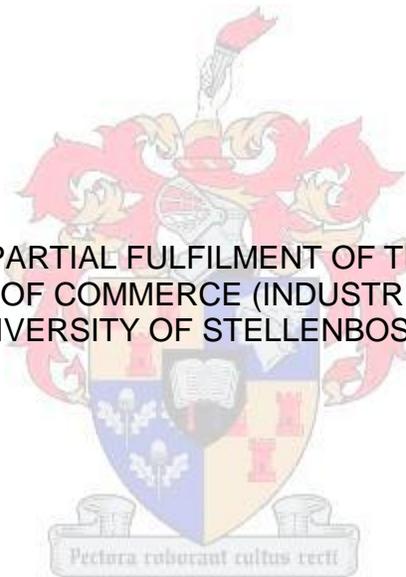


**OPTIMISM, SELF-EFFICACY AND MEANINGFULNESS: TOWARDS A  
SALUTOGENIC MODEL OF OCCUPATIONAL WELLBEING**

**By**

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**June 2011**

## **DECLARATION**

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

Signed: M.M. Steyn

Date: June 2011

## **ABSTRACT**

### **OPTIMISM, SELF-EFFICACY AND MEANINGFULNESS: TOWARDS A SALUTOGENIC MODEL OF OCCUPATIONAL WELLBEING**

Supervisor: Dr Gina Görgens-Ekermans, PhD

From a global perspective, this study aimed to depart from the traditional notion of occupational wellbeing characterised as the absence of strain and stress-related diseases. Positive Organisational Scholarship (POS), the framework for this study, is largely concerned with the investigation of positive outcomes, processes and attributes of organisations and their employees. In essence, this study argued in favour of the cultivation of personal resources, such as optimism and self-efficacy, as well as the establishment of active efforts to instil meaningfulness in, and at work, in order to generate better occupational wellbeing and a sense of enhanced human functioning.

A non-experimental research design (i.e. exploratory survey study) was used to explore the relationships between the various constructs. Occupational wellbeing was, for the purpose of empirical validation, firstly measured in terms of the absence of pathology. However, since it was conceptualised from a salutogenic approach in this study, a cognitive-judgemental evaluation of employees' satisfaction with their work-life was also included as a measure of occupational wellbeing. It was argued that optimism may impact on occupational wellbeing, as optimists are described in terms of their ability to anticipate positive outcome expectancies, and engage in continued efforts, despite current adverse circumstances to confront difficulties they encounter (Scheier & Carver, 1985). In turn, highly self-efficacious individuals are those exhibiting confidence in their ability to effectively execute personal strategies to ensure a positive outcome (Bandura, 1986). Drawing from POS, a twofold conceptualisation of meaningfulness was warranted: meaningfulness in work (defined as engagement) and meaningfulness at work (defined as organisational commitment). The primary aim of this study was consequently to explicate the possible nomological net underlying the complex phenomenon of occupational wellbeing, in terms of the abovementioned variables.

A convenience sample of 202 individuals, employed at three organisations across South Africa, participated in the research. The measurement instruments included a 28-item version of the original General Health Questionnaire by Goldberg (1972), and an adapted version of Diener, Emmons, Larsen and Griffin's (1985) Satisfaction with Life Scale (adapted to Satisfaction with Work-life), both utilised to measure occupational wellbeing. The Life Orientation Test-Revised (Scheier, Carver and Bridges, 1994), and the General Self-Efficacy Scale (GSES) of Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs and Rogers (1982) was utilised to measure optimism and self-efficacy respectively. Finally, the Organisation Commitment Questionnaire (Mowday, Porter & Steers, 1979), and the Utrecht Work Engagement Scale (Schaufeli & Bakker, 2003) was used in combination to respectively measure meaningfulness in work (engagement) and meaningfulness at work (commitment).

Confirmatory factor analysis (CFA) and item analyses were conducted to evaluate the reliability and validity of the measurement instruments. Correlations were computed between the various variables. A structural model was fitted to investigate the extent to which optimism, self-efficacy and meaningfulness are significant predictors of occupational wellbeing. The results of the model suggested that optimism influences psychological health directly. This indicates that optimists may be inclined to experience greater levels of psychological wellbeing at work. The relationship between optimism and occupational wellbeing (i.e. psychological health) was further highlighted through an indirect causal effect, as mediated through a combination of work engagement and organisational commitment (i.e. meaningfulness). Optimism also causally influenced satisfaction with work life (the other aspect of occupational wellbeing). This indirect effect was also mediated by engagement and organisational commitment. The structural model indicated that no significant paths between self-efficacy and any of the other variables were evident.

With the unique combination of positive psychological antecedents included in this research, the study aimed to make a significant contribution to the existing POS theory and literature. The results provide a probable explanation of the complex nomological net of variables (optimism, self-efficacy, and meaningfulness) and their

interrelationships with each other, which influence occupational wellbeing within the South African context. Recommendations for future research in this domain were highlighted. The necessity of interventions rooted in the strength-based approach, underscoring the development of positive psychological capacities in both employees, and organisations, were also advocated.

## OPSOMMING

### **OPTIMISME, SELFBEKWAAMHEID EN BETEKENISVOLHEID: 'N SALUTOGENIESE MODEL VAN BEROEPSWELSTAND**

Studieleier: Dr Gina Görgens-Ekermans, PhD

Vanuit 'n globale perspektief het hierdie studie gepoog om afstand te doen van die tradisionele uitgangspunt van die definiëring van beroepswelstand as slegs die ontbreking van spanning- en stres verwante kwale. Positiewe Organisasoriese Leerlingskap (POL), die raamwerk van hierdie studie, hou grotendeels verband met die soeke na positiewe uitkomst, prosesse en karaktertrekke binne organisasies, sowel as hul werknemers. In wese het die studie argumente voorgedra in guns van die ontwikkeling van persoonlike hulpbronne soos optimisme en selfbekwaamheid, asook die totstandbringings van daadwerklike pogings om betekenisvolheid in, en by die werk te genereer, vir beter beroepswelstand en prestasie.

'n Nie-eksperimentele navorsingsontwerp (dit is, 'n verkennende studie) was gebruik om die verband tussen die verskeie konstruksies te ondersoek. Ten einde empiriese validasie gestand te doen, is beroepswelstand eerstens gemeet as die ontbreking van enige stres-verwante siektes. Nietemin, aangesien die konstruksie in hierdie studie gedefinieer was vanuit 'n salutogeniese perspektief, is 'n addisionele kognitiewe-beoordelings evaluasie van werknemers se satisfaksie met hul werkslewe, ook gebruik ten einde beroepswelstand te meet. Argumente wat die rol van optimisme in welstand benadruk is voorgedra en uitgedruk in terme van optimiste se vermoë om positiewe uitkomst te verwag, asook hul aanhoudende pogings ten spyte van leiding en swaarkry (Scheier & Carver, 1985). Net so word hoogs selfbekwame individue beskryf in terme van hul vertroue in hul vermoë om persoonlike strategieë suksesvol uit te voer ten einde positiewe uitkomst te verseker (Bandura, 1986). Vanuit die POL vertrekpunt is betekenisvolheid in hierdie studie as twee aparte, maar verwante konstruksies, gekonseptualiseer: betekenisvolheid in werk (gedefinieer as werknemers betrokkenheid), en betekenisvolheid by die werk (gedefinieer as organisatoriese lojaliteit). Die primêre doel van die studie was derhalwe die verduideliking van die

moontlike nomologiese net onderliggend aan die komplekse fenomeen van beroepswelstand in terme van die bogenoemde veranderlikes.

'n Gerieflikheidsteekproef van 202 personeel van drie organisasies regoor Suid Afrika het aan die navorsingsprojek deelgeneem. Die meetinstrumente het bestaan uit die 28-item weergawe van die oorspronklike Algemene Gesondheid Vraelys van Goldberg (1972), en 'n aangepaste weergawe van Diener, Emmons, Larson en Griffin (1985) se Satisfaksie met die Lewe Skaal (aangepas na Satisfaksie met werkslewe), wat albei gebruik is om beroepswelstand te bepaal. Die hersiene weergawe van die Lewensoriëntasie Skaal (Scheier, Carver & Bridges, 1994), asook die Algemene Selfbekwaamheid Skaal (Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs & Rogers, 1982) is gebruik om onderskeidelik optimisme en selfbekwaamheid te meet. Laastens is die Organisatoriese Lojaliteit Vraelys (Mowday, Porter & Steers, 1979) en die Utrecht Werknemer Betrokkenheid Skaal (Schaufeli & Bakker, 2003) in kombinasie gebruik om die konstrakte van onderskeidelik betekenisvolheid in werk (werknemer betrokkenheid), en betekenisvolheid by die werk (organisatoriese lojaliteit) te ondersoek.

Bevestigende faktorontleding en item analyses was gebruik om die betroubaarheid en geldigheid van die meetinstrumente te ondersoek. Die korrelasies tussen die verskeie konstrakte was ook bereken. 'n Strukturele model is gepas om te bepaal of optimisme, selfbekwaamheid en betekenisvolheid 'n beduidende impak op beroepswelstand het. Die resultate van die model suggereer dat optimisme 'n direkte invloed het op die ervaring van beroepswelstand. Dit dien as aanduiding dat optimiste geneig is om merendeels hoër vlakke van sielkundige welstand by die werk te ervaar. Hierdie verhouding tussen optimisme en beroepswelstand (dit is, sielkundige welstand) was verder bevestig deur bewyse van 'n indirekte kousale verband tussen die konstrakte wat gemedieër is deur 'n kombinasie van werknemer betrokkenheid en organisatoriese lojaliteit (dit is, betekenisvolheid). Optimisme het verder 'n kousale invloed gehad op die ervaring van satisfaksie met werkslewe (die ander dimensie van organisatoriese welstand). Hierdie direkte impak is ook verder gemedieër deur werknemer

betrokkenheid en organisatoriese lojaliteit. Daar was egter geen beduidende verwantskappe tussen selfbekwaamheid en enige van die ander konstrunkte gevind nie.

Gegewe die unieke kombinasie van positiewe sielkunde konstrunkte wat in hierdie studie ingesluit is, kan daar gesê word dat hierdie studie gepoog het om 'n bydrae te maak ten opsigte van die bestaande POL teorieë en literatuur. Die resultate van die studie verskaf 'n waarskynlike verduideliking vir die komplekse nomologiese net van konstrunkte (optimisme, selfbekwaamheid, en betekenisvolheid), en hul unieke inter-korrelasies wat 'n beduidende rol speel in die ervaring van beroepswelstand binne die Suid Afrikaanse konteks. Aanbevelings vir verdere navorsing in die area was voorgehou. Die noodigheid van intervensies rakende die ontwikkeling van positiewe sielkundige bevoegdhede binne organisasies en individue, is ook uitgespel.

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## CHAPTER 1 INTRODUCTION

### 1. INTRODUCTION

#### *Setting the context for this research*

The business world is not what it used to be. To sustain a career in the current organisational domain, employees will have to realise the challenges that are inherent to a changing world of work. The demands of a new business paradigm are greater than in any previous era. Barling (1999) asserts that the nature of the employment relationship has been altered, thereby influencing the type of work that people do, as well as their workload. In some instances, employees will have to confront the challenges of a more controlled work environment by taking on hours and working arrangements that are against their preferences (Turner, Barling & Zacharatos, 2000). Additionally, as many employers opt for greater flexibility by growing and shrinking their workforce according to industry demands, work is becoming increasingly uncertain and unpredictable (Martin, 1997). Globally, various companies have incorporated practices aimed at reducing expenditure and increasing productivity- often to the detriment of the employee (Turner et al., 2000). The very core of organisational foundations has consequently been shaken by an emergent and highly turbulent external environment characterised by regular downsizing, delayering, teaming and outsourcing (Brousseau, Driver, Eneroth & Larson 1996). As a result, the individual career is in disarray and the rupture in the relationship between employees and their organisations are intensifying. It becomes apparent then, that new career strategies, both from an organisational- and individual perspective, are essential instruments in ensuring triumph in a new world of work. It becomes evident that it is an era in which the sole purpose of the large conglomerate should no longer be the exclusive lure of capitalistic gain, but rather an intense, sincere interest in the wellbeing of its most valuable assets – its employees.

In line with the above notion, the World Health Organisation (WHO) estimates that depression will be ranked as the second largest cause of burden of disease by 2020 (McClanahan & Antonuccio, 2004). Puryear and Hurrell (1994) further asserts that the enhancement of psychological wellbeing at work has been described as one of the most pressing dilemmas of contemporary times, with institutions globally, identifying mental

health and stress-induced problems among the most frequent work-related diseases. In addition to its considerable social impact, employee ill-health has significant costs related to work performance (Sanderson & Andrews, 2006), workplace safety, absenteeism, and early retirement (Sanderson, Nicholson, Graves, Tilse, Oldenburg, 2008). Traditionally, intervention strategies have been directed at the amelioration of stress and strain to combat the detrimental effects of these types of diseases. Recently, Cotton and Hart (2003) argued that the assumptions underlying this approach foster a narrow focus on distinct adverse work experiences and negative employee emotional responses. They further contend that positive work experiences and positive emotional responses, which are typically not considered in stressors and strain approaches, have been linked to individual wellbeing outcomes (e.g. Denier, 2000; George, 1996). Research has additionally confirmed that positive and negative experiences make independent contributions to levels of wellbeing (Hart 1999). It could accordingly be plausible that employees' discernment of their experiences of psychological ill-health in terms of stress and strain is caused by low levels, or lack of positive work experiences and positive emotional states (Cotton & Hart, 2003).

The implication for the 21<sup>st</sup> century organisation may accordingly be to expand the traditional notion of organisational effectiveness (as measured in terms of meeting profit, production, service and continuity goals), to include the cultivation of an environment conducive to organisational health. Specifically, healthy workplaces are those in which people use their talents and gifts to achieve high performance, high satisfaction, and well-being (Hofmann & Tetrick, 2003). It is thus argued that the cultivation of an environment which allow for positive work experiences, as well as positive emotional states where people may grow and be valued, is essential to the success of the modern day organisation.

### *Salutogenesis and Positive Organisational Scholarship*

In 1979, Antonovsky introduced the notion of salutogenesis (Latin *salus* = health, Greek *genesis* = origin), proposing that the origins of health, rather than disease should be studied. Wissing and Van Eeden (1997) expanded this concept to encompass not only the origins of health, but also the nature, manifestations and methods to enhance

psychological wellbeing. In the last decade, and within the positive framework, Positive Organisational Scholarship (POS) is a development in the Organisational Behaviour domain that is largely concerned with the investigation of positive outcomes, processes and attributes of organisations and their employees (Cameron, Dutton & Quinn, 2003). Contrary to traditional organisational studies, POS studies focus on employees' strengths and psychological capabilities, such as optimism, self-efficacy, and meaningfulness, instead of their weaknesses and/or inhibiting factors.

This route of organisational research offers a novel lens from which to view phenomena, and advocates the position that the desire to enhance the human condition is universal, and that the faculty to do so is latent in most systems (Cameron et al., 2003). By releasing the dormant capacities for elements such as meaning creation, relationship transformation, positive emotion cultivation, and high-quality connections, organisations can generate sustained sources of collective capability that help them to flourish in an increasingly challenging environment. POS thus proposes a novel theoretical basis for recognising how and why corporate strategies have its effect on human behaviour within the organisational domain, and the reasons some strategies and dynamic faculties may be more generative than others (Cameron et al., 2003).

#### *Purpose of this research*

The proposed study will consequently draw from the Positive Organisational Scholarship paradigm to elucidate the arguments that motivated the conceptualisation of a proposed salutogenic model of occupational well-being, and, while acknowledging the intricacy of such a model, attempts to incorporate different POS variables believed to directly, or indirectly affect occupational wellbeing.

In line with the rationale of the study as outlined above, an argument will be proposed which states that both dispositional and state-like optimism and self-efficacy will have a significant and direct positive impact on perceived psychological health. This hypothesis is rooted in the positive outcome expectations of optimists (explained as generalised favourable outcome expectancies where people who are faced with adversity, respond with persistent efforts to resolve problems, (Scheier & Carver, 1985) and high self-efficacious individuals (who capitalises on their personal judgement or belief in their

ability to effectively execute courses of action to deal with a variety of situations; Bandura, 1986). This relationship between optimism, self-efficacy and occupational health (which includes measures of psychological health and satisfaction with work life) is furthermore hypothesised to be reinforced through indirect associations that works through a combination of work engagement and organisational commitment, both of which is said to foster a sense of individual meaningfulness, which is explained in terms of a profound concern that what people are doing matters to them in important ways (Spreitzer, 1995). Thus, it is proposed that optimistic and self-efficacious individuals will experience greater levels of health (evident in better psychological health and more satisfaction) than their more cynical counterparts, partly because of their ability to foster positive expectations about the future, and partly because of their heightened sense of commitment and engagement facilitated by their higher levels of optimism and self-efficacy.

Occupational health, as the focal point of this study, was consequently defined from two unique but equally important perspectives. Firstly, it was viewed as the ability of individuals to carry out normal 'healthy' functions in the course of their daily life, thus the absence of any manifestation of diagnosable psychiatric disorder. Secondly, within the salutogenic approach to wellbeing, it was further defined as a component of subjective wellbeing that serves as individuals' global assessment of the quality of their work-life according to self-imposed standards or criteria. As the main predictors of occupational wellbeing, optimism and self-efficacy was defined in terms of the individual capacity to foster positive outcome expectancies as a result of personal resources as outlined above. Finally, in this study the understanding of meaningfulness as it relates to work can be described in terms of two distinct notions. Firstly, finding personal meaning at work refers to a person's positive orientation towards their organisation that may accordingly translate into feelings of loyalty and allegiance (Pratt & Ashforth, 2003). For the purpose of clear conceptualisation, the construct was appropriately defined and measured as 'organisational commitment'. Secondly, individuals who are immersed in their jobs can consequently be said to experience meaningfulness in working (Gardner Csikszentmihalyi & Damon, 2001). To this end, engaged individuals are understood to be physically involved, cognitively attentive, and emotionally attached to their work

roles, to the extent that vigour, dedication and absorption serve as the defining features of their state of mind (Simson, 2008). Hence a measure of work engagement was also included in this study. The rationale for aligning organisational commitment and work engagement under the same broader category of 'meaningfulness' is their distinct similarity in that both centres on work as being personally rewarding and fulfilling, rather than as just a means to a financial end.

This dissertation will firstly, in chapter 2, present the theoretical framework for the constructs and explain the major previous research conducted on each of these constructs and their relationships amongst each other. This will be done to ground the current research and pave the way to establishing the need and utility for this study. Chapter 3 will introduce the rationale, aims and objectives of this research and present details regarding the way in which the participants were sampled, the measurement instruments utilised, as well as the preferred method of data collection and analyses. The results will be presented in chapter 4, followed in chapter 5 by a discussion thereof, limitations of the study, and recommendations for future research.

## CHAPTER 2

### THEORETICAL FRAMEWORK OF THIS RESEARCH

#### 2.1 INTRODUCTION

In this chapter the relevant literature and current research relating to occupational wellbeing, optimism, self-efficacy, and meaningfulness will be reviewed and discussed. The literature is presented with the aim of explicating the theoretical rationale for this study.

#### 2.2 SUBJECTIVE WELLBEING

##### 2.2.1 In the pursuit of happiness – an exploration of subjective wellbeing

Although this research is mainly a study of the possible relationships that exist between specific positive psychological antecedents of occupational wellbeing, the universal understanding of a general notion of wellbeing as individuals' overall positive appraisal of various spheres of their life, needs to be discussed. Key components that depict the very essence of occupational wellbeing are firmly rooted in the concept of subjective wellbeing. This section on subjective wellbeing will aim to explicate the factors that ultimately contribute to the optimum functioning of the human being, i.e. what it constitutes to lead a fulfilled life, according to the individual.

Subjective wellbeing is appropriately defined as an individual's cognitive and emotional assessment of their life. These assessments are made on the basis of emotional, as well as cognitive judgements (Diener, Suh, Lucas & Smith, 1999) and comprise high positive affect, low negative affect, life satisfaction and other components of satisfaction, such as fulfilment in one's work (Bateman & Porath, 2003).

Seligman and Csikszentmihalyi (2000) offer a temporal outlook on subjective wellbeing, stating that it is the capacity to reflect on the past with contentment, wholly embracing the present, and welcoming the future with a sense of hope and optimism. Additionally, the positive experiences that epitomises the very essence of subjective wellbeing, forms an integral part of the foundations of positive psychology, as it is concerned with aspects that make life gratifying (Diener et al., 1999).

### **2.2.2 Subjective wellbeing as a trait**

The study of subjective wellbeing, as viewed from a positive psychological perspective, is primarily concerned with increasing the levels of happiness, positive mental health, and personal prosperity of individuals, as opposed to the traditional view which proffered the notion that by alleviating suffering, wellbeing will result (Sheldon & Lyubomirsky, 2004). In light of such a perspective, however, a question arises with regards to the feasibility of developing an actual strategy to elevate individuals beyond a fixed point of happiness. The question thus arises whether it is possible to raise and sustain individuals to a level of wellbeing greater than merely being free of suffering, and whether they can be taught to realise their optimum level of happiness. According to some contemporary genetic and personality predisposition theories (Diener et al., 1999) the answer seems painstakingly clear: any attempt to increase a person's happiness will prove futile and ill-fated. This severe notion stems from numerous suppositions regarding the predetermined nature of psychological wellbeing. It incorporates, for example, beliefs about the existence of a genetic set point for happiness, the idea of hedonic adaptation and viewpoints of longitudinal stability of specific personality traits (Sheldon & Lyubomirsky, 2004).

The first assumption of subjective wellbeing as a trait-like quality, is rooted in the field of behavioural-genetic research and states that subjective wellbeing is fixed within individuals, thus to a certain extent people are encoded to be either happy or not. Twin and adoption studies performed by Lykken and Tellegen (1996) propose that heritability may account for as much as 40 percent of the variance found in this approach to viewing wellbeing. They argue that across the span of peoples' lives this genetic set point will determine individual baselines of potential happiness, regardless of situation or environment. Secondly, hedonic adaptation suggest that some of the variance in subjective wellbeing may possibly be contributed to external factors, but that people will eventually adapt to these changes and return to their biologically determined baselines (Frederick & Loewenstein, 1999; Headey & Wearing, 1992). These tendencies of individuals to habituate according to set factors have been demonstrated by examining lottery winners, and finding them no happier than controls after one year i.e. after habituation. Similarly, paralysis victims were not as unhappy as anticipated not long

after their accidents (Brickman, Coates & Janoff-Bulman, 1978). Finally, trait theory offer the hypothesis that all human beings possess certain fixed personality traits that are relatively stable over time and across a wide range of situations (Pervin, Cervone & John, 2005). The implication of this theory with regards to the conceptualisation of subjective wellbeing is also not in favour of the positive psychological perspective and argues that people tend to sustain similar comparative levels of happiness over time (Diener & Lucas, 1999; McCrae & Costa, 1990). For example, the proponents of trait theory argue that extraversion and neuroticism have shown remarkable stability over long periods and that these traits are most notably linked with subjective wellbeing.

The abovementioned research does not point towards the favourable utilisation of positive psychological constructs in the conceptualisation of a salutogenic approach to study subjective wellbeing. If this was indeed all there was to present, the opportunity for future research in this regard would surely appear bleak. Fortunately, a firmly rooted scientific discipline, such as that of wellbeing theory, aims to provide ample explanations of opposing sides in order to proclaim accuracy and totality in uncovering truth and fact about the given phenomenon. The section to follow will thus subsequently focus on other areas of research, maintaining that there does, contrary to the previous arguments presented above, exist potential for developing a framework to foster human strengths and virtues, ultimately associated with improved individual and organisational wellbeing.

### **2.2.3 Subjective wellbeing as a state**

Since the time of the ancient Greek philosophers, it was believed that individuals bore responsibility for their personal state of fulfilment and Aristotle fittingly noted that happiness depends upon oneself (Sheldon & Lyubomirsky, 2004). This viewpoint is strongly supported by this research study. It will form the underlying assumption for the proposed hypothesis that positive psychological antecedents is directly related to occupational wellbeing, and can indeed be fostered and developed within each individual to ensure organisational sustainability, with the employee at the very core of its foundations. To support this assumption, several arguments will be outlined below.

Firstly, current work relating to the positive psychological paradigm has presented a number of interventions with the promise of probable success with regards to the enhancement of individual levels of wellbeing. These include efforts to emphasise the importance of pursuing meaningful personal goals (Sheldon & Elliot, 1999), offering forgiveness to those whom have been wounded and offended (McCullough, Pargament & Thoresen, 2000), and to reflect with gratitude (Emmons & McCullough, 2003). Sheldon and Lyubomirsky (2004), however, have pointed out the lack of longitudinal studies pertaining to the stability of these results.

Secondly, substantial evidence has been found to corroborate claims of the long-term efficiency of cognitive and behavioural techniques for the improvement of negative affect and depression (Gillham & Reivich, 1999). This has led to considerable optimism amongst those propagating the likelihood of elevating individuals to higher levels of enduring happiness. For example, Sheldon and Lyubomirsky (2004) point towards the often lasting effect of psychotherapy to strengthen their argument of subjective wellbeing as a changeable personal variable, and its receptive and impressionable nature.

A third argument proposes that genetics are only indirectly responsible for happiness. It is argued that if a person would deliberately aim to avoid potentially detrimental situations or shun dysfunctional behaviours, the unwanted effect of a specific hereditary disposition may be diminished (Lykken, 2000). Finally, and in line with the main premise of this research, Sheldon and Houser-Marko (2001) found that in studies focusing on personal goal-pursuit, novel activities (goal-based action in this case) can initially elevate, and then preserve this higher levels of contentment, to the extent that individuals remain successful in the activities. In all probability, their accomplishment at the outset of the activities prompted a cascading succession of positive experiences.

## **2.3 OCCUPATIONAL WELLBEING**

### **2.3.1 Emerging perspectives on occupational wellbeing**

Traditionally, employee and organisational health were viewed as the absence of disease, and mainly included strategies to reduce accidents and strain within the workplace (Hofmann & Tetrick, 2003). Contemporary times, however, have seen a

renewed interest in certain aspects of holism such as individual pursuits, the obtainment of self-actualisation, and realising the infinite growth potential of individuals. Consequently, employee/occupational wellbeing in the 21<sup>st</sup> century paradigm can be accurately described as the creation of the presence of health to assist in establishing a framework of complete physical, mental, and social wellbeing that will reach beyond the organisational domain. According to the wellness model of Larson (as cited in Hofmann and Tetrick, 2003), strategies addressing the issue of employee wellbeing should be focused on generating energy and efficiency. The progress towards higher-level individual functioning is advocated as it serves to balance short-term success and long-term ambitions and values of people. Within organisations, this balance should be fostered to the extent that the work environment is rewarding, as well as assisting in the creation of the means for growth and development, whilst generating an optimistic view of the future.

This relatively novel approach of viewing occupational wellbeing from a health perspective does not seem all too curious, with the only surprise perhaps being the unhurried fashion in which it came to be articulated in the modern business arena. This is so especially in light of long-standing notions on the importance of work for improved wellbeing. Studies of life satisfaction frequently report higher levels of satisfaction among the employed than the unemployed (Warr, 1987, 1999). The concept of flow has also gained support in recent years, suggesting that work could be a source of individual wellbeing (Henry, 2001). Csikszentmihalyi (1996) describes flow as a positive psychological state, directly related to the notion of wellbeing, which encompasses higher level stimulation to master challenging tasks. Past research points towards higher frequencies of experienced flow in times of work than leisure (Haworth, 1997).

The motive for emphasising this seemingly obvious link between work and wellbeing becomes meticulously clear when reflecting upon the potential benefits it offers, as delineated by Henry (2001). Personal identity, opportunities to socialise and form a basis of mutual support, the constructive passing of time, the chance to encounter challenging assignments and the ability to find solutions, as well as providing individuals with purpose, are indicative of the powerful influence of work on the daily lives of

individuals. Jahoda (1982), furthermore, boldly proclaimed that work is the leading contributor towards experiencing a state of individual wellbeing as a result of five factors, namely time structure, social acquaintance, collective driving forces, public identity and rank, as well as regular activity.

### **2.3.2 The value of studying occupational wellbeing**

According to Diener (1984), subjective wellbeing comprises of three distinct elements known as positive affect, negative affect, and general life satisfaction. According to Kelloway and Barling (1991) it is especially one's general experience of life that translates directly into positive or negative experiences in other, more specific dimensions, like the work domain. The bi-directional influence of job-related wellbeing and individuals' overall satisfaction with life is well supported in existent research (Hart, 1999; Higginbottom, Barling & Kelloway, 1993; Judge & Wanatabe, 1993; Tait, Padgett & Baldwin, 1989). Occupational wellbeing is further believed to be linked to job satisfaction which, in turn, is said to directly impact on overall job performance (Judge, Thoresen, Bono & Patton, 2001). Emerging research additionally point towards the possibility of occupational wellbeing and job performance as complimentary and reliant elements of an organisational environment that can be deemed as financially and psychologically sound (Harter, Schmidt & Keyes, 2003).

The focus on occupational wellbeing as the theoretical basis for this research consequently stems from two chief determinants. Firstly, the notion of occupational wellbeing within a positive framework is well supported in contemporary literature, which provides the foundations to investigate work from a health perspective (Sivanathan, Barling & Turner, 2003). Warr (1987, 1999) proposes three quantifiable features of affective wellbeing on the two orthogonal dimensions of pleasure and level of arousal. These axes are specifically defined by Warr (1987) as:

1. An axis of pleasure or displeasure measured in terms of satisfaction or happiness
2. An axis extending from anxiety (low pleasure, high arousal) to comfort (high pleasure, low arousal)

3. An axis extending from depression (low pleasure, low arousal) to enthusiasm (high pleasure, high arousal)

Methods intended to determine affective wellbeing by measuring levels of anxiety, depression, emotional suffering, and psychosomatic indicators accordingly focus on the discovery of mental ill-health. At the opposite end, measures of positive psychological wellbeing encapsulate high arousal and pleasure conditions such as passion and interest (Sivanathan et al., 2003). It is, furthermore, argued that a pleasant psychological frame of mind, such as job satisfaction, which occurs as a result of the positive assessment of job experiences, can be regarded as either an indication of poor mental health i.e. job dissatisfaction, or positive mental health i.e. job satisfaction.

Warr (1987), however, argues that the job satisfaction domain is a relatively reactive measure of psychological wellbeing since most of the instruments used to evaluate it only manage to capture the extent to which pleasure or discontent is experienced on the job. The individual's state of arousal can, as a result, not be gauged. Instead, a set of dynamic alternatives is offered which can be deemed as indicators of mental health, signifying more active states and actions than the conventional measures such as job satisfaction. These contemporary substitutes include positive self-regard (i.e. high self-esteem), notions regarding one's competence (i.e. employing effective coping strategies), ambition (i.e. goal-directed action towards fulfilment of one's aspirations), autonomy (i.e. taking a proactive approach), as well as holistic functioning (i.e. realising the integrated nature of optimal performance by finding balance and harmony). The above can serve as influential means to increase an individual's affective wellbeing, as is evident through the enhancement of coping mechanisms to reduce anxiety. Although traditional measures will be used to assess wellbeing in this study, the tendency to depart from a traditional definition of wellbeing as presented above is relevant as a salutogenic approach to wellbeing has not been prevalent in recent literature. This study will consequently draw from positive psychological constructs, such as optimism, self-efficacy and meaningfulness (defined as engagement and organisational commitment) as the mechanisms that might enable a salutogenic approach to explaining and affecting occupational wellbeing.

The first argument in favour of presenting occupational wellbeing as the focal point of this study is its rich theoretical and empirical basis, in part explicated in the above section. The second motive for exploring wellbeing from an occupational health perspective stems from a propensity to translate the experience of work into other spheres of daily lives, such as overall life satisfaction. Moreover, the ability to remain free of injury and assisting colleagues to do the same while occupied within the work domain, influences life beyond work (Hoffman & Tetrick, 2003). When viewed in the additional light of an era that is driven by perpetual technological progress to ensure increasing efficiency in a global milieu in which speed has become a mutually agreed upon credo, it becomes evident that the world of business is more ruthless than ever. Wellbeing within an occupational health paradigm, indeed, seems like an issue well worth addressing on the organisational agenda of the 21<sup>st</sup> century business.

Consequently, the positive constructs of optimism, self-efficacy and meaningfulness will be presented as viable means to enhance occupational wellbeing in the modern and often turbulent business climate.

## **2.4 THE CONSTRUCT OF OPTIMISM**

### **2.4.1 Defining optimism**

Optimism, as a construct of positive psychology, is perhaps the most notable of all other researched constructs in the field. The reason mainly being the influential works on the construct by renowned psychologist Martin Seligman, greatly contributing towards the positive psychology movement (Cameron et al., 2003). Logically, this is also the most obvious conclusion - the ability to live optimistically is most probably drawn from an inherent inclination to be positive.

Seligman (1998) describes optimism as a cognitive process involving positive outcome expectancies and causal attributions. These expectancies and attributions are external, temporary, and detailed in interpreting bad or negative events, as well as internal, stable, and universal for good or positive events. Peterson (2000), however, cautions that it would be ignorant to simply view optimism from this perspective of formal cognition. He argues that one should consider the emotional aspect encompassed in this faculty to fully comprehend its role as being motivated and motivating. Within this

perspective, optimism is thus described as the propensity to foster positive expectations across time and circumstances (Green, Medlin & Whitten, 2004). Optimists, accordingly, underscore the positive facets of situations, behaviours and events in the present, as well as suppose the best possible outcomes in the future (Furnham, 1997).

Specific to the workplace, Luthans (2003) has reported that optimistic individuals are effortlessly motivated to work harder, possess high morale, and exhibit more goal-directed behaviour. Optimists furthermore have the ability to persist under severe conditions, regard disappointments as temporary and valuable life experiences, and have a general inclination to be cheerful and mentally and physically energised (Luthans, 2003).

#### **2.4.2 Optimism and wellbeing**

From the above conceptualisation it is evident that those individuals who exhibit high levels of optimism will anticipate positive outcomes even when confronted with adversity. At the opposing end, pessimists believe that the final result will be negative, causing these individuals to be more susceptible towards the experience of negative emotions such as anxiety, guilt, anger and grief (Carver & Scheier, 2004). Consequently, the segment to follow will focus specifically on the relationship between optimism and distress over time, amongst individuals faced with hardship.

Early studies related to optimism and the effects thereof on psychological wellbeing, addressed the subject of postpartum depression. The women involved in the study completed a measure of depression in their third trimester and again three weeks after childbirth. Those deemed optimistic did not initially exhibit symptoms of depression and, more importantly, optimism predicted lower levels of depression postpartum, even after controlling for the original levels (Carver & Gaines, 1987). In another study conducted at multiple points in time, men that were scheduled for coronary bypass surgery were given questionnaires the day before surgery, a week after, as well as six months following the procedure. Before surgery, patients displaying high levels of optimism felt less antagonistic and despondent than their counterparts. After the second assessment one week later, optimists claimed to have experienced more happiness and relief, more satisfaction with the treatment they received, and

contentment with their domestic support structures. Six months following surgery, optimistic individuals professed to a higher quality of life than pessimists. When a follow-up was conducted 5 years later, optimism still seemed to play a significant role in former patients' experience of high quality of life and subjective wellbeing (Scheier, Matthews, Owens, Magovern, Lefebvre, Abbott & Carver, 1989). In addition, an examination of the possible power of optimism for adjustment purposes amongst breast cancer victims indicated that optimism were inversely predictive of grief over time, even with all the other relevant variables, such as medical variables and the effects of earlier distress, accounted for. This result is especially important, not only because optimism predicted less original distress, but also because it signifies the capacity for optimistic individuals to demonstrate resilience in the face of adversity (Carver, Pozo, Harris, Noriega, Scheier, Robinson, Ketcham, Moffat & Clark, 1993).

Given, Stommel, Given, Osuch, Kurtz and Kurtz (1993) maintain that the effects of optimism are not only visible among those suffering from a medical condition, but also influences the emotional wellbeing of their caretakers. When displaying signs of optimism, the caregivers of cancer patients showed less depression, less physical ill-health and less disturbances in their daily schedule. Comparable results among caregiver spouses of Alzheimer's sufferers support this notion (Hooker, Monahan, Shifren & Hutchinson 1992).

Furthermore, although much of what has been presented on the relationship between optimism and wellbeing seems illuminated by the occurrence of serious hardship, Aspinwall and Taylor (1992) have examined the adjustment strategies of first-year students within the university context. Elevated levels of optimism when commencing with college were predictive of lower levels of emotional distress at the end of the semester, above and beyond the variables of self-esteem, locus of control, desire of control, and baseline mood.

In order to provide a framework for how optimism relates to a salutogenic model of occupational wellbeing, it is imperative to investigate the construct and its association with wellbeing from an organisational perspective. Although limited research currently exists, that which is available offers sufficient groundwork to justify interest in, and

further research into the potential of optimism as a useful POS variable. For example, David and Cable (2006) have noted the importance of a positive workplace for improved individual and team productivity, as well as how optimism is a determining factor in the creation of such a workplace.

In his book *Learned optimism*, Seligman (1998) argues that negativity in a work environment is an accurate predictor of task failure. In his study of insurance sales agents at Metropolitan Life Insurance Company, he ascertained that even though sales agents are selected because of their scores on an industry test, agents scoring in the top half on his optimism assessment, outperformed those who scored in the pessimistic half by 37 percent. Those in the top 10 percent of the optimism assessment outperformed those in the bottom 10 percent by 88 percent. Subsequently he administered both the industry test, as well as the optimism measure to prospective sales agents. Seligman then employed a special force of agents who were unsuccessful in the industry test but achieved top marks on optimism. The findings indicate that agents in the special force sold as much as the optimistic agents who qualified in the traditional manner, but outsold pessimistic agents who also passed the industry test by 21 percent in their first year, and by 57 percent in their second year. Amongst those who originally passed the test, he found that optimists outsold pessimists by 8 percent in the first year, and 30 percent in the following year. Since then, this particular organisation has included optimism in its selection criteria (Seligman, 1998).

In the Authentic Leadership Development Model of Luthans and Avolio (2003) the authors argue that optimism is an important ingredient in the development of authentic leaders, and moreover, that authentic leaders possess the capacity to influence their followers in a manner that extends far beyond traditional persuasion. Authentic leaders transcend their self-interest because they are guided by something greater, which is to be consistent with their high-end values that were shaped and develop across their careers. They model confidence, optimism, hope and resilience, which inspires others to take action that will enable their own growth and development into authenticated individuals, acting beyond mere self-interest (Luthans & Avolio, 2003). It makes intuitive

sense that authentic leadership that inspires followers to expand their range of competencies beyond self-interest and organisational confines, will contribute to the follower's and organisation's wellbeing.

To conclude, results of an exploratory study (Dolfi & Andrews, 2007), which aimed to establish optimism as a key variable in overcoming challenges in the project management work setting should also be noted. The findings suggest that optimism in project managers is an important quality as only 7% of optimists (as established by the quantitative survey) regarded their work environment as negative, while 60% of pessimists thought of their work environment as negative. A second key discovery of the study pointed towards the notion that the amount of experience in the work environment can influence individual levels of optimism i.e. the more proficient individuals become at their work the more optimistic they will come to experience it. This confirms findings of the flexible and changeable nature of optimism and presents a strong argument in favour of its cultivation which will be elaborated upon in the section to follow.

### **2.4.3 Optimism – arguments for, and against the cultivation of optimism**

Twin studies researches have not been very optimistic about the possibility of fostering optimism within individuals who is not naturally inclined towards it (Plomin, Scheier, Bergeman, Pedersen, Nesselroade & McClearn, 1992). The apparent dispositional nature of optimism raises doubts regarding its inherent heritability and, if perhaps it merely displays heritability as a result of its association with other features of personality. To illustrate its ambiguous nature, it is noteworthy to mention that optimism is correlated with the Big Five personality constructs of neuroticism and extraversion, both of which are recognised as hereditary (Carver & Scheier, 2004). Other research has indicated that the optimism/pessimism constructs are partially fostered through early childhood experiences related to attachment (Snyder, 1994).

The literature as outlined above may suggest that, whether as a result of one's genetic makeup, or from experiences stemming from one's youth, an optimistic or pessimistic viewpoint of life could to a large extent be enduring and pervasive. Hence, an individual's conduct will be duly influenced, much like the effect of any other personality

trait on human behaviour, by their stance on these constructs. If it is argued that optimism is a fixed construct which exhibits stability over time, the rationale for the conceptualisation of a salutogenic model of wellbeing needs to be questioned, as this would imply membership only to an elitist few and discard its appeal to the larger organisational system. Fortunately, it appears that pessimism might not be so deeply entrenched in individuals' natures as to not make them impressionable to positive reframing through various types of therapies. Cognitive behavioural therapy and personal efficacy training are two familiar methods used to modify predispositions to pessimism (Carver & Scheier, 2004). The latter entails the development and expansion of specific competencies, such as social skills and assertiveness to improve the ways in which individuals adjust to a wide range of daily circumstances.

Within the current organisational milieu, Luthans and Youssef (2004) argue that optimism can indeed be cultivated. They propose three approaches for developing employees' optimism. The first relates to being lenient with regards to the past. Managers and employees should learn to reframe and accept earlier failures and impediments, grant themselves the benefit of the doubt, and learn to forgive themselves for mistakes that cannot be altered or reversed. The second approach is to foster appreciation for the present, which includes gratefulness and satisfaction about the positive aspects of one's current circumstances, including both elements under one's control, as well as unmanageable external forces. Thirdly, opportunity seeking for the future in which the unknown is viewed as a platform for growth and development, and are embraced with a positive, welcoming and confident attitude, will enable the advancement of employee optimism.

The ideal type of optimism to be cultivated among employees and managers is characterised by realism and flexibility. Unlike indiscriminating optimism, which implies that people view all situations as favourable without regard for the risk it may involve, and which may result in reckless behaviour, realistic optimism does not take an extreme approach in externalising and eradicating personal accountability for poor decisions. Additionally, flexible optimism allows for the utilisation of various explanatory styles, both optimistic and pessimistic, so that it is possible to adapt to the situation at hand

(Luthans & Youssef, 2004). For example, a safety engineer may need to adopt a pessimistic explanatory style on setting up a process for operating hazardous equipment, but an optimistic explanatory style in a staff meeting with the operations department. Positive feedback and social recognition are furthermore recognised as means to enhance employee optimism, as well as stress management and work-life balance initiatives (Luthans & Youssef, 2004).

To conclude, it is argued that as a result of its temporary and context-specific nature, as well as the acknowledgement of learned optimism and flexibility, optimism is accordingly supported by theoretical and empirical evidence as possessing certain state-like qualities (Gillham, 2000; Schneider, 2001; Seligman, 2002), which provides a basis to argue for the malleability of the construct.

## **2.5 THE CONSTRUCT OF SELF-EFFICACY**

### **2.5.1 Defining self-efficacy**

To enable a true understanding of the construct of self-efficacy, it will be described according to the approach and ideas of Maddux (2004). Maddux (2004) utilises a process of elimination in defining the construct by describing what self-efficacy is not. By making a distinction between self-efficacy and other similar constructs, its significance especially to the field of occupational wellbeing, becomes more apparent.

Firstly, self-efficacy is not a set of supposed competencies. Rather, it is the belief that certain outcomes are possible through the utilisation of these competencies. Secondly, self-efficacy beliefs are not predictive of behaviour as it centres on the notion of what is possible, not probable. Thirdly, self-efficacy philosophies are not causal attributions, since this will imply the explanation of events such as specific behaviours and its effects. Rather, self-efficacy beliefs concentrate on perceived perceptions of capability. Fourth, self-efficacy is not necessarily directed towards goal-attainment, although these beliefs might contribute to certain goal-driven behaviours. Fifth, self-efficacy cannot be deemed as motivation, ambition or desire for power. One can exhibit a great need for control in a specific area but, simultaneously, foster feeble expectations regarding one's efficacy in that area. Sixth, self-efficacy should not be mistaken for self-esteem. Beliefs regarding efficacy within a particular field will contribute in part towards the experience

of elevated self-esteem, although only in direct proportion to the significance placed on that specific field. Seventh, self-efficacy is not expectations regarding perceived outcomes. This would imply *behaviour-outcome expectancies* (Maddux, 1999) relating to the notion that certain actions may result in certain outcomes in context-specific situations. Instead, a self-efficacy belief is simply the conviction that one can carry out the action necessary to generate the expected result. Finally, self-efficacy is not subjected to temperament, but rather described as the conviction that aptitude and capability can be synchronised for the obtainment of goals in specific areas and situations of personal desire (Maddux, 2004).

Accordingly, self-efficacy is described by Stajkovic and Luthans (1998) as people's beliefs about their ability to assemble the motivation, cognitive resources, and routes of action necessary to perform a specific task within a given context. The concept originated to a great extent as a result of Bandura's (1986, 1997) social cognitive theory which maintains that individuals exhibiting the qualities of self-efficaciousness will deliberately choose to become more engaged in a task and rise to the challenge; put in more effort to be successful; as well as display perseverance despite adversity. In the section to follow, the state-like properties of self-efficacy will be examined in greater depth to add credibility to the notion of conceptualising a salutogenic model of occupational health that incorporates this construct.

### **2.5.2 Self-efficacy and wellbeing**

In general, most will agree with the notion that mankind has always been a species inclined to comfort and consistency. This implies a perceived sense of control over one's immediate surroundings, actions and judgements to confront life's challenges, nurture relationships, and reach a state of individual fulfilment. Below, the role of self-efficacy in the preservation of these values will be explored.

Self-efficacy is said to be a determining factor of successful interventions in a number of general adaptation problems (Maddux, 2004). Low levels of self-efficacy have been found in depression patients (Bandura, 1997; Maddux & Meier, 1995). This can be explained due to a common perspective held by depressed individuals regarding their incapability to effectively cope in important domains of their lives (Maddux, 2004). High

frequencies of experienced anxiety and avoidant behaviour are most likely to manifest in those persons possessing low self-efficacy beliefs about their coping skills in circumstances which appears threatening (Bandura, 1997; Williams, 1995). This felt anxiety can often lead to reduced performance, which subsequently further reduces one's perceived competence within a particular domain. Additionally, the development of self-efficacy enhancing interventions can be decisive in the treatment of substance abuse and eating disorders (Bandura, 1997; DiClemente, Fairhurst & Piotrowski, 1995). The limited research foci on self-efficacy and conventional categories of psychopathology as revealed in the above overview, is merely an expression of the direction of past interest, and does not reflect the fundamental assumptions on which self-efficacy theory is based. These fundamentals relate in essence to understanding the different facets of positive psychological functioning associated with enabling and empowering individuals to facilitate the creation of a healthy and rewarding environment (Bandura, 1997).

It has already been established that wellbeing encompasses both a psychological and a physical aspect (Hoffman & Tetrick, 2003). It has also been ascertained by means of previous research that self-efficacy affects positive adaptation to healthy actions, as well as the facilitation of constructive behavioural modifications when confronted with adversity. Bandura (1997) points towards the enhancement of self-efficacy convictions to successfully uphold diet and exercise regimes, renounce smoking, defeat substance abuse problems, manage stress, and demonstrate disease detection actions such as breast self-examinations. High levels of self-efficacy can furthermore initiate the emission of catecholamine and serotonin within the human body, the first of which is crucial to effective stress management while the latter is the so-called 'happy hormone' necessary for optimal physical and psychological functioning.

Self-efficacy also has considerable support from past research as to its positive impact in organisational settings. Stajkovic and Luthans (1998) report a weighted average correlation of .38 between self-efficacy and work-related performance in a meta-analytic review of empirical studies conducted over the last twenty years. This effect on performance is greater than many established performance enhancement initiatives

such as goal setting and behaviour modification, as well as commonly recognised personality traits such as conscientiousness and attitudes like job satisfaction. Recent research by Luthans and Youssef (2004) furthermore support the relationship between self-efficacy and desirable attitudinal outcomes such as job satisfaction, organisational commitment, decreased turnover intentions, and perceived organisational effectiveness, both in the United States and other cross-cultural workplace settings.

Further research findings also indicate that high levels of self-efficacy consistently enable individuals to confront formerly fear and anxiety-provoking stimuli (Bandura, 1997). Such an example is provided by Jex and Bliese's (1999) work on the buffering effect of self-efficacy with regards to the negative impact of work stressors on the psychological wellbeing of employees. It is thus argued that individuals high in self-efficacy are more likely to confront their stressors, while those low in self-efficacy are more likely to be consumed by it (Kinicki & Latack, 1990). Therefore, by relying on their problem-focused coping, employees higher in self-efficacy are better equipped to have more adaptive reactions to setbacks and stressors in their work environment, and accordingly more likely to preserve healthy levels of psychological wellbeing. Additionally, as is the case with optimism, self-efficacy has been used in organisational research to underscore the positive effect of authentic leadership on wellbeing (Sivanathan, Arnold, Turner and Barling 2004).

### **2.5.3 Self-efficacy – A state-like property**

Self-efficacy, as a product of Bandura's social cognitive theory, is perhaps the finest example of a positive psychological antecedent that is subject to development. Efficacy beliefs can be cultivated throughout the course of one's life, as shown by work in this domain, as information is continually incorporated from five main sources of efficacy beliefs, which will briefly be discussed.

Performance experiences are individual efforts to exert control over one's environment and are the most influential source of self-efficacy information (Bandura, 1997). When people perceive their coping attempts under difficult circumstances as successful, they will in all probability experience an elevated sense of mastery within that domain (Maddux 2004). From an organisational perspective, this will require from employees to

work toward challenging, but obtainable, concrete, specific and proximal goals. Experiential exercises, on-the-job training, and coaching have been found to contribute to building self-efficacy through guided mastery experiences (Luthans & Youssef, 2004).

Bandura (1997) furthermore argued that vicarious experiences dictate that self-efficacy convictions can be affected by observing others and weighing the perceived consequences of their actions to mould one's own behaviour accordingly. This will however depend on the extent to which one can identify with the person being observed. This method of developing self-efficacy is well known within psychological circles as behaviour modelling. In the organisation, employees can build their self-efficacy by shadowing a successful mentor or by watching a relevant model (similar to the developing employee and dealing with a similar situation) effectively managing a realistic situation (Luthans & Youssef, 2004).

Imaginal experiences are, as the phrase implies, the visualisation of oneself or others, successfully completing tasks in hypothetical situations (Maddux, 2004). This imagery may stem from actual or vicarious experiences with similar circumstances to the one expected, or as induced by verbal persuasion in psychotherapy, such as systematic desensitisation and implosion to teach effective coping methods (Emmelkamp, 1994).

Verbal persuasion from a treatment perspective entails the influence of others to engage in small risks to achieve small successes (Maddux, 2004). The strength of verbal persuasion with regards to efficacy beliefs will depend on the expertise, reliability, and charisma of the supplier thereof. In daily life, the power of verbal persuasion as an efficacy facilitator is demonstrated by individuals seeking support when endeavouring to maintain a diet or exercise programme, quit smoking, or confronting a demanding colleague or friend. Encouragement and support from a leader and/or co-workers in the work environment should enhance efficacy beliefs and result in increased positive workplace outcomes.

Physiological and emotional states influence self-efficacy when poor performance or supposed failure come to be associated with aversive physiological stimulation and triumph with an agreeable frame of mind. Thus, strategies for controlling and

diminishing emotional arousal like anxiety, while attempting novel behaviours, should strengthen self-efficacy and increase the probability of successful implementation of these strategies (Maddux, 2004).

Authentic leadership is additionally applicable in the development of self-efficacy amongst employees. Sivanathan et al. (2004) contend that by 1) inspiring followers to greater heights through verbal persuasion, 2) manifesting positive behaviours that followers want to emulate (vicarious experience), 3) encouraging followers to think of challenges in ways that make it possible to confront them (verbal persuasion), and 4) providing a supportive climate in which this is all feasible, authentic leaders affect their followers' self-efficacy.

## **2.6 MEANINGFULNESS**

### **2.6.1 A typology of meaning in the workplace**

Mankind possesses an inherent need to engage in activities that they believe to be significant in an attempt to lead a full and rewarding life. In the work context, the perception of meaningfulness may be drawn from the intrinsic aspects of the work itself, the purpose, principles, and convictions that the work is thought to serve, or the organisational community in which the work is entrenched (Wrzesniewski, McCauly, Rozin & Schwartz, 1997). Important though, is the comprehension that as a result of the widely differing social contexts as depicted by personality, culture, demographics, race and religion, the meaning ascribed to specific work and organisational environments may vary radically across individuals, as well as physical and historical milieus. It is doubtful that there are much universal meanings embedded within specific jobs; individuals will find their own personal reasons to ascribe meaning to their jobs. However, meaningfulness is not a fixed property of a job (e.g. teaching = helping others) or organisations. Rather, meaningfulness is essentially a subjective construct (Pratt & Ashforth; 2003). The creation of meaning is depicted as a process in which sense is ascribed to, or allocated towards something, thus attributing importance to a certain target or stimulus by placing it into an existing or rising cognition framework (Starbuck & Milliken, 1988). Allocating meaning, however, does not automatically cause something

to be meaningful; when something is perceived to be meaningful it will provide sense to the purpose of one's life.

Creating meaning from within the organisational setting often takes place in the company of others, such as associating with one's work group or department (Weick, 1995). It thus becomes evident that finding meaning in work is frequently a social endeavour that tends to be socially construed among individuals within the same work teams and departments (Weick, 1995). Pratt and Ashforth (2003), however, caution that a distinction is warranted between the concepts of meaningfulness in working and meaningfulness at work. The first involves the utilisation of an organisation's resources to set tasks that are intrinsically motivating and provides the employee with a sense of purpose. Nonetheless, people in this process are not passive observers incapable of contribution; it is the responsibility of all individuals to help generate the meanings that articulate and verify their desired sense of self. Meaningfulness at work implies altering the disposition of one's membership to the organisation. This can be achieved by surrounding oneself with those promoting the goals, ideals, beliefs and values of the organisation. Both notions, as well as the appropriate means to foster it against an organisational backdrop, will be discussed subsequently.

### **2.6.2 Cultivating a state of meaningfulness at work**

Organisations that aim to enhance employees' organisational membership – and not only the work they do - can be said to foster meaningfulness at work. According to Pratt and Ashforth (2003), this process entails two different procedures, the first of which is concentrated on endorsing the objectives, morals and beliefs of the business, while the latter is set on altering the nature of the relationships between employees. Both of these outcomes though, are often achieved concurrently as the process of instructing employees to harbour a specific set of values, has the desired effect of shifting the dynamics of employee relations. This feat may be accomplished by engaging in practices that focuses on creating organisational culture, identities and ideologies. Kirkpatrick and Locke (1996) contend that visionary leadership will assist to generate an ideal that is mutually compatible throughout the entire organisation and will transcend across all levels to create such a shared culture. These ideals, like cultures,

philosophies, and collective identities, make membership within a particular organisation special, inspiring and meaningful.

The principal methods utilised to foster meaningfulness at work are thus those that aim to build an organisational community through the creation of intimate, “family-like dynamics at work”, and by calling attention to an organisational mission which reaches beyond the profit motive. Baumeister and Leary (1995) argue that individuals have an innate desire to form a kinship with others, specifically in areas like the work context where a substantial amount of time is spent interacting with fellow employees. The creation of such an environment may be facilitated by promoting trust and honesty, displaying humour when appropriate and offering personalised attention, self-revelation, leading with empathy, tolerating minor errors, providing the necessary support and guidance and engaging in social customs (Frost, Dutton, Worline & Wilson, 2000). Community-building practices may also attempt to cloud the traditionally set margin between work and family life by acknowledging employees outside the organisational milieu. This can be executed by involving family members at work functions, allowing critical family time (leave, in-house day-care, flexi-time) and assisting those families experiencing hardship. The second aspect involved in the creation of meaningfulness at work, namely a mutually honoured organisational mission, can be achieved by calling attention to the organisation’s corporate social responsibility. In this way, employees feel that they are providing an active, constructive service, therefore contributing towards general welfare in the greater context of society (Pratt & Ashforth, 2003).

To summarise, leaders can assist in the creation of a meaningful work environment by firstly, blurring the traditional boundaries between work and social life and secondly, through the inclusion of employees in the organisation’s community-building practices. This will lead to the generation of meaning for the individual employee as it allows for self-expression in the work context, as well as facilitating the creation of stronger interpersonal connections.

### **2.6.3 Cultivating a state of meaningfulness in working**

Organisations can engage in a wide variety of activities that will attempt to cultivate a sense of meaning for employees in the tasks they perform every day. These activities range from job redesign which involves increasing the variety of skills used on the job (Hackman & Oldham, 1980), to employee involvement procedures that efficiently empower members by making information available, developing knowledge, inviting participation and offering rewards for acquiring certain skills (Lawler, Mohrman & Benson, 2001). Indeed, Gardner, Csikszentmihalyi and Damon (2001) argue that these actions may even manifest in much desired “flow experiences” which allow employees to fully and vigorously engage in work in order to become contented, self-actualised individuals. It should be noted however, that job redesign and employee involvement will only become meaningful to the employee once the required resources and opportunities necessary to do the work, have been obtained. In light of this, Pratt and Ashforth (2003) suggest that the most effective means to create meaningfulness in work for the individual will be to employ path-goal leadership. Through this type of leadership the leader illuminates clear paths/goals for subordinates in order to influence their satisfaction and performance. This may highlight the link between effort and execution and remove unwanted obstacles, detrimental to performance (House, 1997). The literature on workplace disturbances and frustrations suggest that such performance obstacles can erode the meaningfulness of even the most inspiring of jobs (Fox & Spector, 1999; Zohar, 1999).

Research further indicates that the best way to create meaning in one’s work is to select those types of work activities that aim to nurture “callings”. When work is viewed as a calling, it is an end in itself because of its perceived worth in the greater society. This calling may, but need not be, pleasurable (Wrzesniewski, McCauley, Rozin & Schwartz, 1997). Callings have additionally been linked with the expression of one’s ‘authentic self’ i.e. to become the best person one can be (Furey, 1997). As a result, callings accordingly encompass role, identity, and meaningfulness (Pratt & Ashforth, 2003). Callings are fostered when high task significance is recognised in one’s job (Hackman & Oldham, 1980). It should be noted, however, that task significance in callings often

transcends beyond organisational borders to serve a collective entirety such as the greater society (Pratt & Ashforth, 2003).

Meaningfulness at work practices, such as the building of cultures, ideologies, identities and leadership communities, may encourage meaningfulness in work. This happens particularly when employees support the vision and inspiring goals of the organisation, and see how they might come to realise their tasks as integral to this inspiring organisational identity. As Emmons (1999) argues, seemingly small tasks can have tremendous personal meaning if they are framed as connecting to something greater. Wrzesniewski (2002) offers examples from the recruitment literature by noting that The New York Police Department also prompts the calling element with the motto, 'It's not just a job.' To summarise, whereas building communities seems to work horizontally by forging connections between organisational members and within oneself, nurturing callings seems to have a vertical effect. Enhancing the societal importance of tasks, working with, and helping others, and being aware of spiritual desires associate what one does and who one is with something that reaches beyond a specific organisation (Pratt & Ashforth, 2003). Gouldner (1957) does however offer a cautionary note on nurturing callings. Practices that place too much emphasis on work as a calling may implicitly downplay the importance of context, and in order to retain talented workers, the organisation may have to supplement it with other activities designed to enhance organisational membership (such as building communities).

#### **2.6.4 Meaning and wellbeing**

The feat of creating meaning in everyday life can be viewed as the collective attempt of mankind to impose stability on life. This stability, can, in turn, have a marked influence on the wellbeing of the individual. It can thus be rightly argued that more meaningful lives will lead to more contented ones. Conversely, the existential gloom that is associated with an overwhelming sense of meaninglessness is unlikely to contribute to lasting happiness (Baumeister & Vohs, 2000).

When introducing the theme of suffering, it becomes evident that people who suffer have an inherent need to find meaning amidst the adversity (Baumeister, 1991). Rothbaum, Weisz and Snyder (1982) argue that this may be a coping mechanism

related to the need to exert some form of control over one's life, albeit not possessing any practical value. An example of this was found in research on people suffering from chronic pain. Participants reported feeling better after their illness were labelled, even if the diagnosis entailed that nothing could be done to alleviate it (Hilbert, 1984). Identifying the source of pain eased the stress in itself, allowing the person to move on and maintain a certain level of wellbeing. Another instance where the mental health of individuals is positively affected by the construction of meaning is illustrated by people coping with the loss of a family member. Individuals engaged in meaning-construction demonstrated better adjustment to the loss (Davis, Nolen-Hoeksema & Larson, 1998).

From an organisational perspective, the evidence of a positive relation between the meaning derived from work and wellbeing varies. Some studies have indicated that job involvement, which has been linked to meaningfulness in working according to the POS literature, may aggravate negative health effects associated with burnout (Frone, Russel & Cooper 1995). Yet, there are also studies that illustrate positive correlations between the meaning of work and wellbeing, from which this study will consequently draw. The feat of experiencing higher levels of job involvement appears in some instances to indeed be inversely connected with burnout (Paullay, 1991). Additionally, according to recent longitudinal research which studied the variable of the meaning of work (where meaning was described as being occupied with significant and meaningful tasks) it was found that meaning accounted for up to 32% of the variance in psychological benefits, related to wellbeing, experienced by the respondents in the study (Britt, Adler & Bartone, 2001). Results like these establish that there is indeed a premise for investigating the relationship between meaningful work and occupational wellbeing in greater depth.

#### **2.6.5 The conceptualisation of meaning in this study**

For the purpose of this current study, a dually expressed conceptualisation of the experience of meaning in an occupational context is presented. Finding positive meaning at work implies the cultivation of a strong sense of organisational membership (Frost et al., 2000; Pratt & Ashforth, 2003), while meaningfulness in working relates to employees being engaged in work, nurturing their callings (Gardner et al., 2001). The

commonality of these two conceptualisations of meaning is that both focuses on a purpose to work that by some means transcends the financial one. Sivanathan et al. (2004) draw attention to the relationship between meaning and wellbeing by arguing that it is this higher purpose that transformational leaders instil in followers that contributes to enhanced wellbeing. Furthermore, transformational leadership activities that have been hypothesised to moderate the effect of meaning on wellbeing includes the creation of higher order needs in followers (Bass, 1985) and the elevation of followers' levels of morality to induce more ethically orientated decision-making (Burns, 1978; Turner, Barling, Epitropaki, Butcher & Milner 2002).

As previously explained, a twofold conceptualisation of meaning within the organisational setting will be utilised in this study. Firstly, the 'meaningfulness at work' element relates to business activities that aim to enhance employees' organisational membership. In a similar line of thought Sivanathan et al. (2004), argue that an individual that possesses a positive self-concept (i.e. positive personal identity and feelings of belongingness to a group classification) experiences more positive wellbeing. Consequently, by enhancing organisational identity, it is hypothesised that employees will experience greater levels of wellbeing. The importance of transformational leadership again rises to the forefront with arguments claiming that it enables the needs, values, preferences, and aspirations of followers to shift from self- to collective interests (Shamir, House & Arthur, 1993). Indeed, it is "through the manipulation of symbols such as traditions, myths, metaphors, rituals, sagas, heroes, and physical setting, [that] management can make the individual's membership salient and provide compelling images of what the...organisation represents." (Ashforth & Mael, 1989, p. 28). Accordingly, Bass (1998) suggest that it is the charismatic elements that drive involvement in organisational attempts from satisfying self-interest of the follower to an expression of collective membership and identity. Theory thus suggests that the more positively and powerfully one is aligned with the organisation, the greater one's self-concept, and hence, greater levels of experienced wellbeing. This conceptualisation of meaningfulness at work is in accordance with the explanation of organisational commitment (i.e. how this component of meaning was operationalised in this study) as set out by Mowday, Porter and Steers (1979).

Secondly, the 'meaningfulness in working' aspect of the conceptualisation of meaningfulness in this study relates to perceived work engagement experienced by employees. The literature suggests that engagement and burnout are two models of well-being within the organisational domain that form part of a broader taxonomy by the two independent dimensions of pleasure and activation (Watson & Tellegen, 1985). Activation extends from exhaustion to vigour, while identification extends from cynicism to dedication. According to this framework, burnout is portrayed as a combination of exhaustion (low activation) and cynicism (low identification) whereas engagement is typified by vigour (high activation) and dedication (high identification). Schaufeli and Bakker (2004) further highlight the importance of vigour as an activation dimension of wellbeing where vigour is characterised by high levels of energy and mental resilience while performing work-related tasks, the readiness to invest effort in one's work, not being easily fatigued, and persistence in the face of adversity. This inherent link between wellbeing and engagement serves as rationale for its inclusion in the study and will consequently be further explored.

## **2.7 THE INTEGRATED NATURE OF OPTIMISM, SELF-EFFICACY, MEANING AND OCCUPATIONAL WELLBEING: TOWARDS A SALUTOGENIC MODEL OF OCCUPATIONAL WELLBEING**

Occupational health and well-being is regarded as a strategic driver of talent attraction and retention, as well as individual and organisational performance excellence. The work behaviour of the individual employee, however, is not a random event manifested in the work place. The behaviour of working man is a lawful expression of a complex nomological network of latent variables characterising the person and the [perceived] environment in which he/she operates. The organisation's ability to rationally and purposefully affect the work behaviour of working man depends on the extent to which this complex nomological network of latent variables is accurately understood. This line of reasoning also applies with regards to the psychological health of employees and the extent to which they are satisfied with their work-life.

The task of the organisation, and more specifically the human resource function, is to affect the work performance of employees in a manner that adds value to the

organisation. The management of employee wellbeing/psychological health is one of the human resource interventions through which the human resource function pursues this objective. The objective of the management of employee wellbeing/psychological health is not only to minimize the incidences of work performance pathology amongst employees, but also to actively promote employee wellbeing. Traditionally the management of employee wellbeing was seen as a process that was aimed at the prevention, detection and treatment of performance pathology. Recently, however, it was recognized that the management of employee wellbeing needs to move beyond the mere prevention and treatment of performance pathology and also actively promote positive psychological health if employee wellness interventions really want to contribute to organisational performance. By applying the salutogenic approach, the challenge facing the organisation is to help ensure that work is instrumental in providing individuals with a fulfilling, worthwhile, positive life. Work takes up a significant proportion of individual's lives. From the POS/salutogenic approach it is argued that work need not be a disagreeable and painful means of earning the income needed to live life after hours and over weekends. Work can, and indeed should, offer working man the opportunity to also find meaning in work. Hence it is attempted here to explicate the arguments that underlie the complexity of a proposed salutogenic model of occupational well-being, which incorporates different variables believed to directly, or indirectly affect occupational well-being.

#### *Conceptualising occupational wellbeing*

Although this study aimed to depart from a notion of using a measure of occupational wellbeing rooted in pathology (or the absence thereof), decades of organisational research has used some form of clinical measure to distinguish between healthy and unwell employees (Goldberg & Hillier, 1979; Reynolds, 1997; Ye, 2009). In line with this tradition, psychological wellbeing/health in terms of the absence of disease was selected as a key indicator of occupational wellbeing in this study. Since there was also a strong argument in favour of the cultivation of positive psychological antecedents to positively impact on occupational wellbeing, a cognitive–judgemental evaluation of employees' satisfaction with their work life was also included in the conceptualisation of occupational wellbeing in this study.

### *Optimism, self-efficacy, and occupational wellbeing*

In terms of the positive psychological antecedents reasoned to have a significant impact on wellbeing in this study, theory and research on a higher order, core construct of Psychological Capital (PsyCap) (consisting of the constructs of hope, resilience, and also self-efficacy and optimism) has received much support in recent studies (Luthans, Avolio, Avey & Norman, 2007). The conceptual independence and discriminant validity of these four constructs have been theoretically presented (e.g. Luthans, Avolio et al., 2007; Snyder, 2000), and empirically demonstrated (Avey, Patera & West, 2006) in the positive organisational literature. It can consequently be argued that optimism and self-efficacy, together with resilience and hope, possess an underlying core factor indicating their highly integrated nature. Luthans, Avey and Patera (2008) offer an example, demonstrating that individuals high in optimism may have a positive perspective in general, but combined with self-efficacy may also have the persistence to pursue many alternative paths when necessary, in order to achieve their optimistic expectations and goals.

In addition, Karademas (2006) found evidence that social support, and more importantly, self-efficacy predict depression and satisfaction with life in two ways: directly and indirectly through optimism. Optimism was significantly predicted by emotional support and resilience self-efficacy. However, the relationship between self-efficacy and optimism has been viewed from different angles. Schwarzer (1993), for example, has argued that self-efficacy should be viewed as component of optimism since it refers to a subset of the outcomes of optimism (Schwarzer, 1993). Hence, Schweizer and Koch (2001) have developed a questionnaire called the POSO-E (Questionnaire for the Assessment of Personal Optimism and Social Optimism-Extended) which includes a self-efficacy optimism subscale. The findings presented above do suggest that there is a valid premise for linking self-efficacy and optimism. However, within the current model, the two constructs are viewed as conceptually independent and discriminant constructs within the positive psychological domain that have equal chances of affecting meaning in and at work, with the ultimate aim of affecting psychological health and satisfaction with work life.

Although the research presented above outline the inherent connection between optimism and self-efficacy, both were argued to have a distinct and unique effect on psychological health. Accordingly, optimism, defined in terms of positive outcome expectancies about the future (Carver & Scheier, 2004), has been empirically linked with both psychological health and satisfaction with work life. Regarding psychological wellbeing, optimists are expected to use more effective coping strategies that may buffer them against the detrimental effects of stress and other strain-related diseases associate with ill health (Strutton & Lumpkin, 1992). A direct relationship between optimism and psychological health was therefore hypothesised in the proposed model.

In turn, the relationship between self-efficacy and psychological health has also been well documented. The ability of highly efficacious individuals to foster feelings of competence in particular domains through the exertion of effort, may accordingly lead them to flourish and expect similar, positive outcomes in future (Bandura, 1986). Hence, they may be better equipped to regulate their personal notions of perceived stress and strain (Bandura, 1997). Despite the empirical research presented here, it was further logically inferred that employees high in self-efficacy may exhibit better psychological wellbeing, simply because after having failed once, they will continue to persist in their efforts without being burdened by feelings of inadequacy and low self-worth that are often associated with a lack of mental wellbeing.

### *Meaningfulness*

Although meaningfulness within the organisational context is a relatively novel theme on the research agenda, some evidence suggest that it might be linked to optimism and self-efficacy. As was explained in a previous section, research indicates that the best way to create meaning in one's work is to select those types of work activities that aim to nurture "callings". When work is viewed as a calling, it is an end in itself because of its perceived worth in the greater society (Wrzesniewski et al., 1997). Gillham, Shatte, Reivich and Seligman (2001) argue that individuals with a Calling orientation tend to have good psychological health which is also associated with higher levels of optimism and feelings of competence. Thus, it may be that a Calling orientation is a portable benefit of those who tend to have better coping strategies in answer to life's demands,

as well as a generally more positive outlook on life. However, the “calling orientation” approach used in traditional meaning research could limit the application of the variable defined in this manner to research in occupational groups where a clear ‘calling’ orientation is not so salient. Hence, the dually expressed conceptualisation of meaning in work and meaning at work (i.e. organisational commitment and engagement) presented in section 2.6.5, was deemed to be an applicable operationalisation of the meaning construct in this study. Accordingly, evidence will be presented in favour of a logical argument in which personal psychological resources like optimism and self-efficacy are proposed to have an additional indirect and positive impact on psychological health and satisfaction with work-life, through affecting experienced meaningfulness, operationalised as work engagement and organisational commitment, in this proposed salutogenic model.

In order to elucidate the arguments underlying the different hypothesised paths in the proposed salutogenic model of occupational wellbeing (see figure 3.1), a discussion of the current empirical evidence (correlational and causal evidence) in favour of these paths will be presented. Logical reasoning in favour of hypothesised paths, even in the absence of current empirical research evidence, will also be presented to outline the theoretical rationale for the model. Firstly, optimism and self-efficacy will be separately linked with both variables hypothesised to comprise meaningfulness, namely work engagement and organisational commitment. In turn, evidence that the two latter variables can be linked causally to the proposed components of occupational wellbeing (psychological health and satisfaction with work-life), will then be presented. Significant paths between all of these proposed variables would suggest that optimism and self-efficacy may have, apart from their direct impact on occupational wellbeing (e.g. psychological health), a further indirect effect thereon, through the capacity to influence individual perceptions and favourable behavioural manifestations of meaningfulness (thus, engagement and commitment).

#### *Optimism and engagement*

According to Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002) work engagement is described as a positive, rewarding and work-related frame of mind that

is typified by the individual experience of vigour, dedication and absorption. From the literature it is known that optimists tend to exhibit unique characteristics such as their effortless motivation to work harder (a probable indication of dedication) and their high morale and exhibition of more goal-directed behaviour (which could be linked to absorption in work). Optimists furthermore have the ability to persist under severe conditions, regard disappointments as temporary and valuable life experiences and have a general inclination to be cheerful and mentally and physically energised (which could be related to vigour) (Luthans, 2003). Although the above reasoning does not explicitly provide empirical evidence of the causal relationship between optimism and engagement, it is argued here that certain characteristics inherent to optimism as a psychological resource may act as drivers for the vigour, dedication and absorption components, which defines employee engagement behaviours. Empirical evidence to this end can be found in a study by Xanthopoulou, Bakker, Demerouti and Schaufeli (2007) in which the authors demonstrated the ability of engaged employees to anticipate favourable outcomes expectancies, which is regarded as a defining feature of optimists (Scheier & Carver, 1985).

#### *Self-efficacy and engagement*

Numerous researchers have emphasised the role of self-efficacy in explaining the transition from job resources to positive psychological and organisational outcomes (Gist & Mitchell, 1992; Luthans, Avey, Avolio, Norman & Combs, 2006). However, this mediating effect has thus far received only limited empirical support with regard to work engagement. In a study by Xanthopoulou, Bakker, Heuven, Demerouti and Schaufeli (2008) attempting to substantiate the above claim in a study of 222 flight attendants, the results conversely indicate that self-efficacy does not significantly mediate the relationship between colleague support and work engagement. However, it was established that work related self-efficacy was related to both in-role and extra-role performance, through employees' work engagement. Thus, when employees believed that they were able to effectively deal with their work requirements, it was more likely that they would be willing to put more effort in the task. In turn, they would show higher levels of vigour, dedication and absorption in their work, which may consequently lead to better performance. The analysis further indicated that the degree to which

employees are engaged in their job, also determined whether self-efficacy beliefs will be transformed to higher performance. This research expands on earlier work supporting the relationship between general self-efficacy and work engagement in flight attendants (Heuven, Bakker, Schaufeli & Huisman, 2006), by underscoring its state character, and its effect on performance episodes (Beal, Weiss, Barros, MacDermid, 2005).

#### *Engagement and psychological health*

Although the relationship between employee engagement and perceived psychological health is not widely documented, a number of recent studies successfully tested a model that linked engagement to perceived health and, accordingly demonstrated the negative relationship between burnout (i.e. viewed as the opposite of engagement) and health (Schaufeli & Bakker, 2004; Hakanen, Bakker & Schaufeli, 2006). Furthermore, in a recent study by Schaufeli, Taris and Van Rhenen (2008) in which the authors used a sample of 527 telecom managers to empirically distinguish between the constructs of workaholism, burnout and work engagement, a positive correlation between engagement and unimpaired social functioning, as well as between engagement and physical health was found. Particularly, absorption (as one of the three dimensions of engagement) was linked to perceived general health, while vigour and dedication were negatively related to distress and/or depression.

#### *Engagement and job satisfaction*

In the same study by Schaufeli et al. (2008), all three components of work engagement (vigour, dedication and absorption) was positively correlated with job satisfaction, while exhaustion (i.e. burnout) was negatively related to satisfaction. Similarly, Schaufeli and Bakker (2004) showed that engagement was negatively related to the intention to quit which may be interpreted as a proxy of job satisfaction (i.e. continuance satisfaction) (Schaufeli et al., 2008). These findings are consistent with Schaufeli, Taris, Le Blanc, Peeters, Bakker and De Jonge's (2001) qualitative research which demonstrated the job commitment and satisfaction of engaged employees.

### *Optimism and organisational commitment*

In a study of 139 sales representatives of a global pharmaceutical company, McColl-Kennedy and Anderson (2005) developed a theoretical model to investigate the relationships among subordinate–manager gender combinations, perceived leadership style, experienced frustration and optimism, organization-based self-esteem and organizational commitment. The model was tested within the context of a probabilistic structural model, a discrete Bayesian network, using cross-sectional data from the above-mentioned global pharmaceutical company. The Bayesian network allowed forward inference to assess the relative influence of gender combination and leadership style on the emotions, self-esteem and commitment consequence variables. Further, diagnostics from backward inference were used to assess the relative influence of variables antecedent to organisational commitment. After analysis, the evidence suggested a dependency link between optimism and commitment.

Other work-related studies on optimism have found optimistic leaders to be more effective in initiating change and to have more optimistic followers (Wunderley, Reddy & Dember, 1998), and optimistic managers and employees to have higher performance, satisfaction and retention, all of which have been empirically linked with organisational commitment (Lincoln & Kalleberg, 1990; Mowday, Porter & Steers, 1982; Mueller, Boyer, Price & Iverson, 1994; Wallace, 1995; Farkas & Tetrack, 1989).

### *Self-efficacy and organisational commitment*

Although research evidence is limited, in a three-wave study Saks (1995) found support for the notion that post training self-efficacy mediated the relationship between training and job satisfaction, turnover intentions and organisational commitment. Additionally, Jex and Bliese (1999) found that job-related self-efficacy moderated the relationship between objective workload (i.e., working hours) and psychological strain, as well as the relationship among subjective workload on physical strain, psychological strain and organisational commitment in a sample of US army soldiers.

### *Organisational commitment and psychological health*

Although the research linking organisational commitment with general psychological health directly is scarce, evidence suggest that health investment (i.e. practices that are

specifically intended to improve the general health of employees) may be associated with individual commitment and compliance. Health investment practices include informing employees about health risks through the use of multiple media and methods (distributing posters and pamphlets, providing on-the-job training, and support from management) and the formal provision of health promotion programmes and occupational health training courses. Additionally, organisations can invest in employee health through the administration of health checks which go beyond statutory requirements and participating in recognised occupational health award programmes to promote a climate of health within the organisation (Mearns, Hope, Ford & Tetrick, 2009). Similar to safety climate, a health climate is used to describe a shared perception of an organisation's priorities and practices regarding employee health (Mearns et al., 2009). In Mearns et al.'s (2009) study involving 1932 employees working on 31 offshore installations operating in UK waters, results demonstrated that health investment practices were related to worksite commitment at individual level. These findings resultantly indicate that employees do reciprocate an organisation's investment in their own health and wellbeing with greater attraction and commitment to worksite goals. Given this association, the current research set out to test whether evidence in favour of an opposite causal relationship could be found. That is, that organisational commitment (due to the positive emotional experiences linked to commitment) would influence perceived psychological health. To this end it has previously been argued that when an individual possesses a positive self-concept (i.e. positive personal identity and feelings of belongingness to a group classification) they will experience more positive wellbeing (Sivanathan et al., 2004). Consequently, enhanced organisational identity may lead to better perceived psychological health, a hypothesis which would be tested in this study.

#### *Organisational commitment and job satisfaction*

The link between satisfaction and organisational commitment have been well documented in research literature, most notably the view being that satisfaction is the source of commitment (Lincoln & Kalleberg, 1990; Mowday, Porter & Steers, 1982; Mueller, Boyer, Price & Iverson, 1994; Wallace, 1995). Researchers taking this stance implicitly assume that employee orientations toward a specific job necessarily precede

orientations toward the entire organisation. Alternative arguments have presented evidence to the contrary, stating that employees may adjust their satisfaction levels to be consistent with their current commitment levels (Bateman & Strasser, 1984; Vandenberg & Lance, 1992). Several other studies have concluded a reciprocal relationship exists between satisfaction and commitment (Farkas & Tetrick, 1989; Lance, 1991; Mathieu, 1991; Mottaz, 1988). The Farkas and Tetrick (1989) study being the exception, the other studies observed an asymmetric relationship where satisfaction had a stronger effect on commitment than the reverse. Likewise, Lincoln and Kalleberg (1990) actually observed a significant reciprocal relationship between satisfaction and commitment in the US and Japan, although they used the significantly stronger effect of the former on the latter to conclude that satisfaction precedes commitment. Farkas and Tetrick's (1989) three wave longitudinal analysis of the relationship between satisfaction and commitment also produced a reciprocal relationship, but their results did not favour one causal relationship over the other. Although there is clearly some difference amongst researches about the direction of the relationship between satisfaction and commitment, they all agree on the interconnectedness of the two constructs. In this study however, the view of the latter is best supported as commitment is considered to be a component of meaningfulness, which is believed to have a direct effect on occupational health of which satisfaction forms part of.

This study draws from the above literature to rationalise the premise for an argument in which optimism and self-efficacy is consequently believed to have a significant bearing on occupational wellbeing, through engagement and organisational commitment.

## **2.8 SUMMARY**

Having reviewed the literature, it becomes evident that more research is warranted to determine whether the positive psychological antecedents of optimism, self-efficacy and meaningfulness are significantly correlated to each other, as well as to occupational wellbeing, in order to permit the construction of a salutogenic approach to understanding wellbeing within the organisational domain. The next chapter will state the various research hypotheses and the methodology to be used to test these relationships.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

Chapter two reviewed the theoretical background of occupational wellbeing, as well as its proposed antecedents of optimism, self-efficacy and meaningfulness. This chapter will firstly, focus on the necessity for further research within the domain of occupational wellbeing and secondly, the resultant rationale and aims of this study, as well as the research hypotheses. The second part of the chapter will provide information regarding the research methodology, the sample, the method of data collection, as well as the instruments utilised in the measurement of the respective constructs.

#### **3.2 THE NECESSITY OF FURTHER AND CONTINUED RESEARCH IN THE DOMAIN OF OCCUPATIONAL WELLBEING**

As emphasised at the onset of this study, the organisational milieu of the 21<sup>st</sup> century is a far cry from the age of the Industrial Revolution and the workplace norms that accompanied it in decades past. The entire employment relationship has been transformed in ways not just influencing the type of work that is required, but also the time and quantity demands thereof (Barling, 1999; Sennet, 1998). Amidst the increased interest in part-time employment, job-sharing, and multiple careers, however, there has been a notable upsurge in overtime worked among the workforce within this paradigm of modern business. Additionally, some employees are confronted with diminished choice and control in their jobs as global demands dictate the corporate schedule (Turner, Barling & Zacharatos, 2004). It is also against this international backdrop that the stage has been set for organisations wishing to compete among the corporate giants; recognizable credos like “reengineering,” “downsizing,” “delaying,” and “lean production” offers society a perceived notion of efficiency, while often placing greater demands on the remaining workforce and failing to increase productivity (Cascio, 1993; Patterson, West & Wall, 2001). It is amidst this chaos and complexity that the need to refocus research efforts to view the construct of wellbeing from a novel approach becomes evident.

As mentioned in an earlier section of this thesis, the school of positive organisational psychology advocate that the desire to enhance the human condition is universal, and that the faculty to do so is latent in most systems (Cameron et al., 2003). Through meaning creation, relationship transformation, positive emotion cultivation, and high-quality connections, organisations can generate sustained sources of collective capability that may help them thrive in an increasingly challenging environment. For the purposes of this research, wellbeing will appropriately be defined in terms of this notion of human flourishing, and higher-level individual functioning, drawing from POS and salutogenesis.

As pointed out in chapter two, wellbeing was appropriately selected as a focal point of this study, as the turbulent business environment of the 21<sup>st</sup> century lends itself to ever-increasing complexity and uncertainty. In an era where stress and burnout have become synonymous with the corporate milieu, organisations may do well to refocus their efforts on the long-term sustainability of their workforce. Hofmann and Tetrick (2003) argue that employees who are content in their work, may be more likely to continue their efforts and take action extending beyond their contractual requirements. They furthermore contend that employee and organisational health are interlinked rather than incompatible and a healthy work organisation is one that encourages both simultaneously. The organisation thus becomes more effective because its employees have a high level of wellbeing, and employee wellbeing benefits from the effectiveness of the organisation, i.e. by providing more job security and rewards.

An important outcome for the field of positive psychology can be articulated as endeavours to advance knowledge about amplifying one's positive mental health and personal flourishing. It is well noted, however, that this has received little attention among the research community. That is because past mental health interventions were mainly concerned with the amelioration of suffering, personal flaws, and anxiety rather focussing on elevating levels of happiness and wellbeing (Seligman & Csikszentmihalyi, 2000; Sheldon & King, 2001).

In line with the proposed outcomes of this study, recent evidence has suggested that positive psychological resources (such as optimism, self-efficacy, and a perceived sense of meaningfulness) are essential in cultivating a sense of mental health. It has indeed also been shown to be linked with various concrete benefits, such as better physical health, diminished psychopathology, greater coping devices, and even an extended life (Lyubomirsky, King & Diener, 2003).

However, within the realm of subjective wellbeing, most research has been conducted by means of surveys, thereby warranting the implementation of direct interventions to study its effects across time (Diener et al., 1999). Some longitudinal studies have shown promise, including research pointing to interventions related to the pursuit of meaningful goals (Sheldon & Elliot, 1999), and the counting of blessings on a regular basis (Emmons & McCullough, 2003). More attempts to enhance subjective wellbeing are needed though, along with more rigorous research regarding the complex nomological net of constructs that could underlie such successful interventions. This study is, therefore, an attempt to explicate the nomological net (that explains occupational wellbeing from a salutogenic perspective) within the South African environment. It is hoped that this research will add to the empirical knowledge base regarding the interrelationships between these variables, as well as to the sustainability of related interventions in this domain, over time.

### **3.3 RATIONALE AND AIMS OF THIS RESEARCH**

In their book, *Positive Organisational Scholarship: Foundations of a new discipline*, Cameron, Dutton and Quinn's (2003) simplified, yet accurate depiction of modern-day business, sketches a 21<sup>st</sup> century milieu where wealth creation is the key indicator of organisational success. Organisation members are typified by feelings of anxiety, self-absorption, fear, burnout and distrust. Relationships are guided by contract breaking, lawsuits, conflict, retribution and disrespect. The focal point of organisational research emphasise theories of problem-solving, reciprocity and justice, managing ambiguity and uncertainty, overcoming resistance, achieving profitability and successfully contending against others. At the opposing end of the continuum, they speculate about an organisational setting where the conglomerates are personified by appreciation,

collaboration, virtuousness, vitality and meaningfulness. In this organisational environment, the creation of abundance and human wellbeing are key indicators of success. Employees of these organisations are characterised by trustworthiness, resilience, wisdom, humility, and high levels of positive energy. Significance is attached to the establishment of meaningfulness and organisational researchers underscore theories focusing on excellence, transcendence, positive defiance, exceptional performance, and spirals of positive flourishing. Positive Organisational Scholarship (POS) does not reject the value and importance of the events as presented in the first worldview. Instead, it places the focus on the phenomena in the latter point of view and seeks to understand what represents the best of the human condition, emphasising the notion of 'goodness' and positive human potential (Cameron et al., 2003).

In order to promote the study of human potential, it is important to start with different hypotheses and to pose different questions from others who assume a diagnostic, problem-oriented model. Cameron et al., (2003) argues that the omission of the study of virtuousness (as defined in terms of human thriving) and excellence from scientific investigation leaves a void in understanding the full spectrum of consequential organisational phenomena. Accordingly, Peterson and Seligman (2003) urge that the most fundamental assumption in the realm of positive psychology proclaim that human goodness and excellence are as valid as disease, disorder and distress, and that these states are authentic and modes of being that can be analysed and achieved. In line with the above notions, several major psychological theories have in fact changed to underscore a new science of strength and resilience. Individuals are no longer viewed as passive recipients merely reacting to external stimuli, but rather as "...decision-makers, with choices, preferences, and the ability of becoming masterful, efficacious" (Seligman & Csikszentmihalyi, 2000, p. 5). To this end, Seligman (1998) emphasised three focal points that form an organising framework for positive psychology, namely, positive personal and interpersonal traits, positive subjective experiences, and positive institutions and communities. The 'strengths' approach relates to all three spheres, but more specifically, it can be associated with the identification of positive interpersonal traits (talents) in order to position and develop individuals to increase the incidence of positive subjective experience.

Additionally, Clifton and Harter (2006) notes a study by *Gallup* which stipulates that human talents – defined as naturally recurring thought patterns, feelings, or behaviours that can be productively applied – are human beings' greatest opportunities for success. The process of refining dominant talents with skill and knowledge creates strength, which is articulated as the ability to provide consistent, near-perfect performance in a given activity. Self-efficacy (Bandura, 1999; Stajkovic & Luthans, 1998) and optimism (Gillham, 2000), as two of the most researched antecedents in the POS domain, have accordingly been selected as appropriate individual 'talents' within the framework of the strengths approach to explore human thriving and excellence. Hence, these two constructs were included in the current study. Furthermore, meaningfulness within the work domain, as a key indicator of human flourishing, is a construct that is often studied (Colby, Sippola & Phelps, 2002), but not often defined. Accordingly, this study attempted to define meaningfulness from a POS, strength-based approach by focusing on a twofold conceptualisation thereof: meaningfulness in work (defined as engagement) and meaningfulness at work (defined as organisational commitment). Hence, the main aim of this study was to explicate the possible nomological net underlying the complex phenomenon of occupational wellbeing, rooted in salutogenesis and Positive Organisational Scholarship. A structural model that presents the proposed interrelationships and paths between optimism, self-efficacy and meaningfulness (engagement and organisational commitment) as antecedents to occupational wellbeing (defined as psychological well-being and satisfaction with work life) was, therefore, developed.

The rationale for the development of the proposed salutogenic model of occupational wellbeing (refer to figure 3.1) was based upon previous research evidence (also presented in chapter 2) and logical reasoning. Firstly, optimism, as defined in terms of the ability to expect good outcomes despite being faced with adversity (Carver & Scheier, 2004), has been empirically linked to several aspects of subjective wellbeing, including symptoms of physical illness, feelings of exhaustion, burnout and loss of self-esteem (Fry, 1995), perceived stress and depression (Sumi, Horie & Hayakawa, 1997). Furthermore, three-way interactions have been noted between ratings for optimism, social support, and stress on physical and psychological wellbeing (Sumi, 1997). Thus,

individuals who reported higher optimism and social support were inclined to experience better wellbeing, regardless of their perceived levels of stress. Optimism has additionally been linked with greater performance, persistence, the ability to transform problems into opportunities, as well as being open-minded in order to seek novel solutions (Peterson, 1991; Snyder, 2000; Snyder, Rand & Sigmon, 2002). The role of optimism in effective coping is also well documented. Carver and Scheier (1998) have found that optimists employ more problem-centred coping strategies, and more effective means of emotional regulation. In the workplace for example, the coping styles employed by optimists have been discovered to centre on self-control and directed problem-solving, both of which contribute to better functioning (Strutton & Lumpkin, 1992). Additionally, optimists' tendency toward persistent goal-pursuit (Green et al., 2004; Carver, Scheier & Segerstrom, 2010), as well as their ability to emphasise the favourable aspects of most situations (Green et al., 2004), are linked to the aspect of meaningfulness that drive individuals to engage in pursuits which they believe matter in the context of the greater society (Wrzesniewski et al., 1997).

Secondly, self-efficacy is a construct that describes individuals' perceived expectations of their ability to reach a specific goal (Stajkovic & Luthans, 1998). Expectations of personal efficacy thus determines whether an individual's coping behaviour will be initiated, how much task-related effort will be exercised, and the duration of that effort in the face of disconfirming evidence (Bandura, 1977). Individuals who perceive themselves as highly efficacious activate sufficient effort that, if well performed, produces successful outcomes (Bandura, 1986). Two decades of empirical research have produced a great number of studies exhibiting the positive relationship between self-efficacy and different motivational and behavioural outcomes in clinical (Bandura, Adams, Hardy & Howells, 1980), educational (Lent, Brown & Hackett, 1994), and organisational domains (Bandura, 1986). Encompassed within this sphere is research which indicates that individuals with high levels of self-efficacy are much more confident and more self-assured in their ability to accomplish goals. This enables them to focus their attention on their performance (Lee & Bobko, 1994) to consequently make them high achievers within the organisational setting (Stajkovic & Luthans, 1998). Higher levels of self-efficacy are additionally associated with an individual preference for

challenging tasks, as well as the effort, motivation and persistence to follow through with said tasks (Bandura, 1986), which, in turn, are linked to the regulation of the stress process for improved wellbeing (Bandura, 1997). Within the organisational milieu, it could consequently be argued that because high efficacious individuals are driven to seek challenge and persist despite adversity to accomplish their tasks, they may as a result also be more engaged in their jobs.

Thirdly, in the realm of positive psychology, positive meaning is described as the connection between two different entities which generate a nonphysical reality obtainable to humans (Baumeister & Vohs, 2002). As individuals' work life (or any other domain) develops, they aspire to fulfil needs in order to attain purpose, values, efficacy, and self-worth (Baumeister, 1991). While the nature of the facets that satisfy those needs may vary (e.g., making money, social work), the foundation that drive humans to find a way to understand the purpose or meaning of what they do, remains the same (Wrzesniewski, 2003). Seligman (2002) furthermore argues the current age is one where money plays an increasingly unimportant role in the individual experience of subjective wellbeing, although people have gradually come to define themselves, and be socially defined in terms of their work. From a POS perspective thus, the existence of alternative sources of meaning in work is a natural progression towards organisational systems that respect human flourishing and contribute to a greater good, and a commendation of human activity for improved organisational performance (Wrzesniewski, 2003). The link between wellbeing and meaning consequently becomes evidently transparent. Rothmann and Stander (2010) furthermore emphasise the relationship between perceived meaningfulness and the expression of one's self-concept. They assert that work roles and activities that are aligned with individuals' self-concepts should be tied to more meaningful work experiences. The introduction of meaning in work is thus seen as viable means to cultivate employee motivation and attachment to work, ultimately leading to engagement (Nelson & Simmons, 2003; Olivier & Rothmann, 2007). Research has additionally indicated that feelings experienced as a result of perceived competence and confidence with respect to esteemed goals is associated with enhanced intrinsic motivation and wellbeing (Ryan & Deci, 2001). Engaged employees consequently regard themselves as capable of dealing with the

demands of their jobs (self-efficacy) (Llorens, Salanova, Bakker & Schaufeli, 2007). Finally, Xanthopoulou and colleagues (2007) have explored the role of optimism as a mediator variable in the relationship between job resources and work engagement.

The literature presented here, and in chapter two, indicated that an exploration of the identified constructs and their interrelationships to each other, as well as to occupational wellbeing, is needed to further our understanding of the complex nomological net that underlies the complex phenomenon of occupational well-being.

This research is thus expected to contribute to the existing understanding of occupational wellbeing in two ways. Firstly, positive psychological antecedents have not yet been sufficiently integrated to formulate a salutogenic approach aimed at understanding occupational wellbeing within the South African context, such as this study attempts to do. Secondly, studies utilising quantitative methodologies have the potential to significantly strengthen the research base on occupational wellbeing from a salutogenic approach. Hence, the current research will study the phenomenon of occupational wellbeing from a quantitative perspective.

This study aims, firstly, to investigate the respective relationships that may exist between the discussed constructs. Replications of previous research evidence (presented in chapter 2) about the nature of the various relationships are expected. A proposed structural model (figure 3.1), showing the proposed relationships/paths between the constructs, is presented below. A second aim is to test the structural model in order to better explicate and understand the influences of the positive psychological antecedents of optimism, self-efficacy, and meaningfulness on occupational wellbeing (defined by general psychological health and satisfaction with work life).

### **3.4 RESEARCH QUESTION AND OBJECTIVES**

Given the rationale for the research explicated above, as well as in the theoretical framework for this research, the following research question was formulated: Are the positive psychological antecedents of optimism, self-efficacy and meaningfulness (i.e. engagement and organisational commitment) significantly correlated to each other, as

well as to occupational wellbeing, to permit the construction of a salutogenic approach to understanding wellbeing within the organisational context?

The research question was addressed by attempting to achieve the following research objectives:

- establish the significance of correlations among the variables;
- design a structural model that will best explain the interaction/influence among the various variables;
- test the fit of the model; and
- evaluate the significance of the hypothesised paths in the model

### **3.5 RESEARCH HYPOTHESES**

In order to answer this question, numerous hypotheses were formulated and tested by means of a correlational research design with multiple measurements. The motive for selecting this type of design was to establish relationships among the variables. It would also elucidate the dynamic interaction between the variables and occupational wellbeing. The following hypotheses were developed in line with the objectives of this study, as well as the literature review presented in this proposal.

**Hypothesis one:** A significant positive relationship exists between optimism and general psychological health (a component of occupational wellbeing).

**Hypothesis two:** A significant positive relationship exists between optimism and satisfaction with work life (a component of occupational wellbeing).

**Hypothesis three:** A significant positive relationship exists between self-efficacy and general psychological health (a component of occupational wellbeing).

**Hypothesis four:** A significant positive relationship exists between self-efficacy and satisfaction with work life (a component of occupational wellbeing).

**Hypothesis five:** A significant positive relationship exists between engagement (a component of meaningfulness) and general psychological health (a component of occupational wellbeing).

**Hypothesis six:** A significant positive relationship exists between engagement (a component of meaningfulness) and satisfaction with work life (a component of occupational wellbeing).

**Hypothesis seven:** A significant positive relationship exists between organisational commitment (a component of meaningfulness) and general psychological health (a component of occupational wellbeing).

**Hypothesis eight:** A significant positive relationship exists between organisational commitment (a component of meaningfulness) and satisfaction with work life (a component of occupational wellbeing).

**Hypothesis nine:** A significant positive relationship exists between self-efficacy and optimism.

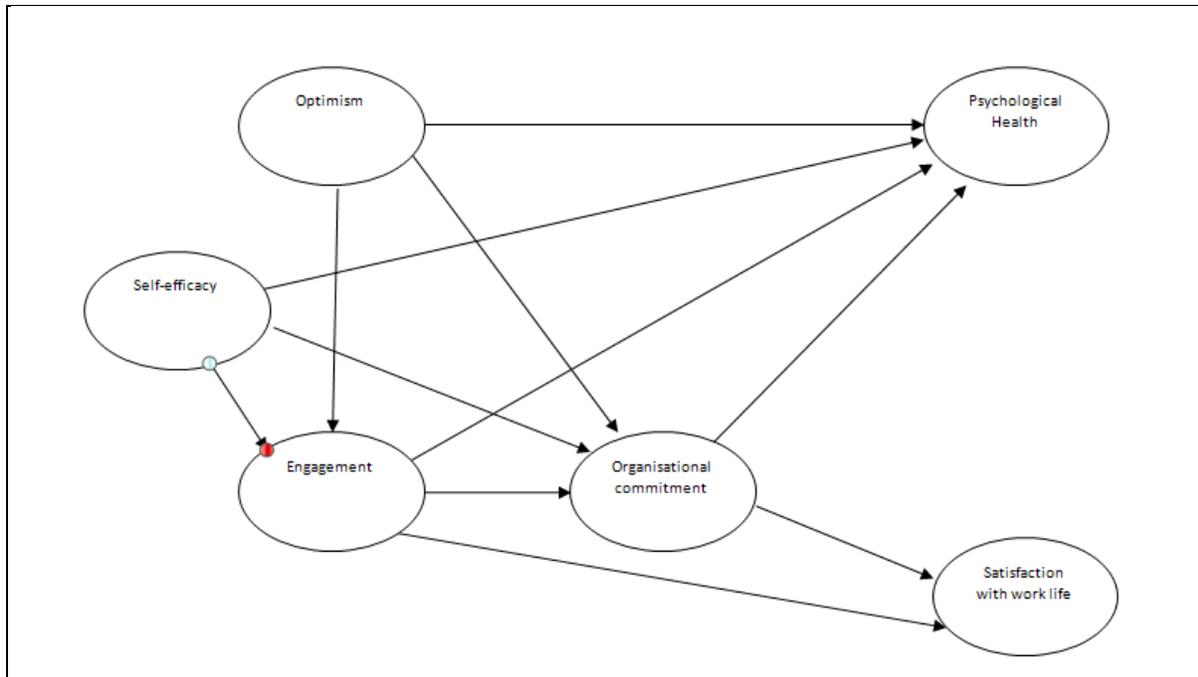
**Hypothesis ten:** A significant positive relationship exists between optimism and engagement (a component of meaningfulness).

**Hypothesis eleven:** A significant positive relationship exists between optimism and organisational commitment (a component of meaningfulness).

**Hypothesis twelve:** A significant positive relationship exists between self-efficacy and engagement (a component of meaningfulness).

**Hypothesis thirteen:** A significant positive relationship exists between self-efficacy and organisational commitment (a component of meaningfulness).

**Hypothesis fourteen:** The proposed conceptual structural model (outlined in figure 3.1) describing the paths between the various variables will produce a good fit to the data.



**Figure 3.1: Proposed structural model indicating the paths between the positive psychological antecedents of optimism, self-efficacy, and meaningfulness (engagement and organisational commitment) and the construct of occupational wellbeing (psychological health and satisfaction with work life).**

## 3.6 RESEARCH DESIGN AND PROCEDURE

### 3.6.1 Research design

A non-experimental research design was used to explore the relationships between optimism, self-efficacy and meaningfulness (as defined by engagement and organisational commitment) and the influence of these variables on occupational wellbeing (as defined by general psychological health and satisfaction with work life). Non-experimental research is used when the researcher wants to observe relationships between variables without controlling or manipulating the variables in any way (Kerlinger & Lee, 2000). Hypotheses of the relationships between the variables are based on the theoretical framework (as presented in chapter 2) and were investigated without direct manipulation of the variables (Kerlinger & Lee, 2000). The present research required a relational approach whereby the researcher aimed to determine how two or more variables are related to each other (Elmes, Kantowitz & Roediger, 1999). Both correlational and multivariate statistical techniques were used to determine the strength and direction of the relationships between variables.

### **3.6.2 Sampling**

Sampling refers to taking a portion of a population or universe as representative of that population or universe (Kerlinger & Lee, 2000). Convenience/availability sampling (i.e. a non probability sampling technique) was employed in this study (Babbie & Mouton, 2001), merely implying that individuals who made themselves available were selected to participate in the study. The sample consisted of 202 individuals employed in various occupations across three separate institutions across South Africa.

### **3.6.3 Research participants**

Overall, 202 employees across three organisations participated in the study. Of these participants, 145 were in the employment of a medium-sized South African property management and development company. A further 36 were educators at a primary institution, and the remaining 19 participants were employed at a small South African tobacco processing company. Further details regarding the characteristics of the sample will be discussed in chapter four.

### **3.6.4 Data collection**

Upon receipt of ethical clearance to conduct the research, three organisations were invited to participate in this study. These organisations were approached based on their accessibility to the researcher. After several negotiations all three organisations granted their consent to participate in the research, as this was to contribute to the long-term roll-out of employee engagement and commitment interventions.

The participants were required to complete the survey in a time specifically set aside for this purpose. Given that the three organisations could gain advantage from participation in the research, employees were encouraged to complete the survey although participation remained strictly voluntary. In addition, several cash vouchers were handed out as part of a lucky draw. All participants of the study were entered into the lucky draw. The survey included sections addressing informed consent and demographic information, as well as the questionnaires used to measure the various constructs. A response rate of 70% across all participating organisations was achieved. Support from executive management, clear communication regarding the intent and

purpose of the survey, as well as the incentives offered, proved to be highly effective in ensuring participation from the majority of employees from the various institutions.

### **3.6.5 Data analysis**

In general, data analyses techniques focus on relationships, significance of group membership, and the factor structures of utilised instruments (Field, 2005; Hair, Black, Babin, Anderson & Tatham, 2006). The choice of data analyses techniques are dependent on the type of research questions that the research intends to answer. This study's main research question was guided by several research hypotheses, each investigated through the data analyses applied in this research.

More specifically, the data in this study was analysed by means of quantitative techniques (e.g. correlation analysis, structural equation modelling, SEM). The following sections elaborate on the various data analysis techniques that were employed to investigate the research hypotheses as well as certain aspects of the measurement instruments (e.g. factor structure and internal consistency).

#### **3.6.5.1 Establishing the reliability and validity of the measurement instruments**

As a first step in the data analysis procedure, the reliability and validity of the measurement instruments utilised in this study, was investigated. To this end, internal consistency was established by conducting item analyses with the SPSS Scale Reliability Procedure (SPSS Version 18, 2010). In addition, confirmatory factor analysis (CFA) using LISREL 8.8 was utilised to confirm the measurement model fit of the instruments used to measure the various constructs.

##### **3.6.5.1.1 Item analysis**

Item analysis is performed to identify and eliminate possible items not contributing to an internally consistent description of the latent dimensions comprising the construct in question. From the results of all the analyses, a set of item statistics were investigated to flag possible problematic items. Based on an analysis of the results per instrument or subscale, decisions were made regarding the retention or deletion of items in the respective scales.

### 3.6.5.1.2 Confirmatory factor analysis: variable type, normality, estimation method and goodness of fit indices

In order to evaluate the quality of the measurements (i.e. measurement models) in terms of the obtained data, CFA may be conducted as a way of testing how well measured variables represent a smaller number of constructs (Hair et al., 2006; MacKenzie, Podsakoff, & Jarvis, 2005). In CFA, the researcher must specify the number of factors that exist within a set of variables, as well as the relationships between observed variable and factors, before results can be computed. This serves as a test to confirm the observed structure of the construct. SEM is used to test how well the researcher's *a priori* pattern of factor loadings fits the actual data. Therefore, CFA assists researchers to either reject or accept their preconceived measurement theory<sup>1</sup> of the constructs included in their study (e.g. occupational wellbeing - psychological health and satisfaction with work life, optimism, self-efficacy, engagement and organisational commitment).

Only once the factor structure is accepted with confidence, can the researcher continue to evaluate the research questions. A few important aspects of the CFA will briefly be discussed next.

#### *Variable type and missing values*

Before CFA can be conducted, the variable type must be specified and the normality of the data should be investigated. The responses of the items on all the questionnaires utilised in this study were captured on an ordinal scale. Jöreskog (2005) has argued that the ordinal nature of the data requires that polychoric correlations and the asymptotic covariance matrix should be analysed. Conversely, a Monte Carlo study by Muthén and Kaplan (1985) investigated results that was obtained from different estimation techniques (i.e. ML, Generalized Least-Squares, Asymptotically Distribution Free, Categorical variable methodology) when applied within a CFA SEM framework on

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<sup>1</sup> The measurement theory specifies a series of relationships that suggest how measured variables represent a latent construct that is not measured directly. Once the researcher uses measurement theory to specify *a priori* the number of factors, as well as which variables load on these factors, a measurement model will be operationalised (Hair et al., 2006).

non-normal categorical variables, dealt with as interval scale (continuous) non-normal variables. The outcome of their research indicated that using Maximum Likelihood (ML) estimation, where scales are classified as continuous and, where these variables are reasonably skewed and kurtotic, is permissible as the standard error and chi-square estimates were not critically misrepresented. The authors consequently construed that, "...these normal theory estimators (ML, Generalized Least-Squares) perform quite well even with ordered categorical and moderately skewed / kurtotic variables" (Muthén & Kaplan, 1985, p. 187). Therefore, for the purpose of this study, the items (i.e. observed variables) for all the questionnaires were specified to be continuous in all the CFA analyses.

Furthermore, missing values were treated according to the imputation by matching technique, executed with PRELIS 8.8 (Jöreskog & Sörbom, 1999). This entails a process of substituting real values for missing values. The substitute values replaced for a case are derived from one or more other cases that have a similar response pattern over a set of matching variables (Diamantopolous & Siguaw, 2000).

#### *Normality and estimation technique*

To further ensure that SEM statistical assumptions are not violated, the univariate and multivariate normality of the indicator variables for the various subscales (i.e. for all the measurement instruments used in this research) were routinely inspected with PRELIS (Jöreskog & Sörbom, 1996). The results of the normality analysis will be reported at the beginning of each section that reports on the CFA analysis. In cases where the null hypothesis of the univariate and multivariate normality was rejected, Robust Maximum Likelihood (RML) was specified as the estimation technique (Tabachnick & Fidell, 2001) for the specific analysis. Conversely, in cases where the null hypothesis of the univariate and multivariate normality could not be rejected, Maximum Likelihood estimation was utilised.

#### *Goodness of Fit (GOF) indices*

After the measurement model has been specified and the parameters have been estimated, the following step is the assessment of the validity of each of the measurement models using a number of GOF statistics (i.e. numerical indices that

evaluate how well the model accounts for the data). These include the Satorra- Bentler chi-square ( $S-B\chi^2$ ), standardised root mean square residual (SRMR), root mean square error of approximation (RMSEA), non-normed fit index (NNFI), and the comparative fit index (CFI). These indices were selected, as they are the most widely reported in other studies (Byrne, 1998; Hair et al., 2006). According to Hair et al. (2006), model characteristics such as sample size and the number of observed variables in the model, dictate the appropriate cut-off values for the above-mentioned GOF indices. Each will be discussed below.

*a) Satorra-Bentler scaled chi-square ( $S-B\chi^2$ )*

Satorra and Bentler (2001) proposed a family of scaling corrections aimed to improve the chi-square approximation of goodness-of-fit test statistics in small samples, large models and non-normal data. The Satorra-Bentler scaled chi-square is used when robust estimation techniques are employed. The reason why robust estimation techniques are used is when data deviates from the normal distribution. If the data departs markedly from multivariate normality, the Satorra-Bentler scaled chi square statistic ( $S-B\chi^2$ ) should be used to provide an improved estimate of the fit of a model (Satorra & Bentler, 2001).

*c) Standardised root mean residual (SRMR)*

The SRMR is the standardised square root of the mean of the squared residuals, in other words, an average of the residuals between individual observed and estimated covariance and variance terms. Lower SRMR values represent better fit and higher values represent worse fit. The average SRMR value is 0, meaning that both positive and negative residuals can occur (Hair et al., 2006). In research with a sample size of less than 250 respondents (as is the case in this study), and with number of observed variables ranging between 12 and 30 (which applies to most of the measurement models tested here), a cut-off value to indicate good model fit of 0.08 can be suggested for the SRMR (Hair et al., 2006).

*d) The root mean square error of approximation (RMSEA)*

The RMSEA is a good representation of how well the model fits the population, not just the sample used for estimation. Lower RMSEA values indicate a better fit (Hair et al.,

2006). In general, as with SRMR, values below 0.08 for the RMSEA are indicative of acceptable fit, with values below 0.05 suggesting a very good fit (Hair et al., 2006).

e) *Comparative fit index (CFI) and non-normed fit index (NNFI)*

A general guideline for the interpretation of the CFI and NNFI is that values of 0.92 and higher (in models with more than 30 observed variables, and  $n < 250$ ) and values of 0.95 and higher (in models with number of observed variables between 12 and 30, and  $n < 250$ ) indicate satisfactory fit between the postulated model and empirical data (Hair et al., 2006).

### **3.7 MEASUREMENT INSTRUMENTS**

Overall, six questionnaires were utilised to measure the constructs as contained in the proposed structural model. The following section will report on the psychometric properties of the instruments utilised in the current study.

#### **3.7.1 Occupational wellbeing – Psychological health**

Since its development in 1972, the General Health Questionnaire (GHQ; Goldberg, 1972) has been broadly used as a screening instrument for general psychological wellbeing. It has been tested and validated in diverse cultural and linguistic milieus including in Chinese (Chan, 1993; Shek, 1993), Arabic (Daradkeh, Ghubash & El-Rufaie, 2001), Japanese (Doi & Minowa, 2003), Spanish (Lopez-Castedo & Fernandez, 2005), German (Schmitz, Kruse & Tress, 1999), and Australian settings (Tait, French & Hulse, 2003). Since the development of the original 60-item GHQ, shorter, valid versions consisting of 30, 28, 20 and 12 items, have been introduced (e.g., Banks, 1983; Kihc, Rezaki, Rezaki, Kaplan, Ozgen & Sagduyu, 1997). A GHQ score is one of the most commonly adopted questionnaire-based methods of measuring psychological health (Gardner & Oswald, 2005).

For the purpose of this study, the 28-item version of the GHQ was used. Responses are given on a 4-point Likert scale with scores of (1) representing satisfactory levels of psychological health, while scores of (4) serve as indicators of psychological distress (per item). A minimum total score of 28 will thus accordingly imply no detection of psychological disorder while a maximum score of 112 may point towards the potential

presence of psychopathology. Four subscales measure the degree of somatic symptoms; anxiety and insomnia; social dysfunction and severe depression (Goldberg & Hillier, 1979). The test developers reported high internal consistency coefficients ranging between 0.69 and 0.90 for the various subscales. The GHQ has also been proved as valid and reliable for use across different cultures (Goldberg, Grater, Sartorius, Usten, Piccinelli, Gureje & Rutter, 1997). Within the South African framework, Isaksson and Johannson (2000) attained a Cronbach alpha coefficient of 0.86 and Oosthuizen (2001) reported a reliability coefficient 0.89 for the GHQ. Additionally, Viljoen, Bosman and Buitendach (2005) reported subscale alphas of 0.71, 0.79, 0.74 and 0.80 for the somatic symptoms, anxiety and insomnia, social dysfunction and severe depression subscales, respectively. The GHQ has also frequently been used to measure wellbeing as it pertains to the organisational domain (e.g. Viljoen et al., 2005).

#### **3.7.1.1 Descriptive statistics and item analysis**

Item analyses were conducted with the SPSS Scales Reliability Procedure (SPSS Version 16, 2007) on all four subscales of the General Health Questionnaire. The results of the item analyses, as well as the descriptive statistics are contained in table 3.1.

Overall, the results of the analyses were very good, with all of the subscales surpassing Nunnally's (1978) 0.70 benchmark for acceptable reliability. Moreover, the subscales of Somatic symptoms, Anxiety and insomnia, and Severe depression measured well above 0.80, indicating strong evidence of reliability. The results are consistent with Isaksson and Johannson's (2000), and Oosthuizen's (2001) reliability analyses of the use of the GHQ in other South African samples.

**Table 3.1: The means, standard deviations and reliability statistics for the GHQ**

<b>GHQ dimensions</b>	<b>M</b>	<b>SD</b>	<b><math>\alpha</math></b>
<b>GHQsomat</b>	12.727	4.041	0.821
<b>GHQanx</b>	13.327	4.267	0.862
<b>GHQdysf</b>	13.203	3.093	0.788
<b>GHQdep</b>	9.544	3.668	0.871

GHQsomat = Somatic symptoms; GHQanx = Anxiety and insomnia; GHQdysf = Social dysfunction; GHQdep = Severe depression; Valid N = 202

### **3.7.1.2 Confirmatory Factor Analysis**

#### **3.7.1.2.1 Missing values, variable type and normality**

Structural Equation Modelling (SEM) was used to perform CFA on the sets of indicator variables for the GHQ instrument. The measurement model was specified to consist of 28 observed variables ( $X_s$ ), four unmeasured latent factors ( $\xi_s$ ; i.e. the GHQ subscales) with single-headed arrows from the  $\xi_s$  to  $X_s$  representing the proposed regression of the observed variable onto the latent factors ( $\lambda_s$ ). The latent factors were specified to be intercorrelated. Firstly however, the dataset was scrutinised for missing values. The frequency analysis of the dataset revealed that missing values did not present a problem and no imputation was required.

Next, the univariate and multivariate normality of the indicator variables for the four subscales were investigated with PRELIS (Joreskog & Sörbom, 1999). The null hypothesis of multivariate normality was rejected (skewness and kurtosis:  $\chi^2=1973.163$ ,  $p=0.000$ ). RML estimation was employed to derive model parameter estimates

#### **3.7.1.2.2 Evaluation of the measurement model**

The results of the single group CFA conducted with LISREL 8.80 (Jöreskog & Sörbom, 2002) for the measurement model are reported in table 3.2. The exact fit of the measurement model is tested by evaluating the S-B $\chi^2$  statistic. In this model a Satorra Bentler Scaled chi-square value of 625.69 with 344 degrees of freedom and  $p=0.00$ , was obtained. Thus, the null hypothesis of exact fit was rejected ( $p<0.05$ ). The null

hypothesis of close fit has also been tested explicitly by LISREL and is shown in table 3.2 as the P-Value for Test of Close Fit (RMSEA < 0.05) = 0.0027. Based on this result the close fit null hypothesis is rejected ( $p < 0.05$ ) and it is concluded that the measurement model did not obtain close fit. However, the rest of the GOF indices provided fair evidence to indicated good model fit. For example, an RMSEA value of 0.064 was obtained, indicating good model fit. In addition, the incremental fit indices (CFI and NNFI) both obtained values above the 0.95 cut-off point. The SRMR value of 0.078 underscored the conclusion of good model fit as it fell below the cut-off point of 0.08. All the factor loadings were statistically significant and ranged from 0.49 to 0.83, with the exception of two factor loadings that obtained loadings below 0.40 (0.32 and 0.38). Overall it is, therefore, concluded that the results provided fair evidence for the construct validity of the GHQ measurement instrument in this study.

**Table 3.2 Goodness of fit statistics results of the GHQ CFA**

Model	$\chi^2$	S-B $\chi^2$	df	S-B $\chi^2$ /df	NNFI	CFI	RMR	SRMR	RMSEA (CI)	P (close)
<b>GHQ</b>	862.93*	625.69*	344	1.82	0.97	0.97	0.046	0.078	0.064 (0.056; 0.072)	0.003

**Note:**  $\chi^2$ , Chi-square; S-B $\chi^2$ , Sattora-Bentler Scaled Chi-square; NNFI, non-normed fit index; CFI, comparative fit index; RMR, root mean squared residuals; SRMR, standardised root mean residual; RMSEA, root mean square error of approximation

\*  $p < 0.05$

### 3.7.2 Occupational wellbeing – Satisfaction with work-life

Because wellbeing is defined from a salutogenic approach in this study, it was important to include a measure that is not solely diagnostic thereof. For this purpose, the Satisfaction With Life Scale (SWLS) (Diener, Emmons, Larsen & Griffin, 1985) was adapted to measure employees' satisfaction with their work life, as a cognitive-judgemental process. The SWL scale was designed around the idea that one must ask subjects for an overall judgement of their life in order to measure the concept of life satisfaction. The five-item questionnaire is scored on a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The range of scores is from 5 (low satisfaction) to 35 (high satisfaction). The original statements are: "In most ways my life is close to my ideal", "The conditions of my life are excellent", "I am satisfied with my life", "So far I

have gotten the important things I want in life”, and “If I could live my life over, I would change almost nothing” (Diener et al., 1985). The item content of the original scale was adapted to measure satisfaction with work-life (refer to Appendix one for a copy of the questionnaire and the adapted item content). On the original scale, in a study conducted among 176 students, a two-month test-retest correlation coefficient of .82 and coefficient alpha of .87 was reported. Diener et al. (1985) further report the results of a factor analysis where a single factor was extracted from the inter-item correlation matrix, which accounted for 66% of the variance.

### 3.7.2.1 Descriptive statistics and item analysis

Again, an item analysis was conducted on the Satisfaction with Work-Life Scale with the SPSS Scale Reliability Procedure (SPSS Version 16, 2007). The result indicated strong scale reliability, with a calculated Cronbach alpha of 0.859.

**Table 3.3: The mean, standard deviation and reliability statistic for the Satisfaction with Work-Life Scale**

Measure	M	SD	$\alpha$
SWWLtot	21.748	6.927	.859

SWWLtot = Total score obtained for the adapted Satisfaction with work-life scale; Valid N = 202

### 3.7.2.2 Confirmatory Factor Analysis

#### 3.7.2.2.1 Missing values, variable type and normality

Similar to the prior analysis, SEM was used to perform CFA on the Satisfaction with Work-Life questionnaire. A measurement model with five observed variables and one unmeasured latent factor was specified. Consistent with the GHQ results, no missing values were evident in the data set. Based on the simulation research by Muthén and Kaplan (1985), the data was once again specified to be continuous as the Likert scale utilised in the SWWL scale contained seven response options. The null hypothesis of multivariate normality was rejected (skewness and kurtosis:  $\chi^2=60.235$ ,  $p=0.000$ ). Once again RML Estimation was employed to derive model parameter estimates.

### 3.7.2.2 Evaluation of the measurement model

The results of the CFA conducted with LISREL 8.80 (Jöreskog & Sörbom, 2002) are described in table 3.4. The GOF for the model was evaluated in terms of the same set of indices as discussed previously. Overall, reasonable evidence for the validity of the Satisfaction with Work-Life scale was obtained. A Satorra Bentler Scaled chi-square value of 17.63 with 5 degrees of freedom and  $p=0.0035$ , emerged. Thus, the null hypothesis of exact fit was rejected ( $p<0.05$ ). The results further revealed that the close fit null hypothesis was also rejected ( $p = 0.031$ ) and it was concluded that the measurement model did not obtain close fit. However, the CFI and NNFI (of 0.98 and 0.96 respectively) exceeded the 0.95 cut-off value. Additionally, an SRMR value of 0.043 was obtained, falling well within the specifications for good model fit. The RMSEA, however, were marginally above the specified cut-off point of 0.08, at a value of 0.11. The lower boundary of the RMSEA confidence interval estimates, however, fell below the 0.06 RMSEA benchmark. All the factor loadings were statistically significant. Factor loadings ranged from 0.58 (item 5) to 0.90 (item 3).

Table 3.4 Goodness of fit statistics results of the SWWL CFA

Model	$\chi^2$	S-B $\chi^2$	Df	S-B $\chi^2$ / df	NNFI	CFI	RMR	SRMR	RMSEA (CI)	P (close)
SWWL	25.67*	17.63*	5	3.54	0.96	0.98	0.13	0.043	0.11 (0.058; 0.17)	0.03

Note:  $\chi^2$ , Chi-square; S-B $\chi^2$ , Sattora-Bentler Scaled Chi-square; NNFI, non-normed fit index; CFI, comparative fit index; RMR, root mean squared residuals; SRMR, standardised root mean residual; RMSEA, root mean square error of approximation

\*  $p < 0.05$

### 3.7.3 Optimism

Based on their behavioural self-regulation theory, Scheier and Carver (1985) developed the Life Orientation Test (LOT) as a measure of dispositional optimism. Optimism, in this instance, was intended to imply a universal inclination to believe that one will usually experience good vs. bad outcomes in life and moreover, that optimism will function as buffer against life's difficulties (Scheier & Carver, 1985). The LOT is a self-report measure, comprising of eight items. Four of these items are expressed in a positive manner, e.g. "In uncertain times, I usually expect the best", "I always look on

the bright side of things”, I’m always optimistic about my future”, and “I’m a believer that every cloud has a silver lining” and four are expressed negatively e.g. “If something can go wrong for me, it will”, “I hardly ever expect things to go my way”, “Things never work out the way I want them to” and “I rarely count on good things happening to me”. The negatively phrased items are inverted before scoring. A 5-point Likert Scale, with options ranging from 0 (strongly disagree) to 4 (strongly agree), are used. Andersson, (1996) reported a Cronbach Alpha of 0.76 and a test-retest correlation of .79 over a 4-week cycle (Andersson, 1996) for the LOT.

Scheier, Carver and Bridges (1994) have since developed a more concise form of the LOT, comprising six coded items instead of the original eight. According to these developers, the two deleted items are more indicative of generalised coping, rather than outcome expectancies. As a result, the revised version (LOT-R) consists of three positive, three negative, and four filler items. In a study by Scheier et al. (1994) exploratory factor analysis of the LOT-R produced a single factor that has a mean factor loading of .69 and explained 48.1% of the variance. In addition, Scheier et al., (1994) further report good internal consistency for the LOT-R with Cronbach Alpha’s ranging from the high .70s to low .80s, as well as displaying stability over time. Moreover, in a study of 658 students, Rauch, Schweizer and Moosbrugger (2007) found corrected-item-total correlations ranging from  $r = .37$  to  $r = .58$  for the German version of the test. The Life Orientation Test-Revised was consequently used in this study.

### **3.7.3.1 Descriptive statistics and item analysis**

Item analysis of the LOT-R (Scheier et al., 1994) revealed a reliability coefficient ( $\alpha = 0.624$ ) below the specified cut-off point (Nunnally, 1978). Inspection of the inter-item correlation matrix (from the item analysis results) revealed a specific pattern of correlations, which suggested that two latent factors might underlie the instrument. In addition, all the items obtained low corrected item-total correlations, which indicate that they did not measure the same underlying factor, i.e. optimism.

**Table 3.5: The mean, standard deviation and reliability statistic for the single-factor LOT-R**

Measure	M	SD	$\alpha$
LOT-R	14.843	3.437	0.624

LOT-R = Total score obtained for the LOT-R; Valid N = 202

### 3.7.3.2 Confirmatory Factor Analysis

#### 3.7.3.2.1 Missing values, variable type and normality

No imputation of missing values was necessary. The LOT-R utilises a 5-point Likert scale. Hence the observed variables were specified as continuous. RML was used as estimation method, given the uni- and multivariate normality results (skewness and kurtosis:  $\chi^2=67.48$ ,  $p=0.000$ ).

#### 3.7.3.2.2 Evaluation of the measurement model

To investigate the dimensionality of the proposed one factor model of the original scale, a CFA was conducted with LISREL 8.80 (Jöreskog & Sörbom, 2002). The results are described in table 3.6. Based on the item analysis results it was expected that weak CFA evidence for the single factor structure of the scale would be obtained.

The results of the CFA corroborated the item analysis findings. All the fit indices indicated very poor model fit, far exceeding the specified cut-off values (RMSEA = 0.20; CFI=0.66; NNFI = 0.44). As expected, both the hypotheses of exact and close model fit ( $p<0.05$ ) was rejected.

**Table 3.6 Goodness of fit statistics results of the single-factor LOT-R CFA**

Model	$\chi^2$	S-B $\chi^2$	df	S-B $\chi^2$ /df	NNFI	CFI	RMR	SRMR	RMSEA (CI)	P (close)
LOT-R	143.5*	78.74*	9	8.74	0.44	0.66	0.13	0.12	0.20 (0.16; 0.24)	0.00

Note:  $\chi^2$ , Chi-square; S-B $\chi^2$ , Sattora-Bentler Scaled Chi-square; NNFI, non-normed fit index; CFI, comparative fit index; RMR, root mean squared residuals; SRMR, standardised root mean residual; RMSEA, root mean square error of approximation

\*  $p < 0.05$

Given the results of the item analysis and CFA, Exploratory Factor Analysis (EFA) was conducted to investigate the factor structure of the instrument in the current sample.

The extraction of factors was based on the Scree test and Eigen value bigger than one rule.

### 3.7.3.3 EFA of the optimism construct as measured by the LOT-R

The results of the Principle Axis Factor analysis (PAF) with Direct Oblimin rotation for the LOT-R scale are summarised in table 3.7. For PAF, factor loadings may be interpreted according to the following guidelines: (i) 0.30 to 0.40 are considered to meet the minimal level for interpretation of structure, (ii) 0.50 or greater are considered practically significant, and (iii) loadings exceeding 0.70 are considered indicative of very well-defined structure (Hair et al., 2006). Loadings of 0.50<sup>2</sup> or greater were used as a benchmark for the analysis. An item indicating a loading of 0.50 would denote that the item for the factor accounts for 25 percent of the variance.

Consistent with the pattern of inter-item correlations noted in the item analysis results, the dimensionality analysis for the LOT-R scale revealed a clear two-factor structure differentiating between Optimism (positive) (factor 1) versus Optimism (negative) (factor 2). The two factors accounted for 60.44% of the variance. The rotated factor matrix (table 3.5) shows the items that load on the respective factors.

**Table 3.7 Structure matrix of the LOT-R**

	Factor	
	1	2
LOT-R1	<b>.621</b>	.032
LOT-R3	.276	<b>.663</b>
LOT-R4	<b>.682</b>	.192
LOT-R7	.176	<b>.472</b>
LOT-R9	.007	<b>.665</b>
LOT-R10	<b>.652</b>	.374

<sup>2</sup> Item LOT-R7 obtained a loading of 0.472. This was deemed close enough to the 0.50 cut-off value to be interpreted as a significant loading on the given factor (LOT-R – negative).

From the results it is evident that items 1, 4 and 10 load significantly on factor 1, while items 3, 7 and 9 load significantly on factor 2. The items loading on factor 1, representing the LOT-R (positive) scale are: “In uncertain times, I usually expect the best”; “I’m always optimistic about my future”; and “Overall, I expect more good things to happen to me than bad.” LOT-R (negative) are assessed in terms of the following items: “If something can go wrong for me, it will”; “I hardly ever expect things to go my way”, and “I rarely count on good things happening to me.”

CFA on the two-factor structure of the LOT-R yielded significantly better results, reported in table 3.8. An RMSEA of 0.071 was obtained. The incremental fit indices were well within the specified range (CFI = 0.96; NNFI = 0.93) and the Satorra Bentler chi-square value obtained was 16.04 ( $p = 0.048$ ), with a p-value that leans towards 0.05. Additionally, close fit of the model was achieved as the close fit null hypothesis cannot be rejected ( $p = 0.21$ ;  $p > 0.05$ ). Completely standardised factor loadings (all significant) ranged from 0.48 to 0.76. Overall, the results provide more than sufficient evidence for the construct validity of the two-factor structure of the LOT-R scale in this study.

**Table 3.8 Goodness of fit statistics results for the two-factor LOT-R CFA**

Model	$\chi^2$	S-B $\chi^2$	Df	S-B $\chi^2$ / df	NNFI	CFI	RMR	SRMR	RMSEA (CI)	P (close)
LOT-R	16.19*	16.04*	8	2.01	0.93	0.96	0.057	0.06	0.07 (0.013 ; 0.12)	0.21

**Note:**  $\chi^2$ , Chi-square; S-B $\chi^2$ , Sattora-Bentler Scaled Chi-square; NNFI, non-normed fit index; CFI, comparative fit index; RMR, root mean squared residuals; SRMR, standardised root mean residual; RMSEA, root mean square error of approximation ; \*  $p < 0.05$

In comparison with table 3.6, the abovementioned results (table 3.8) provide clear evidence for the two-dimensional structure of the instrument in the current sample. Subsequent item analyses on the two-factor LOT-R additionally revealed Cronbach alpha coefficients of 0.678 for the LOT-R (positive) and 0.617 for the LOT-R (negative) sub-scales. The LOT-R (positive) reliability result is only marginally below the 0.7 cut-off value suggested by Nunnally (1978) and accordingly, can be regarded as moderately reliable. In another South African exploratory study, a two-factor structure very similar

to this was obtained for the LOT-R (Roux, 2010), lending additional support to the findings presented here.

**Table 3.9 The means, standard deviations and reliability statistics for the two-factor LOT-R**

Measure	M	SD	$\alpha$
LOT-R (positive)	8.234	2.026	.678
LOT-R (negative)	6.611	2.415	.617

As this is a study aimed at understanding latent human strengths and virtues as derived from positive psychology and salutogenesis, only the LOT-R (positive) subscale was consequently utilised as the measurement of the optimism construct, in further data analyses.

#### **3.7.4 Self-efficacy**

Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs and Rogers (1982) developed a 17-item General Self-efficacy Scale (GSES) to measure “a general set of expectations that the individual carries into new situations” (p. 664). The afore-mentioned authors found more than 200 published studies that have either made use of, or cited the GSES, making it the most widely used measure of general self-efficacy. Although the GSES was originally developed for clinical and personality research, it has also been used widely in applied organisational settings.

The internal consistency reliability for the GSES in organisational research has been moderate to high ( $\alpha = 0.76$  to  $0.89$ ) (e.g. Cable & Judge, 1994; Earley & Lituchy, 1991; Gardner & Pierce, 1998; Riggs & Knight, 1994; Smith & Foti, 1998). Using the Hebrew version of the GSES, Eden and colleagues (Dvir, Eden, & Banjo, 1995; Eden & Kinnar, 1991; Eden & Zuk, 1995) have obtained similar alpha coefficients in Israeli samples.

A large-scale German field research project with 3 514 high-school students and 302 teachers has provided evidence for the validity of the GSES (Schwarzer & Jerusalem, 1999). In the student sample, general self-efficacy correlated 0.49 with optimism and 0.45 with the perception of challenge in stressful situations. Amongst the teachers high

correlations were obtained with proactive coping (0.55), self-regulation (0.58), and procrastination (−0.56). Moreover, there was a substantial relationship to all three dimensions of teacher burnout (emotional exhaustion −0.47, depersonalisation −0.44, and lack of accomplishment −0.75). Similar evidence for validity was found for teachers in Hong Kong (Schwarzer, Schmitz, & Tang, 2000).

### 3.7.4.1 Descriptive statistics and item analysis

Previous studies have utilised both the one-factor (Nel & Boshoff, 2008; Roux, 2010) and three-factor structure (Sherer et al., 1982; Cable & Judge, 1994; Earley & Lituchy, 1991; Gardner & Pierce, 1998; Riggs & Knight, 1994; Smith & Foti, 1998) of the GSES. In this study, therefore, descriptive statistics and Cronbach alpha values were calculated for the single-factor, as well as the three subscales of the GSES, in this sample (results presented in table 3.10). A Cronbach alpha value of 0.87 was obtained for the one-factor GSES model, in addition to reliability coefficients of respectively 0.83, 0.71, and 0.65 for the initiative, effort, and persistence subscales of the three-factor GSES. Evidently, the Cronbach alpha value for the persistence subscale does not adhere to Nunnally's (1978) 0.7 cut-off value for acceptable reliability.

**Table 3.10 The means, standard deviations and reliability statistics for the one-factor GSES and individual GSES subscales**

Measure	M	SD	$\alpha$
GSES	49.244	8.388	0.87
GSESini	14.731	3.328	0.83
GSESeff	23.373	3.805	0.71
GSESpers	11.139	2.587	0.65

GSES = GSES one-factor; GSESini = Initiative; GSESeff = Effort; GSESpers = Persistence

### 3.7.4.2 Confirmatory Factor Analysis

#### 3.7.4.2.1 Missing values, variable type and normality

An inspection of the data obtained for the GSES revealed several missing values. Respondents completed the questionnaire manually, and in doing so probably accidentally overlooked single items. Missing values was imputed through the imputation by matching technique with PRELIS 8.8. The data was specified as continuous, given

the five point option Likert-type scale that was utilised. Once again RML was used as estimation method, given the uni- and multivariate normality results (skewness and kurtosis:  $\chi^2=955.52$ ,  $p=0.000$ ).

### 3.7.4.2.2 Evaluation of the measurement model

Two measurement models were tested via CFA. A one factor model (with all observed variables loading on the GSES general factor) as well as a three factor model (i.e. specific observed variables load respectively on the three different latent factors). The results of the analyses are presented in table 3.11. From the results it is clear that very good, and comparable model fit was evident for both measurement models. For example, the RMSEA values for both models fell below the 0.08 cut-off indicating good model fit. In addition, the SRMR values of 0.069 and 0.065, as well as the incremental fit indices (CFI values of 0.95 and 0.97; NNFI values of 0.95 and 0.96) further underscored this conclusion. Overall, it was concluded that both models obtained good model fit.

**Table 3.11 Goodness of fit statistics results for the one and three-factor GSES CFA**

Model	$\chi^2$	S-B $\chi^2$	Df	S-B $\chi^2$ /df	NNFI	CFI	RMR	SRMR	RMSEA (CI)	P (close)
<b>GSES1</b>	310.74*	230.69*	119	1.94	0.95	0.95	0.05	0.069	0.06	0.013
<b>GSES3</b>	268.09*	199.25*	116	1.71	0.96	0.97	0.05	0.065	0.05	0.12

**Note:**  $\chi^2$ , Chi-square; S-B $\chi^2$ , Sattora-Bentler Scaled Chi-square; NNFI, non-normed fit index; CFI, comparative fit index; RMR, root mean squared residuals; SRMR, standardised root mean residual; RMSEA, root mean square error of approximation; GSES1, GSES one-factor; GSES3, GSES three-factor;

\*  $p < 0.05$

In a South African study by Nel and Boshoff (2008) with a sample of 295 participants that wrote part one of their accounting qualifying exam (QE1), the one factor structure of the 17-item GSES of Sherer et al. (1982) was investigated. CFA was carried out to establish the GOF for a one-factor structure to their data. The GOF statistics were then also obtained for the three-factor structure (original), and compared to the one-dimensional structure. They reported that for the three-factor structure, the SRMR had a value of 0.055, the RMSEA a value of 0.049 and the incremental fit indices were calculated as CFI = 0.97, and NNFI = 0.93. The results, furthermore, revealed that for the one-dimensional structure, the SRMR had a value of 0.055 and the RMSEA a value

of 0.050. The incremental fit indices were CFI= 0.97, and NNFI= 0.93. The authors (Nel and Boshoff, 2008) concluded that the one-dimensional structure provided a better fit to the data, than the original three-factor structure developed by the authors of the GSES. This result was also corroborated in another exploratory study by Roux (2010). Overall, these results seem to suggest that a one-factor solution may better represent the dimensionality of the instrument in the South African context. Given the comparable results for the two different factor structures obtained in this study, and after consideration of other South African studies, it was concluded that self-efficacy, as measured by a single general self-efficacy factor (i.e. one factor GSES solution), is a valid and reliable measurement of the construct in the current sample. This conclusion was further underscored by the high reliability obtained for the one factor GSES scale. Hence a GSES total score was utilised in the rest of the data analyses conducted in this study.

### **3.7.5 Meaningfulness at work – Organisational commitment**

In the conceptualisation of meaningfulness, two central themes emerged according to the Positive Organisational Scholarship literature. Firstly, finding positive meaning at work implies the cultivation of a strong sense of organisational membership (Frost et al., 2000; Pratt & Ashforth, 2003). Consequently, the Organisational Commitment Questionnaire (OCQ) (Mowday, Porter & Steers, 1979) was used to measure the extent of employees' psychological attachment to the organisation. It is scored on a five-point Likert scale ranging from (1) strongly agree to (5) strongly disagree. Items are reverse scored so that higher scores indicate greater organisational commitment. The OCQ development was based on a series of studies among 2563 employees from nine organisations (Mowday et al., 1979). Test-retest reliabilities and internal consistency reliabilities of above .80 have been reported, along with cross-validation evidence of acceptable levels of predictive, convergent and discriminant validity (Mowday et al., 1979).

### 3.7.5.1 Descriptive statistics and item analysis

The results of the item analysis on the OCQ indicated high reliability as a Cronbach alpha value of 0.887 was obtained in this study. This outcome is in accordance with long standing research on this measure.

**Table 3.12: The mean, standard deviation and reliability statistic for the Organisational Commitment Questionnaire**

Measure	M	SD	$\alpha$
OCQtot	78.365	17.110	.887

OCQtot = Total; Valid N = 200

### 3.7.5.2 Confirmatory Factor Analysis

#### 3.7.5.2.1 Missing values, variable type and normality

An inspection of the data obtained for the OCQ revealed missing values (two full cases). These cases were omitted from this data analysis. The data was specified as continuous, given the five point option Likert-type scale that was utilised. The uni- and multivariate normality results (skewness and kurtosis:  $\chi^2=1143.01$ ,  $p=0.000$ ) revealed that RML estimation should be employed.

#### 3.7.5.2.2 Evaluation of the measurement model

The OCQ one factor structure was evaluated in terms of a CFA with LISREL 8.80 (Jöreskog & Sörbom, 2002) (results reported in table 3.13). The results provided sufficient confirmation to conclude good model fit to the current data, even though the hypothesis of exact fit ( $p<0.05$ ) was rejected (and no evidence of close fit was obtained,  $p<0.05$ ). The predetermined cut-off values for the incremental indices (CFI and NNFI = 0.97), as well as for the RMSEA (0.073), were met. The SRMR value of 0.069, furthermore, underscored the conclusion of good model fit, as it fell below the cut-off point of 0.08. Sufficient evidence for the validity of the OCQ instrument in this study was therefore concluded.

**Table 3.13 Goodness of fit statistics results of the OCQ CFA**

Model	$\chi^2$	S-B $\chi^2$	Df	S-B $\chi^2$ / df	NNFI	CFI	RMR	SRMR	RMSEA (CI)	P (close)
OCQ	268.19*	185.28*	90	2.06	0.97	0.97	0.25	0.069	0.073	0.01

Note:  $\chi^2$ , Chi-square; S-B $\chi^2$ , Sattora-Bentler Scaled Chi-square; NNFI, non-normed fit index; CFI, comparative fit index; RMR, root mean squared residuals; SRMR, standardised root mean residual; RMSEA, root mean square error of approximation; \*  $p < 0.05$

### 3.7.6 Meaningfulness in working - Work engagement

Meaningfulness in working relates to employees being engaged in work, i.e. nurturing their callings (Gardner et al., 2001). The Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2003) was used to measure employee engagement which directly translates to individuals experiencing meaning within their work. The UWES makes use of a seven-point frequency scale ranging from 0 (never) to 6 (always) and consists of three scales namely vigour (six items), dedication (five items) and absorption (six items). Examples of items relating to the three dimensions include: “I am bursting with energy in my job” (vigour); “I find my work full of meaning and purpose” (dedication); and “When I am working, I forget everything around me” (absorption) (Rothman & Stander, 2010). Results from CFA analyses have shown that the hypothesised three-factor structure of the UWES is superior to the one-factor model and fits well to the data of various samples from the Netherlands and Spain (Salanova, Schaufeli, Llorens, Pieró & Grau, 2001; Schaufeli, Taris & Van Rhenen, 2008), as well as South Africa (Rothman & Stander, 2010). Furthermore, the internal consistency of the three scales of the UWES is generally considered to be good, as all of the above mentioned studies reported values of Cronbach's alpha equal to, or exceeding the critical value of .70 (Nunnally & Bernstein, 1984) for all subscales. This is further confirmed by other researchers, where reported Cronbach's alpha values for the scales range between .80 and .90 (Salanova et al., 2001; Salanova, Grau, Llorens & Schaufeli, 2001; Montgomery, Peeters, Schaufeli & Den Ouden, 2003; Schaufeli, Taris & Van Rhenen, 2003; Schaufeli & Bakker, 2004). Additionally, scores on the UWES are relatively stable across time. Two year stability coefficients for vigour, dedication and absorption are .30, .36, and .46, respectively (Bakker, Euwema & Van Dierendonck, 2003).

In a study conducted by Schaufeli and Bakker (2003), data was collected in 10 different countries (N = 14521), and results indicated that the original 17-item Utrecht Work Engagement Scale (UWES) can be shortened to 9 items (UWES-9). The factorial validity of the UWES-9 was demonstrated with CFA, and the three scale scores have been found to have good internal consistency and test-retest reliability (Schaufeli & Bakker, 2003). It was concluded that the UWES-9 has good construct validity and use of the 9-item version was recommended for future research. SEM furthermore indicated high rank-order stabilities for the work engagement factors (between 0.82 and 0.86) (Seppala, Mauno, Feldt, Hakanen, Kinnunen, Tolvanen, & Schaufeli, 2009).

### 3.7.6.1 Descriptive statistics and item analysis

Consistent with previous research the item analyses of the UWES subscales yielded very good results. All three subscales obtained Cronbach alpha values well above 0.70. Additionally, the upper ranges of 0.832 and 0.827 for the Vigour and Dedication subscales respectively, suggested strong evidence of sufficient reliability of the subscales.

Table 3.14: The means, standard deviations and reliability statistics for the Utrecht Work Engagement Scale

UWES dimensions	M	SD	$\alpha$
UWESvig	12.297	3.797	.832
UWESdedic	13.639	3.585	.827
UWESabs	13.297	3.246	.770

UWESvig = Vigour; UWESdedic = Dedication; UWESabs = Absorption; Valid N = 200

### 3.7.6.2 Confirmatory Factor Analysis

#### 3.7.6.2.1 Missing values, variable type and normality

The dataset of the UWES was examined as a means of establishing missing values within the dataset. No missing values were detected. As was the case with the other datasets, the observed variables was specified as continuous, based on the presence of the six response options on the Likert scale. RML estimation was employed as both the

null hypotheses of the uni-and multivariate normality were rejected (skewness and kurtosis:  $\chi^2=471.67$ ,  $p=0.000$ ).

### 3.7.6.2.2 Evaluation of the measurement model

Table 3.15 contains the results of the single group CFA of the three factor measurement model. The exact fit of the measurement model is tested by the S-B $\chi^2$ . A Satorra-Bentler Scaled chi-square value of 89.70 with 24 degrees of freedom and  $p=0.00$  was obtained. Thus, the null hypothesis of exact fit was rejected ( $p<0.05$ ). The RMSEA value fell above the specified cut-off value of 0.08, indicating only reasonable evidence for good model fit. However, the incremental fit indices (NNFI = 0.95; CFI = 0.97), as well as the value of the SRMR (0.076), which fell below the cut-off point of 0.08, provided evidence of good model fit. This finding was further corroborated by the fact that six of the nine completely standardised factor loadings obtained values larger than 0.70. The remaining three loadings obtained values of 0.59 (item 7), 0.67 (item 8) and 0.69 (item 0). It was therefore concluded that sufficient evidence existed to verify the validity of the three-factor measurement instrument within the current sample.

Table 3.15 Goodness of fit statistics results of the UWES CFA

Model	$\chi^2$	S-B $\chi^2$	Df	S-B $\chi^2$ / df	NNFI	CFI	RMR	SRMR	RMSEA (CI)	P (close)
UWES	148.92*	89.70*	24	3.74	0.95	0.97	0.13	0.076	0.12 (0.092; 0.14)	0.00

Note:  $\chi^2$ , Chi-square; S-B $\chi^2$ , Sattora-Bentler Scaled Chi-square; NNFI, non-normed fit index; CFI, comparative fit index; RMR, root mean squared residuals; SRMR, standardised root mean residual; RMSEA, root mean square error of approximation; \*  $p < 0.05$

## 3.8 SUMMARY

This chapter addressed the rationale, aims and objectives, as well as the ensuing research hypotheses that were derived from the literature review. In addition, the research methodology as pertaining to sample characteristics, data collection and measurement instruments were accordingly discussed. In chapter four, a detailed review of the results obtained in this research will be provided.

## CHAPTER 4

### RESULTS

#### 4.1 INTRODUCTION

The aim of this study was, firstly, to establish whether the positive psychological antecedents of optimism, self-efficacy and meaningfulness (i.e. engagement and organisational commitment) were significantly correlated to each other. Secondly, this study aimed to investigate the causal relationships between the mentioned constructs with that of occupational wellbeing (i.e. general psychological health and satisfaction with work-life). To this end, it was hypothesised that the construction of a model of occupational wellbeing from a salutogenic approach could be permissible, given that the stated objectives were reasonably met. This chapter will consequently provide an integrated and holistic examination of the empirical evidence attained in this research. References to, and comparisons with, the relevant literature and previous research findings will accordingly be presented.

#### 4.2 SAMPLE CHARACTERISTICS

Overall, 202 employees across three organisations completed the survey utilised for this research. As mentioned in a previous section, 71.78% of the participants were employees of a medium-sized South African property management and development company, 17.82% were educators at a primary institution, while a further 9.5% were in the employment of a small tobacco processing organisation. Additional descriptive statistics, specifically related to gender, ethnic group and years of service at the organisation, are presented in tables 4.1 to 4.3 below.

**Table 4.1 Gender distribution**

	Frequency	Percent	Valid Percent	Cumulative Percent
<b>Male</b>	81	40.1	40.3	
<b>Female</b>	120	59.4	59.7	
<b>Total</b>	202	99.5	100	100

**Table 4.2 Ethnic group distribution**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Black</b>	29	14.4	14.4	14.4
<b>Caucasian</b>	86	42.6	42.8	57.2
<b>Coloured</b>	81	40.1	40.3	97.5
<b>Indian</b>	3	1.5	1.5	99
<b>Asian</b>	2	1	1	100
<b>Total</b>	202	99.5	100	

**Table 4.3 Sample descriptive statistics**

<b>Item</b>	<b>Category</b>	<b>N</b>	<b>Percentage</b>
<b>First language</b>	Afrikaans	104	51.5
	English	73	36.1
	Xhosa	20	9.9
	Sotho	2	1
	Tswana	2	1
	Other	1	.5
<b>Second language</b>	Afrikaans	65	32.2
	English	129	63.9
	Xhosa	1	.5
	Other	3	1.5
<b>Years at organisation</b>	Less than 6 months	4	2
	6-12 months	21	10.4
	1-2 years	26	12.9
	3-4 years	26	12.9
	5-8 years	56	27.7
	9-16 years	36	17.8
	17-24 years	23	11
	25+ years	10	5

From the tables it is evident that the sample had a fairly equal gender distribution, with 40.1% males and 59.5% females completing the survey. The Caucasian and Coloured groups together comprised 83.2% of the total sample, while Black (14.4%), Indian (1.5%) and Asian respondents (1%) made up the remainder of the sample population. Afrikaans was the first language of 51.5% of respondents in the sample group, with English (36.1%) and Xhosa (9.9%) respectively being the second and third most prevalent first languages. One hundred and twenty-nine participants (63.9%) indicated that English were their second language. Fifty six participants (27.7%) had been in the employment of their current organisations for the past five to eight years. The survey participants comprised executive-, middle-, and junior management, as well as semi-skilled and non-skilled employees. These distributions are not included in the sample descriptive statistics; the nature and size of the organisations where the research was carried out did not allow the disclosure thereof without jeopardising the assurance of anonymity given to each of the research participants.

#### **4.3 CORRELATION RESULTS**

One of the main objectives of this study was to determine whether significant relationships exist between the positive psychological antecedents of optimism, self-efficacy, and meaningfulness (for the purposes of this research defined by work engagement and organisational commitment), as well as the complex variable of occupational wellbeing (described in this study as the presence of good psychological health and satisfaction with work-life). An affirmative outcome would consequently permit the construction of a salutogenic approach to understanding occupational wellbeing within the organisational context.

##### *Magnitude of $r$*

To evaluate the strength of a statistically significant relationship, it is useful to have a guide to interpret the strength of the identified correlation. Guilford (as cited in Tredoux & Durheim, 2002, p.184) provides a useful reference to interpret statistical significant relationships among variables. Thus, although a correlation may be statistically significant, it must still be evaluated in the context of its associated strength and value to

the research. This convention recommended by Guilford is depicted in table 4.4 and were consequently used to construe meaning from the sample statistics.

**Table 4.4 Guilford's informal interpretations of the magnitude of  $r$**

Absolute value of $r$	Interpretation
< 0.19	Slight, almost no relationship
0.20-0.39	Low correlation, definite but small / weak relationship
0.40-0.69	Moderate correlation; substantial relationship
0.70-0.89	High correlation; strong relationship
0.90-1.00	Very high correlation; very dependable relationship

### 4.3.1 The relationship between optimism and occupational wellbeing

In order to explore the relationship between optimism and occupational wellbeing, two research hypotheses were formulated. The first hypothesis was formulated as follows:

**Hypothesis one** - A significant positive relationship exists between optimism and general psychological health (a component of occupational wellbeing).

**Table 4.5 The correlations between optimism and general psychological health**

Constructs	GHQsomat	GHQanx	GHQdysf	GHQdep
LOT-Rpos	-.386**	-.371**	-.359**	-.433**

**N = 202; GHQsomat = Somatic symptoms; GHQanx = Anxiety and insomnia; GHQdysf = Social dysfunction; GHQdep = Severe depression; LOT-Rpos = LOT-R (Positive); \*\*. Correlation is significant at the 0.01 level (2-tailed).**

As explained in chapter 3, EFA on the LOT-R questionnaire revealed that two factors could in actual fact be extracted, instead of one global factor as stipulated by the authors (Scheier & Carver, 1985). These factors could be classified in terms of a LOT-R (positive) scale, and a LOT-R (negative) scale. For reasons explicated in chapter 3, only

the LOT-R (positive) scale was utilised in the data analysis for the remainder of the research.

An investigation of table 4.5 reveals that low to moderate significant negative correlations<sup>3</sup> between LOT-R (positive) and each of the four GHQ subscales emerged: GHQ Somatic symptoms ( $r = -.386$ ,  $n = 202$ ,  $p < .01$ ), GHQ Anxiety ( $r = -.371$ ,  $n = 202$ ,  $p < .01$ ), GHQ Dysfunction ( $r = -.359$ ,  $n = 202$ ,  $p < .01$ ), and GHQ Depression ( $r = -.433$ ,  $n = 202$ ,  $p < .01$ ). Since higher scores on the GHQ as a clinical measure are indicative of the possible presence of pathology (Goldberg, 1972), these negative correlations corroborate the relationship between optimism and good psychological health. Consequently, full support for hypothesis one was obtained.

The findings as presented above are further support to an abundance of existing research associating optimism with increased psychological wellbeing. As outlined in chapter 2, a number of the arguments relate to optimism as complementary factor in the creation of psychological wellbeing among the mentally and physically unwell. Previous and more recent studies notes its negative relationship with depressive symptomatology, both in the general population (Vickers & Vogeltanz, 2000), and in populations with various chronic conditions, such as cardiovascular disease (Shnek, Irvine, Stewart & Abbey, 2001). As elaborated on in chapter two, optimism is also a significant predictor of physical and psychological functioning in patients suffering from various medical conditions (Carver et al., 1993). In addition, optimism has been associated with functioning and health, both directly and indirectly by means of affectivity or self-esteem (Chang & Sanna, 2001; Symister & Friend, 2003).

In the workplace, optimists furthermore appear to display better functioning as a result of their ability to employ efficient methods to facilitate emotional adjustment (Taylor & Armor, 1996). To this end, in a study of executive women, Fry (1995) found that optimists appraised daily disturbances differently than pessimists. Optimistic women anticipated to gain or grow from such events, as their coping mechanisms manifested

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<sup>3</sup> Higher scores on the GHQ-28 indicates that a person have poorer general psychological health. Conversely, lower scores indicate better psychological health. Hence, negative relationships between the LOTpos and GHQ subscale scores theoretically confirm that more optimism is associated with better psychological health.

as acceptance, expressiveness, stress-reduction, and the use of social support as opposed to withdrawal behaviour, distancing, or resorting to self-blame. Another theme within the optimism/wellbeing/coping sphere relates to optimism as one of the core resources constituting the resilient personality. Evidence from cross-lagged data on employees suggest that individuals displaying a resilient disposition, will accordingly adopt more positive stress appraisals and consequent better adjustment and wellbeing (Wanberg & Banas, 2000; Makikangas, Kinnunen & Feldt, 2004).

A second hypothesis regarding the relationship between optimism and occupational well-being was formulated:

**Hypothesis two** - A significant positive relationship exists between optimism and satisfaction with work life (a component of occupational wellbeing).

**Table 4.6 The correlation between optimism and satisfaction with work-life**

Constructs	SWWLtot
LOT-Rpos	.350**

**N = 200; LOT-Rpos = LOT-R (Positive); SWWLtot = Satisfaction with work-life total; \*\*. Correlation is significant at the 0.01 level (2-tailed).**

As is evident from table 4.6., evidence for a weak, but definite significant positive relationship between optimism and satisfaction with work-life was obtained in this study. Hence, hypothesis two was supported.

These findings corroborate with research by David and Cable (2006) that noted the importance of optimism in the establishment of a work environment conducive to productivity and satisfaction. Research has additionally indicated the influential role of optimism in making positive attitudinal evaluations concerning one's work environment (Dolfi & Andrews, 2007). Within the domain of authentic leadership, the inspirational effect of authentic leaders (with optimism as a defining feature of their leadership style) on their followers has additionally been linked with increased follower satisfaction as it pertains to work-life (Luthans & Avolio, 2003).

Finally, recent support for the moderating role of dispositional optimism on organisational citizenship behaviour (OCB) and job satisfaction has been found, with a reported correlation of 0.37 between optimism and satisfaction (Munyon, Hochwarter, Perrewe & Ferris, 2010). These findings provide additional support for the positive organisational behaviour outlook (e.g., Luthans, 2003), which states that optimism forms part of the cornerstone responsible for shaping employee attitudes, such as job satisfaction, and behaviours, such as organisational citizenship behaviour (Munyon et al., 2010).

#### 4.3.2 The relationship between self-efficacy and occupational wellbeing

With regards to the hypothesised relationship between self-efficacy and occupational wellbeing, two research hypotheses were formulated. It was, firstly, proposed that:

**Hypothesis three** - A significant positive relationship exists between self-efficacy and general psychological health (a component of occupational wellbeing).

**Table 4.7** The correlations between self-efficacy and general psychological health

Constructs	GHQsomat	GHQanx	GHQdysf	GHQdep
GSEStot	-.238**	-.276**	-.313**	-.403**

N = 200; GHQsomat = Somatic symptoms; GHQanx = Anxiety and insomnia; GHQdysf = Social dysfunction; GHQdep = Severe depression; GSEStot = General self-efficacy total; \*\*. Correlation is significant at the 0.01 level (2-tailed).

The results (refer to table 4.7) revealed that small, yet definite negative<sup>4</sup> relationships between the GSES (total score) and GHQ subscales of Somatic symptoms ( $r = -0.238$ ,  $n = 200$ ,  $p < 0.01$ ), GHQ Anxiety ( $r = -0.276$ ,  $n = 200$ ,  $p < .01$ ) and GHQ Social dysfunction ( $r = -0.313$ ,  $n = 200$ ,  $p < 0.01$ ) emerged. A substantial/moderate negative correlation between the GSES (total score) and the GHQ Severe depression subscale ( $r = -0.403$ ,  $n = 200$ ,  $p < .01$ ) provided further evidence of the significant association between self-efficacy and general psychological health. It is clear that strong support for hypothesis three emerged in this study.

<sup>4</sup> Due to the scale direction of the GHQ-28 (i.e. lower scores indicate better psychological health) the negative relationship between the GSES (total score) and GHQ subscale scores theoretically confirm that more self-efficacy is associated with better psychological health

These results are in accordance with research exploring the role of efficacy-beliefs in the preservation of psychological health from both an individual and an organisational perspective. Self-efficacy beliefs have in the past been linked to higher self-esteem, improved wellbeing, better adjustment to stressors, an enhanced physical condition, as well as better adaptation to, and recovery from, acute and chronic diseases (Bandura, 1997; Kuijer & de Ridder, 2003). Additionally, individuals exhibiting low self-efficacy beliefs have been found to experience more symptoms of anxiety and depression (Faure & Loxton, 2003; Kashdan & Roberts, 2004), as well as lower levels of perceived wellbeing (Barlow, Wright & Cullen, 2002). This overt association between high self-efficacy and psychological wellbeing have previously been attributed to the employment of a problem-focused approach to dealing with stressful situations, allowing individuals high in self-efficacy to confront the source of their stress, instead of responding passively by shying away from it (Kinicki & Latack, 1990).

A second hypothesis regarding the relationship between self-efficacy and occupational well-being was formulated:

**Hypothesis four** - A significant positive relationship exists between self-efficacy and satisfaction with work-life (a component of occupational wellbeing).

**Table 4.8 The correlation between self-efficacy and satisfaction with work-life**

Constructs	SWWLTot
GSEStot	.229**

**N = 200; GSEStot = General self-efficacy total; SWWLTot = Satisfaction with work-life Total; \*\*. Correlation is significant at the 0.01 level (2-tailed).**

As anticipated, a small but significant positive relationship between the GSES (total score) and the measure for satisfaction with work-life, transpired ( $r = .229$ ,  $n = 200$ ,  $p < 0.01$ ). Hypothesis four is, therefore, supported in this study.

Considerable support from past research points to the positive impact of self-efficacy in several domains of life, including the organisational setting. The positive relationship between self-efficacy and job satisfaction has been established (Luthans & Youssef,

2004) and has been hypothesised to be attributed to the ability of individuals high in efficacy beliefs to view failure as learning experiences (Bandura, 1997). Accordingly, these individuals' efficacy-beliefs will be restored even after it has been challenged, prompting them to keep exerting effort until they are successful. To corroborate the link between self-efficacy and job satisfaction, Luthans et al. (2007), in a study exploring the higher-order construct of PsyCap (of which self-efficacy is a key component), found considerable support for a relationship that emerged between these two separate constructs. In a sample of employees within the manufacturing industry, a correlation of 0.30 between self-efficacy and job satisfaction was found, and among employees in the services industry, a substantial correlation of 0.58 was reported.

### 4.3.3 The relationship between meaningfulness and occupational wellbeing

In terms of the relationship between meaningfulness and occupational wellbeing, it was firstly anticipated that:

**Hypothesis five** - A significant positive relationship exists between engagement (a component of meaningfulness) and general psychological health (a component of occupational wellbeing).

**Table 4.9 The correlations between general psychological health and engagement**

Constructs	GHQsomat	GHQanx	GHQdysf	GHQdep
UWESvig	-.424**	-.469**	-.368**	-.386**
UWESdedic	-.348**	-.393**	-.341**	-.395**
UWESabs	-.196**	-.183**	-.167*	-.275**

N = 200; GHQsomat = Somatic symptoms; GHQanx = Anxiety and insomnia; GHQdysf = Social dysfunction; GHQdep = Severe depression; UWESvig = Vigour; UWESdedic = Dedication; UWESabs = Absorption  
 \*\* . Correlation is significant at the 0.01 level (2-tailed). \* . Correlation is significant at the .05 level (2-tailed).

From table 4.9 it is evident that each of the engagement subscales, namely vigour, dedication and absorption, are negatively<sup>5</sup> correlated with each of the GHQ subscales measuring the presence of somatic symptoms, anxiety and insomnia, social dysfunction

<sup>5</sup> Due to the GHQ scoring, the negative associations that emerged theoretically confirm the positive relationship between engagement and good psychological health.

and severe depression within individuals. The correlations ranged from small (GHQdysf and UWESabs;  $r = -.167$ ,  $n = 202$ ,  $p < .05$ ) to substantial (GHQanx and UWESvig;  $r = -.469$ ,  $n = 202$ ,  $p < .01$ ). Additionally, the strongest correlations appear to be between the GHQ and the two engagement subscales measuring vigour and dedication. This is in accordance with research by Schaufeli et al. (2008), who reported similar strong negative relationships between vigour and dedication, and distress and/or depression. It is concluded that a significant positive relationship exists between engagement and general psychological health, providing adequate support for hypothesis five.

These results would thus suggest that individuals experiencing high levels of work engagement may be buffered against the potentially harmful effects of strain and stress-related diseases. In chapter two, the inherent connection between engagement and burnout was explored, and the notion that burnout and engagement were in fact opposites existing on the same continuum, were postulated. That is, it has been argued that the three components of engagement (vigour, dedication and absorption) are in direct opposition to the three components of burnout (exhaustion, cynicism and inefficacy) (Maslach & Leiter, 1997). In line with this stance, several research findings supporting the relationship between engagement and psychological health will be presented. A strong positive association between emotional exhaustion (as a component of burnout) and depressive symptoms has been reported, as well as its negative effect on energy levels and physical symptoms (Lashinger & Finegan, 1995). Hence, one would expect a negative association between vigour and depressive symptoms (i.e. as vigour increases, depression decreases). This was confirmed in the current study. Work engagement has also been found to be directly and significantly correlated to psychological wellbeing outcomes (Koyuncu, Burke & Fiksenbaum, 2006; Schaufeli, Taris & Van Rhenen, 2008).

A second hypothesis regarding the relationship between meaningfulness and occupational wellbeing was formulated:

**Hypothesis six** - A significant positive relationship exists between engagement (a component of meaningfulness) and satisfaction with work life (a component of occupational wellbeing).

**Table 4.10 The correlations between engagement and satisfaction with work-life**

Constructs	UWESvig	UWESded	UWESabs
SWWLTot	.534**	.603**	.355**

**N = 200; UWESvig = Vigour; UWESdedic = Dedication; UEWSabs = Absorption, SWWLTot = Satisfaction with work-life total; \*\*. Correlation is significant at the 0.01 level (2-tailed).**

The results revealed substantial positive relationships between the satisfaction with work-life measure (total score) and each of the engagement subscales. Especially, the vigour and dedication scales denote definite and considerable correlations, respectively ( $r = .534$ ;  $n = 202$ ,  $p < .01$ ) and ( $r = .603$ .  $n = 202$ ,  $p < .01$ ). Vigour is described in terms of high levels of energy and mental resilience while working, the willingness to apply effort to one's job, and the ability to persevere when faced with difficulty. This energy can also relate to the level of mental effort or mental strength that individuals can put into doing something. Dedication is characterised by a sense of significance, enthusiasm, inspiration, pride, and challenge in one's work (Schaufeli & Bakker, 2003). These results propose that the more engaged individuals become the more they are inclined to be satisfied with their work-life on the whole. Strong support for hypothesis six emerged.

Research corroborating these findings is plentiful as work engagement has in numerous studies been linked to job satisfaction. Schaufeli and Bakker (2004) established the negative relationship between engagement and the intention to quit (with satisfaction at the opposite end of the continuum). Later studies indicated a positive relationship between all three facets encompassed in the definition of work engagement (vigour, dedication and absorption) and satisfaction, while the opposite was established for exhaustion and satisfaction (Schaufeli et al., 2008). Koyuncu, Burke and Fiksenbaum (2006) have also found that the direction of the relationship may vary, as their study revealed that work-life experiences such as value fit and satisfaction predicted engagement.

In addition, a third hypothesis regarding the relationship between meaningfulness and occupational wellbeing was formulated:

**Hypothesis seven** - A significant positive relationship exists between organisational commitment (a component of meaningfulness) and general psychological health (a component of occupational wellbeing).

**Table 4.11 The correlations between organisational commitment and general psychological health**

Constructs	GHQsomat	GHQanx	GHQdysf	GHQdep
OCQtot	-.288**	-.231**	-.194**	-.338**

**N = 200; OCQtot = Organisational commitment total; GHQsomat = Somatic symptoms; GHQanx = Anxiety and insomnia; GHQdysf = Social dysfunction; GHQdep = Severe depression; \*\*. Correlation is significant at the 0.01 level (2-tailed).**

As is evident from table 4.11, significant support for the relationship between organisational commitment as measured by the OCQ, and general psychological health, as inversely measured by the GHQ, was obtained. The correlations ranged from slight, between the OCQ and GHQ Dysfunction ( $r = -.194$ ,  $n = 200$ ,  $p < .01$ ), to substantial, such as demonstrated between the OCQ and GHQ Depression ( $r = -.388$ ,  $n = 200$ ,  $p < .01$ ). Hypothesis seven is consequently supported.

Although research documenting an explicit relationship between organisational commitment and general psychological health has been limited, evidence suggests the association is nevertheless evident. Firstly, organisational commitment in this study was defined in terms of the cultivation of an organisational community whereby employees experienced a heightened sense of membership and belonging, and accordingly, positive experiences of one's organisation (Pratt & Ashforth, 2003). Conversely, job insecurity refers to employees' negative feelings towards their organisation as a result of changes relating to their job, e.g. the threat of job loss or job discontinuity implied opposites (Hartley, Jacobson, Klandermans & van Vuuren, 1991; Viljoen, Bosman & Buitendach, 2005). Evidently then, an inherent connection between the two constructs are implied. This is also corroborated by research which indicated that feelings of job insecurity may threaten employees' basic attitudinal attachments, such as organisational commitment, job satisfaction and trust (Rosenblatt & Ruvio, 1996). Furthermore, evidence has suggested that perceived job insecurity may be a great source of personal stress and accordingly, may threaten a person's wellbeing

(Lazarus, 1991). To this end, numerous studies have documented the incidence of physical symptoms of ill health, anxiousness, sleeping difficulties, and signs of depression in people experiencing job insecurity (Dekker & Schaufeli, 1995; Probst, 2000; Viljoen, Bosman & Buitendach, 2005). The positive correlation between organisational commitment and general psychological health is consequently supported.

In terms of the meaningfulness and occupational wellbeing relationship, it was further proposed that:

**Hypothesis eight** - A significant positive relationship exists between organisational commitment (a component of meaningfulness) and satisfaction with work life (a component of occupational wellbeing).

**Table 4.12 The correlations between organisational commitment and satisfaction with work-life**

Constructs	SWWLTot
OCQtot	.606**

**N = 200; OCQtot = Organisational commitment total; SWWLTot = Satisfaction with work-life total; \*\*. Correlation is significant at the 0.01 level (2-tailed).**

As anticipated, a substantial positive relationship emerged between the variables of organisation commitment and satisfaction with work-life ( $r = .606$ ,  $n = 200$ ;  $p < .01$ ), providing strong support for hypothesis eight. This result suggests that employees who are highly committed to their organisation are also more likely to be satisfied with their work-life in general.

Research has frequently documented the positive relationship between organisational commitment and job satisfaction (e.g. Mowday, Porter & Steers, 1982; Wallace, 1995). In the context of this study, this association is emphasised in terms of the overarching factor of meaningfulness. The development of organisational commitment accordingly centres on the creation of support for organisational goals and values, as well as the formation of meaningful relationships amongst colleagues (Mowday, Porter & Steers, 1979), and was consequently, in this study, likened to the creation of 'meaningfulness at work' practices as conceptualised by Pratt and Ashforth (2003). This notion of

commitment is supported by Baumeister and Leary (1995) who argues that it is an inherent human trait to seek affiliation with others, specifically in those areas of one's life where a great amount of time is spent, e.g., the workplace. This research contend that it is exactly this meaningfulness component encapsulated in organisational commitment which increases individuals satisfaction' with their work-life.

#### 4.3.4 The relationship between optimism and self-efficacy

The following research hypothesis, exploring the relationship between optimism and self-efficacy, were postulated:

**Hypothesis nine** - A significant positive relationship exists between optimism and self-efficacy.

Table 4.13 The correlation between optimism and self-efficacy

Constructs	GSEStot
LOT-Rpos	.489**

N = 200; LOT-Rpos = LOT-R (Positive); GSEStot = General self-efficacy total; \*\*. Correlation is significant at the 0.01 level (2-tailed).

A moderate correlation between the LOT-R (positive) scale and GSES (total score) emerged ( $r = .489$ ,  $n = 200$ ,  $p < .01$ ). This result points toward the presence of a significant relationship between optimism and self-efficacy in this sample, and consequently, hypothesis nine is supported.

Research linking the constructs of optimism and self-efficacy has been plentiful in recent years. The first inherent link between self-efficacy and optimism lies in their definitions, as both are described in terms of personal expectations concerning desirable outcomes that is attributed to the characteristics and disposition of the individual (Gist & Mitchell, 1992). This association has received generous attention e.g., in studies where optimism and self-efficacy, as a set of shared expectations, were found to mediate the relationships between constructs such as engagement and job resources (Xanthopolou et al., 2007), as well as between social support and depression (Karademas, 2006). Furthermore, in research on the higher order core construct of

psychological capital (PsyCap), Luthans and Youssef (2004) report significant, positive correlations between self-efficacy and optimism, ranging from 0.44 to 0.61 across various samples. Consequently, the movement of positive psychology and positive organisational behaviour have indicated that there is indeed a valid premise for linking self-efficacy and optimism, based on the foundation of shared expectations, and together with the outcome of the current research, as expected, strong support for hypothesis nine was obtained.

#### 4.3.5 The relationship between optimism and meaningfulness

In order to explore the relationship between optimism and meaningfulness, two research hypotheses were formulated. It was, firstly, proposed that:

**Hypothesis ten** - A significant positive relationship exists between optimism and organisational commitment (a component of meaningfulness).

**Table 4.14 The correlation between optimism and organisational commitment**

Constructs	OCQtot
LOT-Rpos	.319**

**N = 200; LOT-Rpos = LOT-R (Positive); OCQtot = Organisation commitment total; \*\*. Correlation is significant at the 0.01 level (2-tailed).**

The result as presented in table 4.14 revealed a moderate, positive correlation between the LOT-R (positive) scale and the Organisation Commitment Questionnaire total score. This is in accordance with the stated hypothesis and is corroborated by various findings in previous research studies.

In support of the above finding, studies related to PsyCap (a higher order construct encompassing optimism, self-efficacy, resilience and hope) have indicated positive relationships between the PsyCap total score and beneficial attitudinal outcomes such as satisfaction and organisational commitment (Luthans et al., 2007; Luthans, Norman, Avolio & Avey, 2007). Additionally, optimism as it pertains to the leadership domain, have been linked to higher performance, satisfaction and retention, all empirically linked to organisational commitment (Farkas & Tetrick, 1989; Lincoln & Kalleberg, 1990; Mowday, Porter & Steers, 1982; Mueller, Boyer, Price & Iverson, 1994; Wallace, 1995).

Regarding optimism and meaningfulness it was further proposed that:

**Hypothesis eleven** - A significant positive relationship exists between optimism and engagement (a component of meaningfulness).

**Table 4.15 The correlations between optimism and engagement**

Constructs	UWESvig	UWESded	UWESabs
LOT-Rpos	.479**	.448**	.421**

N = 200; LOT-Rpos = LOT-R (Positive); UWESvig = Vigour; UWESdedic = Dedication; UEWSabs = Absorption; \*\*. Correlation is significant at the 0.01 level (2-tailed).

The correlation analyses between the LOT-R (positive) and the UWES revealed substantial relationships between optimism and all three dimensions encompassed in the definition of engagement namely, vigour, dedication and absorption. Hence, support for hypothesis eleven emerged in this study.

These results indicated that there is indeed a premise for associating optimism with work engagement, as suggested by previous research studies. For example, in a study that examined the role of personal resources in predicting exhaustion and work engagement, evidence for the mediating role of optimism between job resources and work engagement was found (Xanthopolous, Baker, Demerouti, & Schaufeli, 2007). Additionally, within a fortigenic paradigm (referring to the study of human strengths as means to enhance psychological wellbeing), Strümpfer (1995) has argued that psychological strengths, such as dispositional optimism, create tendencies contrary to those that generate burnout. Hence, optimism could indeed play a significant role in encouraging and cultivating work engagement, as suggested by the current results.

#### **4.3.6 The relationship between self-efficacy and meaningfulness**

Upon exploration of the anticipated link between self-efficacy and meaningfulness, two hypotheses were formulated. It was, firstly, proposed that:

**Hypothesis twelve** - A significant positive relationship exists between self-efficacy and engagement (a component of meaningfulness).

**Table 4.16 The correlations between self-efficacy and engagement**

Constructs	UWESvig	UWESded	UWESabs
GSEStot	.396**	.326**	.402**

**N = 200; UWESvig = Vigour; UWESdedic = Dedication; UWESabs = Absorption; GSEtot = General self-efficacy total; \*\*. Correlation is significant at the 0.01 level (2-tailed).**

As is evident from table 4.16, small to substantial positive significant correlations were evident between the GSES (total score) and each of the three subscales contained in the UWES. Hypothesis twelve is, therefore, supported by the current research results.

Interestingly though, is that although numerous researchers have emphasised the role of self-efficacy in explaining the transition from job resources to positive psychological and organisational outcomes (Gist & Mitchell, 1992; Luthans, Avey, Avolio, Norman & Combs, 2006), this mediating effect has thus far received only limited empirical support with regard to work engagement. This does not however imply that such research does not exist. As was the case with optimism, Xanthopoulou et al. (2007) found that self-efficacy mediated the relationship between job resources and work engagement. Additionally, research has shown that feeling competent and confident (self-efficacious) with respect to valued goals is associated with enhanced intrinsic motivation (Ryan & Deci, 2001). In turn, engaged individuals view themselves as capable of dealing with the demands of their job (self-efficacy) (Llorens et al., 2001). Maslach, Schaufeli and Leiter (2001) further confirmed this perceived link with their research. At the opposite end of the continuum, the moderator role of self-efficacy in the relation among job demands and burnout has also been underscored (Jimmieson, 2000; Salanova, Grau, Cifre & Llorens, 2000). For example, from a fortigenic approach it has been argued that generalised self-efficacy may prompt individuals to direct their behaviours in a manner conducive to work engagement, which should also result in a reduced likelihood of burnout (Strümpfer, 1995).

Regarding self-efficacy and meaningfulness it was, further, proposed that:

**Hypothesis thirteen** - A significant positive relationship exists between self-efficacy and organisational commitment (a component of meaningfulness).

**Table 4.17 The correlation between self-efficacy and organisational commitment**

Constructs	OCQtot
GSEStot	.253**

**N = 200; OCQtot = Organisational commitment total; GSEStot = General self-efficacy total; \*\*. Correlation is significant at the 0.01 level (2-tailed).**

From table 4.17 it is evident that reasonable support has been obtained for a transpiring relationship between self-efficacy and organisation commitment, respectively measured by the GSES and OCQ. The results yielded a small, yet significant correlation, providing sufficient support for hypothesis thirteen.

Although research evidence within this domain is limited, several studies have noted the association between self-efficacy and organisational commitment. Psychological capital (a higher order construct comprised of hope, self efficacy, resilience and optimism) has also been connected with generalised compliance behaviours, described as willing behaviours, in support of organisational policies, norms, and procedures (e.g. being on time for work). That is, an inherent sense of organisational commitment is implied where higher PsyCap levels are present. In support of this notion, Norman, Avey, Nimnicht and Pigeon (2010) have reported that higher PsyCap, with self-efficacy as a central dimension, have been found to lead to these desirable behaviours, and decrease the occurrence of organisational deviance.

### 4.3.7 Model fit

#### 4.3.7.1 Measurement model fit

Before the fit of the structural model could be assessed, the measurement model fit of the full set of observed variables (i.e. sub-scale scores / item parcels / raw items<sup>6</sup>) to the data, was evaluated with CFA. The measurement model illustrates the way in which each latent variable is operationalised by its matching manifest indicator, as well as providing information about the validities and reliabilities of the observed variables (Diamantopolous & Siguaw, 2000). Measurement model fit refers to the extent to which the theoretical model is consistent with, or explains the data. Appraisal of model fit should stem from a number of different sources, and accordingly, be established on several criteria that can evaluate model fit from varying outlooks (Diamantopolous & Siguaw, 2000).

#### 4.3.7.1.1 Fitting the measurement Salutogenic Model of Occupational Wellbeing to the sample

LISREL 8.80 (Jöreskog & Sörbom, 2002) was used to perform CFA on the salutogenic occupational wellbeing measurement model to determine the model fit. Robust maximum likelihood estimation was utilised to produce estimates due to the failure of the data to satisfy the multivariate normality assumption (skewness and kurtosis:  $\chi^2=362.32$ ,  $p=0.000$ ). The results of the CFA are presented in table 4.18.

Table 4.18 Goodness of fit statistics for the measurement model CFA

Model	$\chi^2$	S-B $\chi^2$	Df	S-B $\chi^2$ / df	NNFI	CFI	RMR	SRMR	RMSEA (CI)	P (close)
<b>SMOW -MM</b>	304.74*	262.70*	194	1.35	0.987	0.989	0.55	0.059	0.04	0.84*

**Note:** SMOW-MM = Salutogenic model of Occupational Well-being measurement model;  $\chi^2$ , Chi-square; S-B $\chi^2$ , Sattora-Bentler Scaled Chi-square; NNFI, non-normed fit index; CFI, comparative fit index; RMR, root mean squared residuals; SRMR, standardised root mean residual; RMSEA, root mean square error of approximation. \*  $p < 0.05$

<sup>6</sup> In order to improve the ratio of number of parameters to be estimated versus the available sample size, item parceling was utilized (Kim & Hagtvet, 2003). Item parcels were constructed by creating linear composites of random items in the concerned scale or sub-scale (Kim & Hagtvet, 2003). For the GHQ-28 the sub-scale scores were utilized in the measurement model. For the all the other scales (e.g. SWL, OCQ, UWES, and GSES), except for the LOT scale, item parcels were created. Only the LOT (pos) subscale was utilised in this phase of the research. This subscale of the LOT-R only consists of 3 items. Hence, in this case the item raw values were utilised as observed variables in the CFA of the measurement model of the structural model.

A Satorra Bentler Scaled chi-square value of 262.70 with 194 degrees of freedom, and  $p = 0.00$  was obtained. The null hypothesis of exact fit was consequently rejected ( $p < 0.05$ ). However, strong evidence of close fit was achieved ( $p = 0.84$ ,  $p > 0.05$ ).

Since an RMSEA value of 0.10 indicate a mediocre fit to the data, and values below 0.06 a very good fit to the data (Kelloway, 1998), it can be inferred that this measurement model obtained very good fit to the data (RMSEA = 0.04). Underscoring this result, the incremental fit indices values exceeded 0.95 (CFI = 0.98, NNFI = 0.98), once again indicating very good model fit. Overall, there was strong evidence to suggest that the measurement model of the proposed Salutogenic Model of Occupational Well-being produced a very good fit to the current data. Tables 4.19 and 4.20 contain the inter-correlation matrix of the latent variables and the completely standardised factor loadings of the observed variables on the respective latent traits. Based on the results in this section it was, therefore, permissible to test the fit of the structural model to the current data.

**Table 4.19 Phi values of the fitted SMOW measurement model (all significant)**

Constructs	PsychH	Satisf	OrgC	Optims	SelfE	Engage
<b>PsychH</b>	1.00					
<b>Satisf</b>	-0.42	1.00				
<b>OrgC</b>	-0.35	0.68	1.00			
<b>Optims</b>	-0.56	0.44	0.40	1.00		
<b>SelfE</b>	-0.35	0.25	0.28	0.62	1.00	
<b>Engage</b>	-0.51	0.68	0.71	0.61	0.43	1.00

**Note: PsychH = Psychological health; Satisf = Satisfaction with work-life; OrgC = Organisation commitment; Optims = Optimism; SelfE = Self-efficacy; Engage = Work engagement.**

**Table 4.20 Completely standardised solution of factor loadings of the fitted SMOW measurement model**

<b>Constructs</b>	<b>PsychH</b>	<b>Satisf</b>	<b>OrgC</b>	<b>Optims</b>	<b>SelfE</b>	<b>Engage</b>
<b>GHQsomat</b>	0.87					
<b>GHQanx</b>	0.89					
<b>GHQdysf</b>	0.64					
<b>GHQdep</b>	0.71					
<b>SWWLp1</b>		0.92				
<b>SWWLp2</b>		0.84				
<b>OCQp1</b>			0.87			
<b>OCQp2</b>			0.75			
<b>OCQp3</b>			0.81			
<b>OCQp4</b>			0.75			
<b>OCQp5</b>			0.88			
<b>LOT-R1</b>				0.58		
<b>LOT-R4</b>				0.69		
<b>LOT-R10</b>				0.67		
<b>GSESp_1</b>					0.87	
<b>GSESp_2</b>					0.86	
<b>GSESp_3</b>					0.59	
<b>GSESp_4</b>					0.69	
<b>GSESp_5</b>					0.80	

UWESp1	0.84
UWESp2	0.91
UWESp3	0.73

**Note:** All factor loadings are significant; Psych = Psychological health; Satisf = Satisfaction with work-life; OrgC = Organisation commitment; Optimis = Optimism; SelfE = Self-efficacy; Engage = Work engagement; GHQsomat = Somatic symptoms; GHQanx = Anxiety and insomnia; GHQdysf = Social dysfunction; GHQdep = Severe depression; SWWL = Satisfaction with work-life; OCQ = Organisation commitment; LOT-R = Life orientation test [revised]; GSES = General self-efficacy; UWES = Work engagement.

#### 4.3.7.2 Structural model fit

The structural model is that element of the general model that imposes relations between latent variables and manifest variables that are not indicators of latent variables (Hoyle, 1995). The objective of the model is to justify the way in which the variables are correlated. The structural model furthermore describes the relationship between the latent variables themselves. When assessing the structural part of the model, it is a necessary requirement to focus on the substantive relationships of interest (that is, associations between various endogenous and exogenous latent variables). The purpose of this process is consequently to ascertain whether the theoretical relationships outlined in the research are supported by the data (Diamantopolous & Siguaw, 2000)

The following hypothesis was stated:

**Hypothesis fourteen** - The proposed conceptual structural model (outlined in figure 3.1) describing the relationships between the various variables will produce a good fit to the data.

##### 4.3.7.2.1 Fitting the structural Salutogenic Model of Occupational Wellbeing to the total sample

The parameter estimates for the structural model is presented in figure 4.1 and the GOF statistics that were used to determine the fit of the structural model are reported in table 4.21.

Table 4.21 Goodness of fit statistics for the structural model

Model	$\chi^2$	S-B $\chi^2$	Df	S-B $\chi^2$ / df	NNFI	CFI	RMR	SRMR	RMSEA (CI)	P (close)
<b>SMOW-S</b>	309.66*	265.84*	197	1.35	0.99	0.99	0.56	0.059	0.041 (0.027; 0.054)	0.85*

Note: SMOW = Salutogenic model of Occupational Well-being Structural model;  $\chi^2$ , Chi-square; S-B $\chi^2$ , Sattora-Bentler Scaled Chi-square; NNFI, non-normed fit index; CFI, comparative fit index; RMR, root mean squared residuals; SRMR, standardised root mean residual; RMSEA, root mean square error of approximation \*  $p < 0.05$

In this model a Satorra Bentler Scaled chi-square value of 265.84 with 197 degrees of freedom and  $p=0.00$ , was obtained. Thus, the null hypothesis of exact fit was rejected ( $p<0.05$ ). The null hypothesis of close fit has also been tested explicitly by LISREL and is shown in table 4.21 as the P-Value for Test of Close Fit (RMSEA < 0.05) = 0.85. Strong evidence that close fit was achieved was, therefore, evident from this result. In addition, an RMSEA value of 0.041 was obtained which further indicated very good fit of the model to the data. Further evidence in support of this was found in the incremental fit indices results. These were calculated as NNFI = 0.99, and CFI = 0.99. Both far exceeded the 0.95 cut-off for good model fit. In addition, the SRMR (0.059) also far exceeded the cut-off value for good model fit (0.08). Hence it is concluded that the results of the structural model fit indicated that the model obtained very good fit to the current data. Further information on the model parameter estimates are given in tables 4.22 and 4.23, as well as figure 4.1.

Table 4.22 Beta coefficients for the structural SMOW

	OrgC	Engage
PsychH	-0.021	<b>-0.250</b>
Satisf	<b>0.392</b>	<b>0.410</b>
OrgC	-	<b>0.756</b>
Engage	-	-

Note: Significant paths indicated in bold; PsychH = Psychological health; Satisf = Satisfaction with work-life; OrgC = Organisation commitment; Engage = Work engagement;

Table 4.23 Gamma coefficients for the structural SMOW

	Opt	SE
PsychH	<b>-0.400</b>	0.008
Satisf	-	-
OrgC	-0.080	0.004
Engage	<b>0.594</b>	0.054

Note: Significant paths indicated in bold; Psych = Psychological health; Satisf = Satisfaction with work-life; OrgC = Organisation commitment; Engage = Work engagement; Opt = Optimism; SE = Self-efficacy;

From tables 4.22 and 4.23 it is evident that the significant paths in the model include (direct effects):

- Organisation Commitment on Satisfaction with work-life
- Engagement on Psychological Health
- Engagement on Satisfaction with work-life
- Engagement on Organisation Commitment
- Optimism on Engagement
- Optimism on Psychological Health

Table 4.24 Indirect effects of KSI on ETA

	Opt	SE
PsychH	-0.156 (0.066) <b>-2.357</b>	-0.014 (0.031) -0.474
Satisf	0.387 (0.116) <b>3.333</b>	0.040 (0.085) 0.474
OrgC	0.449 (0.125) <b>3.577</b>	0.041 (0.083) 0.494
Engage	-	-

Note: Significant paths indicated in bold; Psych = Psychological health; Satisf = Satisfaction with work-life; OrgC = Organisation commitment; Engage = Work engagement; Opt = Optimism; SE = Self-efficacy;

Table 4.25 Indirect effects of ETA on ETA

	PsychH	Satisf	OrgC	Engage
<b>PsychH</b>	-	-	-	-0.016 (0.075) -0.209
<b>Satisf</b>	-	-	-	0.296 (0.080) <b>3.710</b>
<b>OrgC</b>	-	-	-	-
<b>Engage</b>	-	-	-	-

**Note:** Significant paths indicated in bold; PsychH = Psychological health; Satisf = Satisfaction with work-life; OrgC = Organisation commitment; Engage = Work engagement; Opt = Optimism; SE = Self-efficacy;

From tables 4.24 and 4.25 it is evident that the significant paths in the model include (indirect<sup>7</sup> effects):

- Optimism on Psychological Health, mediated through Engagement
- Optimism on Satisfaction with work-life, mediated by Engagement and Organisational Commitment
- Optimism on Organisation Commitment, mediated by Engagement
- Engagement on Satisfaction with work-life, mediated by Organisational commitment

<sup>7</sup> Indirect effects are only interpreted when all of the sub-paths in the model are significant, for the respective path that is being interpreted. For example, a significant indirect effect of Optimism on Satisfaction is evident in this model, as the paths from Optimism to Engagement, Engagement to Organisational commitment, and Organisational commitment to Satisfaction with work life are all significant.

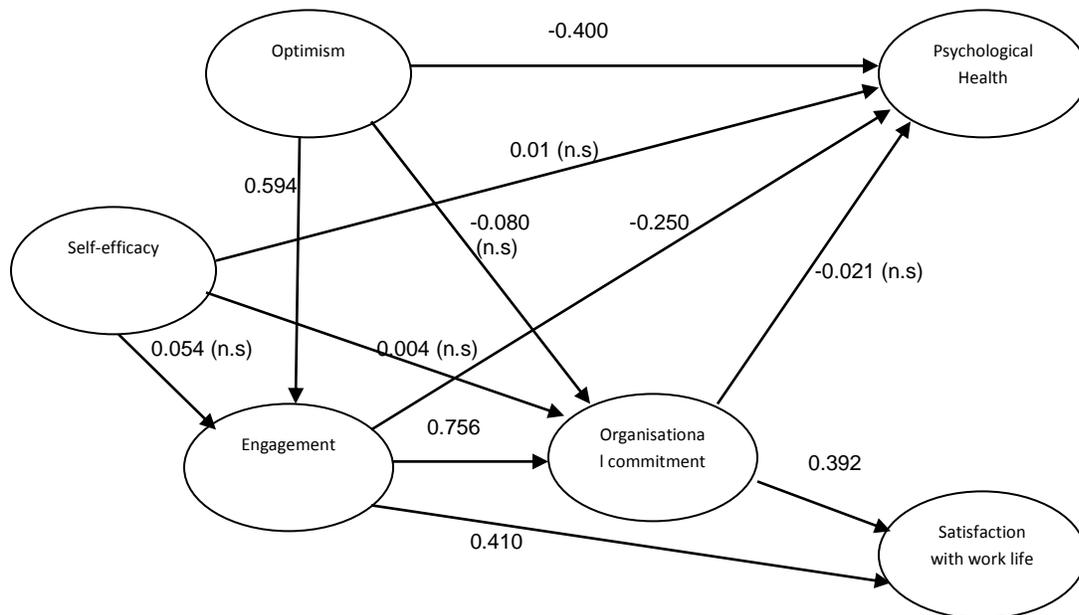


Figure 4.1 Salutogenic Model of Occupational Wellbeing

Figure 4.1 indicates the parameter estimates for all the hypothesised paths in the structural model that was fitted to the data. Non-significant paths are clearly indicated in the figure.

In light of results presented here, the following observations can be made:

- Optimism directly impacts on psychological health, as well as through an indirect link through engagement. Optimism furthermore has an indirect bearing on both organisational commitment, and satisfaction with work-life through work engagement.
- No causal associations between self-efficacy and any of the research variables included in the model were evident. This phenomenon will be elaborated upon in greater detail in chapter 5.

#### 4.4 SUMMARY

The purpose of this chapter was to report on the research results obtained in this study. Within this chapter the analyses of the data was discussed in terms of the specific research objectives formulated within each of the research goals, as specified in the preceding chapters. The reported results were elaborated upon with specific reference to the relevant literature. In the chapter to follow the results will be consolidated, the

limitations of this study will be noted, and recommendations for future research will be outlined.

## **CHAPTER 5**

### **CONCLUSION**

#### **5.1 INTRODUCTION**

The research findings of this study were presented and discussed in chapter four. In this final chapter, an overview of these results, as well as general conclusions related to the empirical evidence acquired will be considered. References to, and comparisons with, applicable literature and previous research will also be presented. This chapter concludes with an indication of the limitations of this study, as well as recommendations for future research within this domain.

Strain and stress-related diseases are ever-increasing phenomena in the contemporary organisation. Turner, Barling and Zacharatos (2000) attribute this to the changing nature of work that has been characterised by aspects such as greater flexibility, multiple careers, short-term employment, and rapidly changing environments. As a natural consequence of globalisation, and the resultant demand to compete against international markets, employees are increasingly subjected to great uncertainty and insecurity. The challenges that employees and employers consequently face, do not only reflect their relations with the external environment, but also dictate and affect the inner life of organisations. An amalgamation of conditional employment relationships, and fast-changing competitive structures may almost certainly intensify the nature of work, for both employees and employers alike (Sennet, 1998). Amid these conditions, it is simple to grasp why burnout have become commonplace, and why employees are progressively searching for a notion of perceived meaning that underlie their efforts.

This nature of the 21<sup>st</sup> century business environment has consequently warranted a novel perspective from which to view work and it is argued that in order to foster a more positive experience of work, there needs to be a dedicated commitment from both the employee and the organisation, to improve the quality of work life (Turner et al., 2000). Firstly, the organisation must be developed and directed in ways conducive for the establishment of meaningful work, and secondly, employees must equip themselves with the essential resources to withstand uncertainty and find latent opportunity amidst the turbulence.

The aim of this study was consequently to investigate the relationship between personal resources such as optimism and self-efficacy, and their seeming effect on the ability of the individual to experience meaningful work (manifested in engagement to the task and commitment to the organisation), in order to establish their combined effect on the experience of work, as conceptualised in terms of occupational wellbeing. It was hypothesised that optimism and self-efficacy, as well as the subjective experience of meaning in work, are inherently connected and furthermore, linked to higher levels of perceived occupational wellbeing among employees.

At the outset of this study, occupational wellbeing was defined in terms of the viewpoints presented in the literature on positive psychology. Although supportive of the notion of physical and psychological health, positive psychological scholars argue for the inclusion of an aspect of wellbeing extending beyond the scope of health to incorporate personal advances towards higher level functioning and self-actualisation (Hofmann & Tetrick, 2003; Pratt & Ashforth, 2003). The conceptualisation of wellbeing in this study was interpreted in line with this view, and accordingly, a measure of psychological health, as well as a measure of general satisfaction with work-life was utilised.

## **5.2. FINDINGS: RELATIONSHIPS BETWEEN OPTIMISM, SELF-EFFICACY, MEANINGFULNESS AND OCCUPATIONAL WELLBEING**

### **5.2.1 Optimism and Occupational wellbeing**

The conceptualisation of optimism is firmly rooted in motivational theories of expectancy-value models where it is assumed that behaviour reflects the pursuit of goals that can either be typified in terms of desired states, or actions. Consequently, the more imperative a certain goal is to an individual, the greater its value (Carver & Scheier, 1998). In turn, the expectation component refers to the confidence of the person that the goal can be achieved. If the attainment of a specific goal appears unlikely, people may withdraw their effort. People who are assured about reaching a positive outcome will persist even in the face of severe difficulty (Carver et al., 2010). Optimism can accordingly be described as the capacity to foster positive expectations of the future, despite uncertainty and adversity.

In this study, it was firstly hypothesised that a significant positive relationship will exist between optimism and occupational wellbeing. As anticipated, a strong and significant correlation was found between optimism and the two components used to conceptualise wellbeing, namely psychological health and satisfaction with work-life. That is, higher levels of optimism will most likely be associated with higher levels of wellbeing as it pertains to both the health, and the satisfaction domain. The role that optimism play in the establishment of a sense of personal wellbeing has been duly recognised in contemporary research studies. Most notable is research in areas where optimism has been associated with a reduced risk for depression (Alloy, Abrahamson, Whitehouse, Hogan, Panzarella & Rose, 2006) and buffers against stressful life events as a result of the effect of positive coping mechanisms (Ellicott, Hammen, Gitlin, Brown & Jamieson, 1990). Furthermore, on a broad level, optimism is associated with other factors such as socioeconomic success and supportive social relationships, which, as a whole, have protective effects for both mental and physical health (Kawachi & Berkman, 2001). Overall, the construct of optimism may equip individuals with improved cognitive, coping and contextual resources, conducive to psychological health promotion and mental wellbeing, also in the workplace.

### **5.2.2 Self-efficacy and Occupational wellbeing**

Self-efficacy is generally regarded as the basis of human agency because of its central role in the self- regulation of motivation through goal challenges and outcome beliefs (Bandura, 2001). Self-efficacy is usually defined in terms of its domain specificity although some have contended for the conceptualisation of a generalised sense of self-efficacy which encompasses an extensive and constant sense of personal skill to deal effectively with a variety of stressful circumstances (Schwarzer & Jerusalem, 1999; Sherer et al., 1982). General self-efficacy accordingly reflects a generalisation across a variety of spheres of individual performance in which people judge how efficacious they are, and can thus explain a range of behaviour and coping outcomes when the framework is less explicit. As general self-efficacy can be applied when focusing on multiple behaviours at once (Luszczynska, Gibbons, Piko & Tekozel, 2004), it was preferred for the purpose of this study, as the integration of various behaviours was integral in the establishment of a model of occupational wellbeing.

This study proposed a significant positive relationship between self-efficacy and both aspects contained in the conceptualisation of occupational wellbeing. This was consequently found to be well supported in the correlational data. The literature provided during the course of this research focused on the role of high efficacy beliefs in the feat of establishing health promoting behaviours, as well as creating positive affective states instead of negative ones, such as anxiety, which may elevate stress associated with psychosomatic illness (Bandura, 1997). Perceived self-efficacy furthermore equips individuals with the confidence that they can utilise the necessary skills for coping with stress, resisting temptation, engaging in self-regulation, and mobilising the resources required to meet situational demands (Chen, Gully & Eden, 2001; Schwarzer & Jerusalem, 1999). Once an action has been taken, people with high self-efficacy will dedicate more effort and persevere for longer than those low in efficacy beliefs and will consequently recognise that they are able to defeat obstacles and focus on opportunities (Bandura, 1997). Given the correlational results reported in this study, it would seem reasonable to conclude that the construct of self-efficacy indeed has been shown to have the potential to facilitate better occupational wellbeing in the current sample.

### **5.2.3 Meaningfulness and Occupational wellbeing**

Within the circles of positive psychology, scholars regard happiness, fulfilment, generativity, and other forms of positive wellbeing as the topmost point of human functioning and moreover, thriving. Meaning is said to be integral in the cultivation of all of these (Baumeister & Vohs, 2000). Within the organisational domain, Baumeister (1991) contends that during the course of one's work-life, one strives to fulfil needs for purpose, values, self-efficacy and self-worth. This notion was expanded upon to include the views of POS to conceptualise meaning for the purposes of this study. Consequently, an aspect of commitment and belonging to the organisation, as well as an aspect of engagement in one's job was integrated to define the manifestation of meaningfulness in, and at work, in this study.

It was anticipated that significant positive relationships would emerge between the components of meaning and those of occupational wellbeing. The hypotheses were

consequently confirmed to the effect that higher levels of perceived meaningfulness were associated with higher levels of experienced occupational wellbeing. Previous evidence in support of these findings has been noted (eg. Britt, Adler & Bartone, 2001; Paullay, 1991) and the 'search for meaning' as process and 'meaning as outcome' have been integrated as key determinants in various theories of psychological adjustment to severe stress. These include Taylor's (1983) Theory of Cognitive Adaptation, Thomson and Janigian's (1988) 'Life Schemes Framework', and Park and Folkman's (1997) elaboration of the 'Transactional Model of Stress and Coping'. Integral in the process of making meaning, is the extent to which individuals can control their expectations of good versus bad outcomes (Lee, Cohen, Edgar, Laizner & Gagnon, 2002) to the extent that positive appraisals may be conducive to wellbeing. Various organisational researchers have argued that meaningfulness is related to - and may even be a distinguishing quality of - psychological and physical health (Baumeister, 1991; Dunn, 1996; Ryff & Singer, 1998; Treadgold, 1999). This notion was supported in the current study.

#### **5.2.4 Structural Salutogenic Model of Occupational Wellbeing**

The purpose of the views presented in this study was to provide an initial premise for conceptualising occupational wellbeing from a salutogenic perspective. Throughout this research, the question of what constitutes human wellbeing in light of notions on optimal functioning and personal flourishing was posed. Although only a fragment in a growing body of research, this study leaned increasingly towards models of wellbeing that is no longer explained only in terms of the absence of ailment. Instead, the Positive Organisational Scholarship paradigm was used to formulate a framework of positive traits and affective states that was posited to influence the individual experience of health and wellbeing. Optimism, self-efficacy, and the individual experience of meaningfulness was deemed appropriate mechanisms for furthering the understanding of what makes people thrive at work. Above and beyond the solitary effects that these constructs may have on the incidence of occupational wellbeing, a complex nomological net (i.e. the structural Salutogenic Model of Occupational Wellbeing) was proposed and investigated, which intended to explain the inherent connection and working of the constructs in relation to each other, in order to explicate the complexity that underlies

occupational health. On a correlational level, significant associations existed between all the constructs. However, when the structural model results were reviewed, not all of the proposed paths were significant. The results of the model, however, provide some important insights into the complexity of predictors/variables that would affect occupational well-being, when studied together.

Through the literature reviewed on optimism, self-efficacy and meaningfulness, a recurring theme emerged that appears to be based on personal appraisals of situations and resultant expectations of anticipated outcomes. For example, optimism can be described in terms of a favourable outcome expectancy (Carver & Scheier, 1998), self-efficacy, in turn, entails expectations about outcomes based on one's proficiency in specific spheres (Bandura, 1997), while the process of meaning making involves the ability to influence one's expectations in a certain direction (good or bad) (Lee et al., 2002). This can consequently be regarded as the premise of their association with each other, as well as to the outcome of occupational wellbeing.

Drawing from Fredrickson's broaden and build theory (1998), the above association will be expanded in order to argue that, on their own, as well as in conjunction with each other, these variables are rooted in a similar framework that may elicit positive emotions to establish and maintain durable, long-term, individual and organisational wellbeing. That is, positive emotional appraisals that stem from optimism and self-efficacy, may result in feelings of meaningfulness (e.g. manifested in being engaged and committed to work), and may resultantly produce better occupational well-being (i.e. psychological, and more satisfaction). At first, it may appear that positive emotions are mere characteristics of those experiencing high levels of wellbeing. Naturally employees who are joyful or content are not, at that point in time, burdened by negative emotions. In line with this notion, the general balance of people's positive and negative emotions has been shown to reflect subjective wellbeing (Diener, Sandvik & Pavot, 1991). Fredrickson (1998) however argue that this is a very narrow view of the intricate role of emotions and have hypothesised that positive emotional appraisals may, in fact, produce optimal individual functioning. This notion was later expanded to include the contributory role of positive emotions in optimal organisational functioning as well

(Fredrickson, 2003). The consequence to employees is that the cultivation of positive emotions in themselves and others, not just as end-states, but also as a means to achieve individual and organisational transformation and optimal functioning over time, is indeed possible. Fundamentally then, the broaden-and-build theory asserts that positive emotions (such as is associated with optimism), along with the psychological expansion they prompt in individuals (the ability to create meaning), can serve as the missing links between the fleeting experiences of individual organisation members and long-range markers of optimal organisational functioning. Positive emotions can transform organisations because they expand upon people's routine modes of thinking, and in doing so, make organisational members more adaptable, accommodating, empathic, and creative, amongst others. To the extent that organisational outcomes are dependent on these individual-level attributes, positive emotions encountered within organisations may also improve organisational performance and functioning. Over time, such broadening is argued to build stronger organisational associations, improved organisational climates and cultures, and exceptional organisational outcomes (Fredrickson, 2003).

Fredrickson (2000) further argue that in the exploration to find ways of developing positive emotions, it should be noted that emotions cannot be directly instilled. Generally, emotions follow from appraisals of personal meaning and as such, the most prolific opportunities for cultivating positive emotions may be to help others find positive meaning in their daily work experiences. Perhaps the most important implication for this research stems from the perspectives that positive meaning at work can be drawn from notions of personal competence (self-efficacy), achievement, involvement (engagement), significance, and social connection (organisational membership/commitment) (Folkman, 1997; Ryff & Singer, 1998; Folkman & Moskowitz, 2000; Fredrickson, 2000).

In line with the views presented above, the results of the SEM indicated significant causal (direct and indirect) relationships between optimism and occupational wellbeing, defined in terms of psychological health and satisfaction with work-life. These relationships were demonstrated, firstly, by means of evidence of a strong direct link

between optimism and psychological health. Secondly, it was evident in an indirect association in which optimism causally influenced work engagement, which in turn affected psychological health (i.e. engagement as a mediator in the optimism, psychological health relationship). There was, thirdly, evidence of optimism's effect on satisfaction with work-life, mediated by engagement and organisation commitment. However, this effect (optimism on satisfaction with work-life) was also evident without the mediation effect of organisational commitment. Conversely, the results revealed that self-efficacy had no significant bearing on any of the variables related to the conceptualisation of the salutogenic model of occupational wellbeing. It is mainly argued that this finding may be attributed to the selection of a generalised measure of a variable with a recognised domain-specific nature. In addition, self-efficacy is clearly less salient in terms of eliciting positive emotions, which forms the basis of the argument for the model (rooted in POS). For example, self-efficacy has been described by Stajkovic and Luthans (1998) as people's beliefs about their ability to assemble the motivation, cognitive resources, and routes of action necessary to perform a specific task within a given context. In this study, self efficacy was simply defined as a general set of expectations that the individual carries into new situations (Sherer et al., 1982). Hence, the positive emotional arousal capacity of self-efficacy was probably less prominent in explaining variance in occupational wellbeing, when entered into the model with optimism, which by definition has a strong positive emotional arousal capability. This finding will however be addressed in greater depth in the limitations section of this research.

Based on the findings presented above, four fundamental inferences can be made from the results of this study. First, the good structural model fit that was obtained in the study indicates the extent to which the compilation of the model is empirically validated. That is, the complexity of the phenomenon of occupational wellbeing can, to an extent, be explained in terms of the chosen variables. This does not, however, affirm the nonexistence of other variables that may possibly aid the understanding of the intricacies that underlie occupational wellbeing.

Secondly, the significant paths in the model divulge important information regarding the psychological resources believed to exert the greatest influence on occupational wellbeing. From the results, it is evident that optimism plays a particularly important role in the prediction of high levels of occupational wellbeing, while none of the paths emanating from self-efficacy (when used in conjunction with optimism) were found to be significant when accounting for meaningfulness and occupational wellbeing. This may probably be, in part, attributed to the notion that optimism may be a fundamentally more salient predictor of positive emotions and appraisals than self-efficacy.

A third conclusion from the results is that of the central role of engagement in the prediction of occupational wellbeing. Engagement was found to be a significant predictor of psychological health, organisation commitment, as well as satisfaction with work-life, while optimism, and not self-efficacy, predicted engagement. This points towards the central role of engagement in wellbeing, and suggests that organisational interventions geared towards increasing engagement may hold a manifold of positive outcomes, both for individual and organisational wellbeing. To this end, Luthans and Youssef (2004) have argued that optimism can indeed be cultivated. Given the results of this study organisations would benefit from designing and implementing training programs, targeted at developing realistic optimism in their employees in order to increase their engagement, and reap the positive outcomes known to be associated with better occupational wellbeing (as a result of elevated engagement).

Finally, the model provides obvious support for the argument of meaningfulness as a significant predictor of occupational wellbeing. Not only did engagement predict both psychological health and satisfaction directly, but confirmation was additionally obtained for the significant role of commitment in the prediction of satisfaction with work-life (although not psychological health). These findings serve as sufficient evidence for the argument that manifest meaningfulness may play a cardinal role in occupational wellbeing.

### **5.3 LIMITATIONS OF THIS STUDY AND RECOMMENDATIONS FOR FUTURE RESEARCH**

As with any research endeavour, this study has several limitations which may have influenced the overall findings. Firstly, all the data was obtained through the use of self-report instruments. Babbie and Mouton (2002) contend that self-reporting is frequently utilised as a preferred method of data collection in the social sciences, although Conway (2002) asserts that the magnitudes of effects may be biased as a result of common method variance or the inclination to answer consistently across questions (response bias).

One such response bias which could have affected the outcomes of this study is social desirable responding. Social desirable responding occurs when respondents tend to create a more auspicious view of themselves by over-reporting admirable attitudes and behaviours, and under-reporting attitudes and behaviours that they feel are not socially acceptable or respected (Zammuner & Galli, 2005). Generally, this is a great concern in studies relying only on self-report questionnaires. This study made use of six self-report measures, and accordingly, the results from the data should be interpreted in terms of this possible limitation. Especially in terms of measuring wellbeing, future research may greatly benefit from including more objectively measured variables such as organisational records to determine actual working time, turnover and absenteeism rates, peer and supervisor ratings, as well as expert ratings for social functioning and support, performance and job features, medical consumption, and physiological and immunological markers as indicators of health (Schaufeli et al., 2008).

With regards to the measurement of optimism, numerous researchers have indicated that the original Life Orientation Test has a substantial shared variance with negative affect or neuroticism (Williams, 1992; Chang, D'Zurilla & Maydeu-Olivares, 1994). Although the authors have revised the original test (Scheier et al., 1994), exploratory factor analyses and CFA evidence obtained in the current study revealed that the LOT-R still measures more than one latent factor, when applied to South African respondents. This is similar to other South African research conducted on LOT-R (e.g. Roux, 2010). The study and consequent measurement of dispositional optimism

accordingly deserves further attention on the South African research agenda and should be subjected to refinement in order to increase its applicability to organisational settings. These findings also indicate the necessity of investigating the factorial structure of the LOT-R before substantive data analyses are conducted, whenever the instrument is utilised in South African research studies.

A third limitation of this study could be attributed to the use of an instrument designed to measure generalised self-efficacy. Self-efficacy is described by Stajkovic and Luthans (1998) as people's belief about their ability to assemble the motivation, cognitive resources, and routes of action necessary to perform a specific task within a given context. Additionally, Maddux (2004) points out that self-efficacy should not be mistaken for self-esteem, but rather that efficacy beliefs within a specific discipline will contribute in part towards the experience of elevated self-esteem, although only in direct proportion to the significance placed on that specific domain. It is thus evident that prominent research within the self-efficacy sphere continues to associate self-efficacy with context-specificity. It may accordingly be argued that although a general measure of self-efficacy was utilised for the purposes of this research (GSES), research participants instinctively responded to the questionnaire by selecting a domain-specific area of their life to serve as backdrop of their own beliefs in that area. This may imply that the personal weight assigned to efficacy beliefs in a certain domain is not necessarily the domain in which individuals assert their greatest proficiency. This may have attenuated the research results and could have influenced the resultant effect of self-efficacy in the structural Salutogenic Model of Occupational Wellbeing.

To this end it should be mentioned that several studies have corroborated the lower correlations found between various research constructs and generalised self-efficacy when compared to domain-specific self-efficacy (Luszczynska & Schwarzer, 2003; Petosa, Suminski & Hertz, 2003). In support of the notion that measures of generalised self-efficacy may not be good predictors of self-efficacy, research studies often focus on self-efficacy as a mediator or moderator variable, as opposed to concentrating on its direct relationship with other constructs (Jimmieson, 2000; Salanova et al., 2000; Xanthopoulou, 2007), as was the case in this study. Future research may accordingly

explore the area of GSE in comparison to domain-specific self-efficacy, as well as the discrepancy of using self-efficacy as an exogenous variable versus a mediator variable. A further limitation of this study could be attributed to the relatively small sample size across the three diverse organisational groups who participated in the study, as well as the convenience sampling method that was employed. Both these aspects restrict the generalisability of the results to larger populations. A greater degree of confidence can be placed in the results of studies with large sample sizes and, therefore, this research could have benefited from larger sample sizes amongst groups. It could, however, be argued that the inclusion of different institutions in the study introduced the advantage of nullifying the effect of organisation-specific factors that may have influenced the results.

Finally, future research could employ longitudinal research designs in order to determine the long-term effects of optimism, self-efficacy and meaningfulness on experiences of occupational wellbeing. To this end, the research of Luthans et al. (2004) on the higher order construct of PsyCap (of which optimism and self-efficacy are key components) have shown valuable results regarding the state-like properties of these variables (as opposed to a dispositional, fixed and trait-like nature), that can be developed within organisational members through workplace interventions and proactive management. Moreover, evidence for the durability of interventions to enhance PsyCap have also been established, as it is based on the premise that the psychological states incorporated in its definition are validly measurable, and can result in performance improvement. Thus, positive psychological capital such as optimism and self-efficacy can be managed and its effectiveness objectively assessed, both in terms of enhanced positive psychological capital and bottom-line impact. The implication for this study, specifically as it pertains to optimism, is that strong support was obtained for its significant role in establishing a sense of personal meaning and greater levels of individual wellbeing within the organisation. This may point to the importance of interventions to enhance affective states, such as optimism, in the cultivation of positive emotions which may, in turn, broaden employees' thought-action repertoires to enhance human flourishing and organisational efficiency in the 21<sup>st</sup> century milieu.

## 5.4 CONCLUSION

Despite its limitations, the current study revealed insights into the salutogenic structure of occupational wellbeing, as well as its complexity in terms of the nomological net that underlies it in terms of the positive psychological antecedents such as optimism, self-efficacy, and meaningfulness.

From a global perspective, this study aimed to depart from the traditional notion of occupational wellbeing characterised as the absence of strain and stress-related diseases (Sheldon & Lyubomirsky, 2004). Instead, it focused on a more dynamic interpretation of health, in which the end goals are viewed as states of individual flourishing, ennoblement, and engagement. Arguments were presented in favour of the cultivation of personal resources, such as optimism and self-efficacy, as well as the establishment of active efforts to instil meaningfulness in, and at work, in order to generate a sense of enhanced human functioning. Most living systems displays tendencies toward the heliotropic effect – a movement toward the positive, actively steering away from the negative (Cameron et al., 2003). Thus, the rationale for focusing on human strengths and virtues, potential, achievements, opportunities, positive emotions and elevated moods may ultimately converge to lead to a fusion of individual and organisational strengths. In turn, this may result in the activation of positive energy and, consequently, to organisational wellbeing and increased performance. As a final argument, optimism, self-efficacy and meaningful experiences were theoretically linked to the kind of appraisals that are believed to cultivate positive emotions. In turn, empirical evidence has shown that positive emotions create self-reinforcing spirals that broaden thought-action repertoires, that is, individuals, and organisations develop more human and intellectual resources, as well as social and psychological wealth (Fredrickson, 2000). From this perspective, the notion of occupational health and wellbeing can be built upon to encompass higher level individual functioning and the opportunity for reaching a state of actualisation. Organisations should accordingly take full advantage of developing practices conducive to an enhanced sense of personal wellbeing, such as growing the optimism and self-efficacy of their employees, as well as creating opportunity for meaningful connections and work.

It is evident that empirical research on the positive constructs included in this study, is only just crystallising. Future research needs to explore further ways that organisations can intervene to generate meaningfulness, and augment optimism and self-efficacy, to impact positively on perceptions of occupational wellbeing for continued and sustainable growth, development and empowerment.

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## APPENDIX ONE

### STELLENBOSCH UNIVERSITY CONSENT TO PARTICIPATE IN RESEARCH

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#### **Optimism, self-efficacy and meaningfulness: A salutogenic model of occupational wellbeing.**

You are asked to participate in a research study conducted by Ria Steyn (BComm Honours from the Department of Industrial Psychology and People Management at the University of Johannesburg). The results and findings of this study will contribute to her Master's dissertation. You were selected as a possible participant in this study because you are an employee working in a South African organisation which is being utilised for this research.

#### **1. PURPOSE OF THE STUDY**

The purpose of the present study is to investigate the relationship between optimism, self-efficacy, and meaningfulness, as well as the effects thereof on occupational wellbeing. A model of best fit, depicting the interrelationship between the constructs, will be developed and tested.

#### **2. PROCEDURES**

The participants are required to complete the questionnaires at a specific time that will be scheduled. The questionnaire will take approximately 20 minutes to complete. There are no right and wrong answers.

#### **3. POTENTIAL RISKS AND DISCOMFORTS**

There are no potential risks or discomforts envisaged in this study.

#### **4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY**

The participants will benefit through a fostered, improved understanding of the interrelationships between optimism, self-efficacy and meaningfulness that will equip them with means to develop and maintain their own elevated levels of occupational wellbeing. The organisation may similarly incorporate initiatives aimed at enhancing employees' occupational wellbeing.

#### **5. PAYMENT FOR PARTICIPATION**

Unfortunately, there will be no compensation, but you have contributed to a better understanding of occupational wellbeing and the variables which affect it!

#### **6. CONFIDENTIALITY**

Any information that is obtained in connection with this study and that can be identified with you will remain confidential. Confidentiality will be maintained by means of a reference number assigned to your completed questionnaires i.e. your name will not appear anywhere and your manager WILL NOT HAVE ACCESS to this information. Data will be securely stored at the Department of Industrial and Organisational Psychology, University of Stellenbosch and only my Supervisor and I will have access to the data.

#### **7. PARTICIPATION AND WITHDRAWAL**

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

## IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact me, Ria Steyn (Principal Researcher) on 021 408 7592 or my supervisor, Dr Gina Görgens-Ekermans (Stellenbosch University) on 021 808 3596 or at [ekermans@sun.ac.za](mailto:ekermans@sun.ac.za).

### 8. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms M Fouche ([mfouche@sun.ac.za](mailto:mfouche@sun.ac.za)) at the Division of Research Development, at Stellenbosch University.

### SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

I have been explained the purpose and nature of this study, and fully understand all that it entails. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. I also understand that I have been invited to participate, that my agreeing is fully voluntary, and that I can withdraw at any time.

\_\_\_\_\_

**Name of Subject/Participant**

\_\_\_\_\_

**Signature of Subject/Participant**

\_\_\_\_\_

**Date**

### SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to \_\_\_\_\_  
[*name of the subject/participant*] and/or [his/her] representative \_\_\_\_\_  
[*name of the representative*]. [He/she] was encouraged and given time to ask me any questions.

\_\_\_\_\_

**Signature of Investigator**

\_\_\_\_\_

**Date**