conclusions, Recommendations from Findings

7.1 Introduction to conclusions on research findings

The recommendations in this chapter are intent on helping organisations in a broader sense and management in particular as they seek to make the most of their human resources in relation to productivity. The recommendations are directed at organisations operating call centres so that they are conscious of perceptions that CSRs hold in the service sector; mainly that they are sweatshops (Holman 2002) and how emotional dissonance impacts their health (Cherniss, 2002). The view is that given the methodology used in this research the results have integrity, primarily because of the techniques applied to foster reliability and validity *inter alia* (Gaskin, 2012, Kenny et al., 2010, Kenny et al., 2014, Kline, 2010, Preacher and Hayes, 2008). The methodology deployed also guarantees conformity to several assumptions important in structural equation modelling (e.g. normality, linearity, multicollinearity and heteroscedasticity tests) before progressing to structural equation modelling.

7.2 A discussion on the conclusion from the research findings

The research has made some significant finding in relation to the gap of knowledge that was under investigation. This section on conclusion will cover a number of issues at both theoretical and application levels. At a theoretical level the discussion will focus on theory on the following variables; (1) organisational justice; (2) burnout dimensions; and (3) stress mindset. On the other hand, at an application level the discussion will focus on the implications of these variables in the service sector with specific focus on the results generated from the research.

7.2.1 Conclusions on the hypotheses tested in the research

The hypotheses for mediation effects of depersonalisation on organisational justice dimensions and job outcomes were dropped from the model following exploratory factor analysis as this was not supported by the data. The burnout construct was subsequently reduced from a 2-dimensional construct (i.e emotional exhaustion and depersonalisation) to a 1-dimensional construct (i.e. emotional exhaustion). The same is true for organisational justice; it was initially conceptualised as a 4-dimensional

construct (i.e. distributive, procedural, interpersonal and informational justice); but following exploratory factor analysis it was reduced to a 3-dimensional construct. This means interpersonal justice and informational justice became a combined dimension; referred to as interactional justice by Bies and Moag (1986). Thus, organisational justice is now composed of distributive, procedural and interactional justice.

The hypotheses tests executed for the mediation effects of emotional exhaustion on organisational justice dimensions and job outcomes (job involvement and OCBs) confirmed that is, H1a, H1b and H1e were all significant using the Bollen and Stine (1990) bootstrap approach. This consequently means emotional exhaustion, for this data, does mediate the relationship between organisational justice and job outcomes. Therefore, in the service sector it is important that organisations seek to mitigate the effects of emotional exhaustion to enhance job involvement and performance of OCBs.

The hypotheses tests for the moderation effects of a stress mindset on the relationship between organisational justice and job outcomes have rejected hypotheses H7a, H7b and H9a. Thus, for these hypotheses this data does not support the role of a mindset that believes stress is enhancing or debilitating. However, this is not so for hypotheses H5a, H5b, H5e, H5b, H7e, H8a, H8b, H8e and H9b. In the case of these hypotheses, a stress mindset that believes stress is enhancing or debilitating does have ramifications for the relationship between organisational justice dimensions and job outcomes. These results mean that organisations must pay more attention on how their employees perceive organisational justice within their organisations, as well as the mindsets of the employees they recruit.

7.2.2 Conclusions from data analysis on a theoretical level

The theory on organisational justice proposes that it is a 4-dimensional construct following the extensive works of Greenberg (1993a) and Greenberg (1993b). In these works Greenberg (1993a) and Greenberg (1993b) interactional justice is perceived as two separate dimensions warranting independent consideration. These are split into two parts; (1) interpersonal justice; and (2) informational justice. The rationale for this is that Greenberg (1993a) and Greenberg (1993b) found that these two dimensions were independent and influence the outcome variables in their own unique ways. Thus, in the end Greenberg accepted the fact that organisational justice was composed of

distributive justice (Adams, 1965), procedural justice (Thibaut and Walker, 1975, Thibaut and Walker, 1978). However, Greenberg (1993a) disagrees with Bies and Moag (1986) when they propose that interactional justice was the third dimension. The view held by Greenberg (1993a) and Greenberg (1993b) is that interactional justice is composed of interpersonal and informational justice.

This research has differed with Greenberg (1993a) and Greenberg (1993b) by viewing interpersonal and informational justice as one variable for the organisational justice construct as suggested by Bies and Moag (1986). This view from this research is predicated on the results from the exploratory factor analysis performed as part of data analysis. The exploratory factor analysis did not support the 4-dimensional construct argument of Greenberg (1993a) and Greenberg (1993b) given the results in the pattern matrix, communalities and the discriminant validity tests for factor loadings. The outcome shows that the 4-dimensional construct for organisational justice as suggested by Greenberg (1993a) and Greenberg (1993b) is not sustainable. Thus, this research concurs with Thibaut and Walker (1975) and Thibaut and Walker (1978) that organisational justice is more effective as a 3-dimensional construct. This suggestion by Bies and Moag (1986) makes organisational justice as a 3-dimensional construct more efficient.

The burnout construct is considered to be a 3-dimensional construct as its theoretical foundation (Houkes et al., 2008, Zellars et al., 2000, Wright and Bonett, 1997). These three dimensions are emotional exhaustion (Maslach, 2001), depersonalisation (Demerouti et al., 2001) and self-inefficacy (Leiter and Maslach, 1988). Initially, the research adopts a 2-dimensional construct for burnout at the behest of Lee and Ashforth (1990) who argue that there was a strong correlation between self-inefficacy and emotional exhaustion, thus making it redundant. The exploratory factor analysis carried out revealed that instead of the 3-dimensional construct (Houkes et al., 2008) and the 2-dimensional construct (Lee and Ashforth, 1990); burnout is instead a 1-dimensional construct (Buunk and Schaufeli, 1993). The outcome from the exploratory factor analysis is supported by other empirical research (e.g. Zellars et al., 2000). Thus, emotional exhaustion is considered as the traditional stress response (Warr, 1987). In a body of literature this outcome is supported extensively given that emotional exhaustion is highly linked to job related stressors (e.g. work-overload, role problems, behavioural

and attitudinal outcomes such turnover intentions and absenteeism (Demerouti et al., 2001). Thus, this research has augmented the body of theoretical understanding on burnout and more so emotional exhaustion.

The work of Crum et al. (2013) in developing the Stress Mindset Measure (SMM) has opened a set up a paradigm shift on the way to look at a stress response in the service sector. The views on stress have generally been about coping strategies and appraisal techniques as employees perceived it in negative light and there sought to minimise its effect on them as explained by the JD-C and JD-R models. However, the proposal by Crum et al. (2013) that individuals have a mindset that can either be stress is enhancing or stress is debilitating has been a turning point in handling stress for the employees and organisations alike, which fits into the stress paradox. This research has added to the body of theoretical foundations by augmenting that indeed a stress mindset important when dealing with stress (Sergeant and Frenkel, 2000). The results from this research confirm the moderation effects of a stress mindset and thus contribute to the body of theoretical literature garnered thus far.

7.2.3 Conclusions from data analysis on an application level

On an application level this research has established that organisations in the services sector in the UK need to consider emotional exhaustion as key variable in dealing with employees in work. This means that attention must be focused on ensuring that CSR do not over-extend themselves in emotionally charged work environments such as in the service sector where there is direct contact with customers. It is clear as suggested by Cherniss (2002) that the other dimensions such as self-inefficacy are not of major concern as these are appendages to emotional exhaustion. Thus addressing the issue of emotional exhaustion will help to thwart the temptation for over-extended employees to conserve resources as proffered by the CoRs theory (Hobfoll, 1988, Shirom, 1989) which has implications for in-role behaviours (e.g. job involvement) and extra-role behaviours (e.g. OCBs). The proposition of a stress mindset by Crum et al. (2013) has also give another perspective for organisations to consider. It is now plausible following this research to see the extended application of the SMM by Crum et al. (2013) from the incubator experiment. This research has confirmed that a stress mindset (i.e. stress is enhancing and stress is debilitating) has consequences for the relationship between

stress and outcome variables. This has taken the moderation of stress mindset by Crum et al. (2013) to another level of application.

The significance of organisational justice, emotional exhaustion and a stress mindset can no longer be down played following his research. Whilst there can be debate at a theoretical level in terms of the dimensional constructs of these latent variables, their impact of job outcome variables is clear as the relationships have shown. The results have shown that the relationship between organisational justice and job outcomes is indeed mediated by emotional exhaustion; whilst the same relationship is moderated by a stress mindset. It is therefore reasonable to conclude based on the above that this research has given a fair assessment of the moderation-mediation effect of a stress mindset on organisational justice, emotional exhaustion and job outcomes constructs in the service sector.

7.3 The recommendations from the research objectives

The recommendations from this research arise from the objectives set out in Table 1: Chapter 1, Page 12. Therefore, based on this background this section is divided into 3 parts concerned with developing recommendations on the following objectives; (1) to know the dominant dimensions of organisational justice in service sector; (2) to know how organisational justice affects job outcomes; (3) to understand if a stress mindset is significant in service sector.

Research objective 1: To understand if a stress mindset is significant in service sector.

Whilst it is clear that organisational justice construct of a 3-dimensional nature has consequences for job outcomes (e.g. job involvement and OCBs) via emotional exhaustion it is clear that a stress mindset has a dampening effect on the relationship between 3-dimensional construct of organisational justice and job outcomes. This part of research forms a key contribution of this research to knowledge. This outcome informs organisations that they must take care, on a number of levels to address issue of stress mindset. It is clear that a stress is debilitating mindset does, in the face of low organisational justice of a given type for this data (i.e. distributive, procedural or interactional justice) result in non-performance of job outcomes and consequently

impacts performance of organisations. On the other hand, a stress is enhancing mindset has a positive desirable effect (Crum et al., 2013).

Thus, attitude theory by Bagozzi (1992) and Perugini and Bagozzi (2004) informs that intentions of CSRs with a different stress mindset do manifest in diametrically opposite ways where job outcomes are concerned. Nonetheless, organisations can take advantage of the moderating effects of stress mindset by recruiting CSRs who hold the belief that stress is enhancing. This research informs organisations *inter alia* that using scale items specified by Crum et al. (2013) under SMM helps them to design interview questions and role plays that help detect the stress mindset of interviewees. On another level, because it is clear those CSRs who hold a view stress is debilitating raise their performance of job outcomes in the face of high organisational justice (e.g. distributive, procedural or interactional justice). Therefore, organisations must eliminate a perception of low organisational justice to ensure these CSRs continue to perform at their best. The main recommendation is that stress mindset must be taken into account to understand the formation of intentions to neutralise negative intentions by CSRs as well as inform on how CSRs deal with emotional exhaustion (Crum et al., 2013).

Research objective 2: To know how organisational justice affects job outcomes.

The research objective 2 in Table 1: Chapter 1, Page 12 seeks to establish how organisational justice affects job outcomes (e.g. job involvement and OCBs). The hypotheses tests indicate that organisations must appreciate how CSRs perceive organisational justice constructs in call centres are performed (Table 8: Chapter 3, Pages 62, Table 12: Chapter 3, Page 72, Tables 44 and 91: Chapter 5, Page 110 and 143, respectively). The intentions of CSRs under attitude theory (Bagozzi, 2004) confirm that CSRs' feelings towards job outcomes are informed by their perceptions of organisational justice (Colquitt et al., 2009). This is explained by looking at how burnout is defined (i.e. emotional exhaustion) as well as the role of stress mindset plays in moderating relationship between organisational justice and job outcome constructs.

The type of organisational justice construct prevalent in this call centre is confirmed as 3-dimensional nature (i.e. distributive, procedural and interactional justice). Thus, based on this outcome organisations operating call centres must consider issues of equity as propounded by Adams (1965). CSRs in call centres, given open nature of work in call

centres share information on remuneration, thus any feeling or perception of low distributive justice is considered *ultra vires* and unjust. Once this feeling occurs in call centres it gives rise to a perception of low distributive justice which has ramifications for job outcomes as mediated by emotional exhaustion (Demerouti et al., 2001, Gaskin, 2012). It is therefore recommended that organisations operating call centres need to come up with transparent and fair pay structures to reward work done accordingly to avert perceptions of low distributive justice.

Another recommendation relates to procedural justice which is normally referred to as having a 'voice' (Thibaut and Walker, 1975). This is influenced by whether CSRs perceive an organisation as treating everyone the same as well as if CSRs can freely express their opinions in the event of a dispute or perception of it (Colquitt, 2001, Colquitt et al., 2009, Thibaut and Walker, 1975). If there is a perception amongst CSRs that the organisation or management in particular are not giving CSRs a voice this triggers negative intentions from CSRs which has an impact on their performance via emotional exhaustion (Perugini and Bagozzi, 2004). In organisational justice theory having a 'voice' is important as this has consequences for the CSR-manager relationship (Meyer and Herscovitch, 2001, Meyer et al., 2002). This relationship, if obscured by poor procedures, may precipitate emotional dissonance (Kinman, 2005) with negative consequences on job outcomes (Crum et al., 2013).

Thus, organisations need to ensure that HR processes; procedures and practices are beyond reproach and viewed as enabling insofar as CSRs have opportunities to seek redress as and when the need arises. This research has established that through hypotheses H1b and H2b (Table 8: Chapter 3, Page 64) procedural justice or lack of it has ramifications for performance of job involvement outcomes. Therefore, taking this into account organisations operating call centres must be wary of how CSRs perceive the organisation insofar as procedural justice is concerned. This is because if there is low procedural justice that has negative consequences on job outcomes (e.g. job involvement and OCBs). The last dimension for consideration, interactional justice (Bies and Moag, 1986, Colquitt, 2001, Greenberg, 1993a, Greenberg, 1993b) is split into 2-dimensions (i.e. informational and interpersonal justice) by Colquitt (2001) and Colquitt et al (2009) is considered as a single construct by Bies and Moag (1986). Organisations must bear in mind that human beings are emotional creatures for them to

deliver positive job outcomes they need an enabling environment where effort is recognised (Herzberg, 1965). This organisation must consider intentions of CSRs are affected by motivation of an extrinsic nature. Therefore, when efforts are recognised (Herzberg, 1966) via interactional justice, they have positive intentions hence reduce emotional exhaustion resulting in accomplishment of job outcomes. Thus, it is in the interest of this organisation to recognise the effort of CSRs through different incentives (e.g. praise, acknowledgement of accomplishment, consultation and feedback).

The overall recommendation drawn from research objectives (3) and (2) and subsequent research questions in Table 1: Chapter 1, Page 12 is that organisations must take note that call centres have a 3-dimensional construct of organisational justice (rather than 1-, 2- or 4-dimensional constructs), hence they must seek to engender issues covered by scale items under each of the 3-dimensions to give encouragement to positive intentions (Bagozzi, 1992, Perugini and Bagozzi, 2004). When organisations operating call centres take these justice dimensions into account this helps to foster CSRs' performance of job outcomes (i.e. job involvement and OCBs).

Research objective 3: To know the dominant dimensions of organisational justice in service sector.

The theory on organisational justice to date has identified 4-dimensions (Colquitt, 2001, Colquitt et al., 2009). This research has however established that the dominant construct is 3-dimensional in nature (Bies and Moag, 1986). Thus, for organisations operating call centres it is important that they ensure the 3-dimensions (i.e. distributive, procedural and interactional justice) are given credence when HR policies are drafted. The evidence here suggests that organisations can ignore these dimensions at their own peril. This organisation, by taking the 3-dimensions into account will encourage high manifestation of the justice dimensions than otherwise. These views are exclusive of the moderating effects of stress mindset. The importance of justice perceptions is that they influence intentions of CSRs bearing in mind the mediating effects of emotional exhaustion. This research shows that using the bootstrap approach (Bollen and Stine, 1990) emotional exhaustion does mediate the relationship between organisational justice and job outcomes. Thus, the dominant dimensions (i.e. distributive, procedural and interactional justice) must be borne in mind by organisations if they are to flourish.

7.4 A discussion on the limitations of the research

Like in other research, this work has limitations though no attempt is spared to minimise them. The limitations are considered from three perspectives, namely: (1) theoretical limitations (2) operational limitations (3) application limitations.

At a theoretical level, the researcher opts to use existing scale items to measure latent variables used in this research. The view taken is that the given extent of the research and the number of latent variables used in the conceptual model creating a new set of scale items would have constituted an independent thesis in itself, hence a deliberate decision to usurp existing scale items. The only way this research tries to placate this choice and course of action is by ensuring there is internal consistency, unidimensionality and model fit for latent variables at both measurement model and structural or path model levels (Bollen and Stine, 1990, Gaskin, 2012, Kenny et al., 2010, Kline, 2010, Preacher and Hayes, 2008).

There are operational limitations insofar as responses from the sample are concerned at time of data collection. This relates to the questionnaires not returned by respondents in the target sample. The target sample is 894 CSRs but of that sample 721 responded to questionnaires, a response rate of 81 per cent. Whilst it is disappointing that some 173 CSRs did not respond, a response rate of 81 per cent is considered statistically good by any measure. This is judged to be good based on KMO measure of sample adequacy which is at 0.92 (greater than critical desired value of 0.70) as shown in Table 37: Chapter 5, Page 104). In reality this is not an issue of concern as sample size is still within the threshold stipulated in research as is set out in Table 18: Chapter 5, Page 91.

At the application level, limitations relate to the fact that this is the first research so far in a call centre setting in the UK to focus on moderating effects of stress mindset in relation to organisational justice perceptions and job outcomes (i.e. job involvement and OCBs). Whilst this research sets an initial platform to assist HR practitioners in particular and management in general it is still early days to say whether there is need for more research as stated earlier across different scenarios to establish integrity of role of stress mindset. Therefore, further research on the relationship between organisational justice *vis-à-vis* stress mindset is need for more input to be generated going forward.

Nonetheless, the point remains that this research raises pertinent issues about significance of stress mindset in call centre environments. This research is important on another level in that being based on positivist and deductive approaches, (Collis and Hussey, 2009, Saunders et al., 2000) results derived here must be considered seriously to achieve the following in call centres and organisations at large; (1) a conducive working environment to mitigate a view that call centres are ‘sweatshops’ (Holman, 2002) which has negative connotations in the eyes of CSRs; (2) intrinsic motivation to drive CSRs to enjoy work and thus improve productivity (Herzberg, 1965, Herzberg, 1966); and (3) to enhance performance, so as to remain viable entities.

7.5 A discussion on areas for further research

The theory on stress mindset has been radically explored by Crum and Langer (2007) and Crum et al. (2013) most recently as they, for the first time take a look at a 2-dimensional construct of stress mindset (i.e. stress is enhancing and stress is debilitating) and foisted a paradigm shift. This research has made an attempt to adapt the views of Crum and Langer (2007) and Crum et al. (2013) from the ‘incubator’ research in the USA to a UK call centre setting in financial services sector. It goes without saying that from Crum and others to this research there is some way to go before key generalisations can be made.

Therefore, more work needs to be done in the following areas; (1) exploring the role of stress mindset in financial services sector outside the US and UK as moderator between organisational justice and job outcomes; (2) exploring the role of stress mindset in manufacturing sector in the US, UK and other countries as a moderator between organisational justice and job outcomes; (3) exploring different sets of scale items for latent variables used in this conceptual framework to see if the results are the same; (4) measuring the intensity of a stress mindset as it dampens the relationship between organisational justice and job outcomes; and finally (5) exploring the intensity of emotional exhaustion as a mediator over and above establishing its presence in this conceptual framework. An effort to answer these questions will take the role of mindsets further and assist organisations operating CCCs.

8 References

- Adams, J. S. & Freedman, S. (1976). Equity Theory Revisited: Comments and Annotated. In: L. Berkowitz & E. Waister (Eds.). *Advances in Experimental Social Psychology*, New York: Academic Press, 9(1): 43-90.
- Adams, J. S. (1965). Inequity in Social Exchange. In: L. Berkowitz (Ed.), *Advances in Experimental Social Psychology*, New York: Academic Press, 2(2): 267-299.
- Aguinis, H., Beaty, J. C., Boik, R. J. & Pierce, C. A. (2005). Effect, Size and Power in Assessing Moderating Effects of Categorical Variables Using Multiple Regression: A 30-Year Review *Journal of Applied Psychology*, 90(1): 94-107.
- Aitken, L. S. & West, S. G. (1991). *Multiple Regression: Testing and Interpreting Interactions*. Newbury Park, CA: Sage.
- Ajzen, I. & Fishbein, M. (1977). Attitude-Behaviour Relations: A Theoretical Analysis and Review of Empirical Research. *Psychological Bulletin*, 84(5): 888-918.
- Ajzen, I. & Fishbein, M. (1980). *Understanding Attitudes and Prediction Social Behaviour*. Englewood Cliffs, New Jersey: Prentice Hall.
- Ajzen, I. & Madden, T. J. (1986). Prediction of Goal-Directed Behaviour: Attitudes, Intentions, and Perceived Behavioural Control. *Journal of Experimental Social Psychology*, 22(5): 453-474.
- Ajzen, I. (1987). *Attitudes, Traits, and Actions: Dispositional Prediction of Behaviour in Personality and Social Psychology*, New York: Academic Press.
- Ajzen, I. (1991). The Theory of Planned Behaviour. *Organisational Behaviour and Human Decision Processes*, 50(2): 179-211.
- Akgun, A. E., Byrne, J. C., Lynn, G. S. & Keskina, H. (2007). Team Stressors, Management Support, and Project and Process Outcomes in New Product Development Projects. *Technovation*, 27(10): 628-639.
- Allen, N. J. & Meyer, J. P. (1990). The Measurement and Antecedents of Affective, Continuance and Normative Commitment to the Organisation. *Journal of Occupational Psychology*, 63(1): 1-18.
- Allen, N. J. & Meyer, J. P. (1997). *Commitment in the Workplace, Theory, Research and Application*: Thousand Oaks.
- Allison, P. D. (2002). *Missing Data*. Thousand Oaks, California, USA: Sage.
- Allport, G. W. (1947). Scientific Models and Human Morals. *Psychological Review*, 54(4): 182-200.
- Alpert, R. A. & Haber, R. N. (1960). Anxiety in Academic Achievement Situations. *Journal of Abnormal and Social Psychology*, 61(2): 207-207.

- Ambrose, M. L., & Arnaud, A. (2005). Are Procedural Justice and Distributive Justice Conceptually Distinct? *Journal of Applied Psychology*, 72(1): 116.
- Ambrose, M. L., & Schminke, M. (2009). The Role of Overall Justice Judgments in Organizational Justice Research: a Test of Mediation. *Journal of Applied Psychology*, 94(2): 491.
- Ambrose, M. L., Harland, L. K. & Kulik, C. T. (1991). Influence of Social Comparisons on Perceptions of Organisational Fairness. *Journal of Applied Psychology*, 76(2): 239-246.
- Anderson, J. & Gerbing, D. (1988). Structural Modelling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*, 103(3): 411-423.
- Antonovsky, A. (1987). *Unraveling the Mystery of Health: How People Manage Stress and Stay Well?* San Francisco, CA: Jossey-Bass.
- Arbuckle, J. (Ed.) (1997). In: *AMOS User's Guide*. Small Waters, USA: Chicago.
- Arbuckle, J. L. (1999). *AMOS 4 (Computer Software)*, Chicago: Small Waters Corp.
- Ashforth, B. E. & Mael, F. (1989). Social Identity Theory and the Organisation. *Academy of Management Review*, 14(1): 20-39.
- Ashill, N. J. & Rod, M. (2011). Burnout Processes in Non-Clinical Health Service Encounters. *Journal of Business Research*, 64(10): 1116-1127.
- Azen, R. (2003). Multiple Mediator Models: A Comparison of Testing Approaches. 11th Annual Convention of American Psychological Association, American Psychological Association, Toronto: Ontario.
- Bacon, L. D. (1997). In: *AMOS for Structural Equation Modelling in Marketing Research*, USA: SPSS Inc.
- Bagozzi, R. P. & Baumgartner, J. (1989). An Investigation into the Role of Intentions as Mediators of the Attitude-Behaviour Relationship. *Journal of Economic Psychology*, 10(1): 35-62.
- Bagozzi, R. P. & Burnkrant, R. E. (1979). Attitude Organisation and the Attitude-Behaviour Relationship. *Journal of Personality and Social Psychology*, 37(6): 913-929.
- Bagozzi, R. P. (1981). Attitude, Intentions, and Behaviour: A Test of Some Key Hypothesis. *Journal of Personality and Social Psychology*, 41(4): 607-627.
- Bagozzi, R. P. (1992). The Self-Regulation of Attitudes, Intention, and Behaviour. *Social Psychology Quarterly*, 55(2): 178-204.
- Bain, P. & Taylor, P. (1999). *Employee Relations, Worker Attitudes and Trade Union Representation in Call Centres*. Glassgow, Stirling: University of Strathclyde.

- Bakker, A. B. & Demerouti, E. (2007). The Job Demand-Resources Model: State of the Art. *Journal of Managerial Psychology*, 22(3): 309-328.
- Bakker, A. B. & Demerouti, E. (2008). Towards a Model of Work Engagement. *Career Development International*, 13(3): 209-223.
- Bakker, A. B., Demerouti, E. & Euwema, M. C. (2005). Job Resources Buffer the Impact of Job Demands on Burnout. *Journal of Occupational Health Psychology*, 10(2): 170-180.
- Bakker, A. B., Schaufeli, W. B., Demerouti, E., Janssen, P. P. M., Van Der Hulst, R. & Brouwer, J. (2000). Using Equity Theory to Examine the Difference between Burnout and Depression. *Anxiety, Stress and Coping*, 12(1): 107-126.
- Baldry, C., Bain, P. & Taylor, P. (1998). *Bright Satanic Offices: Intensification, Control and Team Taylorism*, London: Macmillan.
- Ball, G. A., Trevino, L. K. & Sims, H. P., Jr. (1993). Justice and Organisational Punishment: Attitudinal Outcomes of Disciplinary Events. *Social Justice Research*, 6(1): 39-67.
- Ball, G. A., Trevino, L. K. & Sims, H. P., Jr. (1994). Just and Unjust Punishment: Influences on Subordinate Performance and Citizenship. *Academy of Management Journal*, 37(2): 299-322.
- Bandura, A. (1977). Self-Efficacy: Towards a Unifying Theory of Behavioural Change. *Psychological Review*, 84(2): 191-215.
- Bandura, A. (1989). Human Agency in Social Cognitive Theory. *American Psychologist*, 44(9): 1175-1184.
- Bandura, A. (1991). Social Cognitive Theory of Self-Regulation. *Organisational Behaviour and Human Decision Processes*, 50(2): 248-287.
- Barnes, P. (2001). People Problems in Call Centres. *Management Services*, 45(7): 30-31.
- Baron, R. M. & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual Strategic and Statiscical Considerations. *Journal of Personality and Social Psychology*, 51(6): 1173-1182.
- Barrett, P. (2007). Structural Equation Modelling: Adjudging Model Fit. *Personality and Individual Differences*, 42(5): 815-824.
- Bartlett, J. E., Kortlik, J. W. & Higgins, C. C. (2001). Organisational Research: Determining Appropriate Sample Size in Survey Research. *Information Technology, Learning, and Performance Journal*, 19(1): 43-50.

- Bassey, M. (1995). *Creating Education through Research: A Global Perspective of Educational Research in the 21st Century*. BERA England: Moor Press.
- Batt, R. (2000). Strategic Segmentation and Frontline Services: Matching Customers, Employees, and Human Resource Systems. *International Journal of Human Resource Management* 11(3):540-561.
- Batt, R. (2004). Who Benefits from Teams? Comparing Workers, Supervisors, and Managers. *Industrial Relations*, 43(1): 183-212.
- Baumeister, R. & Leary, M. R. (1995). The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation. *Psychology Bulletin*, 117(3): 497-529.
- Beauchamps, M. R. & Bray, S. R. (2001). Role Ambiguity and Role Conflict within Interdependent Teams. *Small Group Research*, 32(2): 133-157.
- Bentler, P. (1985). *Theory and Implementation of EQS: A Structural Equations Program*, Los Angeles, USA.
- Bentler, P. (1995). *EQS Structural Equations Programs Manual* Encino, CA: Multivariate Software Inc.
- Bentler, P. M. (1990). Comparative fit Indexes in Structural Models. *Psychological Bulletin*, 107(2): 238-46.
- Bentler, P. M. (2006). On Tests and Indices for Evaluating Structural Models. *Personality and Individual Differences*, 42(5): 825-829.
- Bentler, P. M. (2010). Structural Equation Modelling with Simplicity and Accuracy. *Journal of Consumer Psychology: The Official Journal of the Society for Consumer Psychology*, 20(2): 215-225.
- Bentler, P. A. (2009). Alpha, Dimension-Free, and Model-Based Internal Consistency Reliability. *Psychometrika*. Doi: 10.1007/s11336-008-9100-1.
- Bettencourt, L. A. & Brown, S. W. (2003). Role Stressors and Customer-Oriented Boundary-Spanning Behaviours in Service Organisations. *Journal of Academy of Marketing Science*, 31(4): 394-408.
- Biddle, B. J. & Thomas, E. J. (1979). *Role Theory: Expectations, Identities, and Research*, New York: Wiley.
- Bies, R. J. & Moag, J. S. (1986). Interactional Justice: Communication Criteria of Fairness. *Research in Negotiation on Organisations*, 1(1): 43-55.
- BIFU (1996). *Occupational Voice Loss: A Negotiator's Guide*. London: BIFU.

- Binsardi, A. & Ekwulugo, F. (2003). International Marketing of British Education: Research on the Students' Perception and the UK Market Penetration Marketing Intelligence and Planning, 21(5): 318-327.
- Bishop, Y. N., Fiendberg, S. E. & Holland, P. W. (1975). Discrete and Multivariate Analysis: Theory and Practice Cambridge, MA, USA: MIT Press.
- Bitner, M. J., Booms, B. H. & Mohr, L. A. (1999). Critical Service Encounters: The Employees' View Point, Fort Worth, Texas: The Dryden Press.
- Blackwell, L., Trzesniewski, K. & Dweck, C. S. (2007). Implicit Theories of Intelligence Predict Achievement across an Adolescent Transition: A Longitudinal Study and an Intervention. Child Development, 78(1): 246–263.
- Blau, P. M. & Scott, R. W. (1962). Formal Organisations, San Francisco: USA: Chandler.
- Blau, P. M. (1964). Exchange and Power in Social Life.: NY, USA: Wiley Publishing.
- Bollen, K. (1989). Structural Equations with Latent Variables. NY: USA: Wiley Publishing.
- Bollen, K. A. & Long, J. S. (1993). Testing Structural Equation Models. Newbury Park, CA, USA: Sage.
- Bollen, K. A. & Stine, R. (1990). Direct and Indirect Effects: Classical and Bootstrap Estimates of Variability. Sociological Methodology, 20(1): 115-140.
- Bolton S. C. (2000). Who Cares? Offering Emotion Work as a Gift in the Nursing Labour Process. Journal of Advanced Nursing, 32(3): 580-586.
- Bolton, S. C. (2005). Women's Work, Dirty Work: The Gynaecology Nurse and the 'Other'. Gender, Work and Organisation, 12(2): 169-186.
- Bolton, S. C. & Boyd, C. (2003). 'Trolley Dolly or Skilled Emotion Manager? Moving on from Hochschild's Managed Heart', Work, Employment and Society 17(2): 289-308.
- Bolton, S.C. (2000b). Who Cares? Offering Emotion as a Gift in the Nursing Labour Process'. Journal of Advanced Nursing 32(3): 580-86
- Bono, J. E. & Vey, M. A. (2005). Towards Understanding Emotional Management at Work: a Quantitative Review of Emotional Labour Research. In: C. E. Hartel, W. J. Zerbe and N. M. Ashkanasy (Eds.), Emotions in Organisational Behaviour (pp. 213-233). Mahwah, NJ: Lawrence Erlbaum Associates.
- Bono, J. E. & Vey, M. A. (2007). Personality and Emotional Performance: Extraversion, Neuroticism, and Self-monitoring. Journal of Occupational Health Psychology, 12(2): 177-192

- Borman, W. C. & Motowidlo, S. M. (1993). Expanding the Criterion Domain to Include Elements of Contextual Performance. *Personnel Selection in Organizations*; San Francisco: Jossey-Bass, 71.
- Bowen, D. E. & Lawler, E. E. I. (1992). The Empowerment of Service Workers: What, Why, How and When. *Sloan Management Review*, 33(1): 31-39.
- Box, G. E. & Cox, D. R. (1964). An Analysis of Transformations. *Journal of the Royal Statistical Society*, 211-243.
- Brief, A. P., Aldag, R. J., Van Sell, M. & Melone, N. (1979). Anticipatory Socialisation and Role Stress Amongst Registered Nurses. *Journal of Health and Social Behaviour*, 20(2): 161-166.
- Briner, R. & Reynolds, S. (1999). The Cost, Benefits and Limitations of Organisational Level Stress Interventions. *Journal of Organisational Behaviour*, 20(5): 647-664.
- Britt, T. W., Adler, A. B. & Bartone, P. T. (2001). Deriving Benefits from Stressful Events: The Role of Engagement in Meaningful Work and Hardiness. *Journal of Occupational Health Psychology*, 6(1): 53-63.
- Brotheridge, C. & Grandey, A. (2002). Emotional Labour and Burnout: Comparing Two Perspectives of 'People Work'. *Journal of Vocational Behaviour*, 60(1): 17-39.
- Brotheridge, C. & Lee, R. (2002). Testing a Conservation of Resources Model of the Dynamics of Emotional Labour. *Journal of Occupational Health Psychology*, 7(1): 57-67.
- Brotheridge, C. & Lee, R. T. (2003). Development and Validation of the Emotional Labour Scale. *Journal of Occupational and Organizational Psychology*, 76(3): 365-379.
- Brotheridge, C.M. & Grandey, A. A. (2002). Emotional Labour and Burnout: Comparing Two Perspectives of 'People Work'. *Journal of Voc. Behaviour*, 60(1): 17-39.
- Brouwers, A., Evers, W. J. & Tomic, W. (2001). Self-Efficacy in Eliciting Social Support and Burnout amongst Secondary-School Teachers. *Journal of Applied Social Psychology*, 31(7): 1474-1491.
- Brown, G. & Maxwell, G. (2002). Customer Service in UK Call Centres: Organisational Perspectives and Employee Perceptions. *Journal of Retailing and Customer Services*, 9(6): 309-316.
- Brown, S. P. & Leigh, T. W. (1996). A New Look at Psychological Climate and its Relationship to Job Involvement, Effort, and Performance. *Journal of Applied Psychology*, 81(4): 358-368.

- Brown, T. J. & Paterson, R. A. (1993). Antecedents and Consequences of Salesperson Job Satisfaction: A Meta-analysis and Assessment of Causal Effects. *Journal of Marketing Research*, 31(1): 63-77.
- Bryman, A. & Bell, E. (2003). *Business Research Methods*. Oxford University Press.
- Bryman, A. & Bell, E. (2007). *Business Research Strategies*. Business Research Methods. Oxford University Press.
- Busmeyer, J. R. & Jones, L. (1983). Analysis of Multiplicative Combination Rules when Causal Variables are Measured with Error. *Psychological Bulletin*, 93(3): 549-562.
- Buunk, B. P. & Schaufeli, W. B. (1993). *Burnout: A Perspective from Social Comparison Theory*. Washington DC: Taylor and Francis.
- Byrne, B. M. (2010). *Structural Equation Modelling with AMOS: Basic Concepts, Applications and Programming*. Mahwah, New Jersey, USA: Lawrence Erlbaum Associate.
- Cahill, L., Gorski, L. & Le, K. (2003). Enhanced Human Memory Consolidation with Post-Learning Stress: Interaction with the Degree of Arousal at Encoding. *Learn*, 10(4): 270-274.
- Call-Centres (2001). *Reward and Retention Strategies*. Joint Report from the Call Centre Association Research Institute and Industrial Relations Services.
- Cartwright, S. (2003). New Forms of Work Organisation: Issues and Challenges. *Leadership and Organisational Development Journal*, 24(3): 121-122.
- Carver, C. S. & Connor-Smith, J. (2010). Personality and Coping. *Annual Review of Psychology*, 61: 679-704.
- Cascio, W. F. (1982). *Costing Human Resources: The Financial Impact of Behaviour in Organisations*, Boston: Kent Publishing.
- Casey, K. (1993). *I Answer with My Life. Life Histories of Women Teachers Working for Social Change*. New York: Routledge.
- Castanheira, F. & Chambel, M. J. (2010). Reducing Burnout in Call Centres Through HR Practices. *Human Resource Management* 49(6): 1047-1065.
- Cattell, R. B. (1966). The Scree Test for the Number of Factors. *Multivariate Behavioral Research*, 1(2): 245-276.
- Cavanaugh, M. A., Boswell, W. R., Roehling, M. V. & Boudreau, J. W. (2000). An Empirical Examination of Self-Reported Work Stress Among U.S. Managers. *Journal of Applied Psychology*, 85(1): 65-74.

Cherniss, C. (1993). *The Role of Professional Self-Efficacy in the Etiology and Amilioration of Burnout*. Washington DC: Taylor and Francis.

Cherniss, C. (2002). The Process of Burnout. *Journal of Organisational Behaviour*, 30(1): 1-11.

Choi, S., Cheong, K. & Feinberg, R. (2012). Moderating Effect of Supervision Support, Monetary Rewards, and Career Paths on the Relationship Between Job Burnout and Turnover Intentions in the Context Managing Service Quality, 22(5): 492-516.

Cieslak, R., Korczynska, J., Strelau, J. & Kaczmarek, M. (2008). Burnout Predictors Among Prison Officers: The Moderating Effect of Temperamental Endurance. *Personality and Individual Differences*, 45(7): 666-672.

Cohen, J., Cohen, P., West, S. G. & Aitken, L. S. (2003). *Applied Multiple Regression/Correlation Analysis for the Behavioural Sciences*. Mahwah, NJ: Lawrence Erlbaum Associates.

Cohen, L., Manion, L. and Morrison, D. (2000). *Research Methods in Education*. (5th Ed). London: Routledge Falmer.

Cohen-Charash, Y. & Spector, P. E. (2001). The Role of Justice in Organisations: A Meta-Analysis. *Organisational Behaviour and Human Decision Processes*, 86(2): 278-321.

Cole, M. S., Bernerth, J. B., Walter, F. & Holt, D. T. (2009). Organizational Justice and Individuals' Withdrawal: Unlocking the Influence of Emotional Exhaustion. *Journal of Management Studies*, 47(3): 367-390.

Collis, J. & Hussey, R. (2009). *Business Research: A Practical Guide for Undergraduate and Postgraduate Students*. (3rd ed.) Basingstoke: Palgrave Macmillan.

Collis, J., Hussey, R. & Hussey, J. (2003). *Business Research: A Practical Guide to Undergraduate and Postgraduate Students*, (2nd Ed.). Basingstoke: Palgrave Macmillan.

Colquitt, J. A. (2001). On the Dimensionality of Organisational Justice: A Construct Validation of a Measure. *Journal of Applied Psychology*, 86(3): 386-400.

Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O. & Ng, K. Y. (2009). Justice at the Millenium: A Meta-Analytic Review of 25 Years of Organisational Justice Research: In: M L Ambrose and M Schminke. *Journal of Applied Psychology*, 98(2): 491-500.

Comrey, A. L. & Lee, H. B. (1992). *A first Course in Factor Analysis*, Hillsdate, NJ: Lawrence Erlbaum Associates.

Conlon, D. E. (1993). Some Tests of Self-Interest and Group-Value Models of procedural Justice: Evidence from an Organisational Appeal Procedure. *Academy of Management Journal*, 36(5): 1109-1124.

- Connon, E. (1996). Developing and Retaining Profitable Customer Relationships through Call Centres. *Direct Marketing*, 59(2): 24-26.
- Cooper-Hakim, A. & Viswesvaran, C. (2005). The Construct of Work Commitment: Testing an Integrative Framework. *Psychological Bulletin*, 131(2): 241-258.
- Cordes, C. L. & Dougherty, T. W. (1993). A Review of Integration of Research on Job Burnout. *Academy of Management Review*, 18(4): 621-656.
- Crawford, E. A., Lepine, J. A. & Rich, B. L. (2010). Linking Job Demands and Resources to Employee Engagement and Burnout: A Theoretical Extension and Meta-Analytic Test. *Journal of Applied Psychology*, 95(5): 834-848.
- Crawshaw, J. R., Cropanzano, R., Bell, C. M., & Nadisic, T. (2013). Organizational Justice: New Insights from Behavioural Ethics. *Human Relations*, 0018726713485609.
- Crome, M. (1998). Call Centres: Battery Farming or Free Range? *Industrial and Commercial Training* 30(4): 137-141.
- Cronbach, L. J. & Maeehl, P. E. (1955). Construct Validity in Psychological Tests. *Psychological Bulletin*, 52(4): 281-302.
- Cronbach, L. J. (1987). Statistical Tests for Moderator Variables: Flaws in Analysis Recently Proposed. *Psychological Bulletin*, 102(2): 414-417.
- Cropanzano, R. & Greenberg, J. (1997). Progress in Organisational Justice: Tunneling Through the Maze. In: C. Cooper and I. Robertson (Eds.). *International Review of Industrial and Organisational Psychology*, 12, 317-372.
- Cropanzano, R. & Prehar, C. A. (1999). Using Social Exchange Theory to Distinguish Procedural Justice from Interactional Justice. *Society for Industrial and Organisation Psychology*, 27(3), 324-351.
- Cropanzano, R. & Schminke, M. (2001). Using Social Justice to Build Effective Work Groups. In: M. Turner (Ed.). *Groups at Work: Advances in Theory and Research*, 143-171.
- Cropanzano, R., Byrne, Z. S., Bobocel, D. R. & Rupp, D. R. (2001). Moral Virtues, Fairness Heuristics, Social Entities and other Denizens of Organisational Justice. *Journal of Vocational Behaviour*, 58(2): 164-209.
- Cropanzano, R., Rupp, D. E., Mohler, C. J., & Schminke, M. (2001). Three Roads to Organizational Justice. *Journal of Vocational Behaviour*, 59(1): 210-229.
- Crum, A. J. & Langer, E.J. (2007). Mindset Matters: Exercise and the Placebo Effect. *Psychological Sciences*, 18(2): 165-71.
- Crum, A. J. Salovey, P. & Achor, S. (2013). Rethinking Stress: The Role of Mindsets in Determining the Stress Response. *Personality Processes and Individual Differences*, 104(4): 716-733.

Crum, A. J., Akinola, M., Martin, A. & Fath, S. (2015). Stress Mindset in Challenge and Threat: The Benefits of a Stress is Enhancing Mindset in Both Challenging and Threatening Contexts. Under Review; Last Updated Dec 6, 2015.

Crum, A. J., Corbin, W. R., Brownell, K. D. & Salovey, P. (2011). Mind Over Milkshakes: Mindsets, not Just Nutrients Determine Ghrelin Response. *Health Psychology*, 30(4): 424-429

Dailey, R. C. & Kirk, D. J. (1992). Distributive and Procedural Justice as Antecedents of Job Dissatisfaction and Intent to Turnover. *Human Relations*, 45(3): 305-317.

Dalton, M. (1955). Managing the Managers in Call Centre Settings. *Human Organisation*, 14: 4-10.

Datamonitor (1996). Call Centres in Europe, 1996-2001. In: Datamonitor (ed.). London, UK.

Datamonitor (2001). Customer Relationship Outsourcing in Europe. London: Datamonitor, UK.

Davidson, D. (1980). *Essays on Action and Events*, Oxford Press: Clarendon, UK.

Davis, R. C. (1951). *Fundamentals of Top Management*, New York: Harper, USA.

De Ruyter, K., Wetzels, M. & Feinberg, R. (2001). Role Stress in Call Centres: Its Effect on Employee Performance and Satisfaction. *Journal of Interactive Marketing*, 15(2): 23-35.

Deci, E. L. & Ryan, R. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behaviour*, New York: Plenum.

Deci, E. L. & Ryan, R. M. (2000). The 'What' and 'Why' of Goal Pursuits: Human Needs and the Self-Determination of Behaviour. *Psychological Inquiry*, 11(4): 227-268.

Deci, E. L. & Ryan, R. M. (2002). *An Overview of Self-Determination Theory*, Rochester, New York: University of Rochester Press.

Deci, E. L., Ryan, R. M., Gagne, M., Leone, D. R., Usunov, J. & Kornazheva, B. P. (2001). Need Satisfaction, Motivation and Well-Being in the Work Organisations of a Former Eastern Bloc Country: A Cross-Cultural Study of Self-Determination. *Personality and Social Psychology Bulletin*, 27(8): 930-942.

Deconinck, J. B. & Stilwell, C. D. (2004). Incorporating Organisational Justice, Role States, Pay Satisfaction and Supervisor Satisfaction in a Model of Turnover Intentions. *Journal of Business Research*, 57(3): 225-231.

Deery, S. & Kinnie, N. (2004). *Introduction: The Nature and Management of Call Centre Work*, Basingstoke: Palgrave Macmillan.

Deiner, E. (1999). Introduction to the Special Section on the Structure of Emotion. *Journal of Personality and Social Psychology*, 76(2): 803-804.

Dejonge, J. & Schaufeli, W. B. (1999). *An Empirical Test of the Vitamin Model in Health Care Workers: Effects of Job Satisfaction and Burnout*, Munchen, Ger.: Hamp Verlag.

Demerouti, E. (1999). Burnout: A Consequence of Specific Working Conditions Among Human Service, and Production Tasks. *Journal of Occupational and Organisational Psychology*, 16(1): 85-98..

Demerouti, E., Bakker, A. B. & Butlers, A. J. (2004). The Loss Spiral of Work Pressure, Work-Home Interference and Exhaustion: Reciprocal Relations in a Three-Wave Study. *Journal of Vocational Behaviour*, 64(1): 131-149.

Demerouti, E., Bakker, A. B., Nachreiner, F. & Schaufeli, W. B. (2001). The Job Demands-Resources Model of Burnout. *Journal of Applied Psychology*, 86(3): 499-512.

Demerouti, E., Bakker, A. B., Vardakou, I. & Kantas, A. (2003). The Convergent Validity of Two Burnout Instruments: A Multi-trait-Multi-method Analysis. *European Journal of Psychological Assessment*, 19(1): 296-307.

Deutsch, M. (1975). Equity, Equality and Need: What Determines Which Value will be used as the Basis of Distributive Justice? *Journal of Social Issues*: 137-150.

Di Paola, M. & Tschannen-Moran, M. (2001). Report on the 2001 Virginia Principals Study: Prepared in Collaboration with the Virginia Association of Secondary School Principals, the Virginia Association of Elementary School Principals and the College of William and Mary.

Di Paolo, M., & Neves, P. (2006). Social Exchange Processes in Organizational Change: The Roles of Trust and Control. *Journal of Change Management*, 6(4), 351-364.

Duke, A. B., Goodman, J. M., Treadway, D. C. & Breland, J. W. (2009). Perceived Organisational Support as a Moderator of emotional Labour/Outcomes Relationship. *Journal of Applied Social Psychology*, 39(5): 1013-1034.

Dweck, C. S. (2008). Can Personality be Changed? The Role of Beliefs in Personality and Change. *Current Directions in Psychological Science*, 17(6): 391-394.

Edwards, J. (1996). An Examination of Competing Versions of the Person-Environment Fit Approach to Stress. *Academy of Management Journal*, 39(2): 292-339.

Eisenberger, R., Karagonlar, G., Stinglhamber, F., Neves, P., Becker, T. E., Gonzalez-Morales, M. G., & Steiger-Mueller, M. (2010). Leader–Member Exchange and

Affective Organizational Commitment: The Contribution of Supervisor's Organisational Embodiment. *Journal of Applied Psychology*, 95(6), 1085.

Enders, C. K. (2001a). The Impact of Non-Normality on Full Information Maximum Likelihood Estimation for Structural Equation Models with Missing data. *Psychological Methods*, 6(4): 352-370.

Enders, C. K. (2001b). A Primer on Maximum Likelihood Algorithms Available for Use with Missing Data. *Structural Equation Modelling*, 8(1): 128-141.

Enzmann, D., Schaufeli, W. B., Janssen, P. & Rozeman, A. (1998). Dimensionality and Validity of the Burnout Measure. *Journal of Occupational and Organisational Psychology*, 71(4): 331-351.

Erez, A. & Isen, A. M. (2002). The Influence of Positive Affect on the Components of Expectancy Motivation. *Journal of Applied Psychology*, 87(6): 1055-1067.

Evans, B. K. & Fischer, D. G. (1993). The Nature of Burnout: A Study of the Three Factor Model of Burnout in Human Service and Non-Human-Service Samples. *Journal of Occupational and Organisational Psychology*, 66(1): 29-38.

Evans, W. M. (1962). Role Stress and the Norm Reciprocity in Research Organisations. *American Journal of Sociology*, 68(1): 346-354.

Fabrigar, L. R., Wegener, D. T., MacCallum, R. C. & Strahan, E. J. (1999). Evaluating the Use of Exploratory Factor Analysis in Psychological Research. *Psychological Methods*, 4(3): 272.

Fao, E. B. & Fao, U. G. (1980). *Resource Theory: Interpersonal Behaviour as Exchange*. , New York: Plenum Press.

Fao, U. G. & Fao, E. B. (1974). *Societal Structures of the Mind*, Springfield, Illionois: Charles C. Thomas.

Farzanfar, R. (2005). *Using Qualitative Research Methods to Evaluate Automated Health Promotion/Disease Prevention Technologies: A Procedures' Manual*. Boston University. Robert Wood Johnson Foundation.

Fazio, R. H. & Zanna, M. P. (1978a). Attitudinal Qualities Relating to the Strength of the Attitude-Behaviour Relationship. *Journal of Experimental Social Psychology*, 14(4): 398-408.

Fazio, R. H. & Zanna, M. P. (1978b). On the Predictive Validity of Attitudes: The Role of Direct Experience and Confidence. *Journal of Personality*, 46(2): 228-243.

Feeny, D. F., Edwards, B. R. & Simpson, K. M. (1992). Understanding the CEO/CIO Relationship. *MIS Quarterly*: 435-448.

- Fernie, S. & Metcalf, D. (1997). (Not) Hanging on the Telephone: Payment Systems in the New Sweatshops: Centre for Economic Performance [Online].
- Field, A. (2009). *Discovering Statistics Using SPSS*. Thousand Oaks, CA: Sage.
- Fishbein, M. & Ajzen, I. (1974). Attitudes Towards Objects as Predictors of Single Multiple Behavioural Criteria. *Psychological Review*, 81(1): 59-74.
- Fishbein, M. & Ajzen, I. (1975). *Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research*, Reading, Mass.: Addison-Wesley.
- Fishbein, M. & Stasson, M. (1990). The Role of Desires, Self-Predictions, and Perceived Control in the Prediction of Training Session Attendance. *Journal of Applied Social Psychology*, 20(3): 173-192.
- Fishbein, M. (1973). *The Prediction of Behaviour from Attitudinal Variables*, New York: Harper and Row.
- Folger, R. & Cropanzano, R. (2001). *Fairness Theory: Justice as Accountability*, Stanford, California: Stanford University Press.
- Folger, R. (1986b). Rethinking Equity Theory: A Referent of Cognitions Model. In: Beirhoff, H. W., Cohen, R. L. & Greenberg, J. (eds.) *Justice in Social Relations*. New York: Plenum Press.
- Folger, R. (1987). Distributive and Procedural Justice in the Workplace. *Social Justice Research*, 1(2): 143-159.
- Folger, R. (1993). Reactions to Mistreatment at Work. *Social Psychology in organisations: Advances in Theory and Research*. Englewood Cliffs: Murningham, J. K.
- Folger, R. (2001). *Fairness as Dessonance*, New York, USA: Information Age.
- Folger, R. A (1985). Referent Cognitions Theory of Relative Deprivations. In: Olson, J. M., Herman, C. P. & Zanna, M. P., eds. *Relative Deprivation and Social Comparison: The Ontario Symposium, 1986a* Hillsdale, New jersey: Erlbaum: 33-55.
- Folger, R. G., & Cropanzano, R. (1998). *Organizational Justice and Human Resources Management (Vol. 7)*. Sage Publications.
- Folger, R., Cropanzano, R. & Goldman, B. M. (2005). *What is the Relationship between Justice and Morality?* Mahwah, New Jersey: Lawrence Erlbaum.
- Fornell, C. & Larcker, D. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*: 39-50.
- Forsyth, D. R. (1983). *An Introduction to Group Dynamics*, Monterey, California: Brooks/Cole.

- Fortin, M. (2008). Perspectives on Organizational Justice: Concept Clarification, Social Context Integration, Time and Links with Morality. *International Journal of Management Reviews*, 10(2): 93-126.
- Fraser, C. & McDonald, R. (1988). COSAN: Covariance Structure Analysis. *Multivariate Behavioural Research*, 23(2): 263-265.
- Frazier, P., Tix, A. & Barron, K. (2004). Testing Moderator and Mediation: A General Analytical Framework using Moderator Path Analysis. *Psychological Methods*, 51(1), 115.
- Frenkel, S. J., Korczynski, M., Shire, K. A. & Tarn, M. (1999). *On the Front Line: Organization of Work in the Information Economy*. Ithaca, NY: Cornell University Press.
- Gagne, M. & Deci, E. L. (2005). Self-Determination Theory and Work Motivation. *Journal of Organisational Behaviour*, 26(4): 331-362.
- Ganzach, Y. (2007). Misleading Interaction and Curvilinear. *Psychological Methods*, 2(1): 235-247.
- Garson, B. (1998). *The Electronic Sweatshop: How Computers are Transforming the Office of the Future into the Factory of the Past*, New York: Simon and Schuster.
- Gaskin, J. (2012). *Structural Equation Modelling in AMOS*. YouTube Videos: Gaskinations.
- George, D. & Mallery, M. (2003). *Using SPSS for Windows Step by Step: A Simple Guide and Reference*. Boston, MA: Allyn Bacon.
- Gilson, K. A. & Khandelwal, D. K. (2005). Getting More from Call Centres: The McKinsey Quarterly [Online].
- Glass, D. C. & Mcknight, J. D. (1996). Perceived Control, Depressive Symptomatology and Professional Burnout: A Review of the Evidence. *Psychology Health*, 11(1): 23-48.
- GMB (2000). *Health and Safety in Call Centres*. London: GMB.
- Göb, R., McCollin, C. & Ramalhoto, M. F. (2007). Ordinal Methodology in the Analysis of Likert Scales. *Quality and Quantity* 41(5): 601-626.
- Gold, M. S. & Bentler, P. M. (2000). Treatments of Missing Data: A Monte Carlo Comparison of RBHDI, Iterative Stochastic Regression Imputation and Expectation-Maximisation Structural Equation Modelling, 7(3): 319-355.
- Gold, Y., Bachelor, P. & Michael, W. B. (1989). The Dimensionality of a Modified Form of the Maslach Burnout Inventory. *Educational and Psychological Measurement*, 49(3): 549-561.

- Grandey, A. A., Dickter, D. N. & Sin, H. P. (2004). The Customer is not Always Right: Customer Aggression and Emotion Regulation of Service Employees. *Journal of Organisational Behaviour*, 25: 511-536.
- Green, D. E., Walkey, F. H. & Taylor, A. J. W. (1991). The Three-Factor Structure of the Maslach Burnout Inventory. *Journal of Social Behaviour & Personality*, 6(3): 453-472.
- Green, S., Lissitz, R. & Mulaik, S. (1977). Limitations of Coefficient alpha as an Index of Test Unidimensionality. *Educational Psychological Measurement*, 37(4): 827-838.
- Greenberg, J. (1993a). The Intellectual Adolescence of Organisational Justice: You've Come a Long Way, Maybe. *Social Justice Research*, 6(1): 135-148.
- Greenberg, J. (1993b). *The Social Side of Fairness: Interpersonal and Informational Classes of Organisational Justice*: Hillsdale, New Jersey: Erlbaum.
- Greenleaf, E. A. (1992). Improving Rating Scale Measures by Detecting and Correcting Bias Components in Some Response Styles: *Journal of Marketing Research*, 29(2), 176.
- Gronroos, C. (1997). From Marketing Mix to Relationship Marketing - Towards a Paradigm Shift in Marketing. *Management Decision*, 13(5): 322-339.
- Gronroos, C. (1990). *Service Management and Marketing*, Lexington, MA: Lexington Books.
- Gross, J. J., & Thompson, R. A. (2007). *Emotion regulation: Conceptual foundations*. Guilford Press.
- Guglielmi, R. S. & Tatrow, K. (1998). Occupational Stress, Burnout, and Health in Teachers: A Methodological and Theoretical Analysis. *Review of Educational Research*, 68(1): 61-99.
- Hair, J. F., Anderson, R. E., Tatham, R. L. & William, C. (1998). *Multivariate Data Analysis*. New Jersey: Prentice Hall.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. & Tatham, R. L. (2006). *Multivariate Data Analysis*, New Jersey: Prentice Hall.
- Hair, J. F., William, C. B., Barry, J. B. & Rolph, E. A. (2010). *Multivariate Data Analysis with Readings*: CA.
- Hair, J., Tatham, R. & Anderson, R. (2002). *Multivariate Data Analysis*. Prentice Hall.
- Hakstian, A. R., Rogers, W. T. & Cattell, R. B. (1982). The Behaviour of Number-of-Factors Rules with Simulated Data. *Multivariate Behavioural Research*, 17(2): 193-219.
- Halbesleben, J. R. & Buckley, M. R. (2004). Managing Customers as Employees of the Firm: New Challenges for Human Resources Management. *Personnel Review*, 33(3): 351-372.

- Halbesleben, J. R. & Demerouti, E. (2005). The Construct Validity of an Alternative Measure of Burnout: Investigating the English Translation of the Oldenburg Burnout Inventory. *Work & Stress*, 19(3): 208-220.
- Halsesleben, J. R. & Buckley, M. R.(2004). Burnout in Organisational Life. *Journal of Management* 30(6): 859-879.
- Hammen, C. (2005). Stress and Depression. *Annual Review of Clinical Psychology*. 1(1): 293-319.
- Harris, E. G., Artis, A. B., J.H., W. & Licata, J. W. (2006). Role Stressors, Service Work Job Resourcefulness, and Job Outcomes: An Empirical Analysis. *Journal of Business Research*, 59(4): 407-415.
- Harris, L. C. & Reynolds, K. L. (2003). The Consequences of Dysfunctional Customer Behaviour. *Journal of Service Research*, 6(2): 144-161.
- Harrison, P. & Smith, C. (1996). *Management Directions: Communication Technologies*. In: Foundation. London: UK.
- Harter, J. K., Schmidt, F. L. & Hayes, T. L. (2002). Business-Unit-Level Relationship Between Employee Satisfaction, Employee Engagement and Business Outcomes: A Meta-Analysis. *Journal of Applied Psychology*, 87(2): 268-279.
- Hauenstein, N. M., Mcgonigle, T. & Flinder, S. W. (2001). A Meta-Analysis of the Relationship Between Procedural Justice and Distributive: Implications for Justice Research. *Employee Responsibility and Rights Journal*, 13(1): 39-56.
- Hayduk, L., Cummings, G. G., Boadu, K., Pazderka-Robinson, H. & Boulianne, S. (2007). Testing! Testing! One, two three – Testing the Theory in Structural Equation Models! . *Personality and Individual Differences*, 42(5): 841-850.
- Hayton, J. C., Allen, D. G. & Scarpello, V. (2004). Factor Retention Decisions in Exploratory Factor Analysis: A Tutorial on Parallel Analysis. *Organisational Research Methods*, 7(2): 191-205.
- Hayward, R. M. & Tuckey, M. R. (2011). Emotions in Uniform: How Nurses Regulate Emotion at Work via Emotional Boundaries. *Human Relations*, 64 (11): 1501-1523
- HELA (1999). *Advice Regarding Call Centre Working Practices*, Local Authority Circular 94/1. (Rev) Sheffield: HSL.
- HELA (1999). *Initial Advice Regarding Call Centre Working Practices*, Local Authority Circular 94/1. Sheffield: HSL.
- Henson, R. K. & Roberts, J. K. (2006). Use of Exploratory Factor Analysis in Published Research: Common Errors and Some Comment on Improved Practice. *Educational and Psychological Measurement*, 66(3): 393-416.

- Herzberg, F. (1965). The Motivation to Work amongst Finnish Supervisors. *Personnel Psychology*, 18(4): 393-402.
- Herzberg, F. I. (1966). Work and the Nature of Man. *Personnel Psychology*, 13(1): 122-132.
- Heuven, E. & Bakker, A. B. (2003). Emotional Dissonance and Burnout among Cabin Attendants. *European Journal of Work and Organizational Psychology*, 13(4): 81-100.
- Heuven, E., Bakker, A. B., Schaufeli, W. B. & Huisman, N. (2006). The Role of Self-Efficacy in Performing Emotion Work. *Journal of Vocational Behaviour*, 69(2): 222-235.
- Higgs, M. (2004). A Study of the Relationship Between Emotional Intelligence and Performance in UK Call Centres. *Journal of Managerial Psychology*, 19(4): 442-454.
- Hobfoll, S. E. & Freedy, J. (1993). *Conservation of Resources: A General Stress Theory Applied to Burnout*. Washington, DC: Taylor and Francis.
- Hobfoll, S. E. (1988). *The Ecology of Stress*. Washington DC: Hemisphere.
- Hobfoll, S. E. (1989). Conservation of Resources: A New Attempt at Conceptualising Stress. *American Psychologist*, 44(3): 413-524.
- Hobfoll, S. E. (2001). The Influence of Culture, Community, and the Nested Self in the Stress Process: Advancing Conservation of Resources Theory. *Applied Psychology: International Review*, 50(3): 337-370.
- Hobfoll, S. E. (2002). Social and Psychological Resources Adaptation. A Review of *General Psychology*, 6(4): 307.
- Hobfoll, S. E., Lilly, R. S. & Jackson, A. P. (1992). *Conservation of Social Resources and the Self.*, Washington DC: Hemisphere.
- Hochschild, A. R. (1983). *The Managed Heart*, Berkley, CA: University of California Press.
- Hockey, G. J. (1997). Compensatory Control in the Regulation of Human Performance Under Stress and High Workload. A Cognitive-Energetical Framework. *Biological Psychology*, 45(1): 73-93.
- Hockey, G. R. (1993). *Cognitive-Energetical Control Mechanisms in the Management of Work Demands and Psychological Demands*, Oxford, England: Clarendon Press.
- Holder, D. & Fairlie, R. (1999). A Dress Rehearsal for the Future. *Interactive Marketing*, 1(1): 5-8.
- Holdsworth, L. & Cartwright, S. (2003). Empowerment, Stress and Satisfaction: and Exploratory Study of a Call Centre. *Leadership and Organisational Development Journal*, 24(3): 131-140.

- Holman, D. (2002). Employee Well-being in Call Centres. *Human Resource Management Journal*, 12(2) 35-50.
- Holman, D. (2002). Phoning in Sick? An Overview of Employee Stress in Call Centres. *Leadership and Organisational Development Journal*, 24(3): 131-140.
- Holman, D. (2003). *Call Centres*. Chichester, West Sussex: Wiley Publishers, UK.
- Hom, P. W. Griffeth, R. W. & Sellaro, C. L. (1984). The Validity of Mobley's (1977) Model of Employee Turnover. *Organisational Behaviour and Human Decision Processes*, 34(2): 141-174.
- Homans, G. C. (1961). *Social Behaviour: Its Elementary Forms*. London: Routledge and Kegan Paul.
- Houkes, I. Winants, H. W. M. & Twellaar, M. (2008). Specific Determinants of Burnout Among Male and Female General Practitioners: A Cross-Lagged Panel Analysis. *Journal of Occupational and Organisational Psychology*, 81(2): 249-276.
- Hu, L. & Bentler, P. M. (1999). Cut-off Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives. *S. E. Modelling*, 6(1): 1-55.
- Huo, Y. J., Smith, H. J. Tyler, T. R. & Lind, E. A. (1996). Superordinate Identification, Subgroup Identification and Justice Concerns. *Psychological Science*, 7(1): 40-45.
- Ivancevich, J. M. & Matteson, M. T. (1980). *Stress and Work: A Managerial Perspective*. Dallas: Scott, Foresman.
- Jackson, S. E., Turner J. A. & Brief, A. P. (1987). Correlates of Burnout among Public Service Lawyers. *Journal of Occupational Behaviour*, 8(4): 339-349.
- Jöreskog, K. G. & Sörbom, D. (1986). *LISREL VI: Analysis of Linear Structural Relationships by Maximum Likelihood, Instrumental Variables, and Least Squares Methods*. Scientific Software.
- Judd, C. M., & Kenny, D. A. (2010). *Data Analysis in Social Psychology: Recent and Recurring Issues*. John Wiley & Sons, Inc.
- Judd, C. M., Kenny, D. A. & McClelland, A. (2001). Estimating and Testing Mediation and Moderation within Participant Designs. *Psychological Methods*, 6(2): 115-134.
- Jurissen, T. O. N. & Nyclicek, I. (2001). Testing the Vitamin Model of Job Stress in Dutch Health Care Workers. *Work and Stress*, 15(1): 254-264.
- Kahn, R. L. & Byosiore, P. (1992). *Stress in Organisations*, Palo Alto, California: Consulting Psychologists Press.
- Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, J. D. & Rosenthal, R. A. (1964). *Occupational Stress: Studies in Role Conflict and Ambiguity*, New York: Wiley.

- Kahn, W. A. (1990). Psychological Conditions of Personal Engagement and Disengagement at Work. *Academy of Management Journal*, 33(4): 692-724.
- Kaiser, H. F. (1960). The Application of Electronic Computers to Factor Analysis. *Educational and Psychological Measurement*, 5(1): 33-45.
- Kanfer, R., Sawyer, J. E., Earley, P. C. & Lind, E. A. (1987). Fairness and Participation in Evaluation Procedures: Effects on Task Attitudes and Performance. *Social Justice Research*, 1(2): 235-249.
- Kanter, D. L. & Mirvis, P. H. (1989). *The Cynical Americans: Living and Working in an Age of Discontent and Disillusion.*, San Francisco: Jossey-Bass.
- Kanungo, R. N. (1982). Measurement of Job and Work Involvement. *Journal of Applied Psychology*, 67(3): 341.
- Karasek, R. A. & Theorell, T. (1990). *Healthy Work: Stress, Productivity and the Reconstruction of Working Life*, New York: Basic Books.
- Kelloway, E. K. & Barling, J. (1990). Item Content versus Item Wording: Disentangling Role Conflict and Role Ambiguity. *Journal of Applied Psychology*, 75(6): 738-742.
- Kenny, D. A. & McCoach, D. B. (2003). Effect of the Number of Variables on Measures of Fit in Structural Equation Modelling. *Structural Equation Modelling*, 10(3): 333-351.
- Kenny, D. A. (2013). Moderator Variables. *Psychology Bulletin*, 3(2): 1170-1196.
- Kenny, D. A., Kaniskan, B. & McCoach, D. B. (2014). The Performance of RMSEA in Models with Small Degrees of Freedom. *Sociological Methods & Research*, 8(1): 100-114.
- Kenny, D. A., Veldhuijzen, W., Van Der Weijden, T., Leblanc, A., Lockyer, J., Légaré, F. & Campbell, C. (2010). Interpersonal Perception in the Context of Doctor–Patient Relationships: A Dyadic Analysis of Doctor–Patient Communication. *Social Science & Medicine*, 70(5): 763-768.
- Keppel, G., Saufley, W. H. & Tokunaga, H. (1992). *Introduction to Design and Analysis: A Student's Handbook*. WH Freeman.
- Kessler, I. (2002). Call Centres: Dealing with Stress in Call Centre Environments. *People Management*, 54(1): 102-123.
- Kim, K. I. & Organ, D. W. (1982). Determinants of Leader-Subordinate Exchange Relationships. *Group and Organization Management*, 7(1): 77-89.
- King, A. & King, D. W. (1990). Role Conflict and Role Ambiguity: A Central Assessment of Construct Validity. *Psychological Bulletin*, 107(1): 48-64.

Kinman G. & Jones, F. (2003). Running up the Down Escalator: Stressors and Strains in UK Academics”, *Quality in Higher Education*, 9(1): 22- 37.

Kinman, G. & Grant, L. (2011). ‘Exploring Stress Resilience in Trainee Social Workers: The Role of Emotional and Social Competencies’. *British Journal of Social Work* 41(2): 261-275.

Kinman, G. & Jones, F. (2001). The Work-Home Interface. In: F. Jones & J. Bright. *Stress: Myth, Theory and Research*, London: Prentice Hall.

Kinman, G. & Jones, F. (2008). Effort-Reward Imbalance, Over-Commitment and Work-Life Conflict in UK. *Academics Journal of Managerial Psychology*, 23(3): 236-251

Kinman, G. (2009). Emotional Labour and Strain in 'Front-Line' Service Employees: Does Mode of Delivery Matter? *Journal of Managerial Psychology*, 24 (2): 118-135

Kinman, G. Jones, F. & Kinman, R. (2006). The Wellbeing of the UK Academy: *Quality in Higher Education*, 12(1): 15-27

Kirk, S. & Kutchins, H. (1992). *The Selling of DSM. The Rhetoric of Science in Psychiatry*. New York: De Gruyter.

Klainin-Yobas, P. Keawkerd, O. Pumpuang, W. Thunyadee, C. W. & He, H. (2014). The Mediating Effects of Coping on the Stress and Health Relationships among Nursing Students: a Structural Equation Modelling Approach. *Journal of Advanced Nursing*, 70(6): 1287-1298.

Kline, P. (2014). *An Easy Guide to Factor Analysis*. Routledge, Taylor and Francis Publishing: UK.

Kline, P. (2014). *The New Psychometrics: Science, Psychology and Measurement*. Routledge, Taylor and Francis Publishing: UK.

Kline, R. B. (2005). *Principles and Practice of Structural Equation Modelling*, New York: The Guilford Press.

Kline, R. B. (2010). *Principles and Practice of Structural Equation Modelling*, (3rd Ed.) New York, New York: Guilford Press.

Kline, R. B. (2011). *Principles and Practice of Structural Equation Modelling*, Glf. NY.

Kline, T. J. (2005). *Psychological Testing: A Practical Approach to Design and Evaluation*: Sage Publications.

Kline, T. J., Sulsky, L. M. & Rever-Moriyama, S. D. (2000). Common Method Variance and Specification Errors: A Practical Approach to Detection. *Journal of Psychology*, 134(4): 401-421.

Koeske, G. F. & Koeske, R. D. (1989). Construct Validity of the Maslach Burnout Inventory: A Critical Review and Reconceptualisation. *Journal of Applied Behavioural Science*, 25(2): 131-132.

Koestner, R. & Losier, G. F. (2002). *Distinguish Three Ways of Being Highly Motivated: A Closer Look at Introjection, Identification, and Intrinsic Motivation.*, Rochester, New York: University of Rochester Press.

Kopalle, P. K. & Lehmann, D. R. (2009). Alpha Inflation? The Impact of Eliminating Scale Items on Cronbach's Alpha. *Organisational Behaviour and Human Decision Processes*, 70(2): 189-197.

Kraemer, H. C., Stice, E., Kazdin, A., Offord, D. & Kupfer, D. (2001). How Do Risk Factors Work Together?: Moderators, Mediators, Independent, Overlapping and Proxy Risk Factors. *American Journal of Psychiatry*, 158(2): 848-856.

Kraemer, H. C., Wilson, G. T., Fairburn, C. G. & Agras, W. S. (2002). Mediators and Moderators of Treatment Effects in Randomised Clinical Trials. *Archives of General Psychiatry*, 59(10): 877-883.

Kruml, S. M. & Geddes, D. (2000). Exploring the Dimensions of Emotional Labour: The Heart of Hochschild's Work. *Management Communication Quarterly*, 14(1): 8-49.

Lam, S. S. K., Schaubroeck, J. & Aryee, S. (2002). Relationship Between Organisational Justice and Employee Work Outcomes: A Cross-National Study. *Journal of Organisational Behaviour*, 23(1): 1-18.

Landis, D. & Brislin, R. W. (Eds.). (2013). *Handbook of Inter-cultural Training: Issues in Training Methodology* (Vol. 116). Elsevier.

Lang, D. (1985). Reconditions of Three Types of Alienation in Young Managers and Professionals. *Journal of Occupational Behaviour*, 6(1): 171-182.

Langelan, S., Bakker, A. B., Doornen, L. J. P. & Schaufeli, W. B. (2006). Burnout and Work Engagement: Do Individual Differences Make a Difference? *Personality and Individual Differences*, 40(3): 521-532.

Langer, E. J. (2009). *Counter-Clockwise: Mindful Health and the Power of Possibility*. New York: Random House.

Lawler, E. E. & Hall, D. T. (1970). Relationship of Job Characteristics to Job Involvement, Satisfaction, and Intrinsic Motivation. *Journal of Applied Psychology*, 54(4): 305-312.

Lazarus, R. S. (1974). Psychological Stress and Coping in Adaptation and Illness. *International Journal of Psychiatry in Medicine*, 5(4): 321-333.

Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. Springer Publishing Company.

- Lee, R. T. & Ashforth, B. E. (1990). On the Meaning of Maslach's Three Dimensions of Burnout. *Journal of Applied Psychology*, 75(6): 743-747.
- Lee, R. T. & Ashforth, B. E. (1993a). A Further Examination of managerial Burnout: Toward an Integrated Model. *Journal of Organisational Behaviour*, 14(1): 3-20.
- Lee, R. T. & Ashforth, B. E. (1996). A Meta-Analytic Examination of the Correlates of the Three Dimensions of Job Burnout. *Journal of Applied Psychology*, 81(2): 123-133.
- Leiter, M. & Maslach, C. (1988). The Impact of Interpersonal Environment on Burnout and Organisational Commitment. *Journal of Organisational Behaviour*, 9(4): 297-308.
- Leiter, M. P. & Durup, J. (1994). The Discriminant Validity of Burnout and Depression: A Confirmatory Factor Analytic Study. *Anxiety Stress and Coping*, 7(4): 357-373.
- Leiter, M. P. (1992). Burnout as a Crisis in Self-Efficacy: Conceptual and Practical Implication. *Work and Stress*, 6(2): 105-115.
- LePine, J. A., Erez, A. & Johnson, D. E. (2002). The Nature and Dimensionality of Organizational Citizenship Behaviour: A Critical Review and Meta-Analysis. *Journal of Applied Psychology*, 87(1): 52.
- LePine, J. A., Podsakoff, N. P. & Lepine, M. A. (2005). A Meta-Analytic Test of the Challenge Stressor-Hindrance Stressor Framework: An Explanation for Inconsistent Relationships Among Stressors and Performance. *Academy of Management Journal*, 48(5): 764-775.
- Leventhal, G. S. & Michaels, J. W. (1969). Extending the Equity Model: Perception of Inputs and Allocation of Reward as a Function of Duration and Quantity of Performance. *Journal of Personality and Social Psychology*, 12(4): 303-309.
- Leventhal, G. S. (1976). The Distribution of Rewards and Resources in Groups and Organisation. In: L. Berkowitz & W. Walster. *Adv. in Exp. Soc. Psychology*, 9: 91-131.
- Leventhal, G. S. (1980). *What Should be Done with Equity Theory? New Approaches to the Study of Fairness in Study of Social Relationships*. New York: Plenum.
- Leventhal, G. S., Karuza, J., & Fry, W. R. (1980). Beyond Fairness: A Theory of Allocation Preferences. *Justice and Social Interaction*, 3(1): 167-218.
- Levine, T. R. (2005). Confirmatory Factor Analysis and Scale Validation in Communication Research. *Communication Research Reports*, 22(4): 335-338.
- Leyman, H. (1996). The Content and Development of Mobbing at Work. *European Journal of Work and Organisational Psychology*, 5(1): 165-184.
- Li, X. & Zhou, E. (2013). Influence of Customer Verbal Aggression on Employee Turnover Intention. *Management Decision*, 51(2): 890-912.

- Likert, R. (1932). A Technique for the Measurement of Attitudes. *Archives of Psychology*. Lodahl, T. M., & Kejner, M. (1965). The Definition and Measurement of Job Involvement. *Journal of Applied Psychology*, 49(1): 24-33.
- Lincoln, Y. S. & Guba E. G. (2000). Paradigmatic Controversies, Contradictions and Emerging Influences. In N. Denzin and Y. Lincoln (eds.), *Handbook of Qualitative Research* (2nd ed., pp. 163-188). Thousand Oaks, CA: Sage.
- Lind, E. A. & van den Bos, K. (2002). When Fairness Works: Towards a general Theory of Uncertainty Management. In: B. M. Staw and R. M. Kramer (Eds.). *Research in Organisational Behavior*, 24(1): 181-223.
- Lind, E. A. (1995). *Justice and Authority Relations in Organisations*, Westport, Connecticut: Quorum Books.
- Lind, E. A., & Tyler, T. R. (1988). *The Social Psychology of Procedural Justice*. Springer Science & Business Media, CA.
- Liska, A. E. (1984). A Critical Examination of the Causal Structure of the Fishbein/Ajzen Attitude-Behaviour Model. *Social Psychology Quarterly*, 47(1): 61-74.
- Little, R. & Rubin, D. (2002). *Statistical Analysis with Missing Data*, Hoboken, NJ.
- Little, T. D., Bovaird, J. A. & Widaman, K. F. (2006). On the Merits of Orthogonalising Powered and Product Terms: Implications for Modelling Interactions amongst Latent Variables. *Structural Equation Modelling*, 13(4): 497-519.
- Little, T. D., Brauner, J., Jones, S., Noch, M. & Hawley, P. H. (2003). A Typological Examination of the Functions of Aggression. *Merrill Palmer Quarterly*, 49: 343-369.
- Lodahl, T. M., & Kejner, M. (1965). The Definition and Measurement of Job Involvement. *Journal of Applied Psychology*, 49(1), 24-33.
- Loehlin, J. C. (1992). *Latent Variable Models: An Introduction to Factor, Path and Structural Analysis*, Hillsdale, New Jersey: Prentice Hall.
- Lovelock, C. H. & Wirtz, J. (2004). *Services Marketing: People, Technology, Strategy*, Singapore: Pearsons.
- Lowe, R. H. & Vodanovich, S. J. (1995). A Field Study of Distributive and Procedural Justice as Predictors of Satisfaction and Organisational Commitment. *Journal of Business and Psychology*, 10(1): 99-114.
- Lucas, R. E. (1977). Understanding Business Cycles. In: *Carnegie-Rochester Conference Series on Public Policy*. 5: 7-29, North-Holland.
- Lucas, R. E. Jnr. (1986). Adaptive Behaviour and Economic Theory. *The Journal of Business*, University of Chicago Press, 59(4): 401-26.

- Maas, M. & van den Bos, K. (2009). An Affective-Experiential Perspective on Reactions to Fair and Unfair Events: Individual Differences in Affect Intensity Moderated by Experiential Mindsets. *Journal of Experimental Social Psychology*, 45(4): 667-675.
- Maccallum, R. C. & Austin, J. T. (2000). Applications of Structural Equation Modelling in Psychology. *Annual Review of Psychology*, 51(1): 201-226.
- Maccallum, R. C. & Mar, C. M. (1995). Distinguishing between Moderator and Quadratic Effects in Multiple Regression. *Psychological Methods*, 118(3): 405-421.
- Macey, W. H. & Schneider, B. (2008). The Meaning of Employee Engagement. *Industrial and Organisational Psychology*, 1(1): 3-30.
- Mackinnon, D. P., Warsi, G. & Dwyer, J. H. (1995). A Simulation Study of Mediated Effect Measures. *Multivariate Behavioural Research*, 30(1): 41-62.
- Mahesh, V. S. & Kasturi, A. (2006). Improving Call Centre Agents' Performance: A UK-India Study on the Agents' Point of View. *International Journal of Service Industry Management*, 17(2): 136-157.
- Mahesh, V. S. (1993). *Thresholds of Motivation*, Tata McGraw-Hill Press, New Delhi: India.
- Malholtra, N. & Mukherji, A. (2004). The Relative Influence of Organisational Justice Commitment and Job Satisfaction on Service Quality of Customer-Contact Employees in Banking Call Centres. *Journal of Service Market*, 18(3): 162-174.
- Malholtra, N., Budhwar, P. S. & Prowse, P. (2007). Linking Rewards to Commitment: An Empirical Investigation of Four UK Call Centres. *International Journal of Human Resources Management*, 18(12): 2095-2127.
- Mandell, M. M. (1956). Supervisory Characteristics and Ratings: A Summary of Recent Research. *Personnel*, 32(2): 435-440.
- Mann, S., & Cowburn, J. (2005). Emotional Labour and Stress within Mental Health Nursing. *Journal of Psychiatric and Mental Health Nursing*, 12(2), 154-162.
- Marczyk, G., DeMatteo, D. and Festinger, D. (2005). *Essentials of Research Design and Methodology*. New Jersey. John Wiley and Sons Inc.
- Marsh, H. W., Balla, J. R. & McDonald, R. P. (1988). Goodness of Fit Indexes in Confirmatory Factor Analysis: The Effect of Sample Size. *Psy. Bulletin*, 103(3): 391-410.
- Marsh, H. W., Hau, K. T., Wen, Z., Nagengast, B. & Morin, A. J. S. (2011). *Moderation*. New York: Oxford University Press.

- Maslach, C. & Leiter, M. P. (1997). *The Truth about Burnout: How Organisations Cause Personal Stress and What to do About it.*, San Francisco, CA: Jossey-Bass.
- Maslach, C. & Schaufeli, W. B. (1993). Historical and Conceptual Development of Burnout. In: W.B. Schaufeli, C. Maslach, and T. Marek (Eds.). *Professional Burnout: Recent Developments in Theory and Research*: 1-16.
- Maslach, C. (1982). Understanding Burnout: Definitional Issues in Analysing a Complex Phenomenon. In: W.S. Paine (Ed.). *Job Stress and Burnout*. Beverly Hills, Sage.
- Maslach, C. (1998). A Multidimensional Theory of Burnout. C.L. Cooper (Eds.). In: *Theories of Organisational Stress*: 68-85.
- Maslach, C. M. & Jackson, A. P. (1981). The Measurement of Experienced Burnout. *Journal of Occupational Behaviour*, 2(2): 99-113.
- Maslach, C. M. & Jackson, S. E. (1986). *Maslach Burnout Inventory Manual*, California: Palo Alto.
- Maslach, C. M., Schaufeli, W. B. & Leiter, M. P. (2001). Job Burnout. *Annual Review of Psychology*, 52(1): 397-422.
- Masterson, S. S., Lewis, K., Goldman, B. M. & Taylor, M. S. (2000). Integrating Justice and Social Exchange: The Differing Effects of Fair Procedures and Treatment on Work Relationships. *Academy of Management Journal*, 43(4): 738-748.
- Matsunaga, M. (2010). How to Factor-Analyse your Data Right: Do's, Don'ts, and How-To's. *International Journal of Psychological Research*, 3(1): 2011-2084.
- Matterson, M. T. & Ivancevich, J. M. (1988). *Health Promotion at Work*, NY: Wiley.
- Mauss, I. B., Bunge, S. A. & Gross, J. J. (2007). Automatic Emotion Regulation. *Social and Personality Psychology Compass*, 1(1): 146-167.
- Maxwell, J. A. (2006). *Qualitative Research Design: An Interactive Approach* (2nd Ed.) Thousand Islands: Sage.
- May, D. R., Gilson, R. L. & Harter, L. M. (2004). The Psychological Conditions of Meaningful, Safety and Availability and the Engagement of Human Spirit at Work. *Journal of Occupational and Organisational Psychology*, 77(1): 11-37.
- Mcdonald, R. & Ho, M. (2002). Principles and Practice in Reporting Structural Equation Analysis *Psychological Methods*, 7(1): 64-82.
- McFarlin, D. B. & Sweeney, P. D. (1992). Distributive and Procedural Justice as Predictors of Satisfaction with Personal and Organisational Outcomes. *Academy of Management Journal*, 35(3): 626-637.
- McGregor, D. (1960). *The Human Side of Enterprise*. New York, 21(1960).

Meredith, W. (1993). Measurement Invariance Factor Analysis and Factorial Invariance. *Psychometrika*, 58(4): 525-543.

Merriam, S. (1988). *Qualitative Research and Case Study Applications in Education*. San Francisco: Jossey-Bass.

Merriam, S. (1998). *Qualitative Research and Case Study Applications in Education* (2nd ed.). San Francisco: Jossey-Bass.

Meyer, J. & Herscovitch, L. (2001). Commitment in the Workplace: Towards a General Model. *Human Resources management Review*, 11(3): 299-326.

Meyer, J. P. & Allen, N. J. (1991). A Three-Concept Conceptualisation of Organisational Commitment. *Human Resource Management Review*, 1(1): 61-98.

Meyer, J. P. & Gagne, M. (2008). Employee Engagement from a Self-Determination Theory Perspective. *Industrial and Organisational Psychology*, 1(1): 60-62.

Meyer, J. P., Stanley, D. J., Herscovitch, L. & Topolnysky, L. (2002). Affective, Continuance, and Normative Commitment to the Organisation: A Meta-Analysis of Antecedents, Correlates, and Consequences. *Journal of Vocational Behaviour*, 36(1): 180-200.

Meyers, A. (2005). *Applied Multivariate Research*, Thousand Oaks, Sage, California: USA.

Mikolajczak, M., Menil, C. & Luminet, O. (2007). Explaining the Protective Effort of Trait Emotional Intelligence Regarding Occupational Stress: Exploration of Emotional Labour Processes. *Journal of Research in Personality*, 41(5): 1107-1117.

Mikolajczak, M., Tran, V., Brotheridge, C. M. & Gross, J. J. (2009). Using an Emotion Regulation Framework to Predict the Outcomes of Emotional Labour. In: Ashkanasy, N. M., Zerbe, W. J. and Hartel, C. E. J. (eds) *Emotions in Groups: Organisations and Cultures Research on Emotions in Organisations*, 5(1): 245-273.

Mital Research (2002). UK Call and Contact Centre Study. In: *Research Methods*. (Ed.). Chester: Mital Research.

Monnier, J., Cameron, R. P., Hobfoll, S. E. & Gribble, J. R. (2002). The Impact of Resource Loss and Critical Incidents on Psychological Functioning in Fire-Emergency Workers: A Pilot Study. *International Journal of Stress Management*, 9(1): 11-29.

Moorman, R. H. (1991). Relationship Between Organisational Justice and Organisational Citizenship Behaviours: Do Fairness Perceptions Influence Employee Citizenship? *Journal of Applied Psychology* 76(6): 845-855.

- Muhammad, A. H. & Hamdy, H. I. (2005). Burnout, Supervisory Support and Work Outcomes: A Study from the Arabic Cultural Perspective. *International Journal of Commerce and Management*, 15(3/4): 230-243.
- Mulholland, K. (2002). Gender, Emotional Labour and Team-working in a Call Centre. *Personnel Review*, 31(3): 283-303.
- Mutch, C. (2005). *Doing Educational Research: A Practitioner's Guide to Getting Started*. Wellington: NZCER Press.
- Muthén, L. K., & Muthén, B. O. (1998). *Mplus: The Comprehensive Modeling Program for Applied Researchers; User's Guide*. Version 1.0. Muthén & Muthén.
- Muthén, L. K., & Muthén, B. O. (2007). *Mplus. Statistical Analysis with Latent Variables*. Version 3.0. Muthén & Muthén.
- Naylor, J. C., Pritchard, R. D. & Ilgen, D. R. (1980). *A Theory of Behaviour in Organizations*, New York: Academic Press.
- Netemeyer, R. G., Johnston, M. W. & Burton, S. (1990). Analysis of Role Conflict and Role Ambiguity in a Structural Equations Framework. *Journal of Applied Psychology*, 75(2): 148-157.
- Neveu, J. (2007). Jailed Resources: Conservation of Resources Theory as Applied to Burnout Among Prison Guards. *Journal of Organisational Behaviour*, 28(1): 21-42.
- Nijkamp, P., Rietveld, P. & Salomon, I. (1990). Barriers in Spatial Interactions and Communications. A Conceptual Exploration. *Annual Regional Science*, 24(4): 237-252
- Noe, R. A. & Steffy, D. B. (1987). The Influence of Individual Characteristics and Assessment Centre Evaluation on Career Exploration Behaviour and Job Involvement. *Journal of Vocational Behavior*, 30(2): 187-202.
- Norman, R. (1975). Affective-Cognitive Consistency, Attitudes, Conformity and Behaviour. *Journal of Personality and Social Psychology* 32(1): 83-91.
- Nueman, W. L. (2003). *Social Research Methods: Qualitative and Quantitative Approaches* (5th ed.). Boston: Allyn and Bacon.
- Ochsner, K. N. & Gross, K. N. (2004). Thinking Makes it So: A Social Cognitive Neuroscience Approach to Emotion Regulation. In: R. F. Baumeister & K. D. Vohs (Eds.), *Handbook of Self-Regulation: Research, Theory and Applications*, New York, Guilford Press: 229-255.
- Ochsner, K. N. & Gross, K. N. (2005). The Cognitive Control of Emotion. *Trends in Cognitive Sciences*, 9(5): 242-249.
- Organ, D. W. (1988a). A Restatement of the Satisfaction-Performance Hypothesis. *Journal of Management*, 14(4): 547-557.

- Organ, D. W. (1990). The Motivational Basis of Organisational Citizenship Behaviour: In: L.Cummings and B. Staw (Eds.). *Research in Organisational Behaviour*, 12(1): 43-72.
- Panagopoulou, E., Kersbergen, B. & Maes, S. (2002). The Effects of Emotional (Non-) Expression in Disease: A Meta-analytic Review. *Psych. and Health*, 17(5): 529-45.
- Pearl, J. (2001) Direct and Indirect Effects. In: Kaufmann, M., (ed.) *Proceedings of the Seventeenth Conference on Uncertainty in Artificial Intelligence*, San Francisco: California.
- Pearsall, M. J., Ellis, A. P. J. & Stein, J. (2009). Coping with Challenge and Hindrance Stressors in Teams: Behavioural, Cognitive and Affective Outcomes. *Organisational Behaviour and Human Decision Processes*, 109(1): 18-28.
- Pennebaker, J. W. (2002). Writing, Social Processes, and Psychotherapy: From Past to Future. In: S.J. Lepore and J.M. Smyth (Eds.). *The Writing Cure: How Expressive Writing Promotes Health and Emotional Well-Being* (pp 281-291). Washington, DC: American Psychological Association.
- Perrow, C. (1965). Hospitals: Technology, Structure, and Goals. *A Handbook of Organizations*, 910-971.
- Perugini, M. & Bagozzi, R. P. (2004). The Distinction between Desire and Intentions. *European Journal of Social Psychology*, 34(1): 69-84.
- Pinder, C. C. (1984). *Work Motivation: Theory, Issues and Applications*. Scott Foresman and Company.
- Pines, A. M. & Aronson, E. (1988). *Career Burnout: Causes and Cures*, NY: Free Press.
- Pines, A. M. & Keinan, G. (2005). Stress and Burnout: The Significant Difference. *Personality and Individual Differences*, 39(3): 625-635.
- Ployhart, R. E. & Ryan, A. M. (1998). Applicant's Reaction to the Fairness of Selection Procedures: The Effect of Positive Rule Violations and Time of Measurement. *Journal of Applied Psychology*, 83(1): 3-16.
- Podsakoff, P. M., MacKenzie, S. B. & Podsakoff, N. P. (2012). Sources of Method Bias in Social Science Research and Recommendations on How to Control It. *Annual Review of Psychology*, 63: 539-569.
- Podsakoff, P. M., Mckenzie, S. B., Lee, J. & Podsakoff, N. P. (2003). Common Method Biases in behavioural Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*, 88(5): 879-903.
- Pollitt, C. (2011). Moderation in all Things: International Comparisons of Governance Quality. *Financial Accountability and Management* 27(4): 437-457.

Popkewitz, T. S. (1984). *Paradigms and Ideology in Educational Research: The Social Function of the Intellectual*. London: Falmer Press.

Popkewitz, T.S., Tabachnick, B. R. and Zeichher, K. (1979). Dulling the Senses: Research in Teacher Education. *Journal of Teacher Education*, 30(5): 52-60.

Porath, C. L. & Erez, A. (2009). Overlooked but not Untouched: How Rudeness Reduces Onlookers' Performance on Routine and Creative Tasks. *Organisational Behaviour and Human Decision Processes*, 109(1): 29-44.

Porter, M. E. (1979). The Structure within Industries and Companies' Performance. *The Review of Economics and Statistics*: 214-227.

Porter, M. E. (1998). Cluster and the New Economics of Competition. *The Review of Economics and Statistics*: 110-124.

Porter, M. E. (2008). *Competitive Advantage: Creating and Sustaining Superior Performance*: Simon and Schuster.

Prabhaker, R. P., Sheehan, J. M. & Coppett, J. I. (1997). The Power of Technology in Business Selling: Call Centres. *Journal of Business and Industrial Marketing*, 12(3/4): 222-235.

Preacher, K. J. & Hayes, A. F. (2004). SPSS and SAS Procedures for Estimating Indirect Effects In: *Simple Mediation Models*. *Behaviour Research Methods, Instruments, & Computers*, 36(4): 717-731.

Preacher, K. J. & Hayes, A. F. (2008). *Contemporary Approaches to Assessing Mediation in Communication Research.*, Thousand Oaks, CA: Sage.

Rafaeli, A. & Sutton, R. I. (1990). Busy Stores and Demanding Customers: How do they Affect the Display of Positive Emotions. *Academy of Management Journal*, 33(3): 623-637.

Raykov, T. & Shrout, P. E. (2002). Reliability of Scales with General Structure: Point and Interval Estimation Using a Structural Equation Modelling Approach. *Structural Equation Modelling*, 9(2): 195-212.

Raykov, T. (1997). Estimation of Composite Reliability for Congeneric Measures. *Applied Psychological Measurement*, 21(2): 173-184.

Raykov, T. (2001). Bias of Coefficient for Fixed Congeneric Measures with Correlated Errors. *Applied Psychological Measurement*, 25(1): 69-76.

Rayner, C., Hoel, H. & Cooper, C. L. (2002). *Workplace Bullying: What we Know, Who is to Blame, and What can We Do?* , London: Taylor Francis.

- Rees, T. & Freeman, P. (2009). Social Support Moderates the Relationship between Stressors and Task Performance through Self-efficacy. *Journal of Social and Clinical Psychology*, 28(2): 244-263.
- Regan, D. T. & Fazio, R. H. (1977). On the Consistency between Attitude and Behaviour: Look to the Method of Attitude Formation. *Journal of Experimental Social Psychology*, 13(1): 28-45.
- Rego, A. & Cunha, M. (2008a). Perceptions of Authentic Climates and Employee Happiness: Pathways to Individual Performance? *Journal of Business Research*, 61(7): 739-52.
- Rego, A. & Cunha, M. (2008b). Organisational Citizenship Behaviours and Effectiveness: An Empirical Study in Two Small Insurance Companies. *Service Industries Journal* 28(4): 541–554.
- Rego, A. & Cunha, M. P. (2009a). How Individualism-Collectivism Orientations Predict Happiness in a Collectivistic Context. *Journal of Happiness Studies*, 10(1): 19-35.
- Rego, A. & Cunha, M. P. (2009b). Do the Opportunities for Learning and Personal Development Lead to Happiness? It Depends on Work-Family Conciliation. *Journal of Occupational Health Psychology* 14(3): 334–348.
- Rego, A. & Cunha, M. P. (2009c). Organizational Justice and Citizenship Behaviours: A Study in the Portuguese Cultural Context. *Applied Psychology: An International Review*. 67(2), 200-210.
- Rego, A., Ribeiro, N. & Cunha, M. P. (2010). Perceptions of Organizational Virtuousness and Happiness as Predictors of Organizational Citizenship Behaviours. *Journal of Business Ethics*, 93(2): 215-235.
- Rego, A., Souto, S. & Cunha, M. P. (2009). Does the Need to Belong Moderate the Relationship between Perceptions of Spirit of Camaraderie and Employees' Happiness? *Journal of Occupational Health Psychology*, 14(2): 148-164.
- Reisinger, Y. & Mavondo, F. (2014). Structural Equation Modelling. *Journal of Travel and Marketing*, 21(2): 41-71.
- Revelle, W. & Zinbarg, R.E. (2009). Coefficients Alpha, Beta, Omega and the Glb: Comments on Sijtsma. *Psychometrika*. 74(1), 145-154.
- Richardson, R. (1994). *Back-Officing Front Office Functions - Organisational and Locational Implications of New Telemediated Services*, London: ASLIB.
- Richardson, R., Belt, V. & Marshall, N. (2000). Taking Calls to Newcastle: The Regional Implications of the Growth in Call Centres. *Regional Studies*, 34(4): 357-369.

- Rietveld, P. & Ouwersloot, H. (1992). Ordinal Data in Multi-Criteria Decision-Making, A Stochastic Dominance Approach to Citing Nuclear Power Plants. *European Journal of Operational Research*, 56(2): 249-262.
- Rigopoulou, I., Theodosiou, M., Katsikea, E. & Perdakis, N. (2012). Information Control, Role Perceptions, and Work Outcomes of Boundary Spanning Frontline Managers. *Journal of Business Research*, 65(5): 626-633.
- Ritchter, P. & Hacker, W. (1998). *Workload and Strain: Stress and Fatigue, and Burnout in Working Life*, Heidelberg, Germany: Asagner.
- Rizzo, J. R., House, R. J. & Lirtzman, S. I. (1970). Role Conflict and Ambiguity in Complex Organisations. *Administrative Science Quarterly*, 15(1): 150-163.
- Roberts, G. A. (1986). Burnout: Psychobabble or Valuable Concept? *British Journal of Hospital Medicine*, 36(3): 194-197.
- Roethlisberger, F. J. (1965). The Foreman: Master and Victim of Double Talk. *Havard Business Review*: 45(1): 22.
- Rose, E. & Wright, G. (2005). Satisfaction and Dimensions of Control among Centre Customer Service Representatives. *Inter. Jour. of Resources Management*, 16(1): 136-160.
- Roth, P. L. (1994). Missing Data: A Conceptual Review from Applied Psychologists. *Personnel Psychology*, 47(3): 537-560.
- Rousseeuw, P. J. & Van Zomeren, B. C. (1990). Unmasking Multivariate Outliers and Leverage Points. *Journal of the American Statistical Association* 85: 633-639.
- Rubin H. J. and Rubin I. S. (1995) *Qualitative Interviewing: An Art of Hearing Data*. Thousand Oaks, California: Sage.
- Runyan, C. W. & Zakocs, R. C. (2000). Epidemiology and Prevention of Injuries among Adolescent Workers in the United States. *Annual Review of Public Health*, 21(1): 247-269.
- Russell, E. J., Christopher, C. R. & Emilija, D. (2011). Assessing the Impact of Common Method Variance on Higher Order Multidimensional Constructs. *Journal of Applied Psychology*, 96(2): 744-761.
- Russell, J. A. & Carroll, J. M. (1999). On the Bipolarity of Positive and Negative Affect. *Psychological Bulletin*, 125(1): 3-10.
- Ryan, A. (1993). *Justice Perceptions*. Oxford, England: Oxford University Press: U K.
- Ryan, R. & Deci, E. (2000a). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *Am. Psychologist*, 55(1): 68.

- Sahin, F. (2012). The Mediating Effect of Leader-Member Exchange on the Relationship between Theory X and Y Management Styles and Effective Commitment: A Multilevel Analysis. *Journal of Management and Organization*, 18(2): 159-174.
- Saleh, S. D. & Hosek, J. (1976). Job Involvement: Concepts and Measurements. *Academy of Management Journal*, 19(2): 213-224.
- Sandel, M. (2009). *Justice: What's the Right Thing to Do?*, NY: Farrar, Straus and Giroux.
- Sarantakos, S. (2005). *Social Research*. (3rd Ed). Melbourne: Macmillan Education.
- Saris, W. & Gallhofer, I. N. (2014). *Design, Evaluation and Analysis of Questionnaire for Survey Research*: John Wiley.
- Saunders, J. A., Hamilton, S. D. & Lancaster, G. A. (1978). A Study of Variables Governing Choice of Course in Higher Education. *Assessment in Higher Education*, 3(3): 203-236.
- Saunders, M., Lewis, P. & Thornhill, A. (2000). *Research Methods for Business Students*. (2nd Ed). Harlow: FT/Prentice Hall.
- Saunders, M., Lewis, P. & Thornhill, A. (2003). *Research Methods for Business Students*. (3rd Ed). Harlow: FT/Prentice Hall.
- Saunders, M., Lewis, P. & Thornhill, A. (2009). *Research Methods for Business Students*. (5th Ed.) Harlow: FT/Prentice Hall.
- Savelsbergh, C., Gevers, J. M. P., Van Der Heijden, B. I. & Poell, R. F. (2012). Team Role Stress: Relationships with Team Learning and Performance in Project Teams. *Group and Organisational Management*, 37(3): 67-100.
- Schafer, J. L. & Graham, J. W. (2002). Missing Data: Our View of the State of the Art. *Psychological Methods*, 7(2): 147-177.
- Schaufeli, W. B. & Bakker, A. B. (2004a). Job Demands, Job Resources, and their Relationship with Burnout and Engagement: A Multi-Sample Study. *Journal of Organisational Behaviour*, 25(3): 293-315.
- Schaufeli, W. B. & Bakker, A. B. (2004b). Job Demands, Job Resources, and their Relationship with Burnout and Engagement: A Multi-Sample Study. *Journal of Organisational Behaviour*, 25(3): 293-315.
- Schaufeli, W. B. & Bakker, A. B. (2010). *The Conceptualisation and Measurement of Work Engagement*, New York: Routledge.
- Schaufeli, W. B. & Enzmann, D. (1998). *The Burnout Companion for Research and Practice: A Critical Analysis of Theory, Assessment, Research and Interventions.*, London: Taylor and Francis.

- Schaufeli, W. B. & Peeters, M. C. W. (2000). Job Stress and Burnout Among Correctional Officers: A Literature Review. *International Journal of Stress Management*, 7(1): 19-48.
- Schaufeli, W. B. (2007). Burnout in Health Care. *Handbook of Human Factors and Ergonomics in Health Care and Patient Safety*, 217-232.
- Schlesinger, T. (2005). Racial and Ethnic Disparity in Pre-Trial Criminal Processing. *Justice Quarterly*, 22(2): 170–192.
- Schlesinger, T. (2008). The Failure of Race Neutral Policies: How Mandatory Terms and Sentencing Enhancements Contribute to Mass Racialised Incarceration. *Crime & delinquency*.
- Schlesinger, T. (2011). The Failure of Race Neutral Policies: How Mandatory Terms and Sentencing Enhancements Contribute to Mass Racialised Incarceration. *Crime & Delinquency*, 57(2): 56-81.
- Schneider, B., Parkinson, J. & Buxton, V. (1980). Employee and Customer Perceptions of Service in Banks. *Administrative Science Quarterly*, 25(1): 252-267.
- Schroeder, J. E. (2005). The Artist and the Brand. *European Journal of Marketing*, 39(11): 1291-1305.
- Schulze, S. (2003). Views on the Combination of Quantitative and Qualitative Research Approaches. *University of South Africa. Progressio*, 25(2): 8-20
- Schwabe, L. & Wolf, O. T. (2010). Learning under Stress Impairs Memory Formation. *Neurobiology of Learning and Memory* 93(2): 183-188
- Schwartz, S. H. (1977). Normative Influences on Altruism. *Advances in Experimental Social Psychology*, 10, 221-279.
- Sergeant, A. & Frenkel, S. (2000). When do Customer Contact Employees Satisfy Customers? *Journal of Service Research*, 3(1): 18-34.
- Shao, R., Rupp, D. E., Skarlicki, D. P. & Jones, K. S. (2013). Employee Justice across Cultures: A Meta-Analytic Review. *Journal of Management*, 39(1): 263-301.
- Shirom, A. (1989). *Burnout in Work Organisations.*, New York, USA: Wiley.
- Shirom, A. (2003). Job-Related Burnout: A Review; In: Quick J.C. and Tetrick, L.E. (Eds.). *Handbook of Occupational Health Psychology*: 245-264.
- Shrout, P. E. & Bulger, N. (2002). Mediation in Experimental and Non-Experimental Studies: New Procedures and Recommendations. *Psychological Methods*, 7(1): 422-445.
- Sica, G. T. (2006). Bias in Research Studies. *Radiology*: 238(3): 121-135.

- Siddiqui, K. (2013). Heuristics for Sample Size Determination in Multivariate Statistical Techniques. *World Applied Sciences*, 27(2): 285-287.
- Singh, J. (2000). Performance, Productivity and Quality of Frontline Employee in Service Organisations. *Journal of Marketing*, 64(2): 15-34.
- Skarlicki, D. P. & Folger, R. (1997). Retaliation in the Workplace: The Role of Distributive, Procedural and Interactional Justice. *Journal of Applied Psychology*, 82(3): 434-443.
- Skarlicki, D. P. & Latham, G. P. (1996). Increasing Citizenship Behaviour within a Labour Union: A Test of Organisational Justice Theory. *Journal of Applied Psychology*, 81(2): 161-169.
- Slaski, M. & Cartwright, S. (2003). Emotional Intelligence Training and its Implications for Stress, Health and Performance. *Stress and Health*, 19(4): 233-239.
- Smith, H. J., Tyler, T. R., Huo, Y. J., Ortiz, D. J. & Lind, E. A. (1998). The Self-Relevant Implications of the Group-Value Model: Group Membership, Self-Worth and Treatment Quality. *Journal of Experimental Social Psychology* 34(5): 470-493.
- Sobel, M. E. (1982). Asymptotic Confidence Intervals for Indirect Effects in Structural Equation Models. *Sociological Methodology*, 13(1982), 290-312.
- Sobel, M. E. (1986). Some New Results on Indirect Effects and their Standard Errors in Covariance Structure Models. *Sociological Methodology*, 16, 159-186.
- Sonnentag, S. (2003). Recovery, Work Engagement, and Proactive Behaviour: A New Look at the Interface Between Non-Work Conflict. *Journal of Applied Psychology*, 88(3): 518-528.
- Stevens, J. P. (2002). *Applied Multivariate Statistics for Social Science*, Hillsdale: New Jersey.
- Streiner, D. L. (2003). Being Inconsistent about Consistency: When Coefficient Alpha does and doesn't Matter. *Journal of Personality Assessment*, 80(3): 217-222.
- Suhr, D., (2012). Exploratory Factor Analysis with the World Values Survey. In *Proceedings of the SAS Global Forum 2012 Conference*.
- Sutton, R. I. (1991). Maintaining Norms about Expressed Emotions: The Case of Bill Collectors. *Administrative Science Quarterly*, 36(2): 245-268.
- Tabachnick, B. G. & Fidell, L. S. (2001). *Using Multivariate Statistics* (4th Ed.). Needham Heights, MA: Allyn and Bacon.
- Tabachnick, B. G. and Fidel, L. S., (1996). *Using Multivariate Statistics*. New York: Harper-Collins, 1996.

- Tavakol, M. & Dennick, R. (2011). Post-Examination Analysis of Objective Tests. *Medical Teacher*, 33(6): 447-458.
- Taylor, D. M., Tillery, S. I. & Schwartz, A. B. (2002). Direct Cortical Control of 3D Neuroprosthetic Devices. *Science*, 296(5574): 1829-1832
- Taylor, P. & Bain, P. (2001). Trade Unions, Workers' Rights and the Frontier of Control in UK Call Centres. *Economic and Industrial Democracy*, 22(1): 39-66.
- Taylor, P. and Bain, P., (1999). 'An assembly Line in the Head': work and Employee Relations in the Call Centre. *Industrial Relations Journal*, 30(2), pp.101-117.
- Taylor, P., Baldry, C., Bain, P. & Ellis, V. (2003). A Unique Working Environment: Health, Sickness and Absence Management in UK Call Centres. *Work Employment and Society*, 17(3): 435-458.
- Taylor, R. (1966). *Action and Purpose*, Englewood, Cliffs; NJ, USA: Prentice-Hall.
- Taylor, S., (1998). Emotional Labour and the New Workplace. In *Workplaces of the Future* (pp. 84-103). Macmillan Education UK.
- Teas, R. K. (1983). Supervisory Behaviour, Role Stress, and the Job Satisfaction of Industrial Salesperson. *Journal of Marketing Research*: 84-91.
- Tepper, B. J. (2000). Consequences of Abusive Supervision. *Academy of Management Journal*, 43(2): 178-190.
- Thibaut, J. & Walker, L. (1978). A Theory of Procedure. *California Law Review*, 541-566.
- Thibaut, J. W. and Walker, L., (1975). *Procedural justice: A psychological analysis*. L. Erlbaum Associates.
- Thurstone, L. (1931). A Multiple Factor Study of Vocational Interests. *Personnel Journal* 3(5): 89-100.
- Thurstone, L. (1931). Multiple Factor Analysis. *Psychological Review* 38(5): 406-420.
- Thurstone, L. (1931). The Measurement of Social Attitudes. *The Journal of Abnormal and Social Psychology*, 26(3): 249.
- Toppinen-Tanner, S., Kalimo, R. & Mutanen, P. (2002). The Process of Burnout in White-Collar and Blue-Collar Jobs: Eight-Year Prospective Study of Exhaustion. *Journal of Organisational Behaviour*, 23(5): 555-570.
- Truchot, D. & Deregard, M. (2001). Perceived Inequity, Communal Orientation and Burnout - The Role of Helping Models. *Work and Stress*, 15(4): 347-356.
- Tschan, F., Rochat, S. & Zapf, D. (2005). It's not only Clients: Studying Emotion Work with Clients and Co-Workers with an Event-Sampling Approach. *Journal of Occupational and Organizational Psychology*, 78(2): 195-220.

Tubre, T. & Collins, J. M. (2000). A Meta-analytic Review of the Relationship between Role Stress and Job Performance. *Journal of Management*, 26(1): 155-169.

TUC (2000). Congress Agenda. London: TUC.

TUC (2001). It's Your Call: TUC Call Centre Workers' Campaign. London: TUC.

Tukey, J. (1977). *Exploratory Data Analysis*. Reading, Mass, US: Addison-Wesley.

Tuli, F. (2010). The Basis of Distinction between Qualitative and Quantitative Research in Social Science: Reflection on Ontological, Epistemological and Methodological Perspectives. *Ethiopian Journal of Education and Science*. 6(1): 97-106.

Twycross, A. and Shields, L. (2004). Validity and Reliability: What's it all About? Part 2: Reliability in quantitative Studies. *Paediatric Nursing*, 16(10): 36

Tyler, E. A. & Bies, R. J. (1990). Beyond Formal Procedures: The Interpersonal Context of Procedural Justice. In: J. Carroll (Ed.). *Applied Social Psychology and Organisational Settings*, 13(2) : 77-88.

Tyler, E. A. & Blader, S. L. (2003). The Group Engagement Model: Procedural Justice, Social Identity and Cooperative Behaviour. *Personality and Social Psychology Reviews*, 7(4): 349-361.

Tyler, E. A. & Lind, E. A. (1992). A Relational Model of Authority in Groups. *Journal of Personality and Social Psychology*, 70(2): 115-191.

Tyler, E. A. (1997). The Psychology of Legitimacy: A Relational Perspective on Voluntary Deference to Authorities. *Personality and Social Psychology Bulletin*, 1(4): 323-345.

Tyler, E. A., Degoey, P. & Smith, H. (1996). Understanding Why the Justice of Group Procedures Matters: A Test of the Psychological Dynamics of the Group-Value Model. *Journal of Personality and Social Psychology*, 70(5): 913.

Tyler, T. R. & Degoey, P. (1995). Collective Restraint in Social Dilemmas: Procedure Justice and Social Identification Effects on Support for Authorities. *Journal of Personality and Social Psychology*, 69(3): 482-497.

Ulin, P. R., Robinson, E. T. and Tolley E. E. (2004). *Quantitative Methods in Public Health: A Field Guide for Applied Research*. John Wiley & Sons.

Unison (1998). *Online Advice: A Negotiator's Guide to Good Employment Practice in Call Centres*. London: Unison.

Unison (2012). *Online Advice: A Revised Negotiator's Guide to Good Employment Practice in UK Call Centres*. London: Unison.

- van Beek, I., Hu, Q., Schaufeli, W. B., Taris, W. T. & Schreurs, B. H. (2012). For Fun, Love, or Money: What Drives Workaholics, Engaged and Burned-Out Employees at Work. *Applied Psychology: An International Review*, 61(6): 30-55.
- van Den Bos, K. & Miedema, J. (2000). Towards Understanding Why Fairness Matters: The Influence of Mortality Salience on Reactions to Procedural Justice. *Journal of Personality and Social Psychology*, 79(3): 355-366.
- van den Bos, K. & Tyler, E. A. (2002). Hot Cognition and Social Justice Judgements: The Combine Influence of Cognitive and Affective Factors on the Justice Judgements Process. In: D. de Cremer (Ed.). *Advances in Psychology of Justice and Affect*: 59-82.
- Vansteenkiste, M., Neyrinck, B., Niemic, C., Soenens, B., De Witte, H. & Van Den Broeck, A. (2007). Examining the Relations among Extrinsic versus Intrinsic Work Value Orientations, Basic Needs Satisfaction and Job Experiences: A Self-Determination Theory Approach. *Journal of Occupational and Organisational Psychology*, 80(2): 251-277.
- Viswanathan, M. & Kayande, U. (2012). Commentary on “Common Method Bias in Marketing: Causes, Mechanisms, and Procedural Remedies”. *Journal of Retailing*, 88(4): 556-562.
- von Eye, A. & Fuller, B. E. (2003). A Comparison of the SEM Software Packages AMOS, EQS, and LISREL. *Structural Equation Modelling. Applications in Ecological and Evolutionary Biology*: 355.
- Wakefield, J. C. (1992). The Concept of Mental Disorder - On the Boundary between Biological Facts and Social Values. *American Psychologist*, 47(3) and fuller: 373-388.
- Wall, M. M. & Amemiya, Y. (2003). A Method of Moment Technique for Fitting Interactions Effects in Structural Equation Models. *British Journal of Mathematical Statistical Psychology*, 56(1): 47-64.
- Wall, M. M. & Amemiya, Y. (2007a). *Non-Linear Structural Equation Modelling as a Statistical Method*, The Netherlands: Elsevier.
- Wall, M. M. & Amemiya, Y. (2007b). *A Review of Non-Linear Factor Analysis and Non-Linear Structural Equation Modelling*: Lawrence Erlbaum Associates.
- Wallace, C. M., Eagleson, G. & Waldersee, R. (2000). The Sacrificial HR Strategy in Call Centres. *International Journal of Service Industry Management*, 11(2): 174-184.
- Warr, P. B. (1994). A Conceptual Framework for the Study of Work and Health. *Work and Stress*, 8(2): 84-97.
- Warr, P. B. (2002). *The Study of Well-Being, Behaviour and Attitudes*. Penguin Books.
- Warr, P. B., (1987). *Workers Without a Job*. Warr, P. *Psychology at Work*. 3rd Edition, London: Penguin, pp.335-356.

- Weatherly, K. A. & Tansik, D. A. (1993). Tactics used by Customer Contact Workers: Effects of Role Stress, Boundary Spanning and Control. *International Journal of Service Industry Management*, 4(3): 4-17.
- Weaver, J. L., Bowers, C. A. and Salas, E., (2001). Stress and Teams: Performance Effects and Interventions. *Stress, Workload, and Fatigue*, 10(1): 113-119.
- Wegge, J., van Dick, R., Fisher, G. K., Wecking, C. & Moltzen, K. (2006). Work Motivation, Organisational Identification, and Well-Being in Call Centre Work. *Work and Stress*, 20(1): 66-83.
- Wegge, J., van Dick, R., Fisher, G. K., West, M. A. & Dawson, J. F. (2006). A Test of Basic Assumptions of Affective Events Theory (AET) in Call Centre Work. *British Journal of Management*, 17(3): 237-254.
- Weigel, R. H. & Newman, L. S. (1976). Increasing Attitude Behaviour Correspondence by Broadening the Scope of the Behavioural Measure. *Journal of Personality and Social Psychology*, 33(6): 793-802.
- Weiss, H. M. & Cropanzano, R. (1996). Affective Events Theory: A Theoretical Discussion of the Structure, Causes and Consequences of Affective Experiences at Work. *Research in Organisational Behavior*, 18(2), 1-74.
- Wharton, A. S. & Erickson, R. J. (1995). The Consequences of Caring: Exploring the Links between Women's Job and Family Emotion Work. *The Sociological Quarterly*, 36(2): 273-296.
- White, R. W. (1959). Motivation Reconsidered: The Concept of Competence. *Psychological Review*, 66(5): 297-333.
- Wright, T. A. & Bonett, D. G. (1997). The Contribution of Burnout on Work Performance. *Journal of Organisational Behaviour*, 18(1), 491-499.
- Wright, T. A. & Cropanzano, R. (1998). Emotional Exhaustion as a Predictor of Job Performance and Voluntary Turnover. *Journal of Applied Psychology*, 83(3): 486.
- Ybema, J. F. & Smulders, P. (2001). Adverse Effects of Emotional Work: Does Social Support Help? Paper Presented at the European Academy of Occupational Health Psychology Conference: Barcelona. 2001.
- Yerkes, R. M., & Dodson, J. D. (1908). The Relation of Strength of Stimulus to Rapidity of Habit-Formation. *Journal of Comparative Neurology and Psychology*, 18(5): 459-482.
- Yin, R. (1994). *Case Study Research: Design and Methods* (2nd Ed.). Thousand Oaks, CA: Sage Publishing.

- Yin, R. K., (2003). *Case Study Research Design and Methods* Third Edition. Applied Social Research Methods Series, 5.
- Zammuner, V. L. & Galli, C. (2005). Wellbeing: Causes and Consequences of Emotion Regulation in Work Settings. *International Review of Psychiatry*, 175(1): 355-364.
- Zapf, D., Vogt, C., Mertini, H. & Isic, A. (1999). Emotion Work as a Source of Stress: The Concept and Development of an Instrument. *European Journal of Work and Organisational Psychology*, 8(3): 370-400.
- Zawacki, J. S., (1963). *The System of Unofficial Rules of a Bureaucracy: A Study of Hospitals* (Doctoral Dissertation, University of Pittsburgh).
- Zeithaml, V. A. and Bitner, M. J. (2000) *Services Marketing: Integrating Customer Focus across the Firm*, 2nd Ed. Boston, MA: McGraw-Hill.
- Zellars, K., Perrewe, P. & Hochwarter, W. (2000). Burnout in Health Care: The Role of the Five Factors of Personality. *Journal of Applied Social Psychology*, 30(8): 1570-1598.
- Zika-Viktorsson, A., Sundstrom, P. & Engwall, M. (2006). Project Overload: An Exploratory Study of Work and Management in Multiple Project Settings. *International Journal of Project Management*, 24(5): 385-394.
- Zinbarg, R., Yovel, I., Revelle, W. & McDonald, R. (2006). Estimating Generalisability to a Universe of Indicators They all have an Attribute in Common: A Comparison of Estimators. *Applied Psychological Measurement*. 30(2): 121-144.

9 Appendices

Appendix 1: Wave 1 questionnaire ~ CSR

Questionnaire 1 – No: _____

Thank you for completing this questionnaire. My name is Marshal Padenga. I am a PhD. student studying at the Salford Business School, University of Salford, United Kingdom. I am conducting this study to complete my PhD. Thesis. This study is about investigating issues in psychology and organisational behaviour. Most questions contained here are about your beliefs and awareness during your work. In that regard, there are no ‘right’ or ‘wrong’ answers. All you need to do is to provide me with your true beliefs and feelings.

The research is only for academic purposes and has no relation with any other company or third party. All your answers will be kept strictly confidential and the completed questionnaires will be handed over to my university business school. These questionnaires will not be released to your supervisor, manager or any other persons in your organisation. All your personal information will be kept strictly confidential. The research is anonymous hence you should NOT write your name anywhere on this questionnaire.

Use the scale below to rate the following statements.

1	2	3	4	5	6	7
<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Partially Disagree</i>	<i>Neither Disagree nor Agree</i>	<i>Partially Agree</i>	<i>Agree</i>	<i>Strongly Agree</i>

Part 1:

The following statements refer to how the targets in your role are decided. Please rate the extent to which you agree with each of these statements:

	Strongly Disagree	Disagree	Partially Disagree	Neither Disagree nor Agree	Partially Agree	Agree	Strongly Agree
I am able to express my feelings during these procedures.	1	2	3	4	5	6	7
I have influence over the targets arrived at by these procedures.	1	2	3	4	5	6	7
I feel these procedures have been applied consistently.	1	2	3	4	5	6	7
I feel these procedures are free from bias.	1	2	3	4	5	6	7
I feel these procedures are based on accurate information.	1	2	3	4	5	6	7
I feel I am able to appeal the targets arrived at by these procedures.	1	2	3	4	5	6	7
I feel these procedures uphold ethical and moral standards.	1	2	3	4	5	6	7

The following questions refer to how you feel about your performance. Please rate the these questions with respect to your performance:

	Strongly Disagree	Disagree	Partially Disagree	Neither Disagree nor Agree	Partially Agree	Agree	Strongly Agree
My salary reflects the effort I have put into my work.	1	2	3	4	5	6	7
My salary is appropriate for the work I have completed.	1	2	3	4	5	6	7
My salary reflects what I have contributed to the organisation.	1	2	3	4	5	6	7
My salary is justified given your performance.	1	2	3	4	5	6	7
My salary is fair given the work I have completed.	1	2	3	4	5	6	7
My salary reflects my skills and experience.	1	2	3	4	5	6	7
My salary reflects my position in the organisation.	1	2	3	4	5	6	7
My salary compares with that of other advisers with the same skills.	1	2	3	4	5	6	7
My salary is what I expect given my role.	1	2	3	4	5	6	7
My salary matches the effort I put into my work.							

Use the scale below to rate the following statements.													
1	2	3	4	5	6	7							
Strongly Disagree	Disagree	Partially Disagree	Neither Disagree nor Agree	Partially Agree	Agree	Strongly Agree							
The following statements concern how your team manager relates with you. Please rate the extent to which you agree with each of these statements:							Strongly Disagree	Disagree	Partially Disagree	Neither Disagree nor Agree	Partially Agree	Agree	Strongly Agree
My team manager treats me in a polite manner.							1	2	3	4	5	6	7
My team manager treats me with dignity.							1	2	3	4	5	6	7
My team manager treats me with respect.							1	2	3	4	5	6	7
My team manager refrains from improper remarks or comments.							1	2	3	4	5	6	7
My team manager gives me information about my work discretely.							1	2	3	4	5	6	7
My team manager makes positive remarks about my performance.							1	2	3	4	5	6	7
My team manager is sensitive to my feelings when talking to me.							1	2	3	4	5	6	7
The following statements concern how your team manager relates with you. Please rate the extent to which you agree with each of these statements:							Strongly Disagree	Disagree	Partially Disagree	Neither Disagree nor Agree	Partially Agree	Agree	Strongly Agree
My team manager is candid when communicating with me.							1	2	3	4	5	6	7
My team manager explains procedures thoroughly to me.							1	2	3	4	5	6	7
My team manager's explanations regarding the procedures are fair.							1	2	3	4	5	6	7
My team manager communicates details in a timely manner.							1	2	3	4	5	6	7
My team manager tailors communication to my specific needs.							1	2	3	4	5	6	7
My team manager directly with me if he wants me to perform a task.							1	2	3	4	5	6	7
Part 2:													
The following statements relate to how you feel about stress in your job. Please rate the extent to which you agree or disagree with each of the statements.							Strongly Disagree	Disagree	Partially Disagree	Neither Disagree nor Agree	Partially Agree	Agree	Strongly Agree
The effects of stress are negative and should be avoided.							1	2	3	4	5	6	7
Experiencing stress facilitates my learning and growth.							1	2	3	4	5	6	7
Experiencing stress depletes my health and vitality.							1	2	3	4	5	6	7
Experiencing stress enhances my performance and productivity.							1	2	3	4	5	6	7
Experiencing stress inhibits my learning and growth.							1	2	3	4	5	6	7
Experiencing stress debilitates my performance and productivity.							1	2	3	4	5	6	7
The effects of stress are positive and should be utilised.							1	2	3	4	5	6	7
Part 3:													
Please tell me your:													
Age: (Years)	18 – 25		26 – 35		36 - 45		46 and above						
Time Employed by Company:	___ Years: ___ Months		Gender:	Male		Female							
Education Background:	Without Degree			First Degree		Higher Degree							
Annual Salary: (£)	10,001-13,000		13,001-16,000		16,001-19,000		19,000+						

Appendix 2: Wave 2 questionnaire ~ CSR

Questionnaire 2 – No: _____

Thank you once again for completing this questionnaire. My name is Marshal Padenga. I am from Salford Business School, University of Salford, United Kingdom. This is the second wave of the academic study for my PhD. Thesis. As started in the first wave, this study is only for the academic purposes highlighted above and has no relation with any company or third party. All your completed questionnaires will be handed over to my university business school and not released to your supervisor, manager or any other persons in your organisation. All your personal information will be kept strictly confidential. The research is anonymous hence you should NOT write your name anywhere on this questionnaire.

Use the scale below to rate the following statements.

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Partially Disagree</i>	<i>Neither Disagree nor Agree</i>	<i>Partially Agree</i>	<i>Agree</i>	<i>Strongly Agree</i>

Part 1:

Please rate the extent to which you agree with the following statements.	Strongly Disagree	Disagree	Partially Disagree	Neither Disagree nor Agree	Partially Agree	Agree	Strongly Agree
I feel emotionally drained from my work.	1	2	3	4	5	6	7
I feel used up at the end of the workday.	1	2	3	4	5	6	7
I feel fatigued waking each morning for another day at work.	1	2	3	4	5	6	7
I feel working with people all day is really a strain for me.	1	2	3	4	5	6	7
I feel burned out from my work.	1	2	3	4	5	6	7
I feel frustrated by my work.	1	2	3	4	5	6	7
I feel I am working too hard on my job.	1	2	3	4	5	6	7
I feel like I am at the end of my rope.	1	2	3	4	5	6	7
Please rate the extent to which you agree with the following statements.	Strongly Disagree	Disagree	Partially Disagree	Neither Disagree nor Agree	Partially Agree	Agree	Strongly Agree
I can easily understand how my customers feel about things.	1	2	3	4	5	6	7
I deal very effectively with the problems of my customers.	1	2	3	4	5	6	7
I feel I positively influence other people's lives through my job.	1	2	3	4	5	6	7
I can easily create a relaxed atmosphere with my customers.	1	2	3	4	5	6	7
I feel exhilarated after working closely with my customers.	1	2	3	4	5	6	7
I have accomplished many worthwhile things in this job.	1	2	3	4	5	6	7
In my work, I deal with emotional problems very calmly.	1	2	3	4	5	6	7

<i>Use the scale below to rate the following statements.</i>													
1	2	3	4	5	6	7							
<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Partially Disagree</i>	<i>Neither Disagree nor Agree</i>	<i>Partially Agree</i>	<i>Agree</i>	<i>Strongly Agree</i>							
Please rate the extent to which you agree with the following statements.							Strongly Disagree	Disagree	Partially Disagree	Neither Disagree nor Agree	Partially Agree	Agree	Strongly Agree
I feel I treat some customers as if they are impersonal “objects”.							1	2	3	4	5	6	7
I have become more callous towards people since I took this job.							1	2	3	4	5	6	7
I worry that the job is hardening me emotionally.							1	2	3	4	5	6	7
I don’t really care what happens to some customers.							1	2	3	4	5	6	7
I feel customers blame me for some of their problems.							1	2	3	4	5	6	7
Part 2:													
Please rate the extent to which you agree with the following statements.							Strongly Disagree	Disagree	Partially Disagree	Neither Disagree nor Agree	Partially Agree	Agree	Strongly Agree
I help them at their own pace when customers contact the call-centre							1	2	3	4	5	6	7
I waste a lot of working time.							1	2	3	4	5	6	7
I voluntarily help co-workers.							1	2	3	4	5	6	7
I volunteer to serve on new committees.							1	2	3	4	5	6	7
I volunteer to sponsor extra-curricular activities.							1	2	3	4	5	6	7
I arrive to work and meetings on time.							1	2	3	4	5	6	7
I take initiative to assist and introduce customers to substitutes.							1	2	3	4	5	6	7
I begin work promptly and use working time effectively.							1	2	3	4	5	6	7
I give colleagues advance notice of changes in schedule or routine.							1	2	3	4	5	6	7
I give an excessive amount of information to customers.							1	2	3	4	5	6	7
I committees in this organisation work productively.							1	2	3	4	5	6	7
I make innovative suggestions to improve the quality organisation.							1	2	3	4	5	6	7

Appendix 3: Wave 1 questionnaire ~ Team manager

Questionnaire~Team Manager - No: _____											
<p>Thank you for completing this questionnaire. My name is Marshal Padenga. I am a PhD. student studying at the Salford Business School, University of Salford, United Kingdom. I am conducting this study to complete my PhD. Thesis. This study is about investigating adviser attitudes, perceptions and behaviours. Please evaluate your advisors' job performance and their behaviour within your company. There are no 'right' or 'wrong' answers for performance rating. All you need to do is to provide me with your true beliefs or feelings.</p> <p>The study is only for academic purposes and has no connection with any other company or third party. All your completed questionnaires will be returned back to Salford Business School and not released to anyone within the company or a third party. All your answers will be kept strictly confidential.</p> <p>Please check the employee's name and answer the following questions.</p>											
For Adviser: _____											
1	2	3	4	5	6	7					
<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Partially Disagree</i>	<i>Neither Disagree nor Agree</i>	<i>Partially Agree</i>	<i>Agree</i>	<i>Strongly Agree</i>					
Part 1:											
Comparing to this adviser's colleague or co-worker who does the same or similar job, please tell me your evaluation of the job performance of this adviser.					Strongly Disagree	Disagree	Partially Disagree	Neither Disagree nor Agree	Partially Agree	Agree	Strongly Agree
If the adviser has an unpleasant task (s)he passes it to others.					1	2	3	4	5	6	7
If things do not work out (s)he justifies it with mistakes of others.					1	2	3	4	5	6	7
The adviser is mentally ready to work when (s)he arrives in work.					1	2	3	4	5	6	7
The adviser solves problems before passing them to a manager.					1	2	3	4	5	6	7
If something malfunctions the adviser finds alternative solutions.					1	2	3	4	5	6	7
Adviser thinks first about own duties more than own interests.					1	2	3	4	5	6	7
Part 2:											
Please rate the extent to which you agree with the following statements regarding the performance of this adviser.					Strongly Disagree	Disagree	Partially Disagree	Neither Disagree nor Agree	Partially Agree	Agree	Strongly Agree
The adviser voluntarily helps co-workers.					1	2	3	4	5	6	7
The adviser arrives to work and meetings on time.					1	2	3	4	5	6	7
The adviser takes initiative to introduce customers to substitutes.					1	2	3	4	5	6	7
Adviser gives an excessive amount of information to customers.					1	2	3	4	5	6	7
Adviser believes committees in organisation work productively.					1	2	3	4	5	6	7
Adviser makes innovative suggestions to improve organisation.					1	2	3	4	5	6	7

Appendix 4: Ethics formal letter ~ CASS approval



College of Arts & Social Sciences
Room 631 Maxwell Building
The Crescent
Salford, M5 4WT
Tel: 0161 295 5876

14 July 2014

Marshal Padenga
University of Salford

Dear Marshal

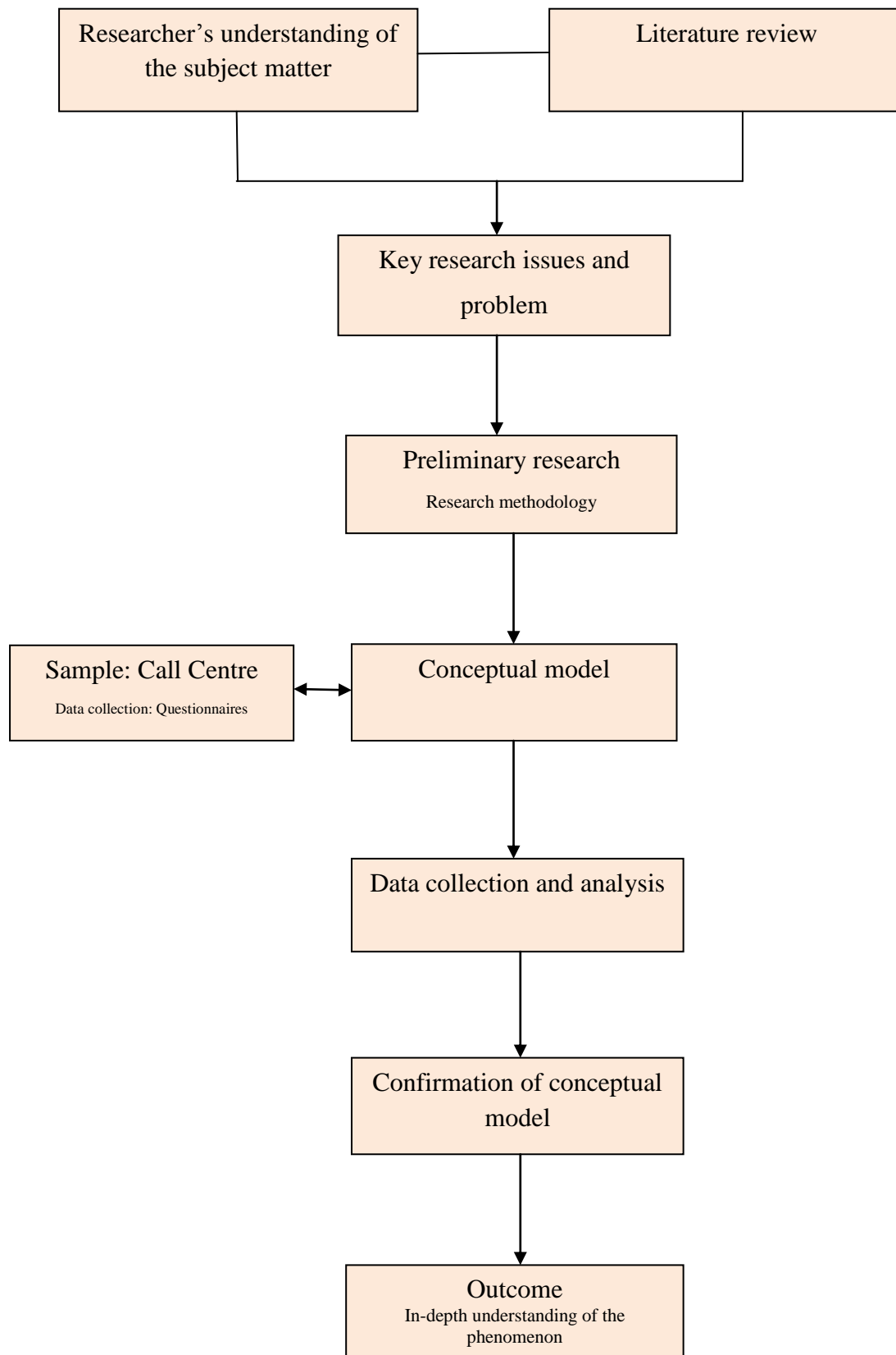
Re: Ethical Approval Application – CASS130041

I am pleased to inform you that based on the information provided, the Research Ethics Panel have no objections on ethical grounds to your project.

Yours sincerely

Deborah Woodman
On Behalf of CASS Research Ethics Panel

Appendix 5: The proposed research procedure



Appendix 6: The research timetable

The Gantt chart below presents the activities and tasks to be accomplished as the research advances. These are also aligned with the corresponding approximate completion quarterly time periods.

No	Activity	Academic Year: Begins April											
		2013 – 2014				2014 – 2015				2015 – 2016			
		Q ₁	Q ₂	Q ₃	Q ₄	Q ₁	Q ₂	Q ₃	Q ₄	Q ₁	Q ₂	Q ₃	Q ₄
1	Literature review												
2	Developing aims and objectives												
3	Developing methodology												
4	Interim assessment												
5	Data collection												
6	Pilot study												
7	Data analysis and findings												
8	Internal evaluation												
9	Discussion write-up												
10	Recommendations												
11	Write-up												
12	Submission												
13	Viva												

Please Note: The activities, tasks and timelines set out in the Gantt chart above are approximations hence subject to change as this research progresses.