

**THE ROLE OF POSITIVE ORGANISATIONAL
BEHAVIOUR IN EMPLOYEE SELF-DEVELOPMENT
AND ORGANISATIONAL OUTCOMES**

Johannes Joachim Prinsloo de Waal

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FOR THE READER'S ATTENTION

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- The thesis is submitted in the form of research articles. The editorial style specified by the *South African Journal of Industrial Psychology* (which agrees largely with the APA style) is used, but the APA guidelines were followed in constructing tables.
- The revised research proposal forms the first chapter of the thesis. Therefore, this chapter is presented in a different voice when compared to subsequent chapters that report on actual results.
- Each chapter of this thesis has its own reference list.

**ALL THE GLORY AND PRAISE TO GOD MY HEAVENLY
FATHER AND SAVIOUR WHO BLESSED ME WITH
COUNTLESS BLESSINGS AND OPPORTUNITIES**

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SUMMARY

Title: The Role of Positive Organisational Behaviour in employee self development and organisational outcomes

Key words: Positive Organisational Behaviour, Positive Psychology, Hope, Optimism, Self-Efficacy, Resilience, Job Stressors, Engagement

Businesses are operating in extremely turbulent and dynamic environments - globally and nationally - and have to adapt to ever-increasing changing circumstances, as well as cope with severe pressure to increase profit margins in an attempt to ensure their economic survival. Adding to this challenge is the changing employment relationship characterised by diversity, complexity and high levels of work stress which contribute to poor physical and mental health and employee disengagement. Individuals are strongly influenced by their work environments, and the well-being of employees is therefore critical as it relates directly to work performance.

Positive Organisational Behaviour (POB) emerges within the framework of the Positive Psychology movement. POB takes Positive Psychology to the work environment as it studies and applies positively orientated human resource strengths and psychological capabilities that can be measured, developed and effectively managed.

The general objective of this research was to conceptualise the components of Positive Organisational Behaviour (POB) (hope, optimism, self-efficacy, and resilience) from the literature and establish the reliability of established international psychometric measures in a South African sample. Additionally, the relationship between POB and other work-related phenomena, such as job satisfaction and turnover intention, work stress and engagement are also of interest.

Various research designs were employed to obtain the necessary data. First, a cross-sectional survey design was used to obtain a sample from the study population at a particular point in time. Data was gathered from all employees in a specific business unit in a chemical factory. In addition to the cross-sectional design, a one-group pre-test post-test design was also utilised to evaluate the effects of a self-development programme on POB. This design also allowed for the investigation of the role of POB in the link between organisational stress and employee health. Finally it was possible

to test the cross-lagged effects between measurements of POB and Engagement, and investigate causality. The following measuring instruments were used in attaining the objectives of the empirical study, namely a biographical questionnaire, the Dispositional Hope Scale, Life Orientation Test-Revised (LOT-R), Self-Efficacy Scale, Ego-Resiliency Scale, Lack of Role Clarity, Role Conflict, Quantitative and Qualitative Role Overload, Job Satisfaction, Turnover Intention, Quantitative and Qualitative Job Insecurity, Neuroticism, General Health Questionnaire (GHQ) and the Utrecht Work Engagement Scale (UWES).

The SPSS Programme was used to carry out statistical analysis to describe the participants in terms of demographic characteristics, investigate the reliability and validity of the measuring instruments, and reveal the nature and relationship of the variables in terms of descriptive statistics, analysis of variance, correlation coefficients and multiple regression analysis. The Amos Programme was used to carry out structural equation modelling.

Exploratory and Confirmatory factor analysis established the validity of each of the four scales (hope, optimism, self-efficacy and resilience) that constitute POB and showed that only one factor explains the variance in the data, and that the individual scales relate positively to POB. The study provides support for the core POB construct in a heterogeneous South African sample and provides a new instrument for its measurement.

Results confirmed a negative relationship between job satisfaction and turnover intention over time. No relationship between POB, job satisfaction and turnover intention could be found in this research. The only significant contributor to participants' turnover intention over time was their baseline levels of turnover intention and their job satisfaction at both baseline and at the second measurement. The moderating role of POB in the relationship between turnover intention and job satisfaction was also not supported. No evidence could however be found that the training programme had a significant contribution to increase job satisfaction and POB with the subsequent lower levels of turnover intention.

Results indicated that only the job stressors, quantitative and qualitative job insecurity and the lack of role clarity hold predictive value with regard to POB (T1) and general health. It could also be established that POB (T1) acts as a partial mediator between

job stressors and general health. The negative effect of job stressors can therefore be minimised in the presence of POB. A positive correlation between the stress factors (lack of role clarity, role conflict, role overload and job insecurity), neuroticism and general health is evident from the results of this research.

Results also confirmed a positive relationship between the aggregate engagement and POB scores, as well as the positive relationship between the total POB and engagement score. Given the positive nature of all the constructs measured, the inter-correlations were significant at both Time 1 and 2. Results revealed that POB at Time 1 did not predict engagement at Time 2. Strong evidence was found, however, that engagement at Time 1 predicted POB at Time 2. This finding is in line with research which suggests that engagement can facilitate the mobilisation of job and personal resources. In closing, recommendations for the participating organisation and future research were made.

OPSOMMING

Titel: Die Rol van Positiewe Organisasie Gedrag in die ontwikkeling van werknemers en organisasie-uitkomst

Sleutelterme: Positiewe Organisasie Gedrag, Positiewe Sielkunde, Hoop, Optimisme, Selfvertroue, Psigologiese Veerkragtigheid, Werkstressors, Werksbegeestering

Organisasies funksioneer internasionaal en plaaslik in uiterste turbulente en dinamiese besigheidsomgewings en word dus genoodsaak om aan te pas om die eksterne druk in 'n voortdurend veranderende omgewing te hanteer om sodoende winsgrense te verhoog en om ekonomiese oorlewing te verseker. 'n Veranderende werknemer-werkgewer verhouding wat deur kompleksiteit en hoë vlakke van werkspanning gekenmerk word, gee aanleiding tot swak fisiese en psigiese gesondheid. Individue word verder sterk beïnvloed deur hulle werksomgewing, en die welstand van werknemers is dus uiters belangrik omdat dit direk verband hou met hulle werkspreslasie.

Positiewe Organisasie Gedrag (POG) vind sy beslag binne die raamwerk van die Positiewe Sielkundebeweging. POG neem Positiewe Sielkunde na die werksplek deur middel van die studie en toepassing van positief-georiënteerde menslike sterk-punte, asook sielkundige vermoëns wat meetbaar en ontwikkelbaar is en effektief bestuur kan word.

Die algemene doelwit van die navorsing is om die komponente van POG (hoop, optimisme, algemene selfvertroue en psigologiese veerkragtigheid) deur middel van die navorsingsliteratuur te konseptualiseer en die betroubaarheid van internasionaal gevestigde meetinstrumente in 'n Suid-Afrikaanse studiepulasie vas te stel. Die verhouding tussen POG en ander werksverwante verskynsels soos werksatisfaksie, die intensie om te bedank, werkspanningsfaktore en werksbegeestering is egter ook van belang.

Verskeie navorsingsontwerpe word toegepas om die doelwitte van die studie te bereik. Eerstens word gebruik gemaak van 'n dwarsdeursnee ontwerp. Data van die studiepulasie is op 'n spesifieke tyd verkry en het alle werknemers van 'n spesifieke besigheidseenheid in 'n chemiese aanleg/fabriek ingesluit. 'n Een-groep,

voor-toets na-toets navorsingsontwerp word addisioneel gebruik om die effek van 'n opleidingsprogram op POG te ondersoek. 'n Longitudinale navorsingsontwerp maak dit verder moontlik om die kruis-sloeringseffek tussen POG en werksbegeestering te toets en sodoende die oorsaaklike verband te bepaal. Die verskeie meetinstrumente wat in hierdie studie gebruik word, sluit onder andere in 'n Biografiese Vraelys, Disposisionele Hoopskaal, Hersiene Lewensoriënteringstoets (LOT-R), Algemene Selfvertrouetoets, Psigologiese Veerkrachtigheidstoets, Rolonduidelikheid-, Rolkonflik-, Kwantitatiewe en Kwalitatiewe Roloorladingskale, asook Werksatisfaksie-, Intensie om te Bedank-, Kwantitatiewe en Kwalitatiewe Werksonsekerheidskale, Neurotisme en Algemene Gesondheidsvraelys (GHQ), asook die Werksbegeesteringskaal (UWES).

Statistiese analise word met behulp van die SPSS Statistiese Program uitgevoer om die demografiese eienskappe, betroubaarheid, geldigheid, die aard van die verhouding van die veranderlikes en meetinstrumente, sowel as die beskrywende statistiese analise van veranderlikes, korrelasiekwasiënt en meervoudige regressie-analises te bepaal. Die Amos Statistiese Program word aangewend om die strukturele vergelykingsmodellering (SVM) uit te voer.

Ondersoekende en bevestigende faktor-analises ondersteun die betroubaarheid van elk van die vier skale (hoop, optimisme, algemene selfvertroue, psigologiese veerkrachtigheid) wat POG daarstel en toon aan dat slegs een faktor die variansie in die data verklaar, asook die feit dat dit positief bydra tot POG. Die studie ondersteun 'n kern POG konstruk in 'n heterogene Suid-Afrikaanse studiepopulasie en verskaf ook 'n nuwe meetinstrument vir die meting van POG.

Verdere resultate bevestig die negatiewe verband tussen werksatisfaksie en intensie om te bedank oor tyd. Geen verband tussen POG en werksatisfaksie en intensie om te bedank kon in hierdie studie gevind word nie. Die enigste betekenisvolle bydrae tot die deelnemers se intensie om te bedank oor tyd is hulle basisvlakke van intensie om te bedank en hulle werksatisfaksie by beide basistyd en die tweede meting. Die modererende rol van POG in die verhouding tussen intensie om te bedank en werksatisfaksie word ook nie in die studie ondersteun nie. Geen bewys is gevind wat bevestig het dat die opleidings program 'n beduidende bydrae gelewer het om werksatisfaksie en POG te verhoog met gevolglike laer vlake van intensie om te bedank nie.

Die bemiddelende rol van POG (T1) tussen werkstressors en algemene gesondheid word ook ondersoek. Resultate toon aan dat slegs die werkstressors naamlik kwantitatiewe en kwalitatiewe werksonsekerheid en gebrek aan rolonduidelikheid, voorspellings-waarde inhou vir POG (T1) en algemene gesondheid. Daar word ook vasgestel dat POG (T1) slegs 'n gedeeltelike mediërende faktor tussen werkstressors en algemene gesondheid is. Die negatiewe effek van werkstressors kan dus geminimaliseer word in die aanwesigheid van POG. 'n Positiewe korrelasie tussen die werkstressors (gebrek aan rolduidelikheid, rolkonflik, rolorlading en werksonsekerheid), neurotisme en algemene gesondheid blyk ook duidelik uit die resultate van die studie.

Resultate van die studie bevestig ook die positiewe verband tussen die totaal-tellings werksbegeestering- en POG, asook die positiewe verband tussen die totale POG en werksbegeesteringtellings. Gegewe die positiewe aard van die konstrakte wat gemeet is, is die interkorrelasie by Tyd 1 en 2 beduidend. Resultate dui aan dat POG by Tyd 1 nie werksbegeestering by Tyd 2 voorspel nie. 'n Sterk bewys is intendeel gevind dat werksbegeestering by Tyd 1, POG by Tyd 2 voorspel. Die bevinding is in ooreenstemming met ander navorsing wat suggereer dat werksbegeestering die mobilisering van werks- en persoonlike hulpbronne kan fasiliteer. Ten slotte word aanbevelings vir die deelnemende organisasie en vir toekomstige navorsing gemaak.

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CHAPTER 1

INTRODUCTION

This thesis focuses on the phenomenon of Positive Organisational Behaviour (POB) within a South African organisation. It specifically addresses issues related to validity of the construct in a non-Western context and its role in employee self-development, organisational outcomes and a theoretically related construct, Engagement.

Chapter 1 focuses on the problem statement, research objectives and research methodology. In addition to the problem statement, a conceptual overview of the most prominent research variables is presented including job stress factors (lack of role clarity, role conflict, quantitative and qualitative role overload, quantitative and qualitative job insecurity), neuroticism and general health, as well as the facets of POB (hope, optimism, self-efficacy and resilience) and engagement. A discussion of the research method follows, with an explanation regarding the research design, study population, measuring instruments and statistical analysis. This chapter concludes with an overview of the chapters comprising this thesis as well as the list of references.

1.1 PROBLEM STATEMENT

Human beings have attempted to ensure their economic survival from the earliest times in modern history, often in very difficult circumstances. The researcher is of the opinion that the need for economic survival exists in a continuously changing economic environment today. Businesses are currently under severe pressure to increase profit margins, embark on new economic initiatives and retain critical staff and customers. Friedman (2005), Liberman (2005) and Shults (2009) furthermore describe today's work environment as a dynamic global business environment, characterised by rapid economical fluctuations and technological changes with cutthroat competition to such an extent that it seems difficult to keep up with the progress.

Global business environments are constantly changing and organisations are therefore compelled to adjust to increasingly complex and fast changing environments (Giesen, Riddleberger, Christner, & Bell, 2010; Van Tonder, 2005). Furthermore organisations

experience constant pressure to improve performance and to sustain competitiveness (Coetzee & De Villiers, 2010). The Harvard Business School sees shorted time periods, technological innovations and trade agreements between countries as only but a few amongst many factors that have resulted in an altered global economy and markets (in Robbins, Judge, Odendaal, & Roodt, 2009). Barling (1999) adds to this by pointing out that as a result of altered employment relationships the kind of work people do, how much of that particular work they do and at what times they do it have also changed. Contributing to these challenges is the fact that the character of the work environment has changed considerably for those employees who remain employed (Sverke & Hellgren, 2002) and the employment relationship in the future, as in the past, is likely to be characterised by continuing diversity and complexity (Dickens, 2004). To remain competitive, organisations are ensuring closer contact with their customers and have embarked upon business practices that ensure cost effectiveness (Forrester, 2000).

As a result of the above-mentioned, adaptability, innovation, flexibility, responsiveness, decisiveness and speed are qualities without which modern companies cannot succeed (Denton & Vloeberghs, 2003). Maslach, Schaufeli and Leiter (2001) and Luthans, Luthans and Luthans (2004), however, point out that more is expected of employees in terms of time, effort, knowledge, skill innovation, flexibility and speed-to-market, while job security, career opportunities and lifetime employment are deteriorating. According to Luthans and Youssef (2004, p. 143) “there is growing evidence that human resources are crucial to organisational success, and may offer the best return on investment for sustainable competitive advantage”. A key differentiator of competitive advantage and sustained organisational performance in the modern global economy is the employees working at these organisations, also called human capital (Luthans, Luthans et al., 2004; Minervini, Meyer, & Rourke, 2003). Developing and managing employees’ knowledge, skills and experience are therefore critical success factors for sustained organisational performance and survival (Luthans, Luthans et al., 2004).

South Africa today is in no way different than the rest of the world and is not excluded from these challenges. After the 1994 elections the world has opened up for South African business, and consequently presents a new set of challenges. South African organisations experience increasing pressure to improve their performance

and sustain their competitiveness (Coetzee & De Villiers, 2010). Due to globalisation, South Africa is open to international competition (Luthans, van Wyk, & Walumba, 2004b) and South African organisations had no choice but to become more competitive to ensure the retention and protection of local markets against international competition, as well as ensuring that they are able to compete globally (Denton & Vloeberghs, 2003). The South African as well as the international business environment currently demands more of employees than during any previous period (Rothmann, 2003). South Africa's multicultural society also adds to these challenges due to the fact that the cultural diversity has an impact on organisational behaviour in South Africa (Kokt, 2003).

The scenario described above requires a paradigm shift from organisations to ensure sustainable success. As in any paradigm shift organisational leaders do not only need new methodologies and techniques, but even more important, alternative and innovative ways of thinking (Luthans, Van Wyk et al., 2004). Avolio, Luthans, & Walumbwa (2004, p. 3) note that "the unique stressors facing organisations throughout society today call for a new leadership approach aimed at restoring basic confidence, hope, optimism, resiliency and meaningfulness". Luthans (2002b, p. 698) also supports this notion as he argues that "in light of today's turbulent environment characterised by economic uncertainty, heightened geo-political unrest and threats, globalised 24/7 competition and never-ending advanced technology, the time has come to follow the lead of psychology and take a proactive positive organisational behaviour approach". Luthans, van Wyk et al. (2004) further point out that (POB) is indeed applicable to South African organisational leaders.

The response of Luthans, van Wyk et al. (2004) - with regards to the challenges faced by today's businesses environment - is similarly true for the organisation involved in this research. The organisation consists of six smaller business units, each rendering a service to internal customers within a large chemical production facility. Business units are managed by senior line managers and they in turn all report to a single business unit manager who reports to the managing director of the company. Due to current market forces all six business units are under severe economic pressure to become more cost competitive and to move from cost to profit centres.

What also makes this demand for economic survival in this particular service organisation so unique is the fact that the performance of the business is directly

related to the performance of its employees, as they have a direct impact on the quality and quantity of services rendered to internal customers and in many instances also to external customers. To add to this challenge, labour cost for example equates to 67% of the total budget. With a 12% absenteeism rate, an unacceptably high safety incident rate, skills shortages experienced in critical technical and managerial positions and an aging workforce, management is under pressure to ensure an engaged workforce for the economical survival of the particular business unit.

Taking into consideration the above-mentioned, it is clear that the ever changing work environment with its unique demands and increasing pressure impact negatively on employees and ultimately organisations. The result of these changes in the nature of the job, work environment and organisational behaviour contributes to the increase of work stress experienced by employees, which in turn affects their physical and mental health (Devereux, Rydstedt, Kelly, Weston, & Buckle, 2004; Dollard, 2003).

The researcher is further of the opinion that job satisfaction and turnover intention also contribute to the challenges faced by today's business environment. Job satisfaction impacts largely on productivity (Pienaar & Bester, 2006) and is an important motivator for employee performance (Mak & Sockel, 1999) and better service quality that makes for satisfied customers (Hartline & Ferrell, 1996; Zeithaml & Bitner, 2000). Job satisfaction can therefore be viewed as an important aspect impacting on both the individual and the organisation.

The lack of job satisfaction has, however, further negative consequences in the sense that it is regarded as a factor which strongly contributes to people's intention to leave their jobs (Darnold, 2009; Moore, 2002; Tett & Meyer, 1993; Van Dick et al., 2004; Zimmerman & Darnold, 2009). Turnover intention is a reflection of the employee's dissatisfaction with his or her job or the work environment in which the person functions (Vigoda-Gadot & Ben-Zion, 2004). When employees experience unmet career expectations pertaining to work related factors, a withdrawal reaction may be induced to handle the subsequent frustrations (Houkes, Janssen, de Jonge, & Bakker, 2003).

It is further a well-known fact that stress which might be encountered by employees at the work environment can lead to undesirable consequences for the health, well-being and morale of employees (Antoniou, Davidson, & Cooper, 2003; Cooper &

Cartwright, 1994). It does not only affect the individual, but also employers in the sense that it contributes to compensation claims, healthcare cost, disability, absenteeism and productivity losses (Cooper, Luikkonen, & Cartwright 1996; Lu, 1999 & Murphy, 1995).

According to Corville and Bernardi (1999) job stress occurs when there is a perceived imbalance between the demands of the workplace and the individuals' ability to meet these demands. It usually results in physiological and psychological reactions. Work stress is thus the interactive psychological process or condition between the individual and the situation (Cox, 1993; Di Martino, 1992). Workplace stressors further lead to emotional responses, thereby impacting on attitudes and behaviours (Rodell & Judge, 2009) and can further result in mental, physical and behavioural stress reactions such as anxiety, frustration, worry, emotional exhaustion, depression and psychosomatic diseases that could be the subsequent result (Armstrong & Griffin, 2004; Blassingame, 2003; Corville & Bernardi, 1999; Dunn, 2000). Typical stressors (which will also be studied in this research) are the lack of role clarity (or the presence of role ambiguity), role conflict, role overload and job insecurity (Beehr, 2002; Cooper & Dewe, 2004; Sverke, Hellgren, & Näswall, 2002).

Given the above-mentioned job stressors and their negative consequences on individuals and organisations, the Occupational Stress Model developed by Beehr (1995) is utilised in this research to explain the core relationship between work environment (stressors) and human consequences (strains) with the resulting impact of environmental and personal moderators which result in adaptive responses and organisational consequences. The Occupational Stress Model of Beehr (1995, in Cooper, 2002) is depicted below:

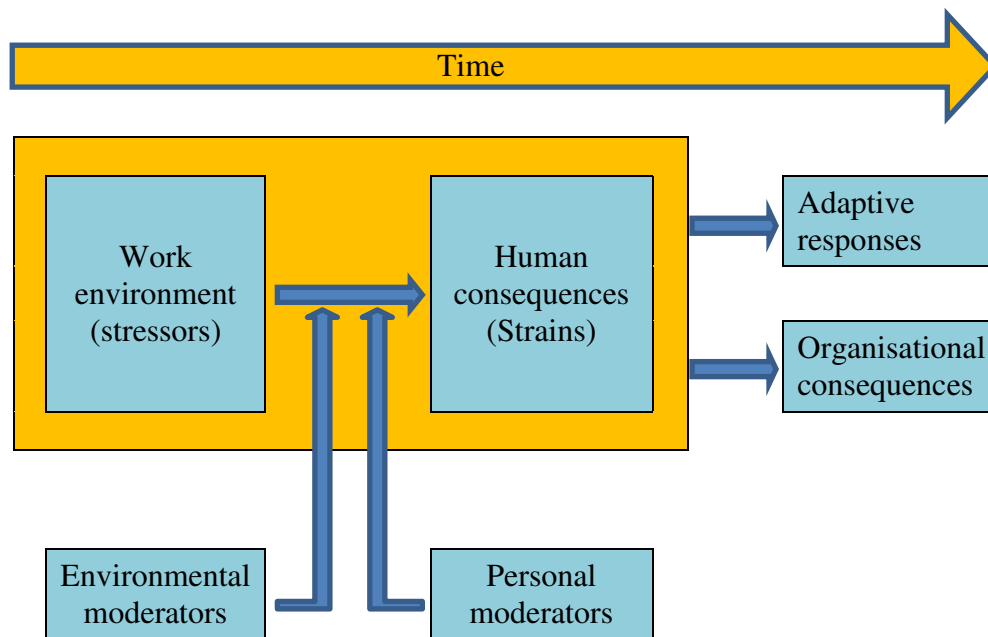


Figure 1. The Occupational Stress Model (Beehr, 1995)

The above-mentioned model indicates that core relationship between the work environment (stressor) and the human consequences (strain) exists. If no relationship exists, then there is no stress. An important aspect in this regard is that stressors in the work environment cause strain in the individual (O'Connor et al., 1984, in Cooper, 2002). The effect of the work environment (stressors) on human consequences (strains) could either be strengthened or weakened by the impact of the environmental and personal moderators. Strains, according to Beehr (1995) in Cooper (2002), are presented as three types: psychological, physical or physiological strains. There seems to be ample evidence that organisational stressors are linked to psychological and physiological strains (Kahn & Byosiere, 1992, in Cooper, 2002).

With regard to organisational consequences or outcomes such as absenteeism, turnover and changes in job performance, Cooper (2002) points out that it is not necessarily part of the job stress process. It does appear that the organisation is affected by stress on its employees in the form of costs or benefits to the organisation.

An important individual psychological moderator to consider here, and that forms the main focus of this thesis, is presented by Positive Organisational Behaviour (POB). According to Luthans and others (Luthans, 2002b; Luthans & Youssef, 2007), POB takes positive psychology to the workplace and defines POB as “the study and application of positively-orientated human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance

improvement in today's workplace" (Luthans 2002a, p. 59). POB is therefore reconcilable with Positive Psychology, because Positive Psychology emphasises the study of human strengths and virtues with the aim of understanding and facilitating positive developmental outcomes (Seligman & Csikszentmihalyi, 2000). The principle contribution of POB furthermore lies in the fact that it is generative and contributes to optimal functioning (Luthans, Luthans et al., 2004) in the sense that the application of Positive Psychology in the workplace as POB gives a renewed emphasis to the importance of a positive approach (Youssef & Luthans, 2007).

Luthans, Avolio, Walumba and Li (2005, p. 252) also point out that to be considered as positive organisational states, positive psychological strengths and capabilities must meet the following criteria: "...positive, strength-based and relatively unique to the organisational behaviour field; theory and research based; with valid measures, and state-like and thus open to development and performance management". Constructs like hope, optimism, self-efficacy and resiliency all meet the POB criteria and are therefore included, Luthans et al. (2005). These constructs are defined below.

Snyder, Irving and Anderson (1991) define *hope* as "a positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-orientated energy) and (b) pathways (planning to meet goals). Tiger (1979, p. 18) defines *optimism* as "mood or attitude associated with an expectation about the social or material future – one which the evaluator regards as socially desirable, to his (or her) advantage, or for his (or her) pleasure. *Self-efficacy* is defined as the anticipation that one can successfully perform behaviour and the individual's sense of self-efficacy is influenced by what happened in the individual's past and by one's attribution of success to chance or skill (Bandura, 1977). Finally, *resilience* is defined by Block and Block (1980, p. 48) as "resourceful adaptation to changing circumstances and environmental contingencies, analysis of the 'goodness of fit' between situational demands and behavioural possibility, and flexible invocation of the available repertoire of problem solving strategies (problem solving being defined to include the social, personal as well as the cognitive domain)".

Another state-like positive psychological capacity with a positive impact on organisational behaviour and outcomes in an ever-changing and demanding business environment is engagement (Bakker & Demerouti, 2008; Bakker, Schaufeli, Leiter, & Taris, 2008; Stajkovic & Luthans, 1998; Youssef & Luthans, 2007). After the 1994

elections the world has opened up for South African business and consequently presents it with a new set of challenges. As in the case of POB, engagement is also developed from a perspective of Positive Psychology because it also focuses on the strengths of human beings and best possible performance rather than on personal weaknesses and dysfunctional behaviour (Seligman & Csikszentmihalyi, 2000). According to Hallberg and Schaufeli (2006) engagement stresses the notion of positive attachment and optimal performance in the work environment in terms of well-being, with high levels of energy, involvement and commitment invested in one's work. Engagement is thus a positive, work-related state of well-being or fulfilment and engaged employees have an energetic and effective relationship with their work and they perceive themselves as competent to deal completely with the challenges and requirements of their jobs (Bakker et al., 2008; Maslach, Schaufeli, & Leiter, 2001).

Based on the above-mentioned problem statement, the following research questions arise:

- How POB is conceptualised in research literature and are measures of POB reliable in a South African sample?
- Can a training programme aimed at enhancing employee self-development, as evident in POB, affect organisational outcomes such as job satisfaction and turnover intention?
- Does POB play a mediating role in the relation of work stress and individual health?
- What is the theoretical and empirical relationship between POB and work engagement?
- What recommendations can be made to the management of the organisation in terms of the enhancement of POB?

1.2 RESEARCH OBJECTIVES

The research objectives are divided into general and specific objectives.

1.2.1 General objective

The general objective of this research will be to conceptualise the components of Positive Organisational Behaviour (POB) (hope, optimism, self-efficacy resilience) from the literature, to establish their reliability in a South African sample. Additionally, the relationship between POB and other organisational outcomes, such as job satisfaction and turnover intention, work stress, health and engagement are of interest.

1.2.2 Specific objectives

The specific objectives of this research are:

- To conceptualise POB in research literature and to establish the psychometric properties of a measure of POB in a South African sample. (Constructs to be measured are hope, optimism, self-efficacy and resilience).
- To determine whether a training programme aimed at enhancing employee self-development - as evident in POB - affects organisational outcomes such as job satisfaction and turnover intention.
- To determine whether POB plays a mediating role in the relation of work stress to individual health.
- To investigate the theoretical and empirical relationship between POB and Engagement.
- To make recommendations to the management of the organisation in terms of the enhancement of POB.

1.3 PARADIGM PERSPECTIVE OF THE RESEARCH

A certain paradigm perspective that includes the intellectual climate and the market of intellectual resources (Lundin, 1996; Mouton & Marais, 1996) directs the research. Reber (1985) defines a paradigm as a collective set of attitudes, values, procedures and techniques that form the generally accepted perspective of a particular discipline at a point in time. Paradigms therefore serve as an orientation to or plan for research using a particular focus (Reber, 1985).

1.3.1 Intellectual climate

According to Mouton and Marais (1996), the intellectual climate refers to the variety of meta-theoretical values and beliefs as held by those practising within a discipline at a certain time.

1.3.2 Discipline

This research falls within the boundaries of the behavioural sciences and more specifically Industrial Psychology. Where Psychology refers to the scientific study of behaviour, Industrial Psychology is a branch of Applied Psychology (Reber & Reber, 2001), and focuses on scientific observation, evaluation, optimal utilisation and influencing of normal and, to a lesser degree deviant behaviour, in interaction with the environment as manifested in the world of work (Louw & Edwards, 1993). According to (McCormick & Ilgen, 1981) the objective of Industrial Psychology is to provide the basis for resolving human problems, or more realistically, minimising them.

In the field of Industrial Psychology, various sub-disciplines occur, namely organisational, personnel, career, and economic psychology. These areas include tests and measurements, the study of organisations and organisational behaviour, the effects of work, human factors, pay and efficiency, consumer surveys and market research (Reber & Reber, 2001). The sub-disciplines of Industrial Psychology that are focused on in this research are organisational psychology, organisational behaviour and psychometrics.

Organisational psychology can be defined as the study of organisations, and social structures (Reber & Reber, 2001), the elements and systems of which they consist, as well as factors, especially the individual's interaction, that influence the effective functioning of organisations (Plug, Meyer, Louw, & Gouws, 1997). Organisational psychology aims at providing a social environment conducive to job performance and job satisfaction (Louw & Edwards, 1993). Within the framework of organisational psychology the organisation and its human and social systems will be studied to determine whether factors like POB contribute to an environment of high job performance, job satisfaction, well-being, engagement and organisational effectiveness.

Psychometrics refers to the branch of Psychology where the measuring of any behavioural aspect requiring the use of particular procedures according to particular

rules, is measured in order to allocate numerical values to that behavioural aspect (Smit, 1991). In this study, psychometrics will be used to validate measuring instruments for the particular environment in which the study is conducted. Psychometrics within specific prescribed procedures and rules will also be used to enable the researcher to base his findings, conclusions and opinions on validated psychometric data.

1.3.3 Meta-theoretical assumptions

According to Mouton and Marais (1996), the meta-theoretical beliefs pertain to the set of beliefs, values and assumptions with origins which can be traced to non-scientific contexts, and are therefore not directly related to the theoretical goals of the scientific research. At different stages of the research process, the researcher is compelled to make assumptions justifying specific theories as not all scientific findings can be conclusively proved on the basis of empirical research data.

Two paradigms are relevant to this research. Firstly, the literature review is done within the Humanistic and Positive Psychology paradigm and Systems Theory, and secondly the empirical study is done within the positivistic paradigm.

1.3.3.1 Literature review

The literature review focuses on previous research on POB including dispositional optimism, self efficacy, hope, resiliency and engagement, and work stress. An overview will be given of the conceptualisation of these constructs in literature and on the findings in terms of measuring the above-mentioned concepts.

The literature review of this study is presented from the Humanistic paradigm and Systems Theory. The Humanistic Paradigm is a school of thought that emphasises that people constantly strive towards becoming self-actualised or fully functioning individuals. Part of the work of Maslow and Rogers, humanism's point of departure is that people value positive regard, personal growth, psychological health and optimal functioning, implying that individuals are conscious, are more than the sum of their total parts, live purposefully and are constantly making choices (Plug et al., 1997).

It is further more important to note that the positive psychology movement also fits into the humanistic psychology tradition. Linley and Joseph (2004, p. 4) defines positive psychology as "...the application of positive psychology research to the facilitation of optimal functioning". In a never changing business environment

organisations should seek to develop employee strengths, rather than dwelling on the negative and trying to fix weaknesses (Avey, Luthans, & Jensen, 2009). This study is therefore also underpinned by the positive psychology paradigm as it also focuses on enhancing those factors important for optimal functioning, thereby allowing individuals, societies and communities to flourish.

Systems theory, particularly in the field of organisational psychology, views all organisational processes, activities, functions and interactions with the environment as part of a system of interrelationships (Robbins, Judge, Odendaal, & Roodt, 2009). Changes to any inputs, processes, transactions, delivery and feedback within the system will therefore impact the entire system.

1.3.3.2 Empirical study

The empirical study is presented from the positivistic framework. Positivism sees all knowledge as contained within the boundaries of science and only those questions answerable from the application of the scientific method can be approached (Reber, 1985). Knowledge can therefore only be obtained by way of the study of observable phenomena through objective, empirical and operational methods. From the positivistic framework or paradigm only observable and measurable data should be taken into account (Seligman & Csikszentmihalyi, 2000). To research “positive fact” positivists should therefore only attempt to use data obtained through direct observations (Ardebili, 2001).

1.3.4 Market of intellectual resources

Mouton and Marais (1996) view the market of intellectual resources as the collection of beliefs which have a direct bearing upon the epistemic status of scientific statements. Here, theoretical beliefs about the nature and structure of phenomena as well as methodological beliefs concerning the nature and structure of the research process are referred to.

1.3.4.1 Theoretical beliefs

Theoretical beliefs can be described as the beliefs of which testable statements about social phenomena are made. Theoretical beliefs may be seen as descriptive and interpretive aspects of human behaviour that include all statements which form part of hypotheses, models, typologies and theories (Mouton & Marais, 1996).

1.4 RESEARCH METHOD

The research pertaining to the specific objectives will consist of two phases, namely a literature review and an empirical study.

1.4.1 Literature review

The literature review will focus on previous research on POB including hope, dispositional optimism, self efficacy, resilience, work stress and engagement. An overview will be given of the conceptualisation of these constructs in literature and on empirical findings in terms of the measurement and relationships between the concepts mentioned.

1.4.2 Empirical study

The empirical study entails that the objectives identified for the study can be achieved as follows. It consists of the research design, participants, measuring instruments and statistical analysis.

1.4.2.1 Research design

The research design specifies the most adequate procedure to be followed in order to test specific hypothesis under given conditions (Bless, Higson-Smith, & Kagee, 2006). The collection and analysis of data in a specific manner therefore strives to combine relevance to the research purpose with economy in procedure (Mouton & Marais, 1996). The aim of the research design is to align practical considerations and limitations of the project with the pursuit of the research goal. In this way the eventual validity of the research findings is maximised.

Various research design methods will be employed to obtain the different aims. A cross-sectional design will first be used to obtain a sample from the study population at a particular point in time. The information collected will be used to describe the population at that time. This design can also be used to assess interrelationships among variables and the validation of measures within a population at a specific point in time. According to Shaughnessy and Zechmeister (1997) this design is ideally suited to the descriptive and predictive functions associated with correctional research.

In addition to the cross-sectional design, a one-group pre-test-post-test design will be implemented which will enable the researcher to do a longitudinal study where the

total population will be tested as one group at two different points in time. Longitudinal designs provide the opportunity to validate theoretically hypothesised relationships between two variables. In addition, longitudinal designs make it possible to investigate alternative causal patterns by allowing the researcher to make decisions between hypotheses of opposite causation and to improve the possibilities to eliminate the influence of third variables (Zapf, Dormann, & Frese, 1996). The longitudinal research design should also make it possible to test for cross-lagged effects between two measurements of the same construct at different times.

1.4.2.2 Participants

All 1003 employees from the particular business unit will be included in this study. The participants are all employed as part of a service function rendering support services to a larger chemical plant. The business is currently under pressure to transform from a cost to a profit centre, resulting in unique challenges for all employees across all levels of the organisation. Due to the service nature of the business, business results are directly related to the performance of its employees as they have a direct impact on the quality and quantity of services rendered to internal customers and in many instances also external customers.

The sample will consist of employees from all races, genders and job levels as reflected in the business unit staff establishment at the time of the survey, making it representative of the business under investigation.

1.4.2.3 Measuring Instruments

Sixteen questionnaires will be used to achieve the objectives of the empirical study, namely a biographical questionnaire, the Dispositional Hope Scale (Snyder, Irving, & Anderson, 1991), Life Orientation Test-Revised (LOT-R) (Scheier, Carver, & Bridges, 1994), Self-Efficacy Scale (Sherer et al., 1982), Ego-Resiliency Scale (Block & Kremen, 1996), Role clarity scale (Rizzo, House, & Lirtzman, 1970), Role conflict scale (Rizzo et al., 1970), scales for Quantitative and Qualitative Role overload, (Beehr, Walsh, & Taber 1976), Job satisfaction (Hellgren, Sjöberg, & Sverke, 1997), Turnover intention (Sjöberg & Sverke, 2000). Quantitative and Qualitative Job insecurity (Hellgren, Sverke, & Isaksson, 1999), Neuroticism (Eysenck & Eysenck, 1968), General Health (Goldberg & Williams, 1988) and the Utrecht Work Engagement Scale (UWES), (Schaufeli, Salanova, González-Romá, & Bakker, 2002).

A biographical questionnaire will be developed to obtain information about the demographic characteristics of the respondents. It will include the following: department in which the individual is working at the time the questionnaire is completed, job level, race, gender, age and years of company service.

Except for the biographical questionnaire respondents will make use of a five-point Likert Scale in this study, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”) to give an indication of their responses on all constructs.

Hope

The dispositional Hope Scale (Snyder, Irving et al., 1991) is a 12-item self-report instrument containing four agency items (e.g. “I energetically pursue my goals” and “I meet the goals I set for myself”) and four pathway items (e.g. “*There are lots of ways around any problem,*” and “*I can think of many ways to get the things in life that are most important to me*”). There are four distracter items and respondents rate how accurate each item describes them generally, reflecting the Hope Score with regards to the sum of the agency and pathway items (Snyder, Irving et al., 1991). Snyder, Irving et al. (1991) further report that the Hope Scale has demonstrated adequate internal and test-retest reliabilities, as well as concurrent construct validity in terms of its correlations with other related measures. Baily and Snyder (2007) reported a Cronbach alpha coefficient of 0,74 to 0,84. Botha (2010) found a reliability coefficient of 0,77 in a South African sample ($n=286$).

Dispositional Optimism

The Life Orientation Test-Revised (LOT-R) (Scheier et al., 1994), a 10-item measure, will be use to measure dispositional optimism. Six items contribute to the optimism score and four items are fillers. The original Life Orientation Test, which hypothesised a two-factor structure of optimism (i.e. optimism and pessimism), was questioned (Harju & Bolen, 1998). Follow-up analysis demonstrated a one-factor structure, indicating that the LOT-R measures a continuum of high, average and low optimism/pessimism (Scheier et al., 1994). A typical question from the scale is: “*In uncertain times, I usually expect the best*”. The LOT-R was found to have adequate internal consistency ($\alpha = 0,78$) and excellent convergent and discriminant validity (Scheier et al., 1994). Based on a sample of 204 college students, Harju and Bolen (1998) obtained a Cronbach alpha coefficient of 0,75.

Self-efficacy

Self-efficacy will be measured with the Self-Efficacy Scale (SES) as developed by Sherer et al. (1982) to assess expectancies or perceived self-efficacy, or one's general expectancies regarding one's ability to display the required behaviours. The self-efficacy theory asserts that the alteration of the individual's expectations of personal mastery and success results in different levels of generalised self-efficacy expectations (Sherer et al., 1982). The general self-efficacy questionnaire consisting of 17 items will be used in this study. Ten items in the questionnaire are reverse scored. A typical question in this instrument is: "*When I make plans, I am certain I can make them work*". Sherer et al. (1982) reported that Cronbach alpha reliability coefficients of 0,86 were obtained for the general Self-Efficacy Scale.

Resilience

Resilience will be measured with the Ego-Resiliency Scale (ER89) (Block & Kremen, 1996). The Ego-Resiliency Scale is a 14-item self-report instrument and yields an alpha coefficient reliability of 0,76 (Block & Kremen, 1996). A typical question in this instrument is: "*I quickly get over and recover from being startled*".

Work stress will be indicated by three individual scales, namely Role ambiguity, Role conflict and Role overload.

Role ambiguity/ Lack of role clarity

Lack of role clarity will be measured with a combination of items from Rizzo, House and Lirtzman (1971). A typical question is: "*There exist no clear, planned goals and objectives for my job*". These authors also reported the alpha coefficient reliability of the questionnaire conducted for two samples as 0,78 and 0,80 respectively.

Role conflict

Role conflict will be measured with a questionnaire developed by Rizzo et al. (1970). The questionnaire consists of five items and a typical question is: "*I receive incompatible requests from two or more people*". Rizzo et al. (1970) reported the alpha coefficient reliability of the questionnaire conducted for a sample size of N=199 and N=91 to be 0,81 and 0,82 respectively.

Role overload (quantitative and qualitative)

The questionnaire which will be used to measure quantitative role overload was developed by Beehr, Walsh and Taber (1976) and measures the feeling of having too much to do in too little time. A typical question is: *“It fairly often happens that I have to work under a heavy time pressure”*. Näswall, Baraldi, Richter, Hellgren and Sverke (2006) reported the reliability of this questionnaire (alpha coefficient) to vary from 0,73 to 0,81 in four different samples.

The questionnaire which will be used to measure qualitative role overload was developed by Sverke, Hellgren and Öhrming (1999) and reflected if the work is too difficult or demanding. A typical question is: *“I consider my responsibilities as unreasonable”*. Näswall et al. (2006) reported the reliability of this questionnaire (alpha coefficient) to vary from 0,71 to 0,78 in four different samples.

Job Satisfaction

The questionnaire to be used to measure job satisfaction in this study was developed by Helgren et al. (1997) which was based on the Brayfield and Rothe (1951) measurement of job satisfaction. According to the authors the questionnaire consists of three items (e.g. *“I am satisfied with my job”*) and it yielded a reliability (alpha coefficient) of 0,86.

Turnover intention

Turnover intention will be measured with a three-item scale developed by Sjöberg and Sverke (2000) to measure the overall turnover propensity. Typical items are: *“I am actively looking for other jobs”* and *“I feel that I could leave this job”*. Sjöberg and Sverke (2000) reported the reliability (alpha coefficient) as 0,81.

Job insecurity (quantitative and qualitative)

The two dimensions of job insecurity (quantitative and qualitative job insecurity) will be measured with a questionnaire developed by Hellgren, Sverke, and Isaksson (1999). Quantitative job insecurity will be measured with three items, and qualitative job insecurity will be measured with four items. A typical question to measure quantitative job insecurity is: *“I am worried about being able to keep my job”* and a typical item to measure qualitative job insecurity is *“I worry about getting less stimulating work tasks in future”*. Hellgren et al. (1999) reported that the internal

consistency reliability was satisfactory for both quantitative (alpha coefficient of 0,79) and qualitative (alpha coefficient of 0,75) job insecurity.

Neuroticism

Neuroticism will be measured by the 12-item Eysenck Personality Inventory Neuroticism Scale (Eysenck & Eysenck, 1968). The inventory will typically measure individuals' experiences of feelings of irritability, nervousness, worry, embarrassment or guilt. Typical questions are: "*I am a nervous person,*" and "*I am often troubled by feelings of guilt*". High scores will give an indication of a greater degree of neuroticism than low scores.

Judge, Kluger, Locke and Durham (1998) reported the reliability (alpha coefficient) as 0.93, 0.86 and 0.85 for a group of physicians ($N=104$), business school graduates ($N=122$) and a group of Hebrew University students ($N=122$) respectively.

General health

The General Health Questionnaire-12 (GHQ-12) is a widely used screening instrument for detecting psychological strain in the general population (Kalliath, O'Driscoll, & Brough, 2004) and will also be used in this study to measure general health in the study population. The GHQ-12 comprises of six items that are positive descriptions of mood states (e.g. "*Felt able to overcome difficulties*") and six items that are negative descriptors of mood states (e.g. "*Felt unhappy and depressed*").

Kalliath et al. (2004) reported that they found acceptable levels of internal consistency reliability (alpha coefficient) of 0,91 and 0,90 respectively ($N=691$ and $N=415$) for two different measures administrated at a three-month interval.

Engagement

The Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2002) will be used to measure the levels of engagement of the participants. The UWES includes three dimensions, namely Vigour, Dedication and Absorption, which are conceptually seen as the opposite of burnout. The questionnaire consists of 17 questions and includes questions like "*I am bursting with energy every day in my work*"; "*Time flies when I am at work*" and "*My job inspires me*". Naude and Rothmann (2004) obtained the following alpha coefficients for the UWES in a sample of emergency workers in South Africa: Vigour and Dedication: 0,87, but for the Absorption subscale only 0,61.

Coetzee and de Villiers (2010) however, recently obtained alpha coefficients of 0,77, 0,88 and 0,83 for Vigour, Dedication and Absorption respectively, in a financial institution.

1.4.2.4 Statistical Analysis

The statistical analysis will be carried out with the aid of the SPSS programme (SPSS, 2011) and the AMOS programme (Arbuckle, 2007). The SPSS Programme will be used to carry out statistical analysis to determine the differences for values and the demographic characteristics, reliability and validity of the measuring instruments, descriptive statistics, analysis of variance, correlation coefficients and multiple regression analysis. The Amos Programme will be used to carry out structural equation modelling.

Cronbach alpha coefficients and Pearson correlations will be calculated with the use of the SPSS programme for the exploratory factor analysis. Cronbach alpha coefficients will be used to determine the internal consistency (reliability), homogeneity and unidimensionality of the measuring instruments, as well as information regarding the proportion of variance of the items of a scale in terms of the total variance explained by that particular scale (Clark & Watson, 1995).

Descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) will also be used to analyse the data. Exploratory factor analyses will be carried out to investigate the construct validity of the measuring instruments and to prepare a test of a theoretical model in a path analysis. Exploratory factor analyses and Cronbach alpha coefficients will then be computed to assess the validity and reliability of the constructs that were measured in this study. Pearson product-moment correlation coefficients will be used to specify the relationship between the various constructs. It was decided to set the value at a 99% confidence interval level ($p \leq 0,01$) for the exploratory factor analysis. Effect sizes (Cohen, 1988; Steyn, 1999) will be used in addition to determine the statistical significance of the relationships of the findings. Effect sizes indicate whether obtained results are important, while statistical significance may often show results which are of little practical relevance (Steyn, 1999). A cut-off point of $d \geq 0,30$ (medium effect, Cohen, 1998) was set for the practical significance of correlation coefficients. Values larger than 0,30 will be regarded as practically significant, while 0,50 for medium effect and 0,80 for larger

effect will be set (Cohen, 1988). Multiple regression analysis will be conducted to investigate the direction of the relationships. Multiple regression analysis will also assist in determining if any independent variable predicted the dependent variable and also to determine the percentage variance in the dependent variable that is predicted by the independent variable.

Prior to principal factor extraction, principal component extraction will be done to estimate the number of factors, the presence of outliers and the factorability of the correlation matrices. Principal component analysis will be carried out on all four (hope, optimism, self-efficacy and resilience) of the measuring instruments. Eigen values and scree plots will be evaluated to determine the number of factors. The guidelines as set out by Costello and Osborne (2005), which include the use of a scree plot to compliment the Kaiser criterion (eigen values ≥ 1), will be used to determine the number of components in this research. Field (2005) also recommends the use of a scree plot as alternative measure to the Kaiser criterion. Where factor analysis is reported, only items with a loading of 0,30 or higher, as recommended by Field (2005) and Tabachnick and Fidell (2001), will be regarded as desirable or solid items. Maximum likelihood factor analysis with a direct oblimin rotation will be conducted to establish if the factors are related (Tabachnick & Fidell, 2001).

To assist in the confirmatory analysis the covariance analysis or structural equation modelling (SEM) method, as implemented by AMOS (SPSS, 2011), will used to determine the factorial validity (model fit) of the theoretical factor structures of the POB construct. Byrne (2001) describes SEM as a statistical methodology which takes a confirmatory approach to the analysis of a structural theory bearing on some observable fact. Hypothesised relationships will be empirically tested for goodness-of-fit with the sample data. The χ^2 statistic and several other goodness-of-fit indices, as recommended by Jöreskog and Sörborn (1993), will be used to determine the degree of correspondence between the implied and observed covariance matrices. However, because the χ^2 statistic equals $(N-1)F_{\min}$, this value tends to be substantial when the model does not hold and the sample size is large (Byrne, 2001). To address the χ^2 limitation, the goodness-of-fit index will be used to enable the researcher to take a more pragmatic approach to the evaluation process. A value <2 for $\chi^2/\text{degrees of freedom ratio}$ (CMIN/df) (Wheaton, Muthén, Alwin, & Summers, 1977) indicates acceptable fit (Tabachnick & Fidell, 2001).

The hypothesised relationships with the data will also be tested using the Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Normed Fit Index (NFI), Comparative Fit Index (CFI), Tucker Lewis Index (TLI) and Root Mean Square Error of Approximation (RMSEA). Hu and Bentler (1999) suggest a cut-off point of 0,06 for the RMSEA. Results from the rest of the above-mentioned indices vary from 0 and 1, and values of 0,90 or greater are indicative of a good fit (Hoyle, 1995).

1.5 CHAPTER DIVISION

The chapters in this study are presented as follows:

Chapter 1: Introduction.

Chapter 2: Investigating the psychometric properties of the Positive Organisational Behaviour (POB) construct in a multicultural sample.

Chapter 3: The role of training in enhancing Positive Organisational Behaviour (POB) and job satisfaction and preventing turnover intention.

Chapter 4: Positive Organisational Behaviour as a mediator between employee stress and subsequent health.

Chapter 5: A test to establish causality between engagement and Positive Organisational Behaviour (POB).

Chapter 6: Conclusions, limitations and recommendations.

1.6 CHAPTER SUMMARY

Chapter 1 provides a discussion of the problem statement, research objectives and research method. The intended participants, measuring instruments, anticipated statistical analysis, as well as an overview of the chapters, were also discussed in this chapter. The next chapter presents the first empirical study conducted as part of the larger thesis.

REFERENCES

- Antoniou, A. S. G., Davidson, M. J., & Cooper, C. L. (2003). Occupational stress, job satisfaction and health state in male and female junior hospital doctors in Greece. *Journal of Managerial Psychology, 18*(6), 592-621.
- Arbuckle, J. L. (2007). *AMOS 7.0. Update to the Amos user's guide version*. Chicago, IL: Smallwaters Cooperation.
- Ardebili, M. H. (2001). *The structure of scientific practice: A meta-critique of the critical realist conception of science and resolution of the problem of relativism in social sciences*. Working paper – Department of Economics and Social Science Consortium, University of Missouri, Kansas City.
- Armstrong, G. S., & Griffin, M. L. (2004). Does the job matter? Comparing correlates of stress among treatment and correctional staff in prisons. *Journal of Criminal Justice, 32*(6), 577-592.
- Avey, J. B., Luthans, F., & Jensen, S. M. (2009). Psychological capital: A positive resource for combating employee stress and turnover. *Human Resource Management, 48*(5), 766-693.
- Avolio, B., Luthans, F., & Walumbwa F. O. (2004). *Authentic leadership: Theory-building for veritable sustained performance*. Working paper. Gallup Leadership Institute, University of Nebraska, Lincoln.
- Bailey, T. C., & Snyder, C. R. (2007). Satisfaction with life and hope: A look at age and marital status. *The Psychological Record, 57*, 233-240.
- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International, 13*(3), 209-223.
- Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work and Stress, 22*(3), 187-200.
- Bandura, A. (1977). Self-Efficacy: toward a unifying theory of behavioural change. *Psychological Review, 84*, 191-215.
- Barling, J. (1999). Changing employment relations: Empirical data, social perspectives and policy options. In D. B. Knight & A. Joseph (Eds.), *Restructuring*

- societies: Insights from the social sciences* (pp. 59-82). Ottawa: Carlton University Press.
- Beehr, T. A., Walsh, T., & Taber, T. D. (1976). Relationship of stress to individually and organizationally valued states: Higher order needs as a moderator. *Journal of Applied Psychology*, *61*(1), 41-47.
- Beehr, T. (2002). An organizational psychology meta-model of occupational stress. In C. L. Cooper (Ed.), *Theories of Organizational Stress* (pp. 6-27). Oxford: Oxford University Press.
- Bless, C., Higson-Smith, C., & Kagee, A. (2006). *Fundamentals of Social Research Methods. An African Perspective* (4th ed.). Cape Town: Juta.
- Block, J. H., & Block, J. (1980). The role of ego-control and ego-resiliency in the organization of behaviour. In W. A. Collins (Ed.), *Minnesota symposia on child psychology* (Vol. 13, pp. 39-101). Hillsdale, NJ: Erlbaum.
- Block, J., & Kremen, A. M. (1996). IQ and Ego-Resiliency: Conceptual and empirical connections and separateness. *Journal of Personality and Social Psychology*, *70*(2), 349-361.
- Botha, E. (2010). *Job Insecurity and Wellness of employees in a Co-operation*. Unpublished doctoral thesis, North-West University, Vanderbijlpark.
- Breck, B. (2000). Workplace wellness: An employee benefit. *Fairfield County Business Journal*, *39*, 19-26.
- Byrne, B. M. (2001). *Structural equation modelling with AMOS: Basic concepts, applications and programming*. Mahwah, NJ: Erlbaum.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, *7*, 309-319.
- Coetzee, M., & De Villiers, M. (2010). Sources of job stress, work engagement and career orientations of employees in a South African financial institution. *Southern African Business Review*, *14*(1), 27-57.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, N.J: Erlbaum.
- Cooper, C. L. (2002). *Theories of Organizational Stress*. Oxford University Press.

- Cooper, C. L., Luikkonen, P., & Cartwright, S. (1996). *Stress prevention in the workplace*. Dublin: European Foundation for the Improvement of Living and Work Conditions.
- Cooper, C. L., & Cartwright, S. (1994). Healthy mind healthy organization: A proactive approach to occupational stress. *Human Relations*, 47, 455-471.
- Cooper, C. L., & Dewe, P. (2004). *Stress: A brief history*. Oxford: Blackwell Publishing.
- Corville, J. B., & Bernardi, L. M. (1999). Helping employees manage stress. *Canadian Manager*, 24, 11-13.
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research and Evaluation*, 10(7), 1-9.
- Cox, T. (1993). *Stress research and stress management: Putting theory to work*. HSE contract research report, No. 61. London: HMSO.
- Curry, L. A., Snyder, C. R., Cook, D. L., Brent, C. B., & Rehm, M. (1997). Role of Hope in academic and sport achievement. *Journal of Personality and Social Psychology*, 73(6), 1257-1267.
- Denton, M., & Vloeberghs, D. (2003). Leadership challenges for organisations in the New South Africa. *Leadership and Organisational Development Journal*, 24(2), 84-95.
- Devereux, J., Rydstedt, L., Kelly, V., Weston, P., & Buckle, P. (2004). *The role of work stress and psychological factors in the development of musculoskeletal disorders* (Research Rep. No. 273). Surrey: Robens Centre for Health Ergonomics.
- Dickens, L. (2004). Problems of fit: Changing employment and labour regulation. *British Journal of Industrial Relations*, 42, 595-616.
- Di Martino, V. (1992). Occupational Stress: A preventive approach. *ILO Conditions of Work Digest*, 11/2, (p3-21) Geneva: ILO.
- Dollard, M. F. (2003). Introduction: context, theories and intervention. In M. F. Dollard, A. H. Winefield, & H. R. Winefield (Eds.), *Occupational stress in the service professions* (pp. 1-42). New York: Taylor and Francis.

- Dunn, C. (2000). Workplace perks include wellness programs. *San Diego Business Journal*, 21, 14-15.
- Eysenck, H. J., & Eysenck, S. B. G. (1968). *Manual of the Eysenck Personality Inventory*. San Diego, CA: Educational Testing Service.
- Field, A. (2005). *Discovering statistics using SPSS* (3rd ed.). London: Sage.
- Forrester, R. (2000). Empowerment: Rejuvenating a potent idea. *Academy of Management Executive*, 14(3), 67-80.
- Giesen, E., Riddleberger, E., Christner, R., & Bell, R. (2010). When and how to innovate your business model. *Strategy and Leadership*, 38(4), 17-26.
- Goldberg, D. P., & Williams, P. (1988). *A user's guide to the General Health Questionnaire*. Windsor: NFER-Nelson Publishing.
- Hallberg, U. E., & Schaufeli, W. B. (2006). "Same Same" but different? Can work engagement be discriminated from job involvement and organisational commitment? *European Psychologist*, 11(2), 119-127.
- Harju, B., & Bolen, L. M. (1998). The effects of optimism on coping and perceived quality of life of college students. *Journal of Social Behaviour and Personality*, 13, 185-200.
- Hartline, M. D., & Ferrell, O. C. (1996). The management of customer-contact service employees: An empirical investigation. *Journal of Marketing*, 60(4), 52-69.
- Hellgren, J., Sverke, M., & Isaksson, K. (1999). A two-dimensional approach to job insecurity: Consequences for employee attitudes and well-being. *European Journal of Work and Organisational Psychology*, 8(2), 179-195.
- Houkes, I., Janssen, P. P. M., de Jonge, J., & Bakker, A. B. (2003). Specific determinants of intrinsic work motivation, emotional exhaustion and turnover intention: A multi-sample longitudinal study. *Journal of Occupational and Organizational Psychology*, 76, 427-450.
- Jöreskog, K. G., & Sörborn, D. (1993). *LISREL 8: Structural equation modelling with the SIMPLIS command language*. Hillsdale, NJ: Erlbaum.

- Judge, T. A., Kluger, A. N., Locke, E. A., & Durham, C. C. (1998). Dispositional effects on job and life satisfaction: The role of core evaluations. *Journal of Applied Psychology, 83*(1), 17-34.
- Kalliath, T. J., O'Driscoll, M. P., & Brough, P. (2004). A confirmatory factor analysis of the General Health Questionnaire-12. *Stress and Health 20*, 11-20.
- Kokt, D. (2003). The impact of cultural diversity on work team performance: A South African perspective. *Team Performance Mangement, 9*(3), 78-83.
- Linley, P. A., & Joseph, S., (2004). Applied positive psychology: A new perspective for professional practice. In P. A. Linley, & S. Joseph (Eds.), *Positive Psychology in Practice* (pp.3-12). Hoboken, NJ: Wiley.
- Louw, D. A. & Edwards, D. J. A. (1993). *Psychology: an introduction for students in southern Africa*. Johannesburg: Lexicon.
- Lu, L. (1999). Work motivation, job stress and employee's well-being. *Journal of Applied Management Studies, 8*, 61-72.
- Lundin, R. W. (1996). *Theories and systems of psychology* (5th ed.). Lexington, MA: O. C. Heath and Company.
- Luthans, F. (2002a). Positive organizational behaviour: Developing and managing psychological strengths. *Academy of Management Executive, 16*(1), 57-72.
- Luthans, F. (2002b). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior 23*, 695-706.
- Luthans, F., Avolio, B. J., Walumba, F. O., & Li, W. (2005). The Psychological Capital of Chinese Workers: Exploring the Relationship with Performance. *Management and Organization Review, 1*(2), 249-271.
- Luthans, F., Luthans, K. W., & Luthans, B. C. (2004). Positive Psychological Capital. Beyond human and social capital. *Business Horizons, 47*(1), 45-50.
- Luthans, F., Van Wyk, R., & Walumba, F. O. (2004). Recognition and development of hope for South African organisational leaders. *The Leadership and Organizational Development Journal, 25*(6), 512-527.

- Luthans, F., & Youssef, C. M. (2004). Human, Social, and now Positive Psychological Capital Management: Investing in people for competitive advantage. *Organizational Dynamics*, 33(2), 143-160.
- Luthans, F., & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of Management*, 33(3), 321-349.
- Mak, B., & Sockel, H. (1999). A confirmatory factor analysis of employee motivation and retention. *Information and Management*, 38, 265-276.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422.
- McCormick, E. J., & Ilgen, D. R. (1981). *Industrial Psychology*. (7th ed.). Eaglewood Cliffs, NJ: Prentice-Hall.
- Minervini, R., Meyer, M., & Rourke, L. (2003). *Human capital management: A handbook for SA Managers*. Johannesburg: WriteStuff Publishing.
- Moore, K. A. (2002). Hospital restructuring: impact on nurses mediated by social support and a perception of challenge. *Journal of Health and Human Services Administration*.
- Mouton, J., & Marais, H. C. (1996). *Basic concepts in the methodology of the social sciences*. Pretoria: Human Sciences Research Council.
- Murphy, L. R. (1995). Managing job stress. An employee assistance/human resource management partnership. *Personnel Review*, 24(1), 41-50.
- Näswall, K., Baraldi, S., Richter, A., Hellgren, J., & Sverke, M. (2006). *The salaried employee in the modern working life: Threats and challenges. Technical report on the sample, data collection, and measurement properties of the instruments*. (SALTSA Rep. No. 3). Sweden, The National Institute for Working Life and The Swedish Trade Unions in Co-operation.
- Naude, J. L. P., & Rothmann, S. (2004). The validation of the Utrecht Work Engagement Scale for emergency health technicians in Gauteng. *South African Journal of Economic and Management Sciences*, 7, 473-487.

- Pienaar, C., & Bester, C. (2006). Typical career dilemmas of academic staff during the early career phase within a changing South African higher education institution. *South African Journal of Education*, 26, 581-594.
- Plug, C., Louw, D. A., Gouws, L. A., & Meyer, W. F. (1997). Verklarende en vertalende sielkundewoordeboek (3de dr.). [Explanatory and translation psychology dictionary (3rd ed.).] Johannesburg: Heinemann.
- Reber, N. S. (1985). *Dictionary of Psychology*. Middlesex: Penguin Books.
- Reber, A. S., & Reber, E. S. (2001). *The Penguin Dictionary of Psychology*. (3rd ed.). London: Penguin Books.
- Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role Conflict and Ambiguity in Complex Organizations. *Administrative Science Quarterly*, 15(2), 150-163.
- Robbins, S. P., Judge, J. A., Odendaal, A., & Roodt, G. (2009). *Organisational Behaviour: Global and Southern African Perspectives*. (2nd ed.). Cape Town, Pearson Education South Africa.
- Rodell, J. B., & Judge, T. A. (2009). Can “good” stressors spark “bad” behaviours? The mediating role of emotions in links of challenge and hindrance stressors with citizenship and counterproductive behaviours. *Journal of Applied Psychology*, 94, 1438-1451.
- Rothmann, S. (2003). Burnout and engagement: A South African Perspective. *SA Journal of Industrial Psychology*, 29, 16-25.
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory analytic approach. *Journal of Happiness Studies*, 3, 71-92.
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A re-evaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, 67, 1063-1078.
- Seligman M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology. *American Psychologist*, 54, 559-562.

- Shaughnessy, J. J., & Zechmeister, E. B. (1997). *Research methods in Psychology* (4th ed.). New York: McGraw-Hill.
- Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The Self-Efficacy Scale: Construction and Validation. *Psychological Reports, 51*, 663-671.
- Shults, C. W. (2009). *The impact of presidential behaviors on institutional movement towards greater abundance in community colleges: An exploratory study*. University of Michigan.
- Smit, G. J. (1991). *Psigometrika*. [Psychometrics] Pretoria: Haum.
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60*, 570-585.
- Snyder, C. R., Irving, L. M., & Anderson, J. R. (1991). Hope and Health: Measuring the will and the ways. In C. R. Snyder & D. R. Forsyth (Eds), *The handbook of social and clinical psychology: The health perspective* (pp. 285-307). Elmsford, NY: Pergamon Press.
- SPSS, (2011). *SPSS 18.0 for Windows*. Chicago, IL: SPSS Inc.
- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: a meta- analysis. *Psychological Bulletin, 24*, 240-261.
- Steyn, H. S. (1999). *Praktiese betekenisvolheid: Die gebruik van effek groottes*. [Practical significance: The use of effect size.] Wetenskaplike bydraes-Reeks B: Natuurwetenskappe Nr. 117. Potchefstroom Universiteit vir Christelike Hoër Onderwys. Potchefstroom.
- Sverke, M., Hellgren, J., & Öhrming, J. (1999). Organizational restructuring and health care work: A quasi-experimental study. In P. M. le Blanc, M. C. W. Peters, A. Büssing, & W. B. Schaufeli (Eds), *Organizational psychology and health care: European contributions* (pp. 15-32). München: Rainer Hampp Verlag.
- Sverke, M., & Hellgren, J. (2002). The nature of job insecurity: Understanding employment uncertainty on the brink of a new millennium. *Applied Psychology: An International Review, 51*(1), 23-42.

- Sverke, M., Hellgren, J., & Näswall, K. (2002). No Security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology, 7*(3), 242-264.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston, MA: Allyn and Bacon.
- Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organisational commitment, turnover intention, and turnover: Path analyses based on meta-analytical findings. *Personnel Psychology, 46*, 259-293.
- Tiger, L. (1979). *Optimism: The biology of hope*. New York: Simon and Schuster.
- Van Dick, R., Christ, O., Stellmacher, J., Waner, U., Ahlswede, O., Grubba, C., Hauptmeier, M., Höhfeld, C., Moltzen, K., & Tissington, P. A. (2004). Should I stay or should I go? Explaining turnover intentions with organisational identification and job satisfaction. *British Journal of Management, 15*, 351-360.
- Van Tonder, C. (2005). *The unacknowledged contribution of organizational change practice to organizational and employee wellness*. Paper presented at the Changing World of Work Conference, Vanderbijlpark.
- Vigoda-Gadot, E., & Ben-Zion, E. (2004). Bright shining stars: The mediating effect of organizational image on the relationship between work variables and army officers' intention to leave the service for a high-tech industry job. *Public Personnel Management, 33*(2), 201-223.
- Youssef, C. M., & Luthans, F. (2007). Positive Organisational Behavior in the workplace. The impact of hope, optimism and resilience. *Journal of Management, 33*(5), 774-800.
- Zapf, D., Dormann C., & Frese, M. (1996). Longitudinal studies in organizational stress research: A review of the literature with reference to methodological issues. *Journal of Occupational Health Psychology, 1*(2), 145-169.
- Zeithaml, V. A., & Bitner, M. J. (2000). *Services marketing integrating customer across the firm* (2nd ed.). London: McGraw-Hill.
- Zimmerman, R. D., & Darnold, T. C. (2009). The impact of job performance on employee turnover intentions and the voluntary turnover process; a meta-analysis and path model. *Personnel Review, 38*(2), 142-158.

CHAPTER 2

RESEARCH ARTICLE 1

INVESTIGATING THE PSYCHOMETRIC PROPERTIES OF THE POSITIVE ORGANISATIONAL BEHAVIOUR (POB) CONSTRUCT IN A MULTICULTURAL SAMPLE

J. J. P. de Waal

ABSTRACT

The objective of this study was to investigate the psychometric properties of the Positive Organisational Behaviour (POB) construct in a multicultural context. Use was made of a cross-sectional design. Data ($n=892$) was gathered from all employees, representing both genders and all races and job levels within a specific business unit in a chemical factory. A survey was done which included a biographical questionnaire and the Dispositional Hope Scale (Snyder, Harris et al., 1991), Life Orientation Test - Revised (LOT-R; Scheier, Carver, & Bridges, 1994), General Self Efficacy Scale (Sherer et al., 1982) and Ego-Resiliency Scale (Block & Kremen, 1996). Both exploratory and confirmatory factor analyses were used to verify the reliability of the POB construct. Explorative analysis indicated a one-factor structure confirming the POB construct, while the confirmatory analysis revealed an overall good fit with the hypothesised model. Results from the study provided support for the psychometric properties of POB in a multicultural context.

OPSOMMING

Hierdie studie het ten doel om die psigometriese eienskappe van die konstruk Positiewe Organisasie Gedrag in 'n multi-kulturele konteks te ondersoek. As gevolg van die praktiese uitvoerbaarheid van die studie in die organisasie waar die ondersoek onderneem word, word daar van 'n dwarsdeursnee-opnameontwerp gebruik gemaak. Data ($n=892$) van alle werknemers in die betrokke besigheidseenheid, wat beide geslagte en alle rasse en posvlakke verteenwoordig, is ingesamel. Om aan die navorsings-doelwitte te voldoen word van 'n biografiese vraelys sowel as van die volgende vraelyste gebruik gemaak: Disposisionele Hoopskaal (Dispositional Hope Scale), Hersiene Lewensorientasietoets (LOT-R), Algemene Selfvertrouetoets (General Self-Efficacy Scale) en die Psigologiese Veerkragtigheidstoets (Ego-Resiliency Scale). Beide ondersoekende en bevestigende faktoranalises is aangewend om die betroubaarheid van die POB konstruk te bevestig. Resultate toon aan dat die vier skale konvergeer. Ondersoekende analise toon 'n een-faktor struktuur aan wat die POG konstruk bevestig, terwyl die bevestigende analise 'n baie goeie passing oor die algemeen met die hipotetiese model toon. Resultate van die studie bevestig verder dat die aangepaste POG konstruk wel in 'n multikulturele samelewing aangewend kan word.

INTRODUCTION

Friedman (2005), Liberman (2005) and Shults (2009) describe today's work environment as a dynamic global business environment, characterised by rapid economical fluctuations and technological changes with cutthroat competition to such an extent that it seems difficult to keep up with the progress. Luthans (2002a) further argues that the time has arrived to take a proactive positive organisational behaviour approach, as a maintainable advantage can no longer be achieved through raising minimum entry criteria, technological innovations, or just trying to correct imperfections in today's turbulent business environment (Luthans & Youssef, 2007). Positive Organisational Behaviour (POB) is intended to focus on a positive methodology to develop and manage human resources in today's workplace (Luthans, Avolio, Avey, & Norman, 2007; Luthans, Norman, Avolio, & Avey, 2008). The four psychological capacities that constitute POB (hope, optimism, resiliency and self-efficacy) are, according to Luthans, Luthans, & Luthans (2004), measurable, open to development and can be controlled for more effective work performance.

South Africa is well-known for its multicultural society. Kock (2003) has pointed out that cultural diversity has an impact on organisational behaviour in South Africa. Except for studies which have investigated POB in the United States and China (Luthans, Avey, Clapp-Smith, & Li, 2008; Luthans, Avolio, Walumbwa, & Li, 2005), no other studies have investigated the POB concept or all four POB capacities in a multicultural society. Research into the reliability and validity of the POB construct in such a culturally diverse society as present-day South Africa will certainly add to the body of knowledge in this field.

Positive Organisational Behaviour

According to Luthans (2002b, p. 695) several well-known authors in the so-called self development field are dealing with Organisational Behaviour (OB) concepts and topics, but with "no theoretical development or any research back-up and the chasm between OB theory and research and real world application seems to be ever widening". A first step for OB would be to adopt a positive approach and build bridges between the academic OB field and the popular business bestsellers (Luthans, 2002b). The Positive Psychology movement provides such a framework which could be used in organisational behaviour.

The Positive Psychology movement, which directs attention to people's positive characteristics that make living meaningful, provides, according to Gardner and Schermerhorn (2004), the impetus for Positive Organisational Behaviour (POB). According to Luthans (2002a) and Luthans & Youssef (2007), POB takes Positive Psychology to the work environment and defines Positive Organisational Behaviour (POB) as "the study and application of positively-orientated human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement in today's workplace" (Luthans, 2002a, p. 59). POB is therefore reconcilable with Positive Psychology, because Positive Psychology emphasises the study of human strengths and virtues with the aim of understanding and facilitating positive developmental outcomes (Seligman & Csikszentmihalyi, 2000). The application of Positive Psychology in the workplace as POB therefore provides a renewed emphasis on the importance of a positive approach (Youssef & Luthans, 2007).

Luthans (2002b) also makes it clear that the above-mentioned definition includes criteria which are measurable, it requires theory and research and is therefore clearly distinguishable from positively orientated personal development best-sellers, and it could make a contribution to performance enhancement in the work environment. Being developmental in nature, it furthermore requires the POB constructs to be potentially state-like, and therefore rules out the fixed trait-like personality, as well as attitudinal and motivational variables associated with traditional organisational behaviour. This positive approach could therefore be used in organisational behaviour as it supports a theory and research-driven point of view on - and approach to - old as well as new organisational behavioural concepts such as confidence, hope, optimism, happiness and resiliency (Luthans, 2002a; 2002b). State-like concepts of POB can therefore be developed by means of training and development activities (Gardner & Schermerhorn, 2004).

Luthans et al. (2005, p. 252) further pointed out that to be considered as positive organisational states, positive psychological strengths and capabilities must meet the following criteria: ..."positive, strength-based and relatively unique to the organisational behaviour field; theory and research based; validly measurable; state-like (i.e. open to change and development and performance management) and have a demonstrated performance impact". According to these authors, constructs like hope,

optimism, self-efficacy and resiliency meet the POB criteria and are therefore included. The above-mentioned open-to-development criteria are, according to Luthans (2002b, p. 698), possibly the “most critical differentiator with positive psychology *per se* and the other positively oriented concepts of organisational behaviour”. The focus of the rest of the discussion is on POB, constituting traits of hope, optimism, self-efficacy and resilience.

Hope

All individuals inherently possess hope (Snyder, Irving, & Anderson, 1991). The importance of hope is that it plays a central part in the everyday lives of people. According to McGeer (2004), hope is a social phenomenon which holds future promise and energy. Earlier authors like French (1952) and Menninger (1959) pointed out the importance of hope in commencing therapeutic change, readiness to learn and a sense of well-being. Beck, Rush, Shaw and Emery (1997), Ericson, Post and Paige (1975) and Hanna (1991) highlighted the significant risk of hopelessness in cases of mental disorders, depression, sociopathic and suicidal behaviour.

According to Chan (1977) and Gottschalk (1985) hope acts as a moderator of stress on physical health outcomes. Nunn (1996) focuses on hope as a tendency of subjectively determining what is likely and important for the future, and Snyder, Harris et al. (1991) argue that the predominant view of hope (both in general and academic literature) is that greater hope is usually linked to more positive results. Luthans and Jensen (2002) substantiate the value of hope in organisations by suggesting that hope can assist employees to cope and thrive in the workplace, resulting in organisations which benefit from effective human resources. Hope is cognitive in nature, capitalises on an individual’s self-initiated, goal-directed motivation and behaviour (Luthans & Youssef, 2007) and drives the emotions and well-being of people (Snyder, Rand, & Sigmon, 2002). Hope has been postulated by most writers as a “unidimensional construct involving an overall perception that goals can be met” (Snyder, Harris et al., 1991, p. 570).

Hope as a state-like concept in Positive Psychology is defined by Snyder, Irving et al. (1991, p. 286) as “a positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-orientated energy) and (b) pathways (planning to meet goals)”. According to Snyder et al. (2002) and Lopez et al. (2004)

the hope theory shows people's ideas of and beliefs in their ability to (1) clearly conceptualise goals, (2) develop specific strategies to reach those goals (pathway thinking) despite obstacles and (3) initiate and sustain the motivation for utilising those strategies (agency thinking). Lopez et al. (2004), however, point out that both the pathways and agency components are necessary, but neither alone is sufficient to maintain successful following of the goal on its own. Hope can therefore be seen as the sum of these two components (Carr, 2004). Variability in terms of the level of hope one individual might possess as compared to another also exists (Lopez et al., 2004).

Snyder, Harris et al. (1991, p. 570) emphasise the fact that hope, as defined above, has "two major interrelated elements" that operate in a combined, iterative and essential (Magaletta & Oliver, 1999) manner to create hope (Snyder, 2000). The agency component or internalised control (Luthans & Youssef, 2007) is the motivational component in hope theory (Snyder et al., 2002) and refers to a sense of motivation (Snyder, 2000) or motivational energy to pursue a goal (Luthans et al., 2007), as well as successfully determine the meeting of goals in the past, present and future (Snyder, Harris et al., 1991). It makes use of the individual's perceived ability for starting and maintaining the actions required to reach a goal (Snyder et al., 1996). The pathway component, however, makes use of the individual's perceived capability to identify goals and sub-goals (Luthans et al., 2007) and generate workable or successful plans or routes and/or contingency plans to achieve the goals set, as well as to overcome obstacles (Luthans et al., 2007; Luthans & Youssef, 2007; Snyder, Harris et al., 1991; Snyder et al., 1996; Snyder et al., 2002). Luthans, van Wyk et al. (2004) add to this deduction by indicating that a person with a strong sense of pathway thinking will see obstacles as opportunities rather than threats, and will look for alternative ways to deal with these obstacles in order to obtain the desired results or outcomes.

Other important points to take cognisance of, according to Snyder, Harris et al. (1991), Snyder (2000) and Snyder (2002), are that the two components of hope are reciprocal, additive and positively related, but not synonymous. Although a duality of willpower (agency) and way power (pathways) exist (Snyder, 2000), they are not synonymous as they indicate different characteristics of the goal-directed thinking process. It is possible that goal-directed agency is present, but no perceived pathways to the goals exist, and vice versa (Snyder et al., 1996). As explained by its operational

definition, it is this duality of willpower (agency) and way power (pathways) that distinguishes hope as a POB capacity from the general use of the term and hope as a construct which fulfils the requirements of POB (Luthans, Van Wyk et al., 2004). Hope therefore constitutes the will to succeed and the ability to identify, clarify and follow the way to success (Snyder, 2002).

Optimism

Although optimism is commonly equated with hope, optimism can be seen as an essential element of hope; it is, however, conceptually different (Peterson & Luthans, 2003). People in general believe that optimists are individuals who always anticipate good things to happen, that things will go their way and that they will be successful in their efforts. Peterson (2000) points out that optimism has been linked to positive moods, perseverance, effective problem-solving, success in many areas of life (such as academic, political and occupational) and a good, even a long life. Even in the face of adversity, optimists will continue with their efforts and believe that their goals will be achieved (Peterson & Chang, 2003). Pessimists, however, are preoccupied with depression, passivity, failure, social estrangement, morbidity and mortality (Peterson, 2000; Peterson & Chang, 2003).

Both dictionary definitions and scientific approaches to optimism and pessimism rest on people's expectation of the future (Carver & Scheier, 2002). Optimism, according to Peterson (2000), has a cognitive, emotional and motivational component. Optimism is therefore "not simply cold cognition, and if we forget the emotional flavour that pervades optimism, we can make little sense of the fact that optimism is both motivated and motivating" (Peterson, 2000, p. 45).

The origins of optimism, according to Seligman (1998), are found in the Attribution Theory (Abramson, Seligman, & Teasdale, 1978) which states that people display consistent characteristic styles of explaining events in their lives. Optimism is therefore conceptualised as an explanatory style rather than a broad personality trait. There is also a conceptual difference between hope and optimism. Hope focuses on the equal, additive and iterative internal self-directed agency and pathway components and is initiated and determined through the self (Snyder, 1995; Snyder, 2000; Youssef & Luthans, 2007). Optimism adopts a broader point of view (Youssef & Luthans,

2007). The attribution mechanisms of optimism are not restricted to the self, but include external causes or situational factors (Seligman, 1998).

Seligman (1998) defines optimism as a cognitive process involving positive expectancies and causal characteristics that are external, temporary and situation-specific in interpreting bad or negative events, as well as internal, permanent and pervasive for good or positive events (Seligman, 1998). Optimists attribute positive events to personal, permanent and wide-ranging causes; negative happenings are seen as external, temporary and specific to the situation. Pessimists do the opposite in that they externalise positive events, attribute them to temporary and situation-specific causes, whereas negative events are internalised and attributed to permanent and pervasive causes (Peterson & Steen, 2002; Seligman, 1998). In instances of optimism, individuals will tend to internalise positive events and externalise negative events. The consequence is that optimists will expect positive results from specific happenings (Seligman, 1998; Seligman & Schulman, 1986). A pessimistic explanatory style does the opposite in the sense that it undermines the favourable effect of successful accomplishments and exaggerates the destructive possibility of failures.

Scheier and Carver (1985) define optimism in terms of a generalised expectancy that one will experience good outcomes in life, which will, according to Aspinwall and Taylor (1997), increase the tendency to take the necessary action to deal with threats. Generalised expectancies, according to Carver and Scheier (2002), are expectancies that are relevant more or less to the person's entire life space. Magaletta and Oliver (1999), however, point out that the above-mentioned definition makes no differentiation about the agency through which outcomes happen, whether through the individual's efforts, efforts of others, or outside forces.

Optimism is characterised by a positive explanatory style (Luthans et al., 2008) and is seen as a coping mechanism (Scheier & Carver, 1992; Strutton & Lumpkin, 1992). According to Scheier and Carver (1992) optimists appear to be optimistic "in general" due to the fact that their positive expectations are not restricted to a specific behavioural sphere or class of settings. Peterson (2000) points out, however, that although optimism is linked to perseverance and leads to continued efforts to achieve goals, optimists associate themselves with selecting goals which are more likely to follow and eventual accomplishment. Carver and Scheier (2002) therefore regard

optimists as masters of their own fate, because they do not only believe that good things *will* happen, but that they can also *make* good things happen. Scheier's and Carver's (1985) definition of optimism as a universal expectation of positive experiences during one's life is therefore one of the most common definitions.

Optimists are confident about and hold positive expectancies of their future (Carver & Scheier, 2002; Scheier, Carver, & Bridges, 1994). Obstacles in the pursuit of goals are not necessarily regarded as failures, but as challenges and opportunities that can be improved on to obtain success (Luthans et al., 2005). It appears that optimism has a positive impact in the work environment as well. Schulman (1999) and Seligman (1998) provide evidence of the positive impact and desirable outcomes of optimism in terms of retention, and optimism which is directly associated with high work performance. According to Luthans and Youssef (2004), optimistic people will probably remain committed, leading to higher performance. Optimistic people in the workplace focus more on problem-focused coping, self-control and directed problem solving, while pessimists, on the other hand, use more emotion-focused coping and escape methods such as sleeping, eating and drinking (Strutton & Lumkin, 1992).

Self-Efficacy/Confidence

The distinction between self-efficacy and hope is that self-efficacy focuses on the person's confidence to act on his/her perception about his/her ability to perform in a specific context, whereas hope focuses on the will to act intentionally, or the self-referential belief that he/she will initiate and continue to act. (Magaletta & Oliver, 1999; Snyder et al., 2002).

Confidence consists of positive expectations of favourable outcomes and it helps people to control the situations they find themselves in rather than be dragged along by them (Moss Kanter, 2006). The concept of self-efficacy (confidence) deals with the truth "that believing that you can accomplish what you want to accomplish is one of the most important ingredients - perhaps *the* most important ingredient – in the recipe for success" (Maddux, 2002, p. 277). Self-efficacy is not motive, drive or a need to be in control, nor is it self-esteem (what I believe about myself). It is also not the intention to behave in a certain way or an intention to reach a specific goal. Self-efficacy is not a perceived skill, but what a person believes he or she *can do* (not *will do*) with their skills under certain conditions, in other words their belief about their

ability to coordinate and control skills and abilities (Maddux, 2002). Self-efficacy is a universal state and it presents itself differently in various contexts (Bandura, 2002). Although the most dominant antecedent of self-efficacy is the aggregation of actual previous experience (Shelton, 1990; Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs, & Rogers, 1982), other important antecedents are vicarious experience, verbal persuasion, successes in life and psychological states (Bandura, 1997).

The basic foundation of the self-efficacy theory is “people’s belief in their capabilities to produce desired effects by their own actions” (Bandura, 1997, p. vii). According to Luthans (2002b) Bandura believes self-efficacy is the most all-encompassing and important of all the psychological mechanisms for positivity. Bandura (1986, 1997) and Barone, Maddux and Snyder (1997) believe that self-efficacy is best understood against the background of the Social-Cognitive Theory which explains human cognition, action, motivation and emotion. The theory also assumes that we are active shapers of, rather than passive reactors to, our environments. Self-efficacy can therefore be seen as primarily cognitive in nature (Peterson, 2000). Efficacy beliefs (judgements about our capabilities) determine our expectations about the effects or consequences of our actions (Carr, 2004). The Self-efficacy Theory plays a critical role in psychological adjustment, psychological difficulties and physical health, as well as professional and self-guided behavioural change strategies (Maddux, 2002). Luthans (2002b) therefore regards this proactive-efficacy belief (or confidence) as aligned to the POB approach.

Judge, Erez and Bono (1998, p. 170) define general self-efficacy as “individuals’ perception of their ability to perform across a variety of different situations”. In POB efficacy is treated as a state that can be developed and effectively managed (Luthans, 2002b) and is operationally defined by Stajkovic and Luthans (1998a, p. 66) as “an individual’s conviction (or confidence) about his or her abilities to mobilize the motivation, cognitive resources and courses of action needed to successfully execute a specific task, within a given context”. Having confidence (self-efficacy), according to Luthans et al. (2007), therefore implies striving to succeed at challenging tasks. The above-mentioned definition and explanation point out the importance of role-specific tasks and the impact of context on efficacy and performance (Luthans, Van Wyk et al., 2004).

Self-efficacy is also related to work performance. Examples of the benefit of high levels of self-efficacy include being able to adapt to advanced technology (Hill, Smith, & Mann, 1987), managerial performance (Wood, Bandura, & Bailey, 1990) and skills acquisition (Mitchell, Hopper, Daniels, George-Falvey, & James, 1994). Luthans and Youssef (2004) support the relationship between self-efficacy and specific outcomes such as job satisfaction, organisational commitment, turnover intention and perceived organisational effectiveness and desirable attitudinal outcomes.

Resilience

According to Youssef and Luthans (2007) resilience is unique when compared to other positive capacities (such as hope and optimism) in that it recognises the need to take proactive and reactive measures when confronted with difficulties. Reactively it recognises the potential that problems and even positive but overwhelming events can have damaging consequences, hence the need to bounce back. Proactive resilience allows setbacks to be regarded as opportunities for growth to overcome challenges (Youssef & Luthans, 2007). The contrast between hope, optimism, and self-efficacy on one hand, and resilience on the other, is that resiliency is defined in terms of external adaptation and is more reactionary when people are faced with change, hardship or uncertainty (Block & Kremen, 1996; Luthans, Van Wyk, 2004). Hope, however, is characterised by internal adjustment and is proactive in nature (Luthans, Van Wyk et al., 2004).

Resilience, as field of study in psychology, has its origin in the observation of children at risk for problems and psychopathology (Luthans, Luthans et al., 2004; Masten, 1999). Successful high-risk children were referred to as “invulnerable” and “stress-resistant”. Eventually the term “resilient” was created to describe such individuals who do well in an environment which poses a great risk to them (Masten & Reed, 2002).

Resilience is defined by Block and Block (1980, p. 48) as “resourceful adaptation to changing circumstances and environmental contingencies, analysis of the ‘goodness of fit’ between situational demands and behavioural possibility, and flexible invocation of the available repertoire of problem solving strategies (problem solving being defined to include the social and personal domain as well as the cognitive)”.

Peterson (2006, p. 247) defines resilience as the “quality that enables people to thrive in the face of adversity” and is seen by Coutu (2002) and Carr (2004) as a skill and the capacity to be tough when confronted with and able to withstand situations of severe stress, demands and change without developing stress-related problems.

According to Masten and Reed (2002, p. 75), resilience refers to “a class of phenomena characterised by patterns of positive adaptation in the context of significant adversity or risk”. Resilience thus means that two major judgements are required, namely (1) a judgement that individuals are “doing OK” or “better than OK” with regards to the set of expectations for behaviour and (2) a judgement that there has been extenuating circumstances (Masten & Reed, 2002). Resilience is therefore something you realize you have, after an unpleasant experience or setback has occurred (Coutu, 2002).

Luthans and Youssef (2007), however, point out that in the context of POB resilience is viewed as a process instead of an outcome and can therefore not be limited to just a reactive capacity or reactive recovery expressed in time of hardship. It does not only incorporate a proactive dimension that promotes discrepancy creation even in the absence of external threats (Bandura & Lock, 2003), but also makes provision for proactive learning and personal growth through overcoming challenges in the sense that resilience may incorporate both negative setbacks and positive, but potentially overwhelming events (Bandura & Lock, 2003; Youssef & Luthans, 2007).

Luthans, Luthans et al. (2004) and Luthans and Youssef (2004, p. 154) define resilience as “the capacity to bounce back from adversity, uncertainty, failure or even positive but seemingly overwhelming changes such as increased responsibility and is particularly relevant in today’s turbulent business environment”. Highly resilient individuals see hardship and setbacks as chances to learn and grow (Luthans & Youssef, 2007). It is therefore recognised to be a learnable psychological capacity that all individuals have, but it needs to be developed (Masten, 2001; Masten & Reed, 2002). Coutu (2002) and Luthans and Youssef (2004) further point out that resilient people possess three characteristics, namely (1) a courageous acceptance of reality, (2) a deep belief, often reinforced by strongly held values, that life is significant and worthwhile and (3) an extraordinary ability to improvise and adapt successfully to important changes. A common belief about resilience, according to Coutu (2002), is that resilience stems from an optimistic nature, only when such optimism does not

change a person's sense of reality. Resilient people also create some sort of meaning for themselves by being able to transform from current problems to a fuller and better constructed future. Resilient people further have the ability to come up with solutions for challenges without proper or obvious tools or material. According to Luthans et al. (2008) everyone seems to have the potential for resiliency. What differs, however, is the resilient person's ability to use this resource in times of positive or negative stress or hardship.

Optimism, self-efficacy and resilience have a significantly positive impact on individuals, as in the case of hope. Resilient individuals have high aspiration levels, are assertive, self-assured and skilled socially, cheerful, not self-defeating, emotionally balanced and can succeed and grow through difficulties. They can recover after setbacks not only to their original, but to higher levels of performance and are able to find meaning and value in their lives during the process (Luthans & Youssef, 2005; Letzring, Block, & Funder, 2005). Resilience is, however, a life-long journey seen as a process and taken daily in progressive steps rather than an end goal (Luthans & Youssef, 2004).

Coutu (2002) points out that an increasing body of empirical evidence points to the fact that resilience can be learned, whether in children or in the business environment. Resilience therefore contributes to POB, because it has the psychological capacity for development and performance management (Luthans, 2002a; Luthans et al., 2005).

According to the literature and research evidence, POB constructs have theoretical independence and discriminantly valid measures (Luthans, 2002a). Psychometric analysis of the hope scale and comparative analysis between hope, optimism and self-efficacy not only indicate conceptual similarities that support each to be part of POB, but also indicate sufficient conceptual and measurement differences (Luthans & Jensen, 2002; Magaletta & Oliver, 1999; Snyder, 2000) to validate their individual measurements.

METHOD

Aims and hypothesis

The main objective of this research is to investigate the psychometric properties of the POB construct in a South African multicultural sample. The convergent validity, factorial validity and internal consistency of all four constructs (hope, optimism, self-

efficacy and resiliency) will be more specifically evaluated. A confirmatory factor analysis will also be carried out to confirm the factor loadings of the measured variables and the theoretical factor structure of the POB construct.

The research is based on the following hypothesised model of Positive Organisational Behaviour:

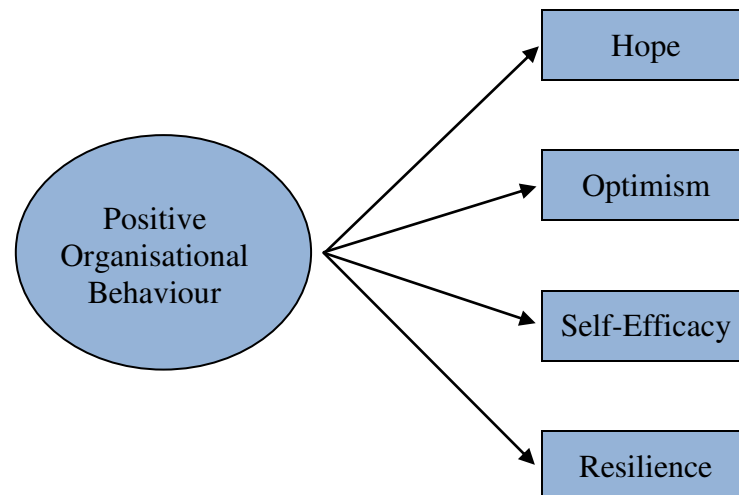


Figure 1. Hypothesised model of Positive Organisational Behaviour (POB)

Research design

A cross-sectional design was decided upon to achieve the research objectives of the study, because it can describe the information on the study population and the interrelationships among the variables (hope, optimism, self-efficacy and resiliency) which will be measured at a specific point in time without a planned intervention. This type of design is, according to Shaughnessy and Zechmeister (1997), the best suited to address the descriptive and predictive functions whereby relationships between variables are examined.

Participants

Surveys were distributed to all 1003 permanent employees working in all departments of the particular business unit which forms part of a larger chemical factory. A total of 908 completed questionnaires were returned and only 892 of the questionnaires could be used for data analysis. This represented a response rate of 90,5; 98,1% of the returned questionnaires could be used for the final data analysis. The above-mentioned sample was divided into two groups in order to perform an explorative

investigation and to test these results by means of confirmative analysis. The characteristics of the two groups as well as the total group are illustrated in Table 1.

Table 1

Characteristics of the Participants

Item	Category	Sample 1(Exploratory Analysis; n=449)		Sample 2 (Confirmatory Analysis; n=443)		Total sample (N=892)	
		Frequency*	Percentage*	Frequency*	Percentage*	Frequency*	Percentage*
Gender	Female	126	28,10	142	32,10	268	30,10
	Male	309	68,81	285	64,33	594	66,60
Race	Black	192	42,76	178	40,18	370	41,48
	Coloured	5	1,11	7	1,58	12	1,35
	Indian	11	2,45	12	2,71	23	2,58
	White	238	53,00	241	54,40	497	55,72
Job level	Snr Management-Level-4	11	2,45	5	1,13	16	1,80
	Middle Management-Level 5	31	6,90	22	4,97	53	5,94
	Middle Management-Level 6C	22	4,90	25	5,64	47	5,27
	Supervisors-Level-6	27	6,01	26	5,87	53	5,94
	Supervisors-Level-7	102	22,72	107	24,15	209	23,43
	Skilled Workers-Level-8	11	2,45	100	22,57	210	23,54
	Skilled Workers-Level 9	85	18,93	95	21,44	18	2,02
	Skilled Workers-Level-10	41	9,13	46	10,38	87	9,75
	Semi-skilled Workers-Level-11	4	,89	3	,68	7	,78
	Semi -skilled Workers-Level-12	1	,22	0	0	1	,11

*Where totals are not equal to 100, this is due to missing values.

According to Table 1, in both samples and in the total study population, the majority of participants were male, which reflects the demographics of the organisation very well given the fact that the technical and operational areas of the organisation are still dominated by men. The race groups (in the two samples and total study population) are also representative of the actual population of the organisation, with the majority of the participants represented in the white group. The average age for the first, second and total sample is 41,1 years, 39,8 years and 40,4 years respectively, with standard deviations of 10,9, 11,2 and 11,1 years. With regards to the years service, the average for the first, second and total sample is 14,1, 12,8 and 13,4 years respectively (with standard deviations of 10,8, 10 and 10,5 years). The majority of the participants were on supervisory and non-managerial levels. The sub-samples (exploratory and confirmatory) compared well with the total study population.

Measuring instruments

The variables of interest to this study were embedded in a larger survey assessing a variety of personal and organisation-related variables. The Dispositional Hope Scale (Snyder et al., 2002), Life Orientation Test-Revised (LOT-R), (Scheier, Carver, & Bridges, 1994), General Self-Efficacy Scale (Sherer et al., 1982) and the Ego-Resiliency Scale (Block & Kremen, 1996) were used in this research. All scales made use of a five-point Likert Scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”).

The measuring instruments used to evaluate the POB states in earlier research (Luthans et al., 2005) are the State Hope Scale (Snyder et al., 1996), Life Orientation Test (Scheier & Carver, 1985) and the Ego-Resiliency Scale (Block & Kremen, 1996). The positive psychological capacity of hope is, however, recognised as both dispositional or trait-like, and situational or state-like (Snyder, 2000), with research indicating a 0,79 correlation between the Trait Hope Scale and State Hope Scales (Luthans & Jensen, 2002). With regards to optimism, Schneider (2001) and Seligman (1998) support the optimism construct theoretically and empirically also as a state-like construct and therefore open to development. The Life Orientation Test-Revised (LOT-R), (Scheier, Carver, & Bridges, 1994) associated with measuring dispositional optimism has also demonstrated its ability to measure state-like optimism (Shifren & Hooker, 1995). At the time of the research the researcher could not find the specific instrument used by other researchers to measure self-efficacy in the POB context. The General Self-Efficacy Scale has therefore been used as “it seems reasonable to view self-efficacy in both specific and generalised form, because generalised self-efficacy can be viewed as reflecting one’s perceptions of one’s fundamental ability to cope with life’s exigency” (Judge, Locke, Durham, & Kluger, 1998, p. 19). Resilience is regarded by the POB perspective as a learnable capacity that can be developed in most people (Luthans & Youssef, 2007) and therefore it is measured as state-like (Wagnild & Young, 1993).

Information on the validity of the above-mentioned four scales is well documented and is discussed next.

Hope: The *Dispositional Hope Scale* (Snyder, Irving et al., 1991) is a 12-item self-report instrument containing four agency items (e.g., “*I energetically pursue my*

goals” and “I meet the goals I set for myself”) and four pathway items (e.g., “There are lots of ways around any problem” and “I can think of many ways to get the things in life that are most important to me”). There are four distracter items which are not used for scoring. Respondents, rate how accurate each item describes them generally, reflecting the hope score with regards to the sum of the agency and pathway items (Snyder, Irving et al., 1991). Snyder, Irving et al. (1991) further reported that the Hope Scale has demonstrated adequate internal and test-retest reliabilities, as well as concurrent construct validity in terms of its correlations with other related measures. Baily and Snyder (2007) reported a Cronbach alpha coefficient of 0,74 to 0,84. Botha (2010) found a reliability coefficient of 0,77 in a South African sample (n=286).

Optimism: Dispositional Optimism in this study was measured by means of the *Revised Life Orientation Test* (LOT-R; Scheier, Carver, & Bridges, 1994). The scale measures optimism defined in terms of generalised outcome expectancies (Scheier & Carver, 1985). The LOT-R is a revised test based on the original *Life Orientation Test* (LOT) developed by Scheier and Carver (1985). The intention of the revised version was to focus more exclusively on expectations of good versus bad outcomes by reducing negatively worded items to ensure an equal number of positively and negatively worded items (Scheier et al., 1994). The *Revised Life Orientation Test* (LOT-R) is a 10-item measure. Six items contribute to the optimism score and four items are fillers which are not used for scoring. Three negatively worded items are reverse scored. The original Life Orientation Test, which hypothesised a two-factor structure of optimism (i.e. optimism and pessimism), was questioned (Harju & Bolen, 1998). Follow-up analysis demonstrated a one-factor structure, indicating that the LOT-R measures a continuum of high, average and low optimism/pessimism (Scheier et al., 1994). A typical question from the scale is: “In uncertain times, I usually expect the best”. The LOT-R was found to have adequate internal consistency ($\alpha = 0,78$) and excellent convergent and discriminant validity (Scheier et al., 1994). Based on a sample of 204 college students, Harju and Bolen (1998) obtained a Cronbach alpha coefficient of 0,75. Test-retest reliability of the LOT-R over a period of 28 months yielded a correlation of 0,79 (Scheier et al., 1994). Coetzer (2004) found a one-factor structure with a reliability coefficient of 0,70 in a South African sample of employees working in the insurance industry.

Self-efficacy: Self-efficacy was measured with the *General Self-Efficacy Scale (GSES)*, consisting of 17 items and developed by Sherer et al. (1982) to assess expectancies or perceived self-efficacy, or one's general expectancies regarding one's ability to display certain behaviour. Ten items in the questionnaire are reverse scored. A typical question in this instrument is: "*When I make plans, I am certain I can make them work*". The sum of the item scores reflects general self-efficacy and the higher the score, the more self-efficacious the respondent. Sherer et al. (1982) reported a Cronbach alpha reliability coefficient of 0,86 for the general self-efficacy scale and Imam (2007) reported a reliability coefficient of 0,85. No research done in South Africa on the General Self-Efficacy Scale (GSES) could be found. Elbert (2002) reported an alpha reliability coefficient and 0,89 for the General Perceived Self-Efficacy Scale (GPSES) for a South African sample.

Resilience: Resilience was measured with the *Ego-Resiliency Scale (ER89)*, Block & Kremen, 1996). The Ego-Resiliency Scale, a 14-item self-report instrument, was developed by drawing items from the Minnesota Multiphasic Personality Inventory (MMPI, Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989) and the California Psychological Inventory (CPI, Gough, 1987). Some of the items were developed by the researchers themselves (Block & Kremen, 1996). The ER Scale was administrated longitudinally to research participants at the age of 18 and again at the age of 23 and yielded a reliability (alpha) coefficient of 0,76 and test-retest reliabilities of 0,67 and 0,51 for females and males respectively (Block & Kremen, 1996). A typical question in this instrument is: "*I quickly get over and recover from being startled*". No South African research has been found.

Statistical analysis

The sample of participants was divided into two groups for exploratory and confirmatory factor analysis in this study. In the first group ($n=449$) explorative factor analysis was carried out to determine the construct and convergent validity of the measures of hope, optimism, self-efficacy and resiliency and whether these constructs are indicative of a second-order construct (Positive Organisational Behaviour). In the second group ($n=443$) confirmatory factor analysis was carried out to determine if the number of factors and their loadings conform to what is expected on the basis of the pre-established POB construct and theory.

The statistical analysis was carried out with the aid of the SPSS programme (SPSS, 2011) and the AMOS programme (Arbuckle, 2007). The SPSS Programme was used to carry out statistical analysis to determine the differences for values and the demographic characteristics, reliability and validity of the measuring instruments, descriptive statistics, analysis of variance, correlation coefficients and multiple regression analysis. The Amos Programme was used to carry out structural equation modelling.

Cronbach alpha coefficients and Pearson correlations was calculated with the use of the SPSS programme for the exploratory factor analysis. Cronbach alpha coefficients was used to determine the internal consistency (reliability), homogeneity and unidimensionality of the measuring instruments, as well as information regarding the proportion of variance of the items of a scale in terms of the total variance explained by that particular scale (Clark & Watson, 1995).

Descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) was also used to analyse the data. Exploratory factor analyses was carried out to investigate the construct validity of the measuring instruments and to prepare a test of a theoretical model in a path analysis. Exploratory factor analyses and Cronbach alpha coefficients was then computed to assess the validity and reliability of the constructs that were measured in this study. Pearson product-moment correlation coefficients were used to specify the relationship between the various constructs. It was decided to set the value at a 99% confidence interval level ($p \leq 0,01$) for the exploratory factor analysis. Effect sizes (Cohen, 1988; Steyn, 1999) were used in addition to determine the statistical significance of the relationships of the findings. Effect sizes indicate whether obtained results are important, while statistical significance may often show results which are of little practical relevance (Steyn, 1999). A cut-off point of $d \geq 0,30$ (medium effect, Cohen, 1998) was set for the practical significance of correlation coefficients. Values larger than 0,30 was regarded as practically significant, while 0,50 for medium effect and 0,80 for larger effect (Cohen, 1988). Multiple regression analysis was conducted to investigate the direction of the relationships. Multiple regression analysis also assisted in determining if any independent variable predicted the dependent variable and also to determine the percentage variance in the dependent variable that is predicted by the independent variable.

Prior to principal factor extraction, principal component extraction was done to estimate the number of factors, the presence of outliers and the factorability of the correlation matrices. Principal component analysis was carried out on all four (hope, optimism, self-efficacy and resilience) of the measuring instruments. Eigen values and scree plots were evaluated to determine the number of factors. The guidelines as set out by Costello and Osborne (2005), which include the use of a scree plot to compliment the Kaiser criterion (eigen values ≥ 1), was used to determine the number of components in this research. Field (2005) also recommends the use of a scree plot as alternative measure to the Kaiser criterion. Where factor analysis is reported, only items with a loading of 0,30 or higher, as recommended by Field (2005) and Tabachnick & Fidell (2001), was regarded as desirable or solid items. Maximum likelihood factor analysis with a direct oblimin rotation was conducted to establish if the factors are related (Tabachnick & Fidell, 2001).

To assist in the confirmatory analysis the covariance analysis or structural equation modelling (SEM) method, as implemented by AMOS (SPSS, 2011), was used to determine the factorial validity (model fit) of the theoretical factor structures of the POB construct. Byrne (2001) describes SEM as a statistical methodology which takes a confirmatory approach to the analysis of a structural theory bearing on some observable fact. Hypothesised relationships were empirically tested for goodness-of-fit with the sample data. The χ^2 statistic and several other goodness-of-fit indices, as recommended by Jöreskog and Sörborn (1993), were used to determine the degree of correspondence between the implied and observed covariance matrices. However, because the χ^2 statistic equals $(N-1)F_{\min}$, this value tends to be substantial when the model does not hold and the sample size is large (Byrne, 2001). To address the χ^2 limitation, the goodness-of-fit index was used to enable the researcher to take a more pragmatic approach to the evaluation process. A value <2 for $\chi^2/\text{degrees of freedom}$ ratio (CMIN/df) (Wheaton, Muthén, Alwin, & Summers, 1977) indicates acceptable fit (Tabachnick & Fidell, 2001).

The hypothesised relationships with the data were also be tested using the Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Normed Fit Index (NFI), Comparative Fit Index (CFI), Tucker Lewis Index (TLI) and Root Mean Square Error of Approximation (RMSEA). Hu and Bentler (1999) suggest a cut-off point of 0,06

for the RMSEA. Results from the rest of the above-mentioned indices vary from 0 and 1, and values of 0,90 or greater are indicative of a good fit (Hoyle, 1995).

RESULTS

Exploratory analysis

Exploratory Factor Analysis (EFA) was carried out initially with half of the sample ($n=449$) to investigate the factor structure of the individual scales. This was done to determine which items represented the respective scales best.

In the first analysis the Dispositional Hope Scale (Snyder, Harris et al., 1991) was subjected to a principal component analysis. The communalities were indicated as follows: Item 1 (“*I can think of many ways to get out of a jam*”): $h^2=0,60$; Item 12 (“*I meet the goals that I set for myself*”): $h^2=0,58$; Item 4 (“*There are lots of ways around any problem*”): $h^2=0,57$; Item 6 (“*I can think of many ways to get the things in life that are most important to me*”): $h^2=0,51$; Item 8 (“*Even when others get discouraged, I know I can find a way to solve the problem*”): $h^2=0,48$; Item 2 (“*I energetically pursue my goals*”): $h^2=0,44$; Item 9 (“*My past experiences have prepared me well for my future*”): $h^2=0,42$; Item 10 (“*I’ve been pretty successful in life*”): $h^2=0,42$. According to Costello and Osborne (2005) only communalities between 0,40 and 0,70 might indicate a strong relation between items. Based on this criterion, all items can therefore be considered as good indicators of the hope construct. The results of the principal components analysis are reported below.

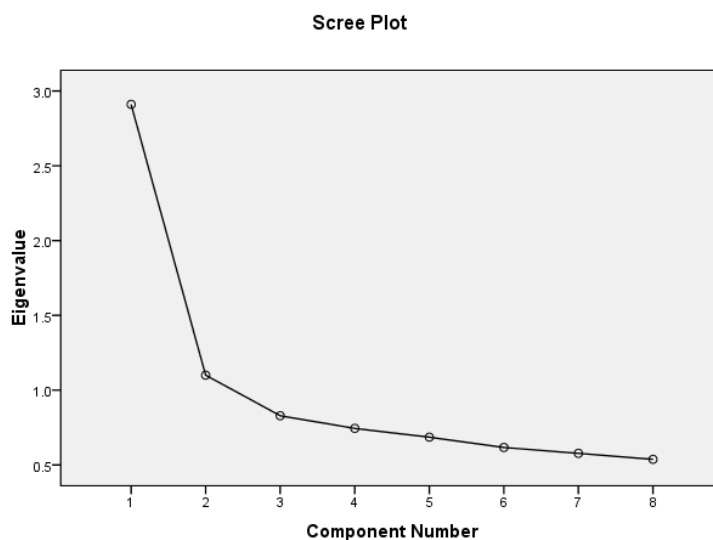


Figure 2. Scree Plot for the Hope Items

Figure 2 above indicates the scree plot for the hope construct and is somewhat ambiguous. It is unclear whether the plot indicates one or two factors underlying the hope items, considering the number of data points “above” the break (Costello & Osborne, 2005, p. 3). The Kaiser criterion (eigen values ≥ 1), however, also points out two distinct factors (explaining 36,38% and 13,74% of the variance, respectively), underlying the hope items. The factor analysis with a direct oblimin rotation follows in Table 2 below.

Table 2

Factor analysis of the Hope Scale

Item number*	Item wording	Factor 1	Factor 2
Ho 02 (A)	I energetically pursue my goals	0,46	0,18
Ho 09 (A)	My past experiences have prepared me well for my future	0,47	0,11
Ho 10 (A)	I've been pretty successful in life	0,48	-0,04
Ho 12 (A)	I meet the goals that I set for myself	0,74	-0,14
Ho 01 (P)	I can think of many ways to get out of a jam	-0,01	0,64
Ho 04 (P)	There are lots of ways around any problem	0,01	0,51
Ho 06 (P)	I can think of many ways to get the things in life that are most important to me	0,29	0,41
Ho 08 (P)	Even when others get discouraged, I know I can find a way to solve the problem	0,49	0,20

*All items with an “A” indicate *agency* items and all items with a “P” indicate *pathway* items.

It can be seen from Table 2 that two distinct factors underlie the hope items, namely those represented by four agency and three pathway items. Item 8, however, loads on the agency items and can therefore be taken out. According to Costello and Osborne (2005), a factor loading of 0,50 or higher indicates a solid factor, therefore only items 12, 1, and 4 have sufficiently high factor loadings. A correlation of 0,52 between the agency and pathway items was also recorded. Finally, the reliability coefficient (Chronbach’s alpha) was computed for the scale with seven items (Item 8 “*Even when others get discouraged, I know I can find a way to solve the problem*” was removed), producing an alpha coefficient of: $\alpha=0,70$. An alpha coefficient of 0,70 and higher (0,55 for basic research) is, according to Nunnally and Bernstein (1994), a reliable measure for internal consistency.

In the second analysis the Optimism Scale (Life Orientation Test-Revised (LOT-R), Scheier et al., 1994) was subjected to principle component analysis. The communalities were indicated as follows: Item 7 (“*I hardly ever expect things to go*

my way”, reverse scored): $h^2 = 0,65$; Item 9 (“I rarely count on good things happening to me”, reverse scored): $h^2 = 0,61$; Item 10 (“Overall, I expect more good things to happen to me than bad”): $h^2 = 0,61$; Item 4 (“I’m always optimistic about my future”): $h^2 = 0,51$; Item 1 (“In uncertain times, I usually expect the best”): $h^2 = 0,44$; Item 3 (“If something can go wrong for me, it will”, reverse scored): $h^2 = 0,36$. Considering the guideline of Costello and Osborne (2005), only communalities between 0,40 and 0,70 indicate a strong relation between items. All items with the exception of Item 3 can therefore be considered as good indicators of the optimism construct. If the Kaiser criterion (eigen values ≥ 1), is applied, two factors underlie the optimism items, explaining 31,12% and 21,60% of the variance respectively. Field (2005) recommends that a scree plot should be used as an alternative measure to the Kaiser criterion. The scree plot can be viewed in Figure 3 below.

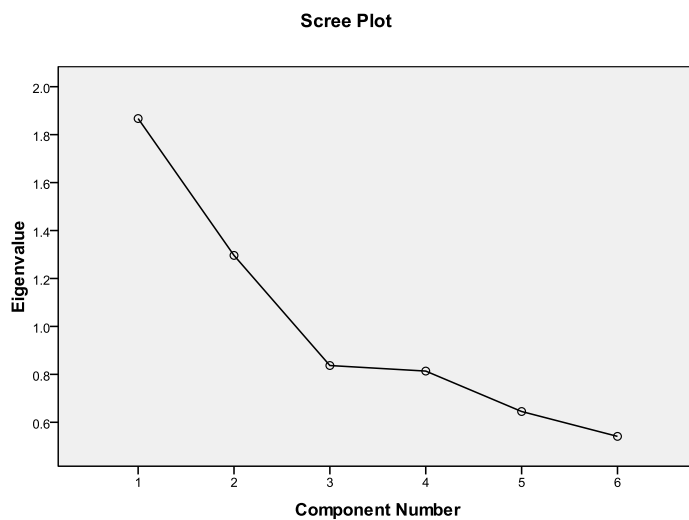


Figure 3. Scree Plot for the Optimism Scale

It can be seen in Figure 3 that the scree plot indicates two clear factors for the optimism construct, considering the number of data points “above” the break (Costello & Osborne, 2005, p. 3). The factor matrix with a direct oblimin rotation is reported in Table 3.

Table 3

Factor Analysis of the Optimism Items

Item number*	Item wording	Factor 1	Factor 2
OP1	In uncertain times, I usually expect the best	-0,03	0,37
OP3 (R)	If something can go wrong for me, it will	0,34	0,07
OP4	I'm always optimistic about my future	0,09	0,47
OP7 (R)	I hardly ever expect things to go my way	0,74	-0,04
OP9 (R)	I rarely count on good things happening to me	0,62	0,04
OP10	Overall, I expect more good things to happen to me than bad	-0,03	0,71

*(R) indicates reverse scored items

It can be seen from Table 3 that two factors underlie the optimism items. According to Field (2005), a factor loading of 0,30 or higher indicates a solid factor, therefore all items have sufficiently high factor loadings. There is, however, considerable variability in the strength of the loadings. A correlation of 0,31 between the two factors indicating what may be termed optimism and pessimism is also seen. A reliability coefficient (Chronbach's alpha) of 0,53 was computed for the scale with all six items. For Items 1, 4 and 10 (optimism items) a reliability coefficient of 0,51 and for Items 3, 7 and 9 (pessimism items) a reliability coefficient of 0,62 was obtained. Considering the low reliability of the total, as well as the individual scales (Nunnally & Bernstein, 1994), a different approach in terms of the measurement of optimism was decided upon. When considering the communalities, it was found that Items 7, 9 and 10 showed the highest communality. It is also seen in the factor analysis that these are the items that represent with the highest loadings. What is also helpful is that these items draw from both the "pessimism" (Items 7 and 9) and "optimism" (Item 10) dimensions. A new scale consisting of these three items was created to represent optimism and it showed an alpha coefficient of 0,75.

In the third analysis the generalised Self-Efficacy Scale (Sherer et al., 1982) was subjected to principle component analysis. The communalities were indicated as: Item 3 ("If I can't do a job the first time, I keep trying until I can"): $h^2 = 0,52$; Item 9 ("When I decide to do something, I go right to work on it"): $h^2 = 0,49$; Item 5 ("I give up on things before completing them", reverse scored): $h^2 = 0,49$; Item 2 ("One of my problems is that I cannot get down to work when I should", reverse scored): $h^2 = 0,49$; Item 6 ("I avoid facing difficulties", reverse scored): $h^2 = 0,36$; Item 13 ("Failure just makes me try harder"): $h^2 = 0,46$; Item 12 ("I avoid trying to learn new things when

they look too difficult for me”, reverse scored): $h^2=0,46$; Item 8 (“When I have something unpleasant to do, I stick to it until I finish it”): $h^2=0,45$; Item 14 (“I feel insecure about my ability to do things”, reverse scored): $h^2=0,45$; Item 10 (“When trying to learn something new, I soon give up if I am not initially successful”, reverse scored): $h^2=0,43$; Item 7 (“If something looks complicated, I will not even bother to try it”, reverse scored): $h^2=0,42$; Item 11 (“When unexpected problems occur, I don't handle them well”, reverse scored): $h^2=0,42$; Item 15 (“I am a self-reliant person”): $h^2=0,42$; Item 4 (“When I set important goals for myself, I rarely achieve them”, reverse scored): $h^2=0,41$; Item 1 (“When I make plans, I am certain I can make them work”): $h^2=0,41$; Item 17 (“I do not seem capable of dealing with most problems that come up in life”, reverse scored): $h^2=0,38$; Item 16 (“I give up easily”, reverse scored): $h^2=0,34$. Based on the criteria as recommended by Costello and Osborne (2005), only communalities between 0,40 and 0.70 might indicate a strong communality between items. Items 16 and 17 are therefore not strongly related to the rest of the items and can therefore not be considered good indicators of the self-efficacy construct.

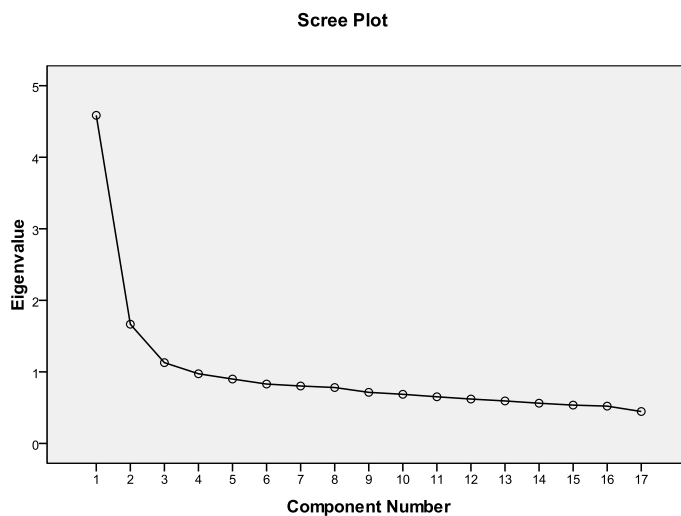


Figure 4. Scree Plot for the Self-Efficacy Items

It can be seen in Figure 4 that the scree plot indicates only one factor for the self-efficacy construct, considering the number Costello and Osborne (2005) guideline of data points before the break in the line. The Kaiser criterion (eigen values ≥ 1) also pointed out one distinct factor, explaining 26,97% of the variance. The factor matrix with a direct oblimin rotation is reported in Table 4.

Table 4

Factor Analysis of the Self-Efficacy Scale

Item number*	Item wording	Factor 1
SE11 (R)	When unexpected problems occur, I don't handle them well	0,59
SE7 (R)	If something looks complicated, I will not even bother to try it	0,58
SE14 (R)	I feel insecure about my ability to do things	0,58
SE5 (R)	I give up on things before completing them	0,56
SE10 (R)	When trying to learn something new, I soon give up if I am not initially successful	0,56
SE12 (R)	I avoid trying to learn new things when they look too difficult for me	0,56
SE16 (R)	I give up easily	0,54
SE17 (R)	I do not seem capable of dealing with most problems that come up in life	0,53
SE6 (R)	I avoid facing difficulties	0,45
SE13	Failure just makes me try harder	0,45
SE1	When I make plans, I am certain I can make them work	0,41
SE2 (R)	One of my problems is that I cannot get down to work when I should	0,37
SE9	When I decide to do something, I go right to work on it	0,37
SE15	I am a self-reliant person	0,36
SE4 (R)	When I set important goals for myself, I rarely achieve them	0,36
SE8	When I have something unpleasant to do, I stick to it until I finish it	0,35
SE3	If I can't do a job the first time, I keep trying until I can	0,28

*(R) indicates reverse scored items.

It can be seen from Table 4 that only one factor underlies the self-efficacy items. According to Costello and Osborne (2005), an item loading of 0,50 or higher indicates a solid factor, therefore only items 11, 7, 14, 5, 10, 12, 16 and 17 have sufficiently high factor loadings.

The reliability coefficient (Chronbach's alpha) was computed for the scale with seventeen items. The reliability coefficient reported for the self-efficacy scale in this study is $\alpha=0,82$, which indicates good reliability (Nunnally & Bernstein, 1994). It was indicated that by removing Item 3 (*"If I can't do a job the first time, I keep trying until I can"*), a small but insignificant increase in reliability can be obtained ($\pm 0,01$).

In the fourth analysis the Resiliency Scale (ER89; Block & Kremen, 1996) was also subjected to principle component analysis. The communalities were indicated as: Item 11 (*"I like to do new and different things"*): $h^2=0,53$; Item 13 (*"I would be willing to describe myself as a pretty "strong" personality"*): $h^2=0,49$; Item 9 (*"Most of the people I meet are likeable"*): $h^2=0,49$; Item 12 (*"My daily life is full of things that keep me interested"*): $h^2=0,47$; Item 1 (*"I am generous with my friends"*): $h^2=0,47$; Item 3 (*"I enjoy dealing with new and unusual situations"*): $h^2=0,45$; Item 10 (*"I*

usually think carefully about something before acting’): $h^2=0,44$; Item 6 (“I am regarded as a very energetic person”): $h^2=0,44$; Item 4 (“I usually succeed in making a favourable impression on people”): $h^2=0,43$; Item 5 (“I enjoy trying new foods I have never tasted before”): $h^2=0,42$; Item 7 (“I like to take different paths to familiar places”): $h^2=0,42$; Item 8 (“I am more curious than most people”): $h^2=0,39$; Item 14 (“I get over my anger at someone reasonably quickly”): $h^2=0,39$; Item 2 (“I quickly get over and recover from being startled”): $h^2=0,23$. Based on the criteria as recommended by Costello and Osborne (2005) only Items 8, 14 and 2 are therefore not strongly related to the rest of the items and can therefore not be considered as good indicators of the resiliency construct. Analysis of the eigen values (larger than one) indicated that three factors underlie the data and explain 25,83%, 9,76% and 7,89% of the variance respectively. Field (2005) recommends that a scree plot should be used as an alternative measure to the Kaiser criterion, and Pallant (2007) recommends that all components above the break in a scree plot should be seen as reliable representations of the number of factors present.

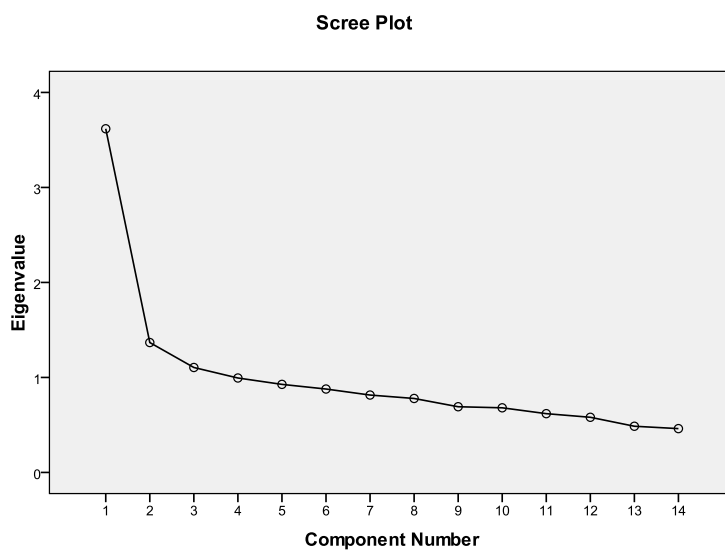


Figure 5. Scree Plot for the Resiliency Items

It can be seen in Figure 5 that the scree plot indicates only one factor underlying the resiliency items, given the fact that there is only one factor above the first break in the line. The factor matrix with a direct oblimin rotation is reported in Table 5.

Table 5

Factor Analysis of the Resiliency Construct

Item number	Item wording	Factor 1
RE13	I would be willing to describe myself as a pretty "strong" personality	0,61
RE6	I am regarded as a very energetic person	0,58
RE4	I usually succeed in making a favourable impression on people	0,57
RE3	I enjoy dealing with new and unusual situations	0,56
RE11	I like to do new and different things	0,48
RE7	I like to take different paths to familiar places	0,48
RE1	I am generous with my friends	0,45
RE8	I am more curious than most people	0,44
RE12	My daily life is full of things that keep me interested	0,44
RE5	I enjoy trying new foods I have never tasted before	0,40
RE2	I quickly get over and recover from being startled	0,38
RE10	I usually think carefully about something before acting	0,31
RE9	Most of the people I meet are likeable	0,25
RE14	I get over my anger at someone reasonably quickly	0,11

According to Costello and Osborne (2005), only items, 13; 6; 4 and 3 have sufficiently high factor loadings. It is furthermore clear that there is considerable variability in the strengths of the loadings. Items 9 and 14 have very poor loadings on the factor.

The reliability coefficient (Chronbach's alpha) was computed for the scale with only twelve items after Item 9 (*"Most of the people I meet are likeable"*) and Item 14 (*"I get over my anger at someone reasonably quickly"*) had been removed. The reliability coefficient reported for the resiliency scale in this study is $\alpha=0,77$, which is considered reliable (Nunnally & Bernstein, 1994).

Next, all the items of all four constructs which represent POB (hope, optimism, self-efficacy and resiliency) were subjected to a principal component factor analysis to determine whether they might be indicative of a single factor. Communalities varied between 0,67 and 0,37. As per the criteria of Costello and Osborne (2005), all the items displayed strong communalities (between 0,40 and 0,70), except for Item 9 of the Hope Scale (*"My past experiences have prepared me well for my future"* – agency item, $h^2=0,37$). When the guideline of Field (2005) is applied, only two items did not yield a loading of 0,30 or higher, which indicates a solid factor. These factors included one optimism item (Item 3: *"If something can go wrong for me, it will"*,

reverse scored) and one self-efficacy item (Item 4: “When I set important goals for myself, I rarely achieve them”, reverse scored).

The factor matrix with a direct oblimin rotation for all four constructs indicates that only one factor explains the variance in the data.

Table 6

Factor Analysis of the Different Scales Constituting Positive Organisational Behaviour

Scale	Factor 1
Hope	0,85
Optimism	0,29
Resiliency	0,84
Self-Efficacy	0,63

As can be seen from Table 6 above, the constructs of hope, resiliency and self-efficacy contribute positively to POB. The optimism factor shows the weakest loading and the resiliency factor the strongest. The correlations between these scales are reported below.

Table 7

Correlations between POB Factors

	Hope	Optimism	Self-Efficacy
Optimism	0,24*		
Self-efficacy	0,54 ⁺⁺	0,19**	
Resiliency	0,71 ⁺⁺	0,26**	0,52 ⁺⁺

Note: *Correlation is significant at the 0,01 level (2-tailed).
 Practical significant (medium effect) + $r \geq 0,30$
 Practical significance (large effect) ++ $r \geq 0,50$

Table 7 shows that Hope has a statistically significant positive correlation (practical significant and small effect) with the Optimism Scale, a statistically significant positive correlation (practically significant and large effect) with self-efficacy and a statistically significant positive correlation (practically significant and large effect) with Resiliency. Self-efficacy has a statistically significant positive correlation with the Optimism Scale. Resiliency has a statistically significant positive correlation (practically significant, small effect) with the Optimism Scale and a significant positive correlation (practical significant and large effect) with Self-efficacy.

Confirmatory analysis

The other half of the sample ($n=443$) was used to carry out the confirmatory factor analysis. The three items that best represented each of the individual dimensions in terms of the highest communalities for each scale were used in the confirmatory analysis to test if loadings of factors conform to what is expected in terms of the hypothesised model. The Goodness-Of-Fit Index and the χ^2 statistic were utilised to determine the degree of correspondence between the implied and observed matrices. The χ^2 value together with the degrees of freedom was employed to obtain an overview of model fit. Global assessments of model fit were based on the Goodness-of-Fit statistics (GFI, AGFI, PGFI, NFI, CFI, TLI, and RMSEA). The fit statistics are presented in Table 8.

Table 8
Goodness-of-fit Statistics for the Hypothesized POB Model

Model	χ^2	χ^2/df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Hypothesised	1,92	0,96	0,99	0,98	0,99	1,00	1,00	0,00

The statistically significant χ^2 value of 1.92 ($df = 96; p \leq 0.00$) is indicative of a good fit of the hypothesised POB model. The GFI value of 0,99, AGFI value of 0,98, and NFI Value of 0,99 are all indicators of good fit of the model. The TLI value of 1,00, TLI value of 1,00 and the RMSEA value of 0,00 also confirm a good fit of the model. Adequate model fit, according to Hu's and Bentler's (1998) combinatorial rule, is where two or three indices are within acceptable range. If this rule is applied, it can clearly be seen that the confirmatory analysis confirms that all factors fit the model and no modification to the model is needed.

DISCUSSION

The main objective of this study was to investigate the psychometric properties of the POB construct in a South African multicultural sample. Specific attention was given to determine the convergent validity, factorial validity and internal consistency of the four constructs (hope, optimism, self-efficacy and resiliency) that constitute the POB construct.

Firstly, an exploratory factor analysis was carried out on the items of each of the four scales (hope, optimism, self-efficacy and resiliency) to determine the reliability,

homogeneity and unidimensionality and to obtain information on which items represented the respective scales best.

In the first analysis the Dispositional Hope Scale (Snyder, Harris et al., 1991) was subjected to a principal component analysis. All items were strong indicators of the hope construct and the factor analysis revealed that two distinct but strongly related factors underlie the hope items, namely those represented by four agency and three pathway items. A 7-item version of this scale proved reliable ($\alpha=0,70$) in the current sample. Snyder, Harris et al. (1991) reported a reliability coefficient for the total score ranging from 0,74 to 0,84; test-retest correlations of 0,80 have been obtained over a period exceeding ten weeks. Snyder, Harris et al. (1991) also found two factors underlying the total hope construct. Luthans et al. (2005) reported a reliability coefficient of 0,64 for a sample of Chinese workers ($n=422$) and Botha (2010) reported a reliability coefficient of 0,77 for a South African sample ($n=286$). This result thus indicates that the Hope Scale may be successfully applied to a South African sample and could be used in future research.

The Optimism Scale (Life Orientation Test-Revised (LOT-R), Scheier et al., 1994) proved more problematic in the current sample and initially presented clear optimism/pessimism or positive/negative items with poor reliability. By considering the communalities and item loadings in the factor analysis, it was seen that three items, drawing from both the “pessimism”/negative (Items 7 and 9) and “optimism”/positive (Item 10) dimensions, reliably represent this construct by yielding a reliability coefficient of 0,75. Luthans et al. (2005) obtained a reliability coefficient of only 0,56 from a sample of Chinese workers ($n=422$). In the current sample optimism is thus presented with a three-item scale with a reliability of 0,75. This shortened scale may be applied in future South African research, albeit cautiously. Ideally more work needs to be done on researching and validating this scale in South Africa.

In the third analysis the generalised Self-Efficacy Scale (Sherer et al., 1982) was subjected to principle component analysis. It was found that Items 16 and 17 did not strongly relate to the rest of the items and could therefore not be considered as good indicators of the self-efficacy construct. A factor analysis revealed that only one factor underlies the self-efficacy items. The reliability coefficient ($\alpha=0,82$) was computed for the scale with all seventeen items. Imam (2007) reported a reliability coefficient of

0,85 in a homogeneous sample of 207 Malaysian students. Findings from the current study thus give further evidence of the efficacy of this scale when applied in non-native English speaking contexts.

In the fourth analysis the Resiliency Scale (ER89; Block & Kremen, 1996) was also subjected to principle component analysis. Three of the seventeen items (Items 8, 14 and 2) did not relate strongly to the rest of the items and could therefore not be considered as good indicators of the resiliency construct. It was also found that only one factor underlies the resiliency items. After items 9 and 14 had been removed, the reliability coefficient (Chronbach's alpha) was computed at 0,77 for the scale, with only twelve items. Luthans (2005) reported a reliability coefficient of 0,84 for this construct from data obtained from a sample of Chinese workers ($n=422$). This result suggests a reliable twelve-item version of the scale for use in South Africa.

It was also shown that only one factor explains the variance in the data and that the constructs of hope, optimism, resiliency and self-efficacy contribute positively to POB. When hope, optimism and resiliency were combined, Luthans et al. (2005) found a reliability coefficient of 0,80 (Kline, 1998). Significant positive relationships between these constructs were also obtained. Luthans et al. (2007) reported similar positive relationships from a high-tech manufacturing firm ($n=115$). Luthans et al. (2007) indicated the strongest relationship to be between hope and optimism ($r=.61$) and the weakest between resiliency and self-efficacy ($r=.40$, $p<0.01$). The current results indicate the strongest relationship between resilience and hope ($r=.71$) and the weakest relationship between self-efficacy and optimism ($r=.19$, $p<0.01$).

The focus finally fell on a confirmatory approach. Results revealed an overall good fit with the hypothesised model, again confirming that the four constructs of hope, optimism, resiliency and self-efficacy describe a super-/second-order factor which may be termed POB. These results are consistent with results found in literature. Piccolo, Judge, Takahashi, Watanabe and Locke (2005) found an adequate fit between the core self-evaluations model and their data (NFI =0,96, CFI =0,97 and RMSR =0,06). Research done by Erez and Judge (2001) in the United States also indicated a good fit of the core self-evaluations model with RMSEA=0,08, NNFI=0,92, IFI=0,94 and PNFI=0,66. Confirmative factor analysis conducted by Luthans et al. (2005), based on a sample of Chinese workers where the hope, optimism and resilience constructs were combined, demonstrated reasonable fit with RMSEA =0,04, GFI

=0,92, CFI =0,88, collectively contributing to a higher order construct. The current research thus extends these previous findings in showing support for a four-factor POB model. This finding is especially significant, given that the data comes from a diverse group of people who do not speak English as a first/home language.

Global organisations are starting to realise that the application of Positive Psychology concepts, such as hope, optimism, self-efficacy and resilience can contribute to meet the challenges of today's business environment. The findings of this study therefore seem to have practical implications for the organisation as the development of human resources in the POB context can contribute to the motivational propensities of employees. Developing employees to be better equipped by being more hopeful, optimistic, efficacious and resilient would enable them to better confront the challenges of today's turbulent workplace.

In conclusion, the study provides support for the core POB construct in a heterogeneous South African sample and provides a new instrument for its measurement.

RECOMMENDATIONS

Future research may combine all four constructs (hope, optimism, self-efficacy and resiliency) to determine if one single higher order construct in the South African multicultural context could be developed - as in the case of Psychological Capital (Luthans et al., 2007). It is expected that the motivational effects of this construct could be broader and have more impact than the individual constructs (Luthans et al., 2007). Given the application value of POB, it could also be meaningful to develop and validate additional items (to improve the reliability) to measure and develop POB. Wording of certain items can be modified to make it more appropriate in the South African work context.

Consideration of a longitudinal study to evaluate the POB construct in two or more points over time could contribute to the understanding of its reaction in causal relationships.

Given the multicultural composition of the South African work context, investigation into the possibility and application of two different models for the two main culture groups (Black and White) could also add to a better understanding and application of

the POB construct in this context. Translated versions of the scale(s) may also be developed to investigate issues of cultural equivalence and item bias.

Follow-up research in the light of the optimism construct (Revised Life Orientation Test) which yielded two factors in this sample, as opposed to other research (Harju & Bolen, 1998; Scheier et al., 1994) which reported a one-factor structure, can be undertaken to evaluate the factor structure and possible reasons in a South African sample.

Various combinations with the hope, optimism, resilience and self-efficacy constructs could also be investigated to enhance training and development programmes and training delivery.

LIMITATIONS

The study was only conducted in one part of the organisation (Services Department employees only; the possibility of a subculture within the organisation, however exists), which could influence the respondents' responses. Involving the total organisation and representing all functions could enable the researcher to extrapolate the results to the total organisation with a greater amount of certainty.

Results should also be seen as preliminary as much more explorative research could be done to increase the applicability and reliability of the POB measuring instrument in the South African organisational context.

REFERENCES

- Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. (1978). Learned helplessness in humans. Critique and reformulation. *Journal of Abnormal Psychology, 87*, 49-74.
- Arbuckle, J. L. (2007). *AMOS 7.0. Update to the Amos user's guide version*. Chicago, IL: Smallwaters Cooperation.
- Aspinwall, L. G., & Taylor, S. G. (1997). A stitch in time: Self-regulation and proactive coping. *Psychological Bulletin, 121*, 417-436.
- Bailey, T. C., & Snyder, C. R. (2007). Satisfaction with life and hope: A look at age and marital status. *The Psychological Record, 57*, 233-240.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*, 122-147.
- Bandura, A. (1986). *Social foundations of thought and action*. New York: Prentice-Hall.
- Bandura, A. (1997). *Self-Efficacy: The exercise of control*. New York: Freeman.
- Bandura, A. (2002). Social cognitive theory in cultural context. *Applied Psychology: An International Review, 51*, 269-290.
- Bandura, A., & Lock, E. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology, 88*, 87-99.
- Barone, D., Maddux, J. E., & Snyder, C. R. (1997). *Social cognitive psychology: History and current domains*. New York: Plenum.
- Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive theory of depression*. New York: Guilford Press.
- Block, J. H., & Block, J. (1980). The role of ego-control and ego-resiliency in the organization of behavior. In W. A. Collins (Ed.), *Minnesota symposia on child psychology* (Vol. 13, pp. 39-101). Hillsdale, NJ: Erlbaum.
- Block, J., & Kremen, A. M. (1996). IQ and Ego-Resiliency: Conceptual and empirical connections and separateness. *Journal of Personality and Social Psychology, 70*(2), 349-361.

- Botha, E. (2010). *Job Insecurity and Wellness of employees in a Co-operation*. Unpublished doctoral thesis, North-West University, Vanderbijlpark.
- Butcher, J. N., Dahlstrom, W. G., Graham, J. R., Tellegen, A., & Kaemmer, B. (1989). *MMPI-2: Minnesota Multiphasic Personality Inventory-2: Manual for administration and scoring*. Minneapolis: University of Minnesota Press.
- Byrne, B. M. (2001). *Structural equation modelling with AMOS: Basic concepts, applications and programming*. Mahwah, NJ: Erlbaum.
- Carr, A. (2004). *Positive Psychology. The Science of Happiness and Human Strengths*. New York: Brunner-Routledge.
- Carver, S., & Scheier, M. F. (2002). Optimism. In C. R. Snyder & S. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 257-276). Oxford: Oxford University Press.
- Chan, K. B. (1977). Individual differences in reactions to stress and their personality and situational determinants: Some implications for community mental health. *Social Science and Medicine, 11*, 89-103.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment, 7*, 309-319.
- Coetzer, W. J. (2004). *Burnout and Work Engagement of employees in an insurance company*. Unpublished doctoral thesis, North-West University, Potchefstroom.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research and Evaluation, 10*(7), 1-9.
- Coutu, D. L. (2002). How resilience works. *Harvard Business Review, 80*(5), 46-51.
- Elbert, J. (2002). *Job Insecurity and Psychological Strengths of service workers in a parastatal*. Unpublished master's dissertation, Vaal Triangle Campus of the Potchefstroom University, Vanderbijlpark.
- Erez, A., & Judge, T. A. (2001). Relationship of core self-evaluations to goal setting, motivation and performance. *Journal of Applied Psychology, 86*, 1270-1279.
- Field, A. (2005). *Discovering statistics using SPSS* (3rd ed.). London: Sage.

- French, T. M. (1952). *The Integration of behavior. Vol. 1. Basic postulates*. Chicago: University of Chicago Press.
- Friedman, T. L. (2005). *The world is flat*. New York: Farrar, Straus and Giroux.
- Gardner, W. L., & Schermerhorn, Jr. J. R. (2004). Unleashing individual potential: Performance gains through Positive Organizational Behavior and Authentic Leadership. *Organizational Dynamics*, 33(3), 270-281.
- Gottschalk, L. A. (1985). Hope and other deterrents to illness. *American Journal of Psychotherapy*, 39, 515-524.
- Gough, H. G. (1987). *CPI administrator's guide*. Palo Alto, CA: Consulting Psychologist Press.
- Hanna, F. J. (1991). Suicide and hope: The common ground. *Journal of Mental Health Counselling*, 13, 459-472.
- Harju, B., & Bolen, L. M. (1998). The effects of optimism on coping and perceived quality of life of college students. *Journal of Social Behavior and Personality*, 13, 185-200.
- Hill, T., Smith, N. D., & Mann, M. F. (1987). Role of efficacy expectations in predicting the decision to use advance technologies. *Journal of Applied Psychology*, 72, 307-314.
- Hoyle, R. H. (1995). *Structural equation modelling: Concepts, issues and applications*. Thousand Oaks, CA: Sage.
- Hu, L. T., & Bentler, P. M. (1998). Fit indices in covariance structure modelling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3(4), 424-453.
- Imam, S. S. (2007, May). *General Self-Efficacy Scale: Dimensionality, internal consistency and temporal stability*. Proceedings of the Redesigning Pedagogy: Culture, Knowledge and Understanding Conference, Singapore.
- Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: Structural equation modelling with the SIMPLIS command language*. Hillsdale, NJ: Erlbaum.

- Judge, T. A., Erez, A., & Bono, J. A. (1998). The power of being positive: The relation between positive self-concept and job performance. *Human Performance, 11*, 167-187.
- Judge, T. A., Locke, E. A., Durham, C. C., & Kluger, A. N. (1998). Dispositional effects on job and life satisfaction: The role of core evaluations. *Journal of Applied Psychology, 83*(1), 17-34.
- Kline, R. B. (1998). *Principles and Practice of Structural Equation Modelling*. New York: Guilford Press.
- Kokt, D. (2003). The impact of cultural diversity on work team performance: A South African perspective. *Team Performance Management, 9*(3), 78-83.
- Letzring, T. D., Block, J., & Funder, D. C. (2005). Ego-control and Ego-resiliency: Generalization of self-report scales based on personality descriptions from acquaintances, clinicians, and the self. *Journal of Research in Personality, 39*(4), 395-422.
- Liberman, K. (2005). Content employees. *Credit Union Management, 54*-56.
- Lopez, S. J., Snyder, C. R., Magyar-Moe, J. L., Edwards, L. M., Pedrotti, J. T., Janowski, K., Turner, J. L., & Pressgrove, C. (2004). Strategies for Accentuating Hope. In P. A. Linley & S. Joseph (Eds.), *Positive Psychology in Practice* (pp. 388-404). Hoboken, NJ: Wiley.
- Luthans, F. (2002a). Positive organizational behavior: Developing and managing psychological strengths. *Academy of Management Executive, 16*(1), 57-72.
- Luthans, F. (2002b). The need for and meaning of positive organizational behavior. *Journal of Organisational Behavior 23*, 695-706.
- Luthans, F., Avey, J. B., Clapp-Smith, R., & Li, W. (2008). More evidence on the value of Chinese workers' psychological capital: A potentially unlimited competitive resource? *The International Journal of Human Resource Management, 19*(5), 818-827.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology, 60*, 541-572.

- Luthans, F., Avolio, B. J., Walumbwa, F. O., & Li, W. (2005). The Psychological Capital of Chinese Workers: Exploring the relationship with performance. *Management and Organization Review*, 1(2), 249-271.
- Luthans, F., & Jensen, S. M. (2002). Hope: A new positive strength for human resource development. *Human Resource Development Review*, 1(3), 304-322.
- Luthans, F., Luthans, K. W., & Luthans, B. C. (2004). Positive Psychological Capital: Beyond human and social capital. *Business Horizons*, 47(1), 45-50.
- Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008). The mediating role of psychological capital in the supportive organizational climate-employee performance relationship. *Journal of Organizational Behavior*, 29, 219-238.
- Luthans, F., Van Wyk, R., & Walumbwa, F. O. (2004). Recognition and development of hope for South African organisational leaders. *The Leadership and Organizational Development Journal*, 25(6), 512-527.
- Luthans, F., & Youssef, C. M. (2004). Human, social, and now Positive Psychological Capital management: Investing in people for competitive advantage. *Organizational Dynamics*, 33(2), 143-160.
- Luthans, F., & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of Management*, 33(3), 321-349.
- Maddux, J. E. (2002). Self-efficacy. The power of believing you can. In C. R. Snyder & S. Lopez (Eds), *Handbook of Positive Psychology* (pp. 277-287). Oxford: Oxford University Press.
- Magaletta, P. R., & Oliver, J. M. (1999). The hope construct, will and ways: their relations with self-efficacy, optimism and well-being. *Journal of Clinical Psychology*, 55(5), 539-551.
- Masten, A. S. (1999). Resilience comes of age: Reflections on the past and outlook for the next generation of research. In M. D. Glantz, J. Johnson, & L. Huffman (Eds.), *Resilience and development: Positive life adaptations* (pp. 282-296). New York: Plenum.
- Masten, A. S. (2001). Ordinary Magic: Resilience processes in development. *American Psychologist*, 56(3), 227-238.

- Masten, A. S., & Reed, M. J. (2002). Resilience in Development. In C. R. Snyder & S. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 74-88). Oxford: Oxford University Press.
- McGeer, V. (2004). The art of good hope. *The ANNALS of the American Academy of Political and Social Science*, 592:100.
- Menninger, K. (1959). The academic lecture: Hope. *The American Journal of Psychiatry*, 116, 481-491.
- Mitchell, T. R., Hopper, H., Daniels, D., George-Falvy, J., & James, L. R. (1994). Predicting self-efficacy and performance during skill acquisition. *Journal of Applied Psychology*, 79, 506-517.
- Moss Kanter, R. (2006). *Confidence. How winning streaks and losing streaks begin and end*. New York: Random House.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Nunn, K. P. (1996). Personal hopefulness: A conceptual review of the relevance of the perceived future to psychiatry. *British Journal of Medical Psychology*, 69(3), 227-45.
- Pallant, J. (2007). *SPSS survival manual: A step by step guide to data analysis using SPSS for Windows* (3rd ed.). Open University Press.
- Peterson, C. (2000). The future of optimism. *American Psychologist*, 55(1), 44-55.
- Peterson, C. (2006). *A Primer in Positive Psychology*. Oxford: Oxford University Press.
- Peterson, C., & Chang, E. C. (2003). Optimism and flourishing. In C. L. M. Keyes & J. Haidt (Eds.), *Flourishing: Positive psychology and a life well-lived* (pp. 55-76). Washington, DC: American Psychological Association.
- Peterson, S. J., & Luthans, F. (2003). The positive impact and development of hopeful leaders. *Leadership and Organization Development Journal*, 24(1), 26-31.
- Peterson, C., & Steen, T. (2002). Optimistic explanatory style. In C. R. Snyder & S. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 244-256). Oxford: Oxford University Press.

- Piccolo, R. F., Judge, T. A., Takahashi, K., Watanabe, N., & Locke, E. A. (2005). Core self-evaluations in Japan; relative effects on job satisfaction, life satisfaction, and happiness. *Journal of Organizational Behavior*, 26, 965-984.
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping and health: Assessment and implications of generalised outcome expectancies. *Health Psychology*, 4, 219-247.
- Scheier, M. F., & Carver, C. S. (1992). Effects of optimism on psychological and physical well-being: Theoretical overview and empirical update. *Cognitive Therapy and Research*, 16(2), 201-228.
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A re-evaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, 67, 1063-1078.
- Schneider, S. L. (2001). In search of realistic optimism. Meaning knowledge and warm fuzziness. *American Psychologist*, 56(3), 250-263.
- Schulman, P. (1999). Applying learned optimism to increase sale productivity. *Journal of Personal Selling and Sale Management*, 19, 31-37.
- Shults, C. W. (2009). *The impact of presidential behaviors on institutional movement towards greater abundance in community colleges: An exploratory study*. University of Michigan.
- Seligman, M. E. P. (1998). *Learned Optimism*. New York: Free Press.
- Seligman, M. E. P., & Schulman, P. (1986). Explanatory style as a predictor of productivity and quitting among life insurance agents. *Journal of Personality and Social Psychology*, 50, 832-838.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), 5-14.
- Shaughnessy, J. J., & Zechmeister, E. B. (1997). *Research methods in Psychology* (4th ed.). New York: McGraw-Hill.
- Shelton, S. H. (1990). Developing the construct of general self-efficacy. *Psychological Reports*, 66, 987-994.

- Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The Self-Efficacy Scale: Construction and validation. *Psychological Reports, 51*, 663-671.
- Shifren, K., & Hooker, K. (1995). Stability and change in optimism. *Experimental Aging Research, 21*, 59-76.
- Snyder, C. R. (1997). Hope: An individual motive for social commerce. *Group Dynamics, 1*(2), 107-118.
- Snyder, C. R. (2000). *Handbook of hope: Theory, measures, and implications*. San Diego, CA: Academic Press.
- Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry, 13*, 249-275.
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60*(4), 570-585.
- Snyder, C. R., Irving, L. M., & Anderson, J. R. (1991). Hope and health: Measuring the will and the ways. In C. R. Snyder & D. R. Forsyth (Eds.), *The handbook of social and clinical psychology: The health perspective* (pp. 285-307). Elmsford, NY: Pergamon Press.
- Snyder, C. R., Rand, K. L., & Sigmon, D. R. (2002). Hope theory. A member of the positive psychology family. In C. R. Snyder & S. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 257-276). Oxford: Oxford University Press.
- Snyder, C. R., Sympson, S. C., Ybasco, F. C., Borders, T. F., Babyak, M. A., & Higgins, R. L. (1996). Development and validation of the State Hope Scale. *Journal of Personality and Social Psychology, 70*(2), 321-335.
- SPSS (2011). *SPSS 18.0 for Windows*. Chicago, IL: SPSS Inc.
- Stajkovic, A. D., & Luthans, F. (1998a). Social cognitive theory and self-efficacy: Going beyond traditional motivational and behavioural approaches. *Organizational Dynamics, 26*, 62-74.

- Stajkovic, A. D., & Luthans, F. (1998b). Self-efficacy and work-related performance: a meta analysis. *Psychological Bulletin*, *124*, 240-261.
- Steyn, H. S. (1999). *Praktiese betekenisvolheid: Die gebruik van effek groottes*. [Practical significance: The use of effect size.] Wetenskaplike bydraes-reeks B: Natuurwetenskappe Nr. 117. Potchefstroom Universiteit vir Christelike Hoër Onderwys. Potchefstroom.
- Strutton, D., & Lumpkin, J. (1992). Relationship between optimism and coping strategies in the work environment. *Psychology Reports*, *71*, 1179-1186.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston, MA: Allyn and Bacon.
- Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika*, *38*(1), 1-10.
- Wheaton, B., Muthén, B., Alwin, D. F., & Summers, G. F. (1977). Assessing reliability and stability in panel models. In D. R. Heise (Ed.), *Sociological methodology* (pp. 84-136). San Francisco: Sage.
- Wood, R., Bandura, A., & Bailey, T. (1990). Mechanisms governing organizational performance in complex decision-making environments. *Organizational Behavior and Human Decision Processes*, *46*, 181-201.
- Youssef, C. M., & Luthans, F. (2007). Positive Organisational Behavior in the workplace. The impact of hope, optimism and resilience. *Journal of Management*, *33*(5), 774-800.

CHAPTER 3

RESEARCH ARTICLE 2

THE ROLE OF TRAINING IN ENHANCING POSITIVE ORGANISATIONAL BEHAVIOUR AND JOB SATISFACTION AND PREVENTING TURNOVER INTENTION

J. J. P. de Waal

ABSTRACT

The objective of this study was to investigate the effectiveness of a training programme focused on self-development in order to improve job satisfaction, intention to leave and enhancing positive organisational behaviour (POB). The moderating effect of job satisfaction between POB and turnover intention was also investigated. The measuring instruments that were used were the Job Satisfaction and Turnover Intention Scales. POB was measured with a newly developed POB Scale derived from the four constructs (hope, optimism, self-efficacy and resilience) which form the POB Scale. A reliability coefficient of 0,69 was obtained in the South African sample ($n=443$), and the factor structure was established by means of a confirmatory factor analysis. A longitudinal study was conducted among all employees, representing both genders and all races and job levels in a specific business unit in a chemical factory (T1: $n=892$; T2: $n=163$). The results indicated that no statistically significant relationship was evident between POB, job satisfaction and turnover intention, and therefore the moderating role in the relationship between POB and turnover intention or job satisfaction was also not supported by this research. No evidence could also be found that POB, job satisfaction and intention to leave be affected through a training programme aimed at self development.

OPSOMMING

Hierdie studie het ten doel om die effektiwiteit van 'n opleidingsprogram, wat fokus op selfontwikkeling ten einde werksbevrediging, die intensie om te bedank en Positiewe Organisasoriese Gedrag (POG) aan te spreek, te ondersoek. Die modererende effek van werksatisfaksie tussen POG en die intensie om te bedank word ook ondersoek. Die meetinstrumente wat onder andere gebruik word, is die Werksatisfaksie en Intensie om te bedank Skale en die nuut- ontwikkelde POG Skaal wat afgelei is uit die vier konstrunkte (hoop, optimisme, algemene selfvertroue en psigologiese veerkragtigheid) waaruit die POG bestaan. 'n Betroubaarheidskoeffisiënt van 0,69 is verkry deur middel van 'n Suid- Afrikaanse steekproef ($n=443$) en die faktorstruktuur is bepaal met behulp van 'n bevestigende faktoranalise. 'n Longitudinale studie word dus uitgevoer wat alle werknemers (beide geslagte, alle rasse en posvlakke), soos verteenwoordig in 'n spesifieke besigheidseenheid in 'n chemiese fabriek, (T1: $n=892$; T2: $n=163$), insluit. Die resultate toon dat geen statisties-beduidende verwantskap teenwoordig is tussen POG, werksatisfaksie en die intensie om te bedank nie. Gevolglik word die modererende effek van die verhouding tussen POG, werksatisfaksie en die intensie om te bedank nie deur die navorsing ondersteun nie. Geen bewys kon verder deur middel van die navorsings resultate gelewer word dat POG, werksatisfaksie en intensie om te bedank geaffekteer word deur die opleidings-program wat self-ontwikkeling ten doel het nie.

INTRODUCTION

Global business environments are constantly changing and organisations are therefore compelled to adjust to increasingly complex and fast changing environments (Giesen, Riddleberger, Christner, & Bell, 2010; Van Tonder, 2005). The South African business environment is no different. The South African economy has been completely overhauled since the advent of democracy in 1994 (South African Economy Review, 2008). Due to globalisation, South Africa has opened up to international competition (Luthans, Van Wyk, & Walumba, 2004) and organisations had no choice but to become more competitive to ensure the retention and protection of local markets against international competitors, as well as ensuring that they are able to compete globally (Denton & Vloeberghs, 2003). Survival and success therefore in the workplace today necessitate a higher-than-average level of performance in the work place (Avolio & Luthans, 2006). Within this context, new thinking and approaches to address current and future challenges have become necessary for organisations to ensure survival and continuous development (Luthans, Norman, Avolio, & Avey, 2008). The contributing factors to these challenges are the intensification of and the need for international management experience, the impact of information technology as a defining feature of the workplace and the shift from commitment towards organisations to a relatively brief, but focused, period of engagement - which has led to the short supply of professional and technical skills (Delany & Turvey, 2003; Smith, 2003).

Unlike economic capital, human resources are inimitable by competitors and there is ever increasing evidence that human resources are important to organisational success and may offer the best return on investment, making it a much more sustainable competitive advantage (Luthans & Youssef, 2004). The biggest challenge of globalisation is to attract and retain intellectual capital (Ding & Li, 2010; Sutherland & Jordaan, 2004). Companies must therefore endeavour to have effective talent management programmes in place in order to create long term organisational success and maintain a competitive advantage through human capital (Ashton & Morton, 2005). Today's business environment, characterised by the rapid rate of change, has also led to an intensified focus on employee self-development and life-long learning (London & Smither, 2003; Orvis & Ratwani, 2010). It therefore requires the intensive

development and management of human capital and outcomes that will result in sustainable competitive advantage, which will be achieved if organisations effectively channel and employ the talents, strengths and positive capacities of employees (Luthans, Luthans and Luthans, 2004).

What makes this demand for economic survival in the particular services organisation under investigation so unique is the fact that the performance by a business is directly related to the performance of its employees, as they have a direct impact on the quality and quantity of services rendered to internal customers and in many instances also external customers.

Job satisfaction is an important contributor to ensure better performance by employees (Mak & Sockel, 1999) and satisfied employees will deliver better service quality and make for satisfied customers (Hartline & Ferrell, 1996; Zeithaml & Bitner, 2000). Rothmann and Coetzer (2002) point out that job satisfaction is regarded as essential for retaining employees. It is also regarded as an important indicator of organisational effectiveness, as the optimal functioning of organisations partly depends on the level of job satisfaction of employees. Conversely, it is important for organisations to understand employees' turnover intentions, as it has shown to be a strong indicator of actual quitting behaviour (Firth, Mellor, Moore, & Loquet, 2004).

If a company focuses on Positive Organisational Behaviour (POB) and employs a specific positive approach that has implications for human resource training and development, as well as performance management, it might be an important way to equip employees, because investing in human capital seems to be vital to ensure organisational success (Luthans et al., 2008). POB is deemed open for development by means of highly focused training interventions and can be managed for more effective work performance in today's workplace (Luthans, 2002a; Luthans, Luthans et al., 2004; Youssef & Luthans, 2007).

Seen against this background, the researcher is of the opinion that job satisfaction and turnover intention also contribute to the challenges facing today's business environment, especially the specific business environment investigated in this research. In this regard Rust, Stewart, Miller and Pielack (1996, p. 63) point out that job satisfaction is important as "...organisations with satisfied employees lead to satisfied customers". For the purpose of this research job satisfaction and turnover

intentions as specific organisational outcomes, measured before and after the implementation of a self-development training programme, will be investigated. The relationship between POB, job satisfaction and turnover intention, as well as how the implemented training programme may have influenced these variables, is also of interest.

Job Satisfaction

Robbins, Judge, Odendaal and Roodt (2009, p. 77) defines job satisfaction as “a positive feeling about a job resulting from an evaluation of its characteristics”. It is however more than the obvious activities and is “...a complex summation of a number of discrete job elements”, based on an employee’s personal assessment (Robbins et al., 2009, p. 77). Bettencourt and Brown (1997) define job satisfaction as the degree to which employees have a positive affective orientation toward employment by the organisation. Chen (2006), Cook, Hepworth, Wall and Warr (1981), Cranny, Smith and Stone (1992) and Oshagbeni (1999), view job satisfaction as an affective reaction to a job, positive or negative, which arises when an employee compares actual results with those that are required, desired, anticipated or deserved.

Various studies have indicated that employees tend to put a high value on job satisfaction (Schulze, 2006). Chiu and Kosinski (1997) and Wright and Bonett (2002) indicate that the employees’ level of job satisfaction has an influence on their emotions, behaviour and work performance. According to Dawis (1992) and Roberts and Roseanne (1998) research indicates that job satisfaction is experienced if employees feel that they optimally utilise their capacities, experience and values in their work environment; in return the work environment grants them opportunities and rewards. Pienaar and Bester (2006) point out the huge impact job satisfaction has on productivity and its subsequent importance for any organisation. Job satisfaction can therefore be viewed as an important aspect impacting on both the individual and the organisation.

According to Weis and Cropanzano (1996) job satisfaction is the process whereby employees seek to achieve and sustain connection with their environment. This means that the individual fulfils the needs of the environment and the environment fulfils the needs of the individual (Cook et al., 1981). Individuals will therefore only experience job satisfaction if they sense that the employer recognises and uses their capabilities,

values and experience and that they receive certain rewards and opportunities in return (Dawis, 1992; Roberts & Roseanne, 1998).

According to Hom and Kinichi (2001) job satisfaction can be considered as a key role player in most theories of turnover intention and is probably the most frequently investigated predictor thereof. The lack of job satisfaction is regarded as a factor which strongly contributes to employees' intention to leave their jobs (Moore, 2002; Tett & Meyer, 1993; Van Dick et al., 2004; Zimmerman & Darnold, 2009). The reason is that satisfied employees simply stay longer in their jobs. Dissatisfied employees, though, tend to take into account alternative propositions which are perceived as more advantageous (Bush, 1998; Trevor, 2001). Choo and Bowley (2007) have furthermore found that - amongst other variables - employees who experience satisfactory training and development opportunities are more likely to experience job satisfaction, which could in turn result in lower staff turnover.

Based on the provided overview of job satisfaction and its relationship as a key mediator in reducing turnover intention (Firth et al., 2003), this study will also focus on turnover intention in the organisation of interest.

Turnover Intention

Hellgren, Sjöberg and Sverke (1997) explain turnover intention as the propensity to withdraw from the job and the employee's intention to leave the present position. Vandenberg and Nelson (1999, p. 1315) define intention to leave as "...individual's own estimated probability (subjective) that they are permanently leaving the organization at some point in the near future". According to Bigliardi, Petroni and Dormio (2005) intention to leave refers to the individual's perceived likelihood that he will be staying with or leaving his employer, while Tett and Meyer (1993) view turnover intention as a conscious, deliberate wilfulness to leave the organisation. Turnover intentions thus reflect a state of psychological withdrawal, which may turn into actual turnover (Chatman, 1991; Kirschenbaum, 1990; Vandenberg & Nelson, 1991).

Turnover intention is influenced by several internal and external factors (Bigliardi et al., 2005; Zeffane, 1994). Vandenberg and Nelson (1999) and Koys (2001) even go as far as to consider intention to leave as the first sign of organisational malfunctioning, although Vigoda-Gadot & Ben-Zion (2004) also point out that low levels of intention

to leave could be potentially good indicators of organisational efficiency and effectiveness, as well as general good performance. It is, however, a construct that is linked to preventable turnover that is initiated by the employee (Sutherland & Jordaan, 2004; Vigoda-Gadot & Ben-Zion, 2004). Establishing the level of turnover intention is thus one way to determine if employees have indeed inclinations to leave their jobs (Sjöberg & Sverke, 2000), as turnover intention is regarded as the single most important cognitive variable and accurate predictor of *actual* turnover behaviour (Bigliardi et al., 2005; Firth et al., 2004; McCarthy, Terrell, & Lehane, 2007; Trimble, 2006).

It seems that turnover intention is a reflection of the employee's dissatisfaction with his or her job or the work environment in which the person functions (Vigoda-Gadot & Ben-Zion, 2004). Turnover intention reflects thus the employee's relinquishing the existing workplace or job voluntarily for a different organisation or work because the employee is looking for better employment conditions, prospects or greater job satisfaction (Sutherland & Jordaan, 2004; Vigoda-Gadot & Ben-Zion, 2004). However, during unfavourable employment conditions, for example when suitable jobs and remuneration packages are not readily available to the individual, the strong relationship between intentions and actual behaviour may not be present. Zimmerman and Darnold (2009) support the contention that intentions towards an act or behaviour are distinct from that act or behaviour itself. Employees may intend to leave the organisation, but they may not actually do so for various reasons, e.g. availability of similar or suitable employment. This may lead to a lack of organisational commitment or disengagement.

Chen, Chang and Yeh (2004) are of the opinion that higher levels of job satisfaction and lower turnover levels could be achieved by organisations by giving attention to training and suitable career development practices. No information to indicate the level of turnover intention in the organisation under investigation exists currently. Considering the direct cost (recruitment and training) and indirect cost (loss of skills and experience) as mentioned by Ramlall (2004), and given the fact that the organisation under investigation is economically under pressure to improve financial results, it makes sense to investigate the level of employees' intention to leave.

Positive Organisational Behaviour

According to Gardner and Schermerhorn (2004) the Positive Psychology movement, which shifts attention to the positive attributes of people that make living worthwhile, provides the impetus for Positive Organisational Behaviour (POB). Deriving from the Positive Psychology literature, POB is intended to concentrate on a positive approach to develop and manage human resources in today's work environment (Luthans, Avolio, Avey, & Norman, 2007). According to Luthans and others (Luthans, 2002b; Luthans & Youssef, 2007), POB takes Positive Psychology to the workplace. They define POB as "...the study and application of positively-orientated human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement in today's workplace" (Luthans 2002a, p. 59). POB is therefore reconcilable with Positive Psychology, because it emphasises the study of human strengths and virtues with the aim of understanding and facilitating positive developmental outcomes (Seligman & Csikszentmihalyi, 2000). The principal contribution of POB furthermore lies in the fact that it is generative (Luthans, Luthans, et al., 2004) in the sense that the application of Positive Psychology in the workplace as POB gives a renewed emphasis to the significance of a positive approach (Youssef & Luthans, 2007).

Luthans (2002a) makes it clear that POB is measurable and that it is based on sound theory and research. It is also distinguishable from popular positively orientated personal development approaches. Being developmental in nature requires the POB construct to be potentially state-like and therefore rules out the fixed trait-like personality, attitudinal and motivational variables that are generally accepted as part of traditional organisational behaviour. This positive approach could be used for organisational behaviour as it supports appropriate theory and research driven methodology and point of view to old as well as new organisational behavioural concepts such as confidence, hope, optimism, happiness and resilience (Luthans, 2002a; 2002b). State-like concepts of POB can therefore be developed by applicable developmental interventions (Gardner & Schermerhorn, 2004). As a developmental variable, it lends itself to intervention.

The realities of a fast-paced, and unpredictable work environment requires the development of positive psychological resource capacities relevant to today's workplace (Luthans & Youssef, 2007). POB is according to Luthans (2002a) directly

applicable to human resources development and as a developmental variable, the state-like positive psychological resource capacities of POB (hope, optimism, self-efficacy and resilience) are open to change and development interventions (Gardner & Schermerhorn, 2004). Training interventions have proven to be successful in developing hope in individuals (Snyder, 2000), optimism and self-efficacy have also proved to be effectively developed in individuals by means of formal training programmes, mentorship and coaching (Bandura, 1997; Luthans, Avey, & Avolio, 2007; Luthans & Youssef, 2007; Schneider, 2001). Resilience is also regarded as a learnable capacity which can be developed by various methods (Masten & Reed, 2002; Luthans, Vogelgesang, & Lester, 2006). With return on investment of up to 270% due to highly customised and focused training and development interventions (Luthans, Avey, Avolio, Norman, & Combs, 2006; Luthans, Avey, Avolio, & Peterson, 2010), developing POB has a positive impact on employees job performance.

According to Choo and Bowley (2007) it appears that employees who receive effective and adequate training develop positive feelings toward their employers. In this research the focus thus falls on the effectiveness of the possible impact and anticipated subsequent changes an implemented training programme has had on job satisfaction, turnover intention and POB.

The objective of this study is to investigate the relationship between job satisfaction, turnover intention and POB over time. Further objectives include the investigation of the effect a training programme aimed at self-development has on job satisfaction, turnover intention and POB. The moderating effect of job satisfaction between POB and turnover intention will also be investigated.

Based on the discussion above, the following research questions are formulated:

- What is the relationship between job satisfaction, turnover intentions and POB?
- Can job satisfaction, turnover intentions and POB be affected through a training programme aimed at self-development?
- Can pre-intervention POB be used to predict turnover intention over time, and does job satisfaction moderate this relationship?
- What recommendations can be made regarding the management/improvement of job satisfaction, turnover intentions and POB in organisations?

METHOD

Research design and execution

To achieve the research objectives of the study, the researcher made use of a longitudinal study. Due to the practical feasibility of this study in the organisation under investigation, the researcher made use of a one-group pre-test post-test design. Longitudinal designs provide the opportunity to validate theoretically hypothesised relationships between two variables. In addition, longitudinal designs make it possible to investigate alternative causal patterns by allowing the researcher to make decisions between hypotheses of opposite causation and to improve the possibilities to eliminate the influence of third variables (Zapf, Dormann, & Frese, 1996). Data was gathered by means of a survey.

During the first measurement surveys were distributed to all 1003 permanent employees working in all departments of the particular business unit which forms part of a larger chemical factory. During the first measurement (Time 1) data was gathered by distributing questionnaires to delegates prior to the commencement of the training programme which they attended, requesting them to complete the questionnaires on a voluntary basis.

The training sessions and data gathering took place once a week (from August 2007 to September 2008) over a period of fourteen months (December 2007 was excluded due to school holidays) due to the size of the group (1003 fulltime employees) and the availability of employees to complete the training. During the second measurement (Time 2) questionnaires were handed out to employees in their work environment; they were given only the first two weeks in April 2009 to complete the questionnaires. This means that the longest period from undergoing training to re-evaluation was 21 months (from August 2007 to April 2009) and the shortest period seven months (from September 2008 to April 2009).

Participants

Of the original 1003 questionnaires distributed at Time 1 (T1), a total of 908 completed questionnaires were returned; 892 of the questionnaires could be used for data analysis. This represented a response rate of 90,5%. 98,2% of these returned questionnaires could be used for the final data analysis.

During the second measurement (Time 2; T2) 915 questionnaires were distributed to the same study population as in the first measurement. A total of 358 completed questionnaires were returned, which represented a response rate of 39,1%. When matching participants from pre- to post-measurement, only 163 respondents could be matched, representing a return rate of 17,8% (compared to the original 915 potential respondents) that provided useable data for the longitudinal study. A possible explanation for the difference in response rate between the first and second measurement could be that during the first measurement the researcher had access to a captive audience in the sense that all employees had to attend a training programme in a central venue. This was not the case during the second measurement where questionnaires were distributed to employees in their respective work places. Employees could also be better motivated during the first measurement due to senior managers who together with the researcher officially opened the training proceedings and explained to the delegates the value of the research to the organisation. Another possible explanation for the low response rate during the second measurement as compared to the first measurement is that the organisation has undergone structural changes just after the first measurement. Employees might have felt dissatisfied with their situation, hence the lack of motivation to complete the questionnaires the second time. The results presented below are based on longitudinal data for these 163 respondents. The characteristics of these participants are reported in Table 1.

Table 1

Characteristics of the Participants (Longitudinal sample; n=163)

Item	Category	Frequency*	Percentage*
Gender	Female	50	30,67
	Male	113	69,33
Race	Black	53	32,52
	Coloured	0	0,00
	Indian	4	2,45
	White	105	64,42
Job level	Middle Management-Level 5	1	0,61
	Middle Management-Level 5 and 6	13	7,98
	Supervisors-Level 6	12	7,36
	Supervisors-Level 7	42	25,77
	Skilled Workers-Level 8	41	25,15
	Skilled Workers-Level 9	30	18,41
	Skilled Workers-Level 10	22	13,50
	Semi Skilled Workers-Level 11	1	0,61
	Semi Skilled Workers-Level 12	1	0,61

*Where totals are not equal to 100, this is due to missing values.

According to Table 1 the majority of participants represented in the study population were male, which reflects the demographics of the organisation very well, given the fact that the technical and operational areas of the organisation are still dominated by men. The race groups are also representative of the actual population of the organisation with the majority of the participants represented in the white group. The average age of respondents was 40,4 years ($SD=11,16$ years) and the average was 13,4 years ($SD=10,35$ years) with regards to the years of service. The majority of the participants were on supervisory and non-managerial levels.

Measuring battery

The following measuring instruments were used in the empirical study:

Job Satisfaction

The questionnaire which was used to measure job satisfaction in this study had been developed by Hellgren et al. (1997), based on the Brayfield and Rothe (1951) measurement of job satisfaction. The latter assumed that job satisfaction could be inferred from the individual's attitude eliciting an expression of feeling toward his work. The questionnaire consisted of three items (e.g. "*I am satisfied with my job*")

and has yielded a reliability (alpha) coefficient of 0,86 (Hellgren et al., 1997). Respondents responded on a five-point Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). A high score reflects satisfaction with the job. Ermel (2007) found a reliability coefficient of 0,82 in a South African sample ($n=208$).

Turnover Intention

Turnover intention was measured by means of a three-item scale developed by Sjöberg and Sverke (2000) to measure the overall turnover propensity. The scale measures the strength of the respondent’s intentions to leave the present work situation. Typical items are: “*I am actively looking for other jobs,*” and “*I feel that I could leave this job*”. Sjöberg and Sverke (2000) reported the reliability (alpha) coefficient as 0,83. Respondents responded to statements on a five-point Likert Scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). A high score is thus indicative of a strong intention to leave the present position. Ermel (2007) found a reliability coefficient of 0,77 in a South African sample ($n=208$).

Positive Organisational Behaviour

POB was measured with the newly developed POB scale (De Waal, in the press). Derived from the four constructs (hope, optimism, self-efficacy and resilience) which form the POB scale (Luthans, 2002a), the three items which represented the respective individual scales best (as obtained in a South African sample) were used to form the new POB Scale. A reliability coefficient of 0,69 was obtained in the South African sample ($n=443$) and the factor structure was established by means of a confirmatory factor analysis. Response options were also on a five-point Likert Scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). A high score is thus indicative of a person’s positive inclination towards the four POB constructs, as mentioned above.

A *biographical questionnaire* was developed to gather information about the demographic characteristics of the participants. Information gathered included age, gender, race, job level and specific job function in the business under investigation, as well as years employed in the organisation.

The intervention: *Managing Self Development Programme (MSDP)*

The *Managing Self Development Programme (MSDP)* is a three-day, in-house, self-development programme. It has been specifically developed and presented with the objective to help delegates understand and gain insight into their own strengths, weaknesses and personal resources in order to improve themselves through intra- and interpersonal growth and development. The intent of the training programme is also to help delegates cope with a changing business environment as well as organisational change. It also focuses on assisting employees to achieve their own personal and organisational objectives, enabling them to function and display behaviour associated with good corporate citizenship.

- **Method of programme delivery**

The MSDP is facilitated by Industrial Psychologists and/or trained HR professionals. The programme is a facilitated training process with self-evaluation questionnaires based on sound underlying theory and practical exercises, focused on both the individual and group to ensure the internalisation of key concepts and skills.

- **Programme Content**

The programme is divided in four main areas, namely:

My fundamental nature (dealing with self-awareness, self-esteem and self-confidence).

The purpose of this module is to guide delegates to a level of self-enlightenment by discovering, understanding and accepting themselves. After completion of this module the delegates should be equipped with self-mastery by understanding the key areas of how to become aware of the self and take responsibility for their own traits and feelings. Attention is also given to understanding a healthy and poor self-esteem, the consequences thereof, as well as how to boost one's self-esteem. The focus on self-confidence is to ensure that delegates have a healthy, yet realistic view of themselves, their situations and abilities. Furthermore, delegates will understand how to safeguard themselves by maintaining an assertive attitude.

Myself in action (dealing with self-motivation, self-regulation and self-presentation).

The focus of this module is on the types of emotion, how self-motivation contributes to change in behaviour, how to develop self-motivation and how to deal with the lack

of motivation. Self-regulation deals with self-control, conscientiousness and adaptability to understand and deal with one's emotions. Self-presentation as presented here should enable participants to consistently and authentically express their emotions and behave in appropriate ways.

Sustaining myself (dealing with assertiveness and stress management).

By understanding assertiveness, delegates learn to distinguish between aggressive, passive and assertive behaviour. Assertiveness is about expressing thoughts, feelings and beliefs in honest and appropriate ways and in doing so find the best possible solution for all. By understanding positive and negative stress, delegates learn to understand stress management and how to deal with experienced strain.

Mastering myself (dealing with the psychological contract and personal mastery).

This module not only deals with the nature of the psychological contract, but also with how it has changed in an evolving business environment by dealing with the expectations of both the employee and employer. Personal mastery assists delegates in applying effective communication, relationship building, people-networking, teamwork, conflict management and effective time management.

Prior to each module delegates were requested to do self-evaluation applicable to the focus area (derived from the Prentice Hall Self-Assessment Library 2.0, Robbins, 2002). The aim of the assessment is to develop better insight into and self-awareness of these developmental areas and underlying dynamics. Each of these constructs is then defined and explained in detail, as well as what it means and how it manifests in one's life and in the world of work. Underlying principles supporting each construct are also given to delegates by means of a facilitated process, using adult learning principles. Delegates' attention is also focused on how the application of these constructs contributes to personal and organisational success and how the lack thereof impacts negatively on personal and organisational success. Delegates are also guided to develop and implement self-developmental strategies and action plans after the training programme.

Statistical Analysis

The statistical analysis was carried out with the aid of the SPSS-Programme (SPSS, 2011). Descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) and inferential statistics (e.g. correlations and regression analysis) were used to

analyse the data. Cronbach alpha coefficients were employed to determine the internal consistency, homogeneity and uni-dimensionality of the measuring instruments (Clark & Watson, 1995). Coefficient alpha contains important information regarding the proportion of variance of the items on a scale in terms of the total variance explained by that particular scale.

Pearson's product-moment correlation coefficients were used to specify the relationship between the variables. It was decided to set the value at a 99% confidence interval level ($p \leq 0, 01$). In terms of statistical significance Effect sizes (Steyn, 1999) served to decide on the practical significance of the findings. A cut-off point of $d \geq 0, 30$ (medium effect, Cohen, 1998) was set for the practical significance of correlation coefficients. Regression analysis was used to test for moderation. In this case the level of statistical significance was set at $p \leq 0,05$. The moderating effect of job satisfaction over time was tested by creating an interaction term of the relevant variables at Time 1 (Aiken & West, 1991).

RESULTS

Descriptive statistics, Cronbach's alpha coefficients and inter-item correlation coefficients of the Job Satisfaction, Turnover Intention and POB Scales ($n=163$) obtained at both measurements of the longitudinal study are reported in Table 2.

Table 2

Descriptive Statistics, Cronbach Alpha Coefficients and Correlation Coefficients of the Job Satisfaction, Turnover Intention and POB Scales (Time 1 and 2)

	Mean	SD	Skewness	Kurtosis	α	1	2	3
1. Job Satisfaction (T1)	3,71	0,76	-0,99	1,04	0,68	-	-	-
2. Turnover Intention (T1)	2,72	1,07	0,42	-0,47	0,80	-0,57 ^{***}	-	-
3. POB (T1)	3,82	0,40	0,33	0,12	0,69	0,12	0,10	-
	Mean	SD	Skewness	Kurtosis	α	4	5	6
4. Job Satisfaction (T2)	3,48	0,89	-0,84	0,51	0,80	-	-	-
5. Turnover Intention (T2)	2,79	1,11	0,23	-0,81	0,84	-0,68 ^{***}	-	-
6. POB (T2)	3,78	0,34	0,54	0,99	0,63	0,30 ^{**}	0,03	-

Note: * $p \leq 0,01$ (statistically significant) ⁺ $r \geq 0,30$ (practically significant) (medium effect)

^{***} $r \geq 0,50$ (practically significant) (large effect)

As indicated in Table 2, the measuring instruments have a relatively normal distribution, with skewness and kurtosis within the +1 and -1 range. Only Job Satisfaction at Time 1 shows slightly high kurtosis. Overall, the internal consistencies of the constructs are acceptable, considering the $\alpha \geq 0,70$ and $\alpha \geq 0,55$ for basic research guideline given by Nunnally & Bernstein (1994). When considering this guideline, the constructs present acceptable to good reliability throughout.

Table 2 also exhibits a statistically and practically significant negative relationship (large effect) between Job Satisfaction and Turnover Intention, at both Times 1 and 2. It is also seen that POB only at Time 2 show a practical significant (medium effect) relationship to Job Satisfaction. The final step of the analysis investigates the predictive ability of job satisfaction and POB in terms of turnover intention over time.

The results of a multiple regression analysis with turnover intention as dependent variable, and POB and job satisfaction as independent variables, are reported in Table 3.

Table 3

*Multiple Regression Analysis with Turnover Intention at Time 2 as Dependent**Variable*

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.	F	R	R ²	ΔR^2
		B	Std. Error	Beta						
1	(Constant)	1,74	0,90		1,94	0,054	13,948	0,463	0,215	0,215
	Turnover intention (T1)	0,48	0,09	0,47	5,21	0,000*				
	Job satisfaction (T1)	-0,00	0,13	0,00	-0,01	0,993				
	POB (T1)	-0,06	0,21	-0,02	-0,30	0,764				
2	(Constant)	3,54	0,80		4,41	0,000	38,991	0,751	0,564	0,349
	Turnover intention (T1)	0,35	0,07	0,34	4,98	0,000*				
	Job satisfaction (T1)	0,32	0,10	0,22	3,17	0,002*				
	POB (T1)	-0,14	0,18	-0,05	-0,80	0,424				
	Job satisfaction (T2)	-0,84	0,08	-0,67	-10,97	0,000*				
	POB (T2)	0,15	0,21	0,05	0,73	0,469				
3	(Constant)	3,53	0,80		4,40	0,000	32,534	0,752	0,565	0,002
	Turnover intention (T1)	0,35	0,07	0,34	5,03	0,000*				
	Job satisfaction (T1)	0,33	0,10	0,23	3,23	0,001*				
	POB (T1)	-0,14	0,18	-0,05	-0,78	0,437				
	Job satisfaction (T2)	-0,85	0,08	-0,67	-10,98	0,000*				
	POB (T2)	0,14	0,21	0,04	0,66	0,509				
	POB(T1) x Job satisfaction (T1)	0,17	0,21	0,05	0,82	0,413				

Note: * $p \leq 0,01$

In the first step of the regression analysis, baseline (T1) levels of Turnover Intention, POB and Job Satisfaction are entered. It is seen that Turnover Intention at Time 1 has a statistically significant effect in predicting Time 2 Turnover Intention. The results in Table 3 show that 22% of the variance in Turnover Intention (T2) is predicted by Turnover Intention (T1), POB (T1) and Job Satisfaction (T1). In step 2, where Time 2 POB and Job Satisfaction are entered, it is seen that Time 1 Turnover Intention and Time 1 and 2 Job Satisfaction has a statistically significant effect in predicting Time 2 Turnover Intention. The R^2 increased ($\Delta R^2 = 0,35$), and 56% of the variance in Time 2 Turnover Intention is now predicted. In the final step, where baseline levels of Turnover Intention and baseline and Time 2 levels of POB and Job Satisfaction are controlled, as well as the interaction of the latter variables, it is seen that no significant change to R^2 occurred. It is still seen that it is Time 1 Turnover Intention and Time 1

and 2 Job Satisfaction that statistically significantly predict Time 2 Turnover Intention. These variables explain 57% of the variance in Time 2 Turnover Intention.

To evaluate the impact of the training intervention at the two time points (pre- and post intervention) with regards to POB, turnover intention and job satisfaction a paired-sample t-test was conducted. A t-test establishes whether two means collected from the same sample differ significantly (Field, 2005). Results shown that no statistical significant increase or decrease in the POB and turnover intention scores from Time 1 to Time 2 occurred. There was however a statistical significant decrease in the job satisfaction score from Time 1 (M=3.71, SD=0,76) to Time 2 (M=3,48, SD= 0,89, $t(3.21)$, $df(161)$, $p < .0005$ (two tailed). The mean decrease in the job satisfaction score was 0,22 with a 95% confidence interval ranging from 0,08 to 0,36. The eta squared statistic (0,06) indicated a moderate effect size. Given the results from the t-test it is clear that the training programme had no effect on the level of POB or job satisfaction. The decrease in the level of job satisfaction could be contributed to other variables which have not been measured in this research. The transformation process which has taken place in the organisation between the Time 1 and Time 2 measurements with its subsequent structural changes could have contributed to this phenomenon but more research to determine the exact cause is necessary.

DISCUSSION

The objective of this study was firstly to investigate the relationships between job satisfaction, turnover intention and POB over time. Further objectives included the investigation of the effect a training programme aimed at self-development had on job satisfaction, turnover intention and POB. The moderating effect of job satisfaction between POB and turnover intention was also investigated.

Results of the study have shown that the measures of turnover intention, job satisfaction and POB presented with sufficient reliability. An interesting phenomenon is the increase in the reliability of the job satisfaction measurement from 0,67 (T1) to 0, 80 (T2), despite the fact that the questionnaire was completed by the same study population. English is the second language for the majority of the participants and their full understanding of the questions could be queried; that could contribute to the lower reliability of the scale. Another possible explanation could be that the

respondents who responded at the second measurement also had a better understanding of the questions, due to their initial (T1) exposure.

As expected, the results confirmed a negative relationship between job satisfaction and turnover intention, implying that as job satisfaction increases, turnover intention should decrease. This relationship was evident at both Time 1 and 2. This is in line with international (Zimmerman & Darnold, 2009) and local (Pienaar, Sieberhagen, & Mostert, 2007) research. Only at Time 2 POB showed a practical significant (medium effect) relationship to job satisfaction. A possible explanation could be that the respondents who responded at the second measurement had a better understanding of the questions, due to their initial (T1) exposure. It is, however, evident from international research that there is a significantly positive relationship between job satisfaction and the four psychological capacities of hope, optimism, resilience and self-efficacy (Luthans et al., 2007; Youssef & Luthans, 2007) and a significant negative relationship between intention to leave and these four psychological capacities (Avey, Luthans, & Jensen, 2009). More research is, however, necessary to determine the contribution of the four POB facets with regards to job satisfaction and the subsequent turnover intention in the South African context. It may be that the POB construct - as measured here - captures less variance than the four individual measures might have done.

The only significant contributor to participants' turnover intention over time was their baseline levels of turnover intention and their job satisfaction at both baseline and at second measurement. Studies by Chen et al. (2004) and Pienaar et al. (2007), although cross-sectional, also supported the negative relationship between turnover intention and job satisfaction. It is of significance that participants' job satisfaction remains relevant, even after controlling for baseline turnover intention. This finding again highlights the importance of job satisfaction as an important variable in managing and mitigating turnover intention. McCarthy, Tyrrel and Lehane (2007) pointed out that intentions are the most immediate determinant of actual behaviour. Intention to leave could therefore be seen as an accurate indicator of the actual subsequent behaviour (Firth, Mellor, Moore, & Loquet, 2004). Unless specific interventions to reduce the level of turnover are implemented, individuals with high levels of turnover intention at Time 1 would therefore still have high levels of turnover intention at Time 2. It

could therefore be expected that initial (baseline) turnover intention should be a strong longitudinal predictor of turnover intentions also in this research.

If participants are already experiencing turnover intentions at their initial assessment, it is unlikely to change without significant intervention from the organisation to change this experience. It is concerning that participants who had a high score in terms of turnover intention at baseline are still available for re-assessment at follow-up; the implications for organisational productivity need to be considered. The lack of work opportunities in the current economic climate could prevent individuals with high levels of intention to leave to stay in the organisation with its subsequent negative consequences. Other mechanisms which facilitate higher levels of job satisfaction and productivity needs therefore to be focus on to ensure high levels of productivity, specifically against the background of the organisations challenges to stay economically viable.

As was seen in the regression analysis, POB did not play a role in predicting turnover intention. Although previous research (Avey et al., 2009) has found a significantly negative relationship between the four facets of POB in its aggregate form and turnover intention, this research did not substantiate this finding.

No research evidence from this research is however available to determine the reasons for reported levels of turnover intention. It would therefore be important to evaluate other predictors of turnover intention, such as job stress and job insecurity. Research further indicated that individuals with higher levels of hope, optimism, self-efficacy and resilience are better equipped to deal with work stressors in the workplace environment (Avey et al., 2009). It is therefore expected that employees who have adequate levels of POB can draw from the positive resources (such as hope, optimism, self-efficacy and resilience) to help them combat the dysfunctional effects of unfavourable organisational conditions which could contribute to their intention to leave the organisation. The availability of job resources also play an important role (Bakker & Demerouti, 2008) and needs therefore to be further explored in the context of the organisation. Alternatively, employees who have high levels of POB could use their positive resources to actually leave the organisation and in doing so remove themselves from unfavourable organisational conditions.

The moderating role of POB in the relationship between turnover intention and job satisfaction is also not supported by this research. Youssef and Luthans (2007) indicated, however, that the positive psychological capacities in POB, namely hope, optimism and resiliency contribute to higher levels of job satisfaction.

RECOMMENDATIONS AND LIMITATIONS

The POB scale did not quite reach adequate reliability and needs to be refined as a measuring instrument for future use. More research is therefore necessary to increase the reliability of the measuring instrument in the South African context. To ensure a valid and reliable contribution of the specific construct, more items could also be used in future research. The re-writing of the items in the questionnaire to ensure a better understanding on the part of participants, especially those who are second language speakers, could also be employed as a method to increase the reliability.

A negative association between job satisfaction and turnover intention was also found in this study, a relationship that also proved strong over time while controlling for initial turnover intention. Research results by Ermel (2007) indicate a positive relationship between job satisfaction and social support from supervisors. The role of the social support by the supervisor to enhance job satisfaction is a significant factor that needs further research as it is also regarded as a valuable job resource (Luthans et al., 2008). It therefore again confirms the importance of managers and leaders who must ensure high levels of job satisfaction in order to minimise turnover intention amongst employees. The positive effect of a coaching approach as a form of supervisor support to enhance job satisfaction might also be explored further. Supervisory or management coaching as a job resource could also address the specific individual requirements to enhance the components of POB. It is however important to note that highly focussed training interventions to enhance POB, supervisor support behaviour and ways of dealing with intention to leave might require different and very specific interventions.

A large part of the organisations staff establishment consists out of highly skilled employees, with specialised knowledge and skills and plant specific experience. Given the consequences of low levels of job satisfaction which could result in actual turnover the organisation could be under pressure in terms of its human resources if there is a high turnover of staff in critical positions. Further research is therefore

necessary to determine the possible causes of low levels of job satisfaction and to develop the applicable interventions to address it.

No evidence could be found that the training programme had a significant contribution to increase job satisfaction and POB with the subsequent lower levels of turnover intention. Job satisfaction has in fact decrease, from Time 1 to Time 2. The training programme was aimed at self development in the areas as addressed by the programme and not specifically at the four facets of POB. As indicated by (Hobfoll, 2001) the self-development programme could have increased the resources of the participants resulting in beneficial work outcomes. Some of the training content could have contributed therefore to the higher levels of job satisfaction and POB but no research has been done to verify this. This is recognised as a limitation for this study and more research is needed to develop and deliver a training programme which is specifically aimed at enhancing POB in the organisation. The researcher also recognises the fact that many other variables which have not been accounted for in this research could have had an influence on the results and more reaseach is therefore necessary to verify the results.

To address this shortcoming, specific training and developmental interventions based on the individual facets of POB (hope, optimism, self-efficacy and resilience) and focused on individual needs should therefore be investigated and implemented in the organisation; there is empirical evidence that the POB capacities can be developed in relative short, but highly focused training interventions (Avey et al., 2009; Luthans, Avey, Avolio, Norman, & Combs, 2006). According to Kompier (2003) it is however important to design training interventions which focus on the individual (in the organisational context) and the organisation at large.

Job satisfaction is regarded as a highly contextualized construct (Youssef & Luthans, 2007). The levels of job satisfaction and turnover intention per job level and job category were however not measured in this study and future research reflecting the levels of job satisfaction and turnover intention per job level and job category could supply valuable information in terms of where to focus organisational interventions to address job satisfaction and intention to leave.

No research could be found to substantiate the moderating effect of job satisfaction on POB and turnover intention. Future research focusing on this could certainly add

value to the field of organisational behaviour. It is also important for the organisation where this research was done given its unique challenges as mentioned earlier.

The fact that only self-report measures were used adds to another limitation of this study. The use of self-report measures increases the likelihood that at least part of the shared variance between measures can be attributed to method variance (Schaufeli, Enzmann, & Gerault, 1993). It is recommended that multiple sources of data (e.g. 360 degree feedback from supervisors, peers and subordinates where applicable) are used to reduce common method variance.

Cognisance should also be taken of the fact that the research was done with a very diverse group, a typical representation of the South African work environment. Further analysis of the differences between groups - with respect to training and development activities and the method of training delivery - is therefore needed, as it could impact on the success of the training intervention and subsequent behaviour of participants.

Despite the fact that a member of the senior management team together with the researcher opened the training sessions and explained the value of the research for the organisation to the employees and the fact that a unique code was designed to ensure confidentiality to match questionnaires to reflect the same individual's responses from Time 1 to Time 2, the response rate of the participants at Time 2 was significantly lower than the response rate at Time 1. A better response rate could have contributed to better results with regards to the reliability of the individual scales, better conclusions from research results could have been made with a greater amount of certainty which would enable the researcher to give feedback to the management of the organisation of a greater amount of certainty.

REFERENCES

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. London: Sage.
- Arbuckle, J. L. (2007). *AMOS 7.0. Update to the Amos user's guide version*. Chicago, IL: Smallwaters Cooperation.
- Ashton, C., & Morton, L. (2005). Managing talent for competitive advantage. *Strategic HR Review*, 4(5), 28-31.
- Avey, J. B., Luthans, F., & Jensen, S. M. (2009). Psychological capital: A positive resource for combating employee stress and turnover. *Human Resource Management*, 48(5), 766-693.
- Avolio B. J., & Luthans, F. (2006). *The high impact leader: Moments matter for accelerating authentic leadership development*. New York: McGraw-Hill.
- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209-223.
- Bandura, A. (1997). *Self-Efficacy: The exercise of control*. New York: Freeman.
- Bettencourt, L. A., & Brown, S. W. (1997). Contact employees: Relationships among workplace fairness, job satisfaction and prosocial service behaviors. *Journal of Retailing*, 73, 39-61.
- Bigliardi, B., Petroni, A., & Dormio, A. I. (2005). Organizational, socialization, career aspirations and turnover intentions among design engineers. *Leadership and Organization Development Journal*, 26, 424-441.
- Bless, C., Higson-Smith, C., & Kagee, A. (2006). *Fundamentals of social research methods. An African perspective*. (4th ed.). Cape Town: Juta.
- Brayfield, A. H., & Rothe, H. R. (1951). *An index of job satisfaction*. *Journal of Applied Psychology*, 35(5), 307-311.
- Busch, T. (1998). Disciplinary differences in job satisfaction, self-efficacy, goal commitment, and organizational commitment among faculty employees in Norwegian colleges: An empirical assessment of indicators of performance. *Quality in Higher Education*, 4(2), 137-157.

- Chatman, J. A. (1991). Matching people and organizations: Selection and socialization in public accounting firms. *Administrative science quarterly*, 36, 459-484.
- Chen, C. (2006). Job satisfaction, organizational commitment, and flight attendants' turnover intentions. *Journal of Air Transport Management*, 12, 274-276.
- Chen, T., Chang, P., & Yeh, C. (2004). A Study of career needs, career development programmes, job satisfaction and the turnover intentions of R&D personnel. *Career Development International*, 9(4), 424-437.
- Chiu, R. K., & Kosinski, F. A. (1997). Relationship between dispositional traits and self-reported job satisfaction and distress: An investigation of nurses and teachers in Hong Kong. *Journal of Managerial Psychology*, 12(2), 71-84.
- Choo, S., & Bowley, C. (2007). Using training and development to affect job satisfaction within franchising. *Journal of Small Business and Enterprise Development*, 14(2), 339-352.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7(3), 309-319.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cook, J. D., Hepworth, S. J., Wall, T. D., & Warr, P. B. (1981). *The experience of work: A compendium and review of 249 measures and their use*. London: Academic Press.
- Cranny, C. J., Smith, P. C., & Stone, E. F. (1992). *Job satisfaction: How people feel about their jobs and how it affects their performance*. New York: Lexington Books.
- Dawis, R. V. (1992). Person-environment fit and job satisfaction. In C. J. Cranny, P. C. Smith, & E. F. Stone (Eds.), *Job satisfaction: How people feel about their jobs and how it affects their performance* (pp. 69-88). New York: Lexington Books.
- Delany, K., & Turvey, S. (2003). Competing in the race for talent. *People Dynamics*, 22(1), 29-31.

- Denton, M., & Vloeberghs, D. (2003). Leadership challenges for organisations in the new South Africa. *Leadership and Organisational Development Journal*, 24(2), 84-95.
- De Waal, J. J. P. (2011). The role of Positive Organisational Behaviour in employee self-development and organisational outcomes. Unpublished doctoral thesis, North-West University, Potchefstroom.
- Ding, Y., & Li, G. (2010). Study on the management of intellectual capital. *International Journal of Business and Management*, 5(2), 213-216.
- Ermel, Z. (2007). Relations of indicators of work climate and satisfaction to turnover intention in the context of social support. Unpublished master's dissertation, North-West University, Potchefstroom.
- Field, A. (2005). *Discovering statistics using SPSS* (2nd ed.). London: Sage.
- Firth, L., Mellor, D. J., Moore, K. A., & Loquet, C. (2004). How can managers reduce employee intention to quit? *Journal of Managerial Psychology*, 19(2), 170-187.
- Gardner, W. L., & Schermerhorn, Jr. J. R. (2004). Unleashing individual potential: performance gains through Positive Organizational Behavior and Authentic Leadership. *Organizational Dynamics*, 33(3), 270-281.
- Giesen, E., Riddleberger, E., Christner, R., & Bell, R. (2010). When and how to innovate your business model. *Strategy and Leadership*, 38(4), 17-26.
- Hartline, M. D., & Ferrell, O. C. (1996). The management of customer-contact service employees: An empirical investigation. *Journal of Marketing*, 60(4), 52-69.
- Hellgren, J., Sjöberg, A., & Sverke, M. (1997). Intention to quit: Effects of job satisfaction and job perceptions. In F. Avallone, J. Arnold, & K. de Witte (Eds.), *Feelings work in Europe* (pp. 415-423). Milan: Guerini.
- Hobfoll, S. E. (2001). The influence of culture, community and the nested-self in the stress process: advancing conservation of resources theory. *Applied Psychology: An International Review*, 50, 337-369.
- Hom, P. W., & Kinichi, A. J. (2001). Toward a greater understanding of how dissatisfaction drives employee turnover. *Academy of Management Journal*, 44, 975-987.

- Kirschenbaum, A. (1990). Predicting worker turnover: An assessment of intent on actual separation. *Human Relations*, *43*, 829-847.
- Kompier, M. (2003). Job design and well-being. In M. J. Schabracq, J. A. M. Winnubst, & C. L. Cooper (Eds.), *The Handbook of Work and Health Psychology* (2nd ed.). (pp. 429-425). Wiley Chichester.
- Koys, D. (2001). The effects of employee satisfaction, organizational citizenship behavior and turnover on organizational effectiveness: A unit-level, longitudinal study. *Personnel Psychology*, *54*(1), 101-114.
- London, M., & Smither, J. (2003). Can working with an executive coach improve multisource feedback ratings over time? A quasi-experimental field study. *Personnel Psychology*, *56*(1), 23-43.
- Luthans, F. (2002a). Positive organizational behavior: Developing and managing psychological strengths. *Academy of Management Executive*, *16*(1), 57-72.
- Luthans, F. (2002b). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior*, *23*, 695-706.
- Luthans, F., Avey, J. B., Avolio, B. J., Norman, S. M., & Combs, G. J. (2006). Psychological capital development: Toward a micro-intervention. *Journal of Organizational Behavior*, *27*, 387-393.
- Luthans, F., Vogelgesang, G. R., & Lester, P. B. (2006). Developing the psychological capital of resiliency. *Human Resource Development Review*, *5*(1), 25-44.
- Luthans, F., Avey, J. B., & Avolio, B. J. (2007). *The impact of psychological capital interventions on performance outcomes*. Working paper, Gallup Leadership Institute, University of Nebraska.
- Luthans, F., Avey, J. B., Avolio, B. J., & Peterson, S. J. (2010). The development and resulting performance impact of positive psychological capital. *Human Resource Development Quarterly*, *21*(1), 41-67.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, *60*, 541-572.

- Luthans, F., Luthans, K. W., & Luthans, B. C. (2004). Positive psychological capital: Beyond human and social capital. *Business Horizons*, 47(1), 45-50.
- Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008). The mediating role of psychological capital in the supportive organizational climate-employee performance relationship. *Journal of Organizational Behavior*, 29, 219-238.
- Luthans, F., Van Wyk, R., & Walumba, F. O. (2004). Recognition and development of hope for South African organizational leaders. *The Leadership and Organizational Development Journal*, 25(6), 512-527.
- Luthans, F., & Youssef, C. M. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage. *Organizational Dynamics*, 33(2), 143-160.
- Luthans, F., & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of Management*, 33(3), 321-349.
- Mak, B., & Sockel, H. (1999). A confirmatory factor analysis of employee motivation and retention. *Information and Management*, 38, 265-276.
- Masten, A. S., & Reed, M. J. (2002). Resilience in Development. In C. R. Snyder & S. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 74-88). Oxford: Oxford University Press.
- McCarthy, G., Terrell, M. P., & Lehane, E. (2007). Intention to 'leave' or 'stay' in nursing. *Journal of Nursing Management*, 15, 248-255.
- Moore, K. A. (2002). Hospital restructuring: impact on nurses mediated by social support and a perception of challenge. *Journal of Health and Human Services Administration*, 23(4), 490-517.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Orvis, K. A., & Ratwani, K. L. (2010). Leader self-development: A contemporary context for leader development evaluation. *Leadership Quarterly*, 21, 657-674.
- Oshagbemi, T. (1999). Overall job satisfaction: How good are single versus multiple-item measures? *Journal of Managerial Psychology*, 14, 388-403.

- Pienaar, C., & Bester, C. (2006). Typical career dilemmas of academic staff during the early career phase within a changing South African higher education institution. *South African Journal of Education*, 26, 581-594.
- Pienaar, J., Sieberhagen, C. F., & Mostert, K. (2007). Investigating turnover intentions by role overload, job satisfaction and social support moderation. *SA Journal of Industrial Psychology*, 33(2), 62-67.
- Ramlall, S. (2004). A review of employee motivation theories and their implications for employee retention within organizations. *The Journal of American Academy of Business*, 21(1), 52-63.
- Robbins, S. P., Judge, J. A., Odendaal, A., & Roodt, G. (2009). *Organisational Behaviour: Global and South African perspectives*. Cape Town: Pearson Education South Africa.
- Roberts, H. E., & Roseanne, F. J. (1998). Evaluating the interaction between self-leadership and work structure in predicting job satisfaction. *Journal of Business and Psychology*, 12, 257-267.
- Rothmann, S., & Coetzer, E. P. (2002). The relationship between personality dimensions and job satisfaction. *Business Dynamics*, 11(1), 29-42.
- Rust, R., Stewart, G. L., Miller, H., & Pielack, D. (1996). The satisfaction and retention of frontline employees: a customer satisfaction measurement approach. *International Journal of Service Industry Management*, 7(50), 62-80.
- Schaufeli, W. B., Enzmann, D., & Gerault, N. (1993). Measurement of burnout: A review. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 199-215). Washington, DC: Taylor and Francis.
- Schneider, S. L. (2001). In search of realistic optimism. Meaning knowledge and warm fuzziness. *American Psychologist*, 56(3), 250-263.
- Shults, C. W. (2009). *The impact of presidential behaviors on institutional movement towards greater abundance in community colleges: An exploratory study*. University of Michigan.
- Schulze, S. (2006). Factors influencing the job satisfaction of academics in higher education. *South African Journal of Higher Education*, 20, 318-335.

- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *55*(1), 5-14.
- Sjöberg, A., & Sverke, M. (2000). The interactive effect of job involvement and organisational commitment on job turnover revisited: A note on the mediating role of turnover intention. *Scandinavian Journal of Psychology*, *41*, 247-252.
- Smith, G. P. (2003). Assessing business talent for jobs in a changing economy. *Bulletin*, *124*(2), 240-261.
- Snyder, C. R. (2000). *Handbook of hope: Theory, measures, and implications*. San Diego, CA: Academic Press.
- South African Economy Review. (2008). Economic growth. Retrieved February 17, 2008 from www.southafricainfo.htm.
- SPSS (2011). *SPSS 18.0 for Windows*. Chicago, IL: SPSS Incorporated.
- Steyn, H. S. (1999). *Praktiese betekenisvolheid: Die gebruik van effek groottes*. [Practical significance: The use of effect sizes.] Wetenskaplike bydra - Reeks B: Natuurwetenskappe Nr. 117. Potchefstroom Universiteit vir Christelike Hoër Onderwys. Potchefstroom.
- Sutherland, M., & Jordaan, W. (2004). Factors affecting the retention of knowledge workers. *South African Journal of Human Resource Management*, *2*(2), 55-64.
- Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organisational commitment, turnover intention, and turnover: Path analyses based on meta-analytical findings. *Personnel Psychology*, *46*, 259-293.
- Trevor, C. O. (2001). Interactions among actual ease-of-movement determinants and job satisfaction in the prediction of voluntary turnover. *Academy of Management Journal*, *44*, 621-638.
- Trimble, D. E. (2006). Organisational commitment, job satisfaction, and turnover intention of missionaries. *Journal of Psychology and Theology*, *34*(4), 349-360.
- Vandenberg, R. J., & Nelson, J. B. (1999). Disaggregating the motives underlying turnover intentions: When do intentions predict turnover behavior? *Human Relations*, *52*(10), 1313-1336.

- Van Dick, R., Christ, O., Stellmacher, J., Waner, U., Ahlswede, O., Grubba, C., Hauptmeier, M., Höhfeld, C., Moltzen, K., & Tissington, P. A. (2004). Should I stay or should I go? Explaining turnover intentions with organisational identification and job satisfaction. *British Journal of Management*, *15*, 351-360.
- Van Tonder, C. (2005). *The unacknowledged contribution of organizational change practice to organizational and employee wellness*. Paper presented at the Changing World of Work Conference, Vanderbijlpark.
- Vigoda-Gadot, E., & Ben-Zion, E. (2004). Bright shining stars: The mediating effect of organizational image on the relationship between work variables and army officers' intention to leave the service for a high-tech industry job. *Public Personnel Management*, *33*(2), 201-223.
- Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. *Organizational Behavior*, *18*, 1-74.
- Wright, T. A., & Bonett, D. G. (2002). The moderating effects of employee tenure on the relation between organisational commitment and job performance: A meta-analysis. *Journal of Applied Psychology*, *87*, 1183-1190.
- Youssef, C. M., & Luthans, F. (2007). Positive Organisational Behavior in the workplace. The impact of hope, optimism and resilience. *Journal of Management*, *33*(5), 774-800.
- Zeffane, R. M. (1994). Understanding employee turnover: The need for a contingency approach. *International Journal of Manpower*, *15*(9), 22-37.
- Zeithaml, V. A., & Bitner, M. J. (2000). *Services marketing integrating customer across the firm* (2nd ed.). London: McGraw Hill.
- Zimmerman, R. D., & Darnold, T. C. (2009). The impact of job performance on employee turnover intentions and the voluntary turnover process: A meta-analysis and path model. *Personnel Review*, *38*(2), 142-158.

CHAPTER 4

RESEARCH ARTICLE 3

POSITIVE ORGANISATIONAL BEHAVIOUR AS MEDIATOR BETWEEN EMPLOYEE STRESS AND SUBSEQUENT HEALTH

J. J. P. de Waal

ABSTRACT

The objective of this study was to conceptualise and investigate the longitudinal relationship between individual job stressors (lack of role clarity, role conflict, quantitative and qualitative role overload and quantitative and qualitative job insecurity) and subsequent contribution to general health while controlling for neuroticism. The possible mediating role of Positive Organisational Behaviour (POB) in the stress process in a South African study population was also investigated. The measuring battery included instruments on role ambiguity, role conflict, role overload, job insecurity, neuroticism, general health and a newly developed measure of Positive Organisational Behaviour. A longitudinal study was conducted to determine the causality and data was gathered by means of a survey. All employees - representing both genders and all races and job levels within a specific business unit within a chemical factory ($n=892$) - were approached to obtain the data and 163 employees participated at both times. Results of the study indicated a positive relationship between role ambiguity, role conflict, quantitative and qualitative role overload and quantitative and qualitative job insecurity. A negative association between neuroticism and POB at both Time 1 and Time 2, as well as a positive relationship between neuroticism and the measured role stressors, was found. Results also indicated that only the job stressors, quantitative and qualitative job insecurity and the lack of role clarity hold predictive value with regard to POB (T1) and general health. It could only further be established that POB (T1) acts as a partial mediator between job stressors and general health. Limitations of the study and recommendations were also discussed.

OPSOMMING

Hierdie studie het ten doel om 'n konseptuele oorsig te verkry en die longitudinale verhouding te ondersoek tussen die werkstresfaktore (rolonduidelikheid-, rolkonflik-, kwantitatiewe en kwalitatiewe roloorlading en kwantitatiewe en kwalitatiewe werksonsekerheid) en die gevolglike bydrae tot algemene gesondheid terwyl daar vir neurotisme beheer word. Die moontlike bemiddelingsrol van Positiewe Organisasie Gedrag (POG) in die werkspannings-proses in 'n Suid Afrikaanse studiepopulasie word ook ondersoek. Die meetinstrumente wat onder andere gebruik word, is die rolonduidelikheid-, rolkonflik-, roloorladings-, werksonsekerheid-, neurotisme en algemene gesondheidsvraelyste, asook die nuutontwikkelde Positiewe Organisasie Gedrag (POG) vraelys. 'n Longitudinale studie word gebruik om die oorsaaklike verband tussen die veranderlikes oor 'n tydperk te bepaal. Om data in te samel is alle werknemers ($n=892$) van beide geslagte, alle rasse en posvlakke van 'n bepaalde besigheidseenheid in 'n chemiese fabriek in die studie gebruik en 163 werknemers het aan beide tye van data insameling deelgeneem. Resultate toon 'n positiewe verband tussen gebrek aan rolduidelikheid, rolkonflik, kwantitatiewe en kwalitatiewe roloorlading en kwantitatiewe en kwalitatiewe werksonsekerheid aan, 'n negatiewe verband tussen neurotisme en POG by beide Tyd 1 en 2, asook 'n positiewe verband tussen neurotisme en die werkspanningsfaktore. Resultate toon verder aan dat slegs die werkstressors, kwantitatiewe en kwalitatiewe werksonsekerheid en die gebrek aan rol duidelikheid voorspellende waarde met betrekking tot POG (T1) en algemene gesondheid het. Resultate toon verder aan dat POB (T1) slegs 'n

gedeeltelike mediator tussen werkstresfaktore en algemene gesondheid is. Beperkinge van die studie en aanbevelings word ook bespreek.

INTRODUCTION

Significant transformation closely associated with the organisation and management of work has occurred in the global work environment in recent decades (EU-OSHA, 2007). To survive, organisations are therefore faced with the necessity of streamlining their operations while using fewer resources (Sverke, Hellgren, & Näswall, 2002). Contributing to these challenges is the fact that the nature of work has changed significantly for those who remain employed (Sverke & Hellgren, 2002). The employment relationship in the future, as in the past, is likely to be characterised by continuing diversity and complexity (Dickens, 2004). The effect of an increasingly pressurised work environment is obvious in industry (Avey, Luthans, & Jensen, 2009) and the result of these changes in the characteristics of the job, working environment and organisational behaviour contributes to the increase of work stress experienced by employees, which in turn affects their physical and mental health (Devereux, Rydstedt, Kelly, Weston, & Buckle, 2004; Dollard, 2003). According to Rees and Redfern (2000) experiences of work stress are closely associated with the health and safety of employees, and therefore also to the well-being of their organisations or institutions. Added to this challenge is the negative impact of role stressors which have long been recognised by researchers (Griffeth, Hom, & Gaertner, 2000). Employees have to cope with the demands that arise from fulfilling various roles – often with limited resources (Maslach, Schaufeli, & Leiter, 2001).

Stress is a complex phenomenon (Di Martino, 1992) and stress experienced at work can have severe undesirable consequences for the health, well-being and morale of employees (Antoniou, Davidson, & Cooper, 2003; Cooper & Cartwright, 1994). Occupational stress is seen by the World Health Organisation as a worldwide epidemic and as one of the most costly and critical occupational health concerns, because it not only affects the individual, but also employers in the sense that it contributes to compensation claims, healthcare cost, disability, absenteeism and productivity losses (Cooper, Luikkonen, & Cartwright, 1996; Levi, 2002; Lu, 1999; Murphy, 1995).

According to Chamberlain and Zika (1990) no specific major stressful event is necessary to cause job stress; the accumulation of unimportant everyday events, however, also contributes to this phenomenon. Not all individuals re-act in the same

way to a specific stressful event due to individual differences and personal situations that could influence an individual's response to job stress (Antoniou, Davidson, & Cooper, 2003; Chamberlain & Zika, 1990). The requirements and expectations of role-based factors such as lack of role clarity (role ambiguity), role conflict and role overload (Jones, Chonko, Rangarajan, & Roberts, 2007; Nelson & Burke, 2000) have been frequently identified as job stressors. Many studies have, however, shown that job stress is strongly associated to employees' perception that they have low levels of control over their job tasks and job-related decision making (Theorell, 2003).

According to Pienaar and Rothmann (2003) research supports the view that work stress is the result of two sources, namely job demands and the lack of job resources. Corville and Bernardi (1999) point out that job stress occurs when there is a perceived imbalance between the demand of the work environment and the individual's ability to meet these demands. It usually results in physiological and psychological reactions. Work stress is thus the interactive psychological process or psychological state between the individual and the situation causing the stress (Cox, 1993; Di Martino, 1992). Workplace stressors further lead to emotional responses, thereby impacting on attitudes and behaviours (Rodell & Judge, 2009).

Work stress is defined by Beehr (2002, p. 18) as "a situation in which stressors in the work environment lead to strains in the individual, regardless of whether or not they affect the organisation". Oliver, Mansell and Jose (2010) point out that stress is a process in which the environment interacts with the individual to produce strain outcomes. Stressors are perceived as harmful stress-generating episodes or conditions in the work environment. Strains are the individual's responses or reactions to such stress or stimuli/conditions (Beehr, 2002). Work stress is thus the impact of job and organisational conditions on the health and well-being of employees (Jex & Yankelevich, 2008). Consequences of occupational stress are mental, physical and behavioural reactions such as anxiety, frustration, worry, emotional exhaustion, depression and psychosomatic diseases (Armstrong & Griffin, 2004; Blassingame, 2003; Corville & Bernardi, 1999; Dunn, 2000). Typical stressors (which have also been studied in this research) are the lack of role clarity (or the presence of role ambiguity), role conflict, quantitative and qualitative role overload and quantitative and qualitative job insecurity (Beehr, 2002; Cooper & Dewe, 2004; Sverke, Hellgren et al., 2002).

Due to the fundamental changes in the economic system, employees will experience a substantially different workplace environment. These changes mean that formerly secure jobs are no longer likely to assure employees of long-term employment (Ross & Altmaier, 1994). The fact that companies respond to competitive pressures by introducing strategies such as mergers, acquisitions, reorganising and venturing into new markets, it is therefore not surprising that employees experience job insecurity (Reisel & Banai, 2002). Employees must be content with the reality of rising job insecurity (Probst, 2008) which has become a “sizeable social phenomenon” (De Witte, 2005, p. 1). As a work-related stressor job insecurity is associated with a decline in physical and mental health status (Sverke, Hellgren et al., 2002) and is therefore also considered as a major contributor to work stress (Sverke & Hellgren, 2002).

Rees and Redfern (2000) point out that stress research conducted over the last three decades has indicated that the experiences of work stress are closely related to the health and safety of individuals and therefore to the well-being of their organisations. Organisations are increasingly recognising the fact that the well-being of their employees contributes to the sustainability of the organisation (Schabracq & Cooper, 2000). By understanding the contributing factors to job stress, strategies to address the damaging effects of stress, mental ill-health and the lack of well-being can therefore be implemented (Wickramasinghe, 2010).

Research has also demonstrated that the four facets of POB (hope, optimism, self-efficacy and resiliency) in their aggregate form have a significant negative relationship with perceived symptoms of work stress (Avey, Luthans, & Jensen, 2010; Avey, Wernsing, & Mhatre, 2011). Empirical evidence has demonstrated that these facets can be developed in adults (Luthans, Avey, & Patera, 2008) and are positively related to well-being (Avey et al., 2011). POB will be viewed and evaluated as a personal mediator in this study. Mediators, according to Baron and Kenny (1986), explain how external events take on internal psychological importance and thus explain how or why such effects occur.

According to Avey et al. (2011) the demand for individual effectiveness will continue to grow in today’s turbulent international economic environment. Understanding and managing the relief of stress and anxiety will therefore be an important concept. South African businesses are not excluded from these challenges and the researcher is of the

opinion that the same situation with regards to the negative consequences of job stress presents itself in the South African business environment. Adding to this is the unique circumstances in South Africa with regards to the South African political transformation agenda and the great disparities in levels of education and skills. The objectives of the National Skills Development Strategy (2005) - to develop a culture of high quality lifelong learning and to promote skills development in the formal economy for productivity and growth - seeks to address some of these challenges.

Based on the above-mentioned background, the researcher is of the opinion that role stress and job insecurity could be prevalent in many South African organisations, and could directly be contributing to the challenges facing today's business environment, as well as the specific business environment investigated in this research. The possible mediating role of POB in the stress process in a South African study population will also be investigated, as well as the relation of this phenomenon to employee health, because its maintenance presents a key imperative for businesses.

The following section reviews the applicable literature on the variables of interest.

Lack of Role Clarity/Role Ambiguity

The lack of Role clarity (or the presence of role ambiguity) is primarily regarded as a contributing factor to work stress, as it intensifies the effect of daily work stress on the individual's mood, thus contributing to psychological strains such as depression, tension, and burnout (Jex, 1998; Lang, Thomas, Bliese, & Adler, 2007; Wickramasinghe, 2010).

Role clarity is the extent to which the organisation explains an employee's work goals and responsibilities, as well as to what extent the individual understands the processes required to achieve these goals (Sawyer, 1992). According to Rizzo, House and Lirtzman, (1970) an individual experiences role ambiguity when there is a lack of clear guidance about the requirements of the person's role in his/her job or the organisation. Role ambiguity is thus present when individuals are uncertain about work objectives to be accomplished, expectations from co-workers and the scope and responsibilities of the job (Chang & Hancock, 2003; Wickramasinghe, 2010). Kreitner and Kinicki (2001) explain role ambiguity as the failure of communication of expectations or information needed to perform the role to the focal person. Role

clarity is also the extent to which work procedures, goals, criteria and knowledge of consequences are understood well (Rizzo et al., 1970).

To perform his/her role adequately individuals are required to 1) know what is expected of them in a given role, 2) know what activities will fulfil the role responsibilities, 3) recognise the means of achieving the role and 4) realise what the consequences of role performance are to self, others and the organisation (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Rahim, 2001). Experienced role ambiguity thus reflects the way a person internalizes, perceives, and understands objective ambiguity in the role context (Sawyer, 1992).

Singh (1998) shows that role ambiguity is negatively correlated to various job performance variables. High levels of role ambiguity could lead to dissatisfaction with one's role; that could result in anxiety and the distortion of reality, which in turn could cause an increase in job stress, decreased professional performance and impaired organisational effectiveness (Rizzo et al., 1970; Lambert & Lambert, 2001).

Role Conflict

As a work stressor, role conflict is regarded as a separate dimension from the lack of role clarity (role ambiguity) and is also recognised as to evoke increased work stress (Cooper & Dewe, 2004; Lambert & Lambert, 2001). Role conflict is defined by Rizzo et al. (1970) in terms of the dimensions of congruency-incongruency, or compatibility-incompatibility in terms of the role, where congruency or compatibility is determined by the individual, relative to a set of criteria or conditions which encroach upon the role performance. A person thus experiences role conflict when the role sender in his/her role set has contradictory role expectations that he/she must perform (Thiagarajan, Chakrabarty, & Taylor, 2006), or the person experiences two or more incompatible and mutually exclusive role requirements (Tunc & Kutanis, 2009). Role conflict is thus the result of conceptual differences between employees and different supervisors regarding the content or importance of required job tasks (Michael, Court, & Petal, 2009).

As in the case with role ambiguity, role conflict has also been associated with emotional turmoil (Cooper & Dewe, 2004) and is therefore identified as an important cause of work-related stress, decreased individual satisfaction, decreased professional

performance and impaired organisational effectiveness (Lambert & Lambert, 2001; Rizzo et al., 1970).

Role Overload

Role overload, described as the fulfilling of multiple roles, is another role characteristic which has been identified as a source of perceived occupational stress and strain (Bolino & Turnley, 2005; Ross & Altmaier, 1994). It is also considered as a separate, indispensable construct among the role stressors (Brown, Jones, & Leigh, 2005). Due to employees working under continuous time pressure, role overload remains a significant problem in modern organisations (Rahim, 2001).

Role overload has been conceptualised by Kahn et al. (1964) as a combination of inter-sender and person-role conflict, meaning that the focal person is unable to complete all the tasks expected of him/her by the role senders in the particular role. According to Voydanoff (2002, p. 147), role overload exists when “the total demands on time and energy associated with the prescribed activities of multiple roles are too great to perform the roles adequately or comfortably”. Role overload thus happens when the individual is required to perform a number of appropriate roles, but is unable to complete the work that is part of a particular job in the time available (Rahim, 2001; Ross & Altmair, 1994; Sverke, Hellgren, & Öhrming, 1999). Sufficient time and energy to meet incompatible role pressures will assist the focal person to such an extent that the focal person does not experience role overload (Thiagarajan et al., 2006).

Role overload can further be classified as quantitative and qualitative role overload. Quantitative role overload, according to Beehr, Walsh and Taber (1976), is the feeling of having too much to do, given the time available. Sverke et al. (1999) describe qualitative role overload as the sense that the work is too difficult or demanding in that the required skills, abilities or knowledge are beyond that which the individual in the position possesses. Pienaar, Sieberhagen and Mostert (2007) point out, however, that the two dimensions of role overload are related due to individual and professional characteristics and abilities, as well as the nature of the work itself.

Job Insecurity

According to De Witte (1999) different notions of job insecurity exist in research literature, but overall it is applicable to people who fear they might lose their jobs and

become unemployed (De Witte, 1999; De Witte, 2005). It therefore involves experiencing a threat due to the unpredictability or uncertainty of what will happen with regards to having a job in the future (De Witte, 1999). It is considered a work stressor resulting in a negative impact on employees' health as it reduces general well-being, both in the long and short term (De Witte, 1999; De Witte, 2005; Probst, 2008). Job insecurity is associated with psychological distress (Dekker & Schaufeli, 1995; Probst, 2002), mental health problems (Hellgren & Sverke, 2003) and negative emotions towards the perceived source of the stress (Sverke et al., 2002).

Job insecurity shows a fundamental and involuntary change about the continuity and security within the employing organisation and as a subjective phenomenon it is based on the individual's understanding of uncertainties in the work environment (Greenhalgh & Rosenblatt, 1984; Hartley, 1991). Job insecurity is also defined as the perceived threat of job loss and the worries related to that threat (De Witte, 2005). According to Van Vuuren, Klandermans, Jacobson and Hartley (1991) job insecurity refers to the discrepancy between the level of perceived job security as experienced by the employee, and the level of job security the employee prefers. Common denominators derived from these definitions are 1) the involuntary nature of job insecurity, 2) the subjective experience or perception because a similar situation might be understood in various ways by different employees 3) and it implies prolonged insecurity or uncertainty about the future continuation of the present job in the organisation (De Witte, 1999; De Witte, 2005).

Hellgren, Sverke and Isaksson (1999, p. 182) differentiate between quantitative and qualitative job insecurity based on the distinction between "insecurity about the continuity of one's job or aspects of one's job". Quantitative job insecurity refers to the future existence or continuity (or loss) of the job itself, and qualitative job insecurity refers to perceived threats of impaired quality or continued existence of valued aspects of the job, such as the employment relationship, remuneration, working conditions, job content and the lack of career opportunities (De Witte, 2005; Hellgren et al., 1999).

Neuroticism

According to Costa and McCrae (1987, p. 301) neuroticism may be defined as "a broad dimension of individual differences in the tendency to experience negative,

distressing emotions and to possess associated behavioral and cognitive traits". Neuroticism is further seen as the opposite pole of emotional stability, as well as a personality trait characterised by high levels of anxiety, depression, anger, emotionality, insecurity, nervousness, fearfulness and apprehension (Mount & Barrick, 1995). Neuroticism correlates strongly with negative affect (Gomez, Cooper, & Gomez, 2000; Robinson, Ode, Moeller, & Goetz, 2007) and highly neurotic individuals encounter higher levels of negative life events (Magnus, Diener, Fujita, & Pavot, 1993), interpersonal conflicts and hostile reaction (Gunthert, Cohen, & Armeli, 1999), hopelessness (Velting, 1999) and maladaptive appraisal styles of situations (Cox-Fuenzalida, Swickert, & Hittner, 2004).

Neuroticism is perceived to be socially undesirable (McKelvie, 2004). Individuals with high levels of neuroticism - versus low - often perceive situations as more stressful, because it pervasively influences perceptions of the self and/or environment (Chen & Spector, 1991; Gunthert et al., 1999). Highly neurotic individuals tend to believe that they do not possess the ability or often lack confidence in their abilities to handle stressful situations (Penley & Tomaka, 2002; Wells & Matthews, 1994), resulting in poorer performance (Cox-Fuenzalida et al., 2003). They therefore often tend to make use of avoidant coping strategies (Roesch, Wee, & Vaughn, 2006).

In conclusion it is important to note that individuals across the neuroticism continuum react in a different manner, but in general they adapt poorly to changes in the individual's environment (Cox-Fuenzalida et al., 2003). Within the framework of this study neuroticism will be used as a control variable.

General Health

According to Marmot and Wilkinson (2006) the working environment and the nature of work itself are both important influences on health. The significance of health and well-being has long been recognised as the absence of health and well-being and has the potential to affect both workers and organisations in negative ways (Dana & Griffin, 1999; Soylu, 2007) and is therefore frequently used as an indicator of work stress (Cordery, 2007). The importance of health has also been emphasised by Coetzer and Rothmann (2006), an indication that deteriorating physical and psychological health has been found to be the major outcome of perceived stress. Other negative consequences of poor health and well-being are anxiety, depression, unable to cope

with demands, lower productivity, lower quality decisions and individuals more likely to being absent from work (Boyd, 1997; Cordery, 2007).

Health is perceived by Ryff and Singer (2000) as a state of well-being rather than ill-being, and not only the absence of disease or illness. Well-being is about the mind and the body and their interconnectivity and should be seen as a multidimensional dynamic process. In the final analysis well-being is an issue of engagement in living, conveying an extensive range of human potential, e.g. intellectual, social, emotional, and physical potential (Ryff & Singer, 2000).

From the well-being perspective, a healthy workforce should result in happier and more productive employees (Harter, Schmidt, & Keyes, 2002). Within the framework of this study general health is seen as a specific outcome which will be influenced by stress caused by individual experiences.

Positive Organisational Behaviour

According to Luthans (2002b) and (Luthans & Youssef, 2007), POB takes Positive Psychology to the work environment as it focuses on the application of human strengths at work, rather than altering weaknesses. They define POB as “the study and application of positively-orientated human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement in today’s workplace” (Luthans, 2002a, p. 59). POB is therefore reconcilable with Positive Psychology, because Positive Psychology emphasises the study of human strengths and virtues, with the aim of understanding and promoting positive developmental outcomes (Seligman & Csikszentmihalyi, 2000). The principle contribution of POB furthermore lies in the fact that it is generative (Luthans, Luthans, & Luthans, 2004). As a development approach, it lends itself to the fast pace of change, limited time and scarce financial resources that is typical of the current workplace (Youssef & Luthans, 2007), specifically in the business unit under investigation.

POB, as well as its possible buffering effect against stress in the support of general health of an organisation’s employees, is seen as an important facet to study in the South African work context too. To support this notion Lazarus (2003) pointed out that the POB components (hope, optimism, self-efficacy and resilience) could be instrumental in coping better with stress and reducing stress related symptoms.

Research evidence also suggests that hope may provide individuals with a positive resource to deal with stressful situations (Avey, Luthans, & Jensen, 2009). Totterdell, Wood and Wall (2006) have found that employees with higher levels of optimism are less likely to experience symptoms of stress. According to Bandura (2007) human stress is mostly regulated by people’s beliefs about coping efficacy. Resilient individuals are, according to Tugade and Fredrickson (2004), also better equipped to deal with stressors in the work environment.

The mediating role of POB and the role it plays in the stress process will also be studied in the research. The Occupational Stress Model of Beehr (1995, in Cooper, 2002) will be utilised for this purpose. The model is as follows:

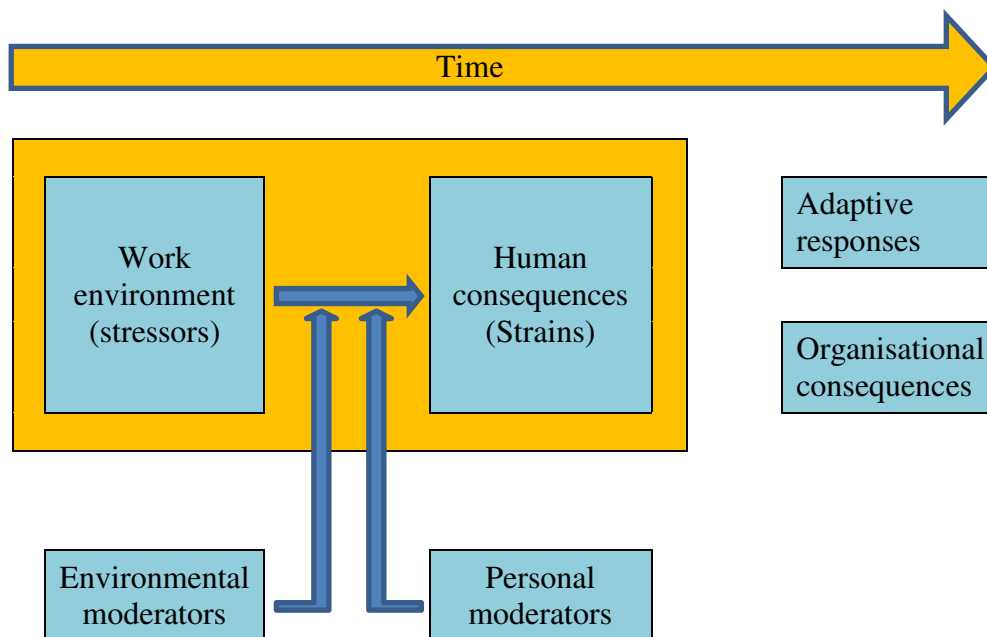


Figure 1. The Occupational Stress Model (Beehr, 1995)

The above-mentioned model indicates that there is a core relationship between the Work Environment (stressor) and the Human Consequences (strain). If no relationship exists, then there is no stress. It is also important to note that stressors in the work environment cause strain in the individual (O’Connor et al., 1984, in Cooper, 2002). The effect of the work environment (stressors) on human consequences (strains) would either be strengthened or weakened by the impact of the environmental and personal moderators. Strains, according to Beehr (1995) in Cooper (2002), are presented as three types: psychological, physical or physiological strain. Kahn and Byosiere (1992, in Cooper, 2002) noted that there seems to be ample evidence that organisational stressors are linked to psychological and physiological strains.

With regards to organisational consequences or outcomes such as absenteeism, turnover and changes in job performance, Cooper (2002) points out that it is not necessarily part of the job stress process. It does appear that the organisation is affected by the stress on its employees in the form of costs or benefits to the organisation.

The objective of this study is to conceptualise and investigate the longitudinal relationship between individual job stressors (lack of role clarity, role conflict, quantitative and qualitative role overload and quantitative and qualitative job insecurity) and subsequent contribution to general health. The study will also investigate the possible mediating effect that Positive Organisational Behaviour (POB) might have on the relationship between the job stressors and general health, while controlling for neuroticism in a sample of South African employees.

The following research questions are formulated, whilst based on the above-mentioned discussion:

- What is the relationship between lack of role clarity, role conflict, role overload, job insecurity, neuroticism, POB and general health according to the literature?
- What is the relationship between lack of role clarity, role conflict, role overload, job insecurity, neuroticism, POB and general health in a sample of South African employees?
- Can role stressors (lack of role clarity, role conflict role overload), job insecurity, neuroticism and POB be used to predict the general health of a sample of South African employees?
- Can POB act as a mediator in the stress process, while controlling for neuroticism?
- What recommendations can be made regarding the management/improvement of job stressors and POB in the organisation under investigation?

METHOD

Research design

The researcher made use of a longitudinal study to achieve the research objectives of the study. Longitudinal designs provide the opportunity to validate theoretically

hypothesised relationships between two variables. In addition, longitudinal designs make it possible to investigate alternative causational patterns by allowing the researcher to make decisions between hypotheses of opposite causation and to improve the possibilities to eliminate the influence of third variables (Zapf, Dormann, & Frese, 1996).

Participants

During the first measurement surveys were distributed to all 1003 permanent employees working in all departments across all service delivery units of the particular business unit which forms part of a larger chemical factory. A total of 908 completed questionnaires were returned and only 892 of the questionnaires could be used, representing a return rate of 88.9% for the final data analysis.

During the second measurement 915 questionnaires were distributed to the same study population as in the first measurement. A total of 358 completed questionnaires were returned which represented a return rate of 39,1%. Only 163 respondents could, however, be matched with the respondents from the first survey, representing a return rate of 17.8% with useable data for the longitudinal study.

During the first measurement (Time 1) data was gathered by requesting delegates to complete the questionnaires prior to the training programme which they had to attend. These training sessions and data gathering took place once a week over a period of fourteen months (two months, December 2007 and December 2008 excluded due to school holidays) due to the group size (1003 fulltime employees) and the availability of employees to complete the training. During the second measurement (Time 2) employees were only given two weeks in April 2009 to complete the questionnaires.

Descriptive information of the sample is given in Table 1.

Table 1

Characteristics of the Participants (Longitudinal sample; n=163)

Item	Category	Frequency*	Percentage*
Gender	Female	50	30,67
	Male	113	69,33
Race	Black	53	32,52
	Coloured	0	0,00
	Indian	4	2,45
	White	105	64,42
Job level	Middle Management-Level 5	1	0,61
	Middle Management-Level 5 and 6	13	7,98
	Supervisors-Level 6	12	7,36
	Supervisors-Level 7	42	25,77
	Skilled Workers-Level 8	41	25,15
	Skilled Workers-Level 9	30	18,41
	Skilled Workers-Level 10	22	13,50
	Semi Skilled Workers-Level 11	1	0,61
	Semi Skilled Workers-Level 12	1	0,61

*Where totals are not equal to 100, this is due to missing values.

According to Table 1 the majority of participants represented in the study population were male, which reflects the demographics of the organisation very well given the fact that the technical and operational areas of the organisation are still dominated by men. The race groups are also representative of the actual population of the organisation, with the majority of the participants represented in the white group. The average age of respondents was 40,4 years ($SD=11,16$ years) and with regards to the years service the average was 13,4 years ($SD=10,35$ years). The majority of the participants were on supervisory and non-managerial levels.

Measuring battery

The following measuring instruments were used in the empirical study:

Lack of Role Clarity

Role clarity will be measured by means of a combination of items from Rizzo et al. (1970). A typical question is: “*There exist no clear, planned goals and objectives for my job*”. These authors also reported the alpha coefficient reliability of the questionnaire conducted for two samples as 0,78 and 0,80 respectively. Nqubane (2008) obtained reliability coefficient of 0,75 in a South African sample ($n=176$). Response options are on a five-point Likert scale, ranging from 1 (“strongly

disagree”) to 5 (“strongly agree”). A high score is indicative of a higher level of role ambiguity.

Role Conflict

Role conflict will be measured by means of a questionnaire developed by Rizzo et al. (1970). The questionnaire consists of five items and a typical question is: “*I receive incompatible requests from two or more people*”. Rizzo et al. (1970) reported the alpha coefficient reliability of the questionnaire conducted for a sample size of N=199 and N=91 to be, 0,81 and 0,82, respectively. Nqubane (2008) obtained reliability coefficient of 0,73 in a South African sample ($n=176$). Response options are on a five-point Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). High scores obtained in the survey are indicative of higher levels of role conflict.

Role Overload

The questionnaire to be used to measure quantitative role overload was developed by Beehr, Walsh and Taber (1976) and measures the feeling of having too much to do in too little time. A typical question is: “*I often have too much to do in my job*”. Näswall, Baraldi, Richter, Hellgren and Sverke (2006) reported the reliability of the questionnaire (alpha coefficient) to vary from 0,73 to 0,81 in four different samples. Pienaar et al. (2007) obtained reliability coefficient of 0,59 in a South African sample ($n=206$).

The questionnaire to be to measure qualitative role overload was developed by Sverke, Hellgren and Öhrming (1999) and reflects the perception that the work is too difficult or demanding. A typical question is: “*I feel unreasonable demands in my work*”. Näswall et al. (2006) reported the reliability of the questionnaire (alpha coefficient) to vary from 0,71 to 0,78 in four different samples. Pienaar et al. (2007) obtained reliability coefficient of 0,77 in a South African sample ($n=206$). Response options are on a five-point Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). A high score is thus indicative of higher levels of role overload.

Job Insecurity

The two dimensions of job insecurity (quantitative and qualitative job insecurity) will be measured with a questionnaire developed by Hellgren et al. (1999). Quantitative job insecurity will be measured with three items, and qualitative job insecurity will be measured with four items. A typical question to measure quantitative job insecurity is:

"I am worried about being able to keep my job" and a typical item to measure qualitative job insecurity is *"I worry about getting less stimulating work tasks in future"*. Hellgren et al. (1999) reported that the internal consistency reliability was satisfactory for both quantitative (Cronbach alpha coefficient of 0,79) and qualitative (Cronbach alpha coefficient of 0,75) measurements of job insecurity. Fourie (2005) obtained reliability coefficient of 0,82 and 0,75, reflecting quantitative and qualitative job insecurity for a managerial group in a South African sample ($n=206$) respectively. Response options are on a five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). Higher scores are indicative of higher levels of job insecurity.

Neuroticism

Neuroticism will be measured by the 12-item Eysenck Personality Inventory Neuroticism Scale (Eysenck & Eysenck, 1968). The inventory would typically measure individuals' experiences of feelings of irritability, nervousness, worry, embarrassment or guilt. Typical questions are: *"I am a nervous person"* and *"I am often troubled by feelings of guilt"*. Judge, Kluger, Locke and Durham (1998) reported the reliability (alpha coefficient) as 0,93, 0,86 and 0,85 for a group of physicians ($N=104$), business school graduates ($N=122$) and a group of university students ($N=122$), respectively. Response options are on a five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). High scores will give an indication of a greater degree of neuroticism than low scores.

General Health

The General Health Questionnaire (GHQ-12) is a widely used screening instrument for detecting general psychological well-being or general psychological distress or strain in the general population (Kalliath, O'Driscoll, & Brough, 2004; Koeter & Ormel, 1991). It is frequently used in both clinical and occupational settings to measure context free psychological well-being as well as an indicator of work stress (Cordery, 2007; Mansell, Brough, & Cole, 2006) and is therefore also deemed fit to measure general health in the current study population. The GHQ-12 measures both positive and negative aspects of mental health (Hu, Steward-Brown, Twigg, & Weich, 2007), based on affective symptoms such as depression, anxiety and non-coping, experienced over the past two weeks (Cordery, 2007; Oliver et al., 2010). The GHQ-

12 comprises of six items that are positive descriptions of mood states which are reverse scored (e.g. “felt able to overcome difficulties”) and six items that are negative descriptors of mood states (e.g. “felt unhappy and depressed”). Kalliath et al. (2004) reported an internal consistency reliability (Cronbach’s alpha coefficient) of 0,91 and 0,90 respectively ($N=691$ and $N=415$) for two different measures administrated at a three month interval. Response options are on a five-point Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). High scores indicate poor psychological well-being or ill-health.

POB

POB was measured with the newly developed POB scale (De Waal, in press). Derived from the four constructs (hope, optimism, self-efficacy and resilience) which form the POB scale (Luthans, 2002a), the three items which represented the respective individual scales best (as obtained in a South African sample) were taken to form the new POB scale. A reliability coefficient of 0,69 were obtained in the South African sample ($n=443$) and the factor structure was established with confirmatory factor analysis. Response options are also on a five-point Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). A high score is thus indicative of higher levels of Positive Organisational Behaviour.

A biographical questionnaire was developed to gather information about the demographical characteristics of the participants. Information gathered included age, gender, race, job level and specific work function in the business under investigation, as well as years employed in the organisation.

Statistical analysis

The statistical analysis was carried out with the aid of the SPSS-programme (SPSS, 2011). Descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) were used to analyse the data. Cronbach alpha coefficients were employed to determine the internal consistency, homogeneity and unidimensionality of the measuring instruments (Clark & Watson, 1995). Coefficient alphas contain important information regarding the proportion of variance of the items of a scale in terms of the total variance explained by that particular scale.

Pearson’s product-moment correlation coefficients were used to specify the relationship between the variables. In terms of statistical significance, it was decided

to set the value at a 95% confidence interval level ($p \leq 0,05$). Effect sizes (Steyn, 1999) served to decide on the practical significance of the findings. A cut-off point of 0,30 (medium effect, Cohen, 1988) was set for the practical significance of correlation coefficients.

RESULTS

Descriptive statistics, Cronbach's alpha coefficients and inter-item correlation coefficients of the Lack of Role Clarity, Role Conflict, Quantitative and Qualitative Role Overload, Quantitative and Qualitative Job Insecurity, Neuroticism, General Health and POB scales ($n=163$) obtained at both measurements of the longitudinal study are reported in Table 2 and Table 3 respectively.

Table 2

Descriptive Statistics and Cronbach Alpha Coefficients of the Measuring Instruments both Time 1 and 2

	Mean		SD		Skewness		Kurtosis		α	
	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
1. Lack of Role Clarity	2,30	2,31	0,67	0,63	0,50	0,45	0,56	0,29	0,67	0,66
2. Role Conflict	3,86	2,70	0,63	0,67	0,51	-0,01	0,27	0,14	0,59	0,70
3. Role Overload (Quantitative)	3,00	2,96	0,79	0,80	0,05	0,20	-0,13	-0,43	0,59	0,65
4. Role Overload (Qualitative)	2,52	2,53	0,70	0,67	0,10	0,23	-0,14	0,10	0,66	0,66
5. Job Insecurity (Quantitative)	2,22	2,50	0,92	0,85	0,61	0,11	-0,05	-0,51	0,79	0,78
6. Job Insecurity (Qualitative)	3,05	3,16	0,82	0,86	-0,08	-0,01	-0,36	-0,61	0,67	0,78
7. Neuroticism	2,60	2,60	0,63	0,63	0,12	0,17	0,44	-0,07	0,86	0,86
8. General Health	2,62	2,70	0,60	0,68	0,98	0,34	3,25	0,11	0,82	0,86
9. POB	3,82	3,78	0,40	0,34	0,34	0,54	0,13	0,99	0,69	0,63

As indicated in Table 2, the measuring instruments have relatively normal distribution, with skewness and kurtosis within the +1 and -1 range. General Health at Time 1, however, shows a peaked curve (leptokurtic). The internal consistencies of the constructs varies from 0,59 to 0,86. According to Nunnally and Bernstein (1994) the guideline for an acceptable internal consistency is an $\alpha \geq 0,70$, but 0,55 is also acceptable in basic research.

Table 3 (below) reports on the correlations between the variables. Time 1 data is reflected above the diagonal and Time 2 data is reflected below the diagonal.

Table 3

Product-Moment Correlation Coefficients between the Lack of Role Clarity, Role Conflict, Quantitative and Qualitative Role Overload, Quantitative and Qualitative Job Insecurity, Neuroticism, General Health and POB scales for both Time 1 and 2

	1	2	3	4	5	6	7	8	9
1. Lack of Role Clarity	1	0,44 ^{*+}	0,10	0,22 [*]	0,28 [*]	0,47 ^{*+}	0,15	0,29	-0,12
2. Role Conflict	0,36 ^{*+}	1	0,25 [*]	0,59 ^{*++}	0,45 ^{*+}	0,24 [*]	0,31 ^{*+}	0,35 ^{*+}	-0,12
3. Role Overload Quantitative	0,21 [*]	0,36 ^{*+}	1	0,56 ^{*++}	0,19	0,00	0,18 [*]	0,25 [*]	0,21 [*]
4. Role Overload Qualitative	0,41 ^{*+}	0,57 ^{*++}	0,53 ^{*++}	1	0,36 ^{*+}	0,00	0,39 ^{*+}	0,30 ^{*+}	0,24 [*]
5. Job Insecurity Quantitative	0,24 [*]	0,15	0,06	0,25 [*]	1	0,28 [*]	0,30 ^{*+}	0,32 ^{*+}	0,28 [*]
6. Job Insecurity Qualitative	0,54 ^{*++}	0,28 [*]	0,16 [*]	0,40 ^{*+}	0,40 ^{*+}	1	0,16 [*]	0,14	0,09
7. Neuroticism	0,32 ^{*+}	0,37 ^{*+}	0,26 [*]	0,41 ^{*+}	0,43 ^{*+}	0,32 ^{*+}	1	0,47 ^{*+}	-0,38 ^{*+}
8. General Health	0,46 ^{*+}	0,26 [*]	0,20	0,46 ^{*+}	0,37 ^{*+}	0,36 ^{*+}	0,64 ^{*++}	1	-0,46 ^{*+}
9. POB	-0,21 [*]	-0,06	0,04	0,04	0,20	0,07	-0,26 [*]	-0,42 ^{*+}	1

^{*} $p \leq 0,05$ (statistically significant), ⁺ $r \geq 0,30$ (practically significant) (medium effect)

⁺⁺ $r \geq 0,50$ (practically significant) (large effect)

The statistically and practically significant correlations between the different variables at Time 1 and Time 2 are presented in Table 3. The analysis of Time 1 data indicates that with the exception of the correlations between lack of Role Clarity and Quantitative Role Overload, lack of Role Clarity and Neuroticism, lack of Role Clarity and General Health, lack of Role Clarity and POB, Role Conflict and POB Quantitative Role Overload and Qualitative Job Insecurity, Qualitative Role Overload and Qualitative Job Insecurity, Qualitative Job Insecurity and General Health, Qualitative Job Insecurity and General Health and Qualitative Job Insecurity and POB, the correlations of all other variables were statistically significant. The analysis of Time 2 data revealed that with the exception of the correlations between Role Conflict and Quantitative Job Insecurity, Role Conflict and POB, Quantitative Role

Overload and Quantitative Job Insecurity, Quantitative Role Overload and POB, Qualitative Role Overload and POB, Qualitative Job Insecurity and POB, all other variables were statistically significant.

Inspection of Table 3 further indicates that lack of Role Clarity is positively and practically significantly (medium effect) related to role conflict at both T1 and 2, positively and practically significantly (medium effect) related to qualitative role overload at T2, positively practically significantly (medium effect at T1 and large effect at T2) related to qualitative job insecurity and positively and practically significantly (medium effect) related to neuroticism and general health at T2.

Role conflict is positively and practically significantly related (large effect) to qualitative role overload at both T1 and 2 and positively and practically significantly (medium effect) related to quantitative role overload only at T2. A positive practical significant correlation (medium effect) exists between role conflict and quantitative job insecurity only at T1. Role conflict correlated positively and practically significant (medium effect) with neuroticism at both T1 and 2 and positively and practically significant (medium effect) with general health only at T1. A positively and practically significant correlation (large effect) exists between quantitative and qualitative role overload at both T1 and 2. Qualitative role overload correlated positively and practically significantly (medium effect) with quantitative job insecurity at T1 and qualitative job insecurity at T2. Qualitative role overload correlated positively and practically significantly (medium effect) with neuroticism and general health at both T1 and 2. Quantitative job insecurity is positively and practically significantly related (medium effect) to qualitative job insecurity at T2, neuroticism at T2 and general health at both T1 and 2. Qualitative job insecurity is positively and practically significantly related (medium effect) to neuroticism and general health only at T2. Neuroticism is positively and practically significantly related (medium effect) to general health at T1 but positively and practically significantly related (large effect) at T2. A negatively and practically significantly related (medium) effect exists between neuroticism and POB at T1. General health is negatively and significantly related (medium effect) to POB at T1 and 2.

A multiple regression analysis was performed next to test the possible mediating effect of POB in the relationship between job stressors and general health. According to Baron and Kenny (1986) three steps are recommended to test for mediation. Firstly,

mediation can be illustrated by regressing the mediator on the independent variable and showing it to have an effect. Secondly, the dependent variable should have an effect on the independent variable. Thirdly, the dependent variable should be regressed on the proposed mediator and independent variable, and the mediator should affect the dependent variable.

The mediating effect of POB (T1) between job stressors and general health was investigated in this study. In both cases the regression was carried out while controlling for neuroticism. According to the recommendation of Baron and Kenny (1986) the mediating effect of POB can firstly be illustrated by first regressing the job stressors (IV) on POB (DV), secondly by showing that job stressors have an effect in predicting general health (DV in second regression) and thirdly by showing that general health is affected by both POB and the job stressors. The results of two multiple regression analysis, firstly with POB (T1) as dependent variable and secondly with general health (T2) as dependent variable, are reported in Table 4.

Table 4

Regression Analysis with POB and General Health as Dependent Variable

Model	Unstandardised Coefficients		Standardised Coefficients	t	p	F	R	R ²	ΔR ²
	B	SE	Beta						
Dependant Variable: POB (T1)									
(Constant)	4,41	0,18		23,95	0,000*	7,442*	0,502	0,252	0,252
Neuroticism	-0,22	0,05	-0,35	-4,48	0,000*				
Quantitative Insecurity	Job	-0,11	0,04	-2,24	-2,98	0,003*			
Qualitative Insecurity	Job	0,13	0,04	0,26	3,18	0,002*			
Quantitative Overload	Role	-0,06	0,04	-0,13	-1,50	0,136			
Qualitative Overload	Role	0,00	0,06	0,01	0,10	0,924			
Lack of Role Clarity		-0,11	0,05	-0,18	-2,08	0,039*			
Role Conflict		0,09	0,06	0,14	1,46	0,146			
Dependant Variable: General Health(T1)									
(Constant)	1,36	0,33		4,18	0,000*	5,511*	0,449	0,201	0,201
Neuroticism		0,30	0,08	0,27	3,39	0,001*			
Quantitative Insecurity	Job	0,18	0,06	0,24	2,81	0,006*			
Qualitative Insecurity	Job	0,06	0,07	0,07	0,82	0,416			
Quantitative Overload	Role	-0,02	0,08	-0,23	-0,26	0,791			
Qualitative Overload	Role	-0,09	0,10	-0,09	-0,84	0,403			
Lack of Role Clarity		0,26	0,09	0,02	-0,28	0,779			
Role Conflict		0,08	0,10	0,08	0,78	0,435			
2(Constant)	3,01	0,71		4,28	0,000*	6,951*	0,486	0,236	0,035
Neuroticism		0,22	0,09	0,20	2,36	0,019*			
Quantitative Insecurity	Job	0,13	0,06	0,18	2,11	0,037*			
Qualitative Insecurity	Job	0,11	0,07	0,13	1,50	0,137			
Quantitative Overload	Role	-0,04	0,08	-0,50	-0,56	0,575			
Qualitative Overload	Role	-0,09	0,11	-0,10	-0,88	0,381			
Lack of Role Clarity		-0,02	0,09	-0,02	-0,22	0,830			
Role Conflict		0,12	0,11	0,12	1,15	0,254			
POB (T1)		-0,38	0,14	-0,22	-2,64	0,009*			

* $p \leq 0,05$ (statistically significant)

With regards to the first regression analysis - with POB (T1) as dependent variable - results indicated that it was Neuroticism and the job stressors of Quantitative and Qualitative Job Insecurity and lack of Role Clarity which made a statistically significant contribution in explaining the variance in POB (T1). The results further showed that 25% of the variance in POB (T1) is predicted by the job stressors ($F=7.44, p \leq 01$).

In the second regression analysis - with general health as dependant variable - it was Neuroticism, Quantitative Job Insecurity and POB (T1) which made a significant contribution in explaining the variance on General Health. The results further indicated that 20% of the variance in General Health is predicted by the independent variables ($F=5.51, p \leq 01$). The variance explained increases to 24% when combined with POB (T1). Based on the results it is also evident that POB (T2) has a partially mediating effect between job stressors and general health.

DISCUSSION

The objective of this study was to conceptualise and investigate the longitudinal relationship between individual job stressors (lack of role clarity, role conflict, quantitative and qualitative role overload and quantitative and qualitative job insecurity) and subsequent contribution to general health. The study also investigated the possible mediating effect that Positive Organisational Behaviour (POB) might have on the relationship between the job stressors and general health, while controlling for neuroticism in a sample of South African employees.

As confirmed in international research (Tunc & Kutanis, 2009) a positive relationship was found between the role-based factors, i.e. lack of role clarity (role ambiguity) and role conflict at both Time 1 and 2 indicating that employees who experience a lack of adequate information to do the job also experience conflicting demands which have to be met (Maslach et al., 2001). Role clarity plays a critical role in explaining employee's perceptions of the quality of their service (Mukherjee & Malhotra, 2006). This finding is also particularly important for the organisation in which the study was conducted as the performance of its employees have a direct impact on the quality and quantity of services rendered to internal customers and in many instances also to external customers. The management of the organisation therefore needs to determine and attend to the factors that are likely to contribute to role clarity and role conflict.

Typical focus areas are well communicated job expectations and responsibilities, supervisory support and feedback from supervisors, clear operating procedures and support from team members (Mukherjee & Malhotra, 2006).

Results at both Time 1 and 2 also indicated that employees who experience quantitative role overload (the perception that one has too much to do in a given time) also experience qualitative role overload (the perception that the work is do difficult or demanding when compared to the knowledge skills and abilities one possesses). This finding is to be expected, due to the overlap of the constructs (Pienaar et al., 2007).

Quantitative and qualitative job insecurity also has a positive correlation at both Time 1 and 2, which indicates that employees who experience threats with regard to the continuity of their jobs also experience threats with regard to the continuity of the existence of important job features or value aspects of their jobs. Job insecurity implies the unpredictability and uncontrollability about one's job (De Witte, 2005). Given the changes in the organisation due to economic challenges and the resulting negative effect on individual behaviour and well-being the organisation can still benefit, as recommended by De Witte (2005) on focusing on open and honest communication about the future, allow employees to participate in decision-making processes, encourage social support from family and colleagues an allow for the development of professional skills.

As expected, neuroticism, which reflects negative affect (Gomez et al., 2000; Robinson et al., 2007) has a strong relationship with general health - measured as ill-health and regarded as a stress outcome in this study - both at Time 1 and 2. Higher levels of neuroticism are thus indicative of less healthy individuals. A negative association between neuroticism and POB at Time 1 and 2 is also evident, as expected, due to the negative distressing emotion attached to neuroticism and the positive orientation of POB which is positively related to well-being. General health (which reflects general ill-health) was strongly negatively related to POB at both Time 1 and 2. This is also expected considering the composite effect of the POB facets (hope, optimism, self-efficacy and resiliency) which are "all positively orientated human resource strengths and psychological capacities" (Luthans, 2002a, p. 59). According to Avey et al. (2009), a valuable part of the organisation's stress management initiatives is to develop and introduce human resource development

strategies aimed at enhancing the components of POB as they may reduce employees' perceptions of the symptoms of stress. The partial mediating effect of POB between job stressors and general health obtained in this study also supports the above-mentioned notion.

The mediating role of POB (T1) between job stressors and general health was also investigated. Results indicated that only the job stressors, quantitative and qualitative job insecurity and the lack of role clarity hold predictive value with regard to POB (T1) and general health. It could only be established that POB (T1) acts as a partial mediator between job stressors and general health. The negative effect of job stressors will therefore only be minimised and will not totally disappear in the presence of POB. Avey et al. (2011) however found that the psychological capacities of hope, optimism, self-efficacy and resilience and their aggregate in the form of POB contributed to higher levels of positive emotions which had a significant negative relationship with stress.

A positive correlation between the stress factors (lack of role clarity, role conflict, role overload and job insecurity), neuroticism and general health is also evident from the results of this research. This finding is also in line with previous international (Bolino & Turnley, 2005; Näswall, Sverke, & Hellgren, 2005; Soyulu, 2007) and national research (Coetzer & Rothmann, 2006) which found decreased physical and psychological health as major outcomes of perceived stressors. At Time 1 only the job stressors, quantitative and qualitative role overload and quantitative job insecurity had a positive significant negative relationship with POB. At Time 2 it was only role clarity and quantitative job insecurity which had a significant negative relationship with POB.

RECOMMENDATIONS AND LIMITATIONS

Although other South African research - that used similar scales as in this study - obtained adequate reliability, some scales reflected poor reliability in this research. Role clarity and qualitative job insecurity, however, showed an improvement from Time 1 to 2. Future studies may benefit from including more items to increase the reliability of the scales. Future studies could also focus on evaluating the data as reflected by specific culture groups and job levels to test the understanding of the questionnaires as reflected by these groups.

A possible concern is the fact that all data in this research was obtained by self-report measures, although self-report measures are an appropriate source of data in the context of job stress research. According to Schaufeli, Enzmann and Girault (1993) the likelihood that at least part of the shared variance between measures can be attributed to method variance increases if self-report measures are used exclusively. Although the data was obtained from an individual's subjective interpretation of the situation and measured by self-report measures which led to the individual's reaction and could add to the possibility of shared response bias, objective measures could also add value to this research. In this regard Schaubroeck (1999) also points out that when the researcher fails to take into account the objective situation, he might leave out important sources of explanations of strain. Future research could benefit by using feedback from third parties (i.e. peers, supervisors and line managers) to evaluate the impact of the different components of POB.

The present study tested the relationship between some of the job stressors and general health in only one part (all support functions) of the organisation. There may have been other factors, if taken into account, which could have explained more variance in general health as an outcome variable than those used in this study, e.g. working hours or the organisation's recruitment and promotion policy. Investigating other contextual factors which impact on general health would certainly add value.

Future research could also focus on determining the relationship between performance outcomes and POB, as well as the contribution of each facet - or combination of facets - impacting on performance, as the combined motivational effect will be broader and more impactful than any of the individual constructs (Luthans, Avolio, Avey, & Norman, 2007).

Given the demand for individual effectiveness and well-being in today's turbulent international work environment understanding and managing the reduction of stress will be an important factor for business leaders to focus on. Although results pointed out that POB was only a partial mediator between the job stressors and general health, the organisation can still benefit by implementing specific training interventions to enhance POB, as the enhancement of employees' overall level of POB is theoretically and practically possible and will result in performance improvement (Luthans, Avey, Avolio, & Peterson, 2010) and improved well-being (Avey et al., 2011). Further research is also necessary to investigate the impact of POB on stress given the

research findings of Avey et al. (2011) which found a negative relationship between hope optimism, self-efficacy and resilience in their combined form and stress. Management should therefore focus on increasing POB to buffer the impact of job stressors on health in the organisation, as a healthy workforce can increase job performance (Harter, 2002). It is, however, important to analyse how specific training interventions may affect both the individual's appraisal of the event and the actual work stress experienced by participants (Avey et al., 2009).

Interventions to combat and manage the effects of stress in the organisation are also necessary. More research is however needed to determine the nature and magnitude of the job stressors and its contributing factors in the organisation to ensure context specific interventions and the optimal use of resources. Such interventions may be directed to the work situation or employees' coping capacity to improve the fit between the employee and the workplace, or to deal more effectively with experienced stress (Kompier & Kristensen, 2001). According to Hobfoll (1989) the availability of job resources protect against the depleting effects of stress. Management should therefore also focus on having sufficient job resources available to employees to alleviate the negative effects of the perceived sources of job stress.

The stress levels of employees, per job level were not evaluated during this research and could be seen as a limitation for this study. Future research could therefore focus on the stress levels of employees in the different job levels. It is possible that employees in different job levels (e.g. supervisors and professional employees) experience higher levels of role ambiguity, role conflict and role overload with subsequent higher levels of stress as appose to employees in lower level positions. Specific interventions aimed at specific job levels with specific needs could add more value in the effort to combat stress.

Although longitudinal research was used in this study, data was collected at two time points only. It is recommended that data be collected over multiple time points to evaluate the sustained impact any intervention (i.e. training, team building and organisational restructuring) could have. Future research could also include an experimental control group to assist in comparisons (e.g. population parameters and other baseline comparisons) over time.

When taking into account South Africa's multicultural and diverse society, it could be beneficial to determine what the perceived stress outcomes of the different education levels, race, gender and age groups would be like in the organisation under investigation. Further analysis is also needed to determine the potential moderating effects of education levels, race, gender and age on the individual role stressors in the South African context.

Despite the fact that a member of the senior management team together with the researcher opened the training sessions and explained the value of the research for the organisation to the employees and the fact that a unique code was designed to ensure confidentiality to match questionnaires to reflect the same individual's responses from Time 1 to Time 2, the response rate of the participants at Time 2 was significantly lower than the response rate at Time 1. A better response rate could have contributed to better results with regards to the reliability of the individual scales, better conclusions from research results could have been made with a greater amount of certainty which would enable the researcher to give feedback to the management of the organisation of a greater amount of certainty.

REFERENCES

- Antoniou, A. S. G., Davidson, M. J., & Cooper, C. L. (2003). Occupational stress, job satisfaction and health state in male and female junior hospital doctors in Greece. *Journal of Managerial Psychology, 18*(6), 592-621.
- Arbuckle, J. L. (2007). *AMOS 7.0. Update to the Amos user's guide version*. Chicago, IL: Smallwaters Cooperation.
- Armstrong, G. S., & Griffin, M. L. (2004). Does the job matter? Comparing correlates of stress among treatment and correctional staff in prisons. *Journal of Criminal Justice, 32*(6), 577-592.
- Avey, J. B., Luthans, F., & Jensen, S. M. (2009). Psychological Capital: A positive resource for combating employee stress and turnover. *Human Resource Management, 48*(5), 677-693.
- Avey, J. B., Luthans, F., & Youssef, C. M. (2010). The additive value of psychological capital in predicting workplace attitudes and behaviours. *Journal of Management, 36*, 430-452.
- Avey, J. B., Wernsing, T. S., & Mhatre, K. H. (2011). A longitudinal analysis of positive psychological constructs and emotions on stress, anxiety and well-being. *Journal of Leadership and Organisational Studies, 20*(10), 1-13.
- Bandura, A. (2007). An agentic perspective on positive psychology. In S. J. Lopez (Ed.), *The science of human flourishing*. New York: Praeger.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182.
- Beehr, T. (2002). An organizational psychology meta-model of occupational stress. In C. L. Cooper (Ed.), *Theories of Organizational Stress* (pp. 6-27). Oxford: Oxford University Press.
- Beehr, T. A., Walsh, T., & Taber, T. D. (1976). Relationship of stress to individually and organizationally valued states: Higher order needs as a moderator. *Journal of Applied Psychology, 61*(1), 41-47.

- Bolino, M. C., & Turnley, W. H. (2005). The personal costs of citizenship behavior: The relationship between individual initiative and role overload, job stress and work-family conflict. *Journal of Applied Psychology, 90*(4), 740-748.
- Boyd, A. (1997). Employee traps-corruption in the workplace. *Management Review, 86*(8), 1.
- Brown, S. P., Jones, E., & Leigh, T. W. (2005). The attenuating effect of role overload on relationships linking self-efficacy and goal level to work performance. *Journal of Applied Psychology, 90*(5), 972-979.
- Chamberlain, K., & Zika, S. (1990). The minor events approach stress: support for the use of daily hassels. *British Journal of Psychology, 81*(4), 469-481.
- Chang, E., & Hancock, K. (2003). Role stress and role ambiguity in new nursing graduates in Australia. *Nursing and Health Science, 5*, 155-163.
- Chen, P. Y., & Spector, P. E. (1991). Negative affectivity as the underlying cause between stressors and strains. *Journal of Applied Psychology, 76*, 398-407.
- Chirumbolo, A., & Areni, A. (2010). Job insecurity influence on job performance and mental health: Testing the moderating effect of the need for closure. *Economic and Industrial Democracy, 31*(2), 195-214.
- Clark, L., & Watson, D. (1995). Construct Validity: Basic issues in objective scale development. *Psychological Assessment, 7*(3), 309-319.
- Coetzer, W. J., & Rothmann, S. (2006). Occupational stress of employees in an insurance company. *South African Journal of Business Management, 37*(3), 29-39.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cooper, C. L. (2002). *Theories of Organizational Stress*. Oxford: Oxford University Press.
- Cooper, C. L., & Cartwright, S. (1994). Healthy mind healthy organization: A proactive approach to occupational stress. *Human Relations, 47*, 455-471.
- Cooper, C. L., & Dewe, P. (2004). *Stress: A Brief History*. Oxford: Blackwell Publishing.

- Cooper, C. L., Liukkonen, P., & Cartwright, S. (1996). *Stress prevention in the workplace: Assessing the cost and benefits to organisations*. Dublin: European Foundation for the improvement of Living and Working Conditions.
- Cordery, J. (2007). *Accentuating the positive. Building hope, optimism, confidence and resilience in organisations* (Survey results). Wembley, Western Australia: Australian Institute of Management.
- Corville, J., & Bernardi, L. M. (1999). Helping employees manage stress. *Canadian Manager*, 24, 11-13, 28.
- Costa, P. T., Jr., & McCrae, R. R. (1987). Neuroticism, somatic complaints and disease: Is the bark worse than the bite? *Journal of Personality*, 55, 299-316.
- Cox, T. (1993). *Stress research and stress management: Putting theory to work* (HSE Contract Research report No. 61). London: HMSO.
- Cox-Fuenzalida, L., Swickert, R., & Hittner, J. B. (2004). Effects of neuroticism and workload history on performance. *Personality and Individual Differences*, 36, 447-456.
- Dana, K., & Griffin, R. W. (1999). Health and well-being in the workplace: A review and synthesis of the literature. *Journal of Management*, 25, 357-384.
- Dekker, S. W. A., & Schaufeli, W. B. (1995). The effects of jobs insecurity on psychological health and withdrawal: A longitudinal study. *Australian Psychologist*, 30(1), 57-63.
- Devereux, J., Rydstedt, L., Kelly, V., Weston, P., & Buckle, P. (2004). *The role of work stress and psychological factors in the development of musculoskeletal disorders* (Research Rep. No. 273). Surrey: Robens Centre for Health Ergonomics.
- De Waal, J. J. P. (2011). *The role of Positive Organisational Behaviour in employee self-development and organisational outcomes*. Unpublished doctoral thesis, North-West University, Potchefstroom.
- De Witte, H. (1999). Job insecurity and psychological well-being: Review of the literature and exploration of some unresolved issues. *European Journal of Work and Organisational Psychology*, 8(2), 155-177.

- De Witte, H. (2005). Job insecurity: Review of the international literature on definitions, prevalence, antecedents and consequences. *SA Journal of Industrial Psychology*, 31(4), 1-6.
- Dickens, L. (2004). Problems of fit: Changing employment and labour regulation. *British Journal of Industrial Relations*, 42, 595-616.
- Di Martino, V. (1992). Occupational Stress: A preventive approach. *ILO Conditions of Work Digest*, 11/2, (pp. 3-21) Geneva: ILO.
- Dollard, M. F. (2003). Introduction: context, theories and intervention. In M. F. Dollard, A. H. Winefield, & H. R. Winefield (Eds.), *Occupational stress in the service professions* (pp. 1-42). New York: Taylor and Francis Inc.
- Dunn, C. (2000). Workplace perks include wellness programs. *San Diego Business Journal*, 21, 14-15.
- EU-OSHA (2007). *Expert forecast on emerging psychosocial risks related to occupational safety and health*. Luxembourg: Author.
- Eysenck, H. J., & Eysenck, S. B. G. (1968). *Manual of the Eysenck Personality Inventory*. San Diego, CA: Educational Testing Service.
- Gomez, R., Cooper, A., & Gomez, A. (2000). Susceptibility to positive and negative mood states: Test of Eysenck's, Gray's and Newman's theories. *Personality and Individual Differences*, 29, 351-365.
- Greenhalgh, L., & Rosenblatt, Z. (1984). Job insecurity: Toward conceptual clarity. *Academy of Management Review*, 3, 438-448.
- Griffeth, R., Hom, P., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, 26(3), 463-488.
- Gunthert, K. C., Cohen, L. H., & Armeli, S. (1999). The role of neuroticism in daily stress and coping. *Journal of Personality and Social Psychology*, 77, 1087-1100.
- Harter, J. K., Schmidt, F. L., & Keyes, C. L. (2002). Business-unit level relationship between employee satisfaction, employee engagement and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87(2), 268-279.

- Hartley, J. (1991). Industrial relations and job insecurity: Learning from a case study. In J. Hartley, D. Jacobson, B. Klandermans, & T. Van Vuuren (Eds.), *Job insecurity: Coping with jobs at risk* (pp. 123-150). London: Sage.
- Hellgren, J., Sverke, M. (2003). Does job insecurity lead to impaired well-being or vice versa? Estimation of cross-lagged effects using latent variable modeling. *Journal of Organizational Behaviour*, 24, 215-236.
- Hellgren, J., Sverke, M., & Isaksson, K. (1999). A two-dimensional approach to job insecurity; Consequences for employee attitudes and well-being. *European Journal of Work and Organizational Psychology*, 8(2), 179-195.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513-524.
- Houkes, I., Janssen, P. P. M., de Jonge, J., & Bakker, A. B. (2003). Specific determinants of intrinsic work motivation, emotional exhaustion and turnover intention: A multi-sample longitudinal study. *Journal of Occupational and Organizational Psychology*, 76, 427-450.
- Hu, Y., Steward-Brown, S., Twigg, L., & Weich, S. (2007). Can the 12-item General Health Questionnaire be used to measure positive mental health? *Psychological Medicine*, 37(7), 1005-1013.
- Jex, S. M. (1998). *Stress and job performance: Theory, research, and implications for managerial practice*. London: Sage.
- Jex, S. M., & Yankelevich, M. (2008). Work Stress. In J. Barling & C. L. Cooper (Eds.), *The SAGE Handbook of Organizational Behavior. Vol. 1. Micro Approaches* (pp. 498-518). Thousand Oaks, CA: Sage.
- Jones, E., Chonko, L., Rangarajan, D., & Roberts, J. (2007). The role of overload on job attitudes, turnover intentions and salesperson performance. *Journal of Business Research*, 60, 663-671.
- Judge, T. A., Kluger, A. N., Locke, E. A., & Durham, C. C. (1998). Dispositional effects on job and life satisfaction: The role of core evaluations. *Journal of Applied Psychology*, 83(1), 17-34.
- Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizational stress: Studies in role conflict and ambiguity*. New York: Wiley.

- Kalliath, T. J., O'Driscoll, M. P., & Brough, P. (2004). A confirmatory factor analysis of the General Health Questionnaire-12. *Stress and Health, 20*, 11-20.
- Koeter, M., & Ormel, J. (1991). *General Health Questionnaire: Nederlandse bewerking-Handleiding*. Lisse: Swets and Zeitlinger.
- Kompier, A. J., & Kristensen, T. S. (2001). Organisational work stress interventions in a theoretical, methodological and practical context. In J. Dunham (Ed), *Stress in the workplace: Past, present and future* (pp. 119-133). London: Whurr Publishers.
- Kreitner, R., & Kinicki, A. (2001). *Organizational Behavior* (5th ed.). New York: McGraw-Hill.
- Lambert, V. A., & Lambert, C. E. (2001). Literature review of role stress/strain on nurses: an international perspective. *Nursing and Health Sciences, 3*, 161-172.
- Lang, J., Thomas, J. L., Bliese P. D., & Adler, A. B. (2007). Job demands and job performance: The mediating effect of psychological and physical strain and the moderating effect of role clarity. *Journal of Occupational Health Psychology, 12*(2), 116-124.
- Lazarus, R. S. (2003). Does the positive psychology movement have legs? *Psychological Inquiry, 14*(2), 93-109.
- Levi, L. (2002). Preface: Stress in Organisations - Theoretical and Empirical Approaches. In C. L. Cooper (Ed.), *Theories of Organizational Stress* (pp. v-xii). Oxford: Oxford University Press.
- Little, L. M., Simmons, B. L., & Nelson, D. L. (2007). Health among leaders: Positive and negative affect, engagement and burnout, forgiveness and revenge. *Journal of Management Studies, 44*, 243-260.
- Lu, L. (1999). Work motivation, job stress and employee's well-being. *Journal of Applied Management Studies, 8*, 61-72.
- Luthans, F. (2002a). Positive organizational behavior: Developing and managing psychological strengths. *Academy of Management Executive, 16*(1), 57-72.
- Luthans, F. (2002b). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior, 23*, 695-706.

- Luthans, F., Avey, J. B., Avolio, B. J., & Peterson, S. J. (2010). The development and resulting performance impact of positive psychological capital. *Human Resource Development Quarterly*, 21(1), 41-67.
- Luthans, F., Avey, J. B., & Patera, J. L. (2008). Experimental analysis of a web-based training intervention to develop positive psychological capital. *Academy of Management Learning and Education*, 7, 209-221.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60, 541-572.
- Luthans, F., Luthans, K. W., & Luthans, B. C. (2004). Positive psychological capital: Beyond human and social capital. *Business Horizons*, 47(1), 45-50.
- Luthans, F., & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of Management*, 33(3), 321-349.
- Magnus, K., Diener, E., Fujita, F., & Pavot, W. (1993). Extraversion and neuroticism as predictors of objective life events: a longitudinal analysis. *Journal of Personality and Social Psychology*, 65, 1046-1053.
- Mansell, A., Brough, P., & Cole, K. (2006). Stable predictors of job satisfaction, psychological strain and employee retention: An evaluation of organizational change within the New Zealand Customs Service. *International Journal of Stress Management*, 13, 84-107.
- McKelvie, S. J. (2004). Is the Neuroticism Scale of the Eysenk Personality Inventory contaminated by response bias? *Personality and Individual Differences*, 36, 743-755.
- Marmot, M., & Wilkinson, R. G. (2006). *Social determinants of health*. Oxford: Oxford University Press.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422.
- Michael, O., Court, D., & Petal, P. (2009). Job stress and organizational commitment among mentoring coordinators. *International Journal of Education Management*, 23(3), 266-288.

- Mount, M. K., & Barrick, M. R. (1995). The Big Five personality dimensions: Implications for research and practice in human resource management. In G. R. Ferris (Ed.), *Research in personel and human resource management* (pp. 153-200). Greenwich, CT: JAI Press.
- Mukherjee, A., & Malhotra, N. (2006). Does role clarity explain employee-perceived service quality? A study of antecedents and consequences in call centres. *International Journal of Service Management*, 17(5), 444-473.
- Murphy, L. R. (1995). Managing job stress-An employee assistance/human resource management partnership. *Personnel Review*, 24(1), 41-50.
- Näswall, K., Sverke, M., & Hellgren, J. (2005). The moderating role of personality characteristics on the relationship between job insecurity and strain. *Work and Stress*, 19(1), 37-49.
- Näswall, K., Baraldi, S., Richter, A., Hellgren, J., & Sverke, M. (2006). *The salaried employee in the modern working life: Threats and challenges. Technical report on the sample, data collection, and measurement properties of the instruments.* (SALTSA Rep. No. 3). Sweden, The National Institute for Working Life and The Swedish Trade Unions in Co-operation.
- Nelson, D. L., & Burke, R. J. (2000). Women executives: Health stress and success. *Academy of Management Executive*, 14(2), 107-121.
- Nqubane, R. (2008). *Organisational Support, Role Clarity, Job Insecurity and Organisational Commitment of employees in a Petrochemical Organisation.* Unpublished master's dissertation, North-West University, Vanderbijlpark.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Oliver, J. E., Mansell, A., & Jose, P. E. (2010). A longitudinal study of the role of negative affectivity on the work stressor-strain process. *International Journal of Stress Management*, 17(1), 56-77.
- Penley, J. A., & Tomaka, J. (2002). Associations among the big five, emotional responses, and coping with acute stress. *Personality and Individual Differences*, 32, 1215-1228.

- Pienaar, J., & Rothmann, S. (2003, September). *Job stress in the South African Police Services*. Paper presented at the 15th conference of the South African Institute for Management Scientists, Potchefstroom.
- Pienaar, J., Sieberhagen, C. F., & Mostert, K. (2007). Investigating turnover intentions by role overload, job satisfaction and social support moderation. *SA Journal of Industrial Psychology, 33*(2), 62-67.
- Probst, T. M. (2008). Job Insecurity. In J. Barling & C. L. Cooper (Eds.), *The SAGE Handbook of Organizational Behaviour. Vol. 1. Micro Approaches* (pp. 178-195). London: Sage.
- Rahim, M. A. (2001). *Managing conflict in organizations*. (3rd ed.). Greenwood. Westport.
- Rees, C. J., & Redfern, D. (2000). Recognising the perceived causes of stress - a training and development perspective. *Industrial and Commercial Training, 32*, 120-127.
- Reisel, W. D., & Banai, M. (2002). Comparison of a multidimensional and a global measure of job insecurity: Predicting job attitudes and work behaviours. *Psychological Reports, 90*, 913-912.
- Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly, 15*(2), 150-163.
- Robinson, M. D., Ode, S., Moeller, S. K., & Goetz, P. W. (2007). Neuroticism and affective priming: Evidence for a neuroticism-linked negative schema. *Personality and Individual Differences, 42*, 1221-1231.
- Rodell, J. B., & Judge, T. A. (2009). Can “good” stressors spark “bad” behaviours? The mediating role of emotions in links of challenge and hindrance stressors with citizenship and counterproductive behaviours. *Journal of Applied Psychology, 94*, 1438-1451.
- Roesch, S. C., Wee, C., & Vaughn, A. A. (2006). Relations between the big five personality traits and dispositional coping in Korean Americans: Acculturation as a moderating factor. *International Journal of Psychology, 41*, 85-96.
- Ross, R. R., & Altmaier, E. M. (1994). *Intervention in occupational stress: A handbook of counselling for stress at work*. London: Sage.

- Ryff, C. D., & Singer, B. (2000). Interpersonal flourishing: A positive health agenda for the new millennium. *Personality and Social Psychology Review*, 4(1), 30-44.
- Sawyer, J. (1992). Goal process clarity: Specification of multiple constructs of role ambiguity and structural equation model of their antecedents and consequences. *Journal of applied psychology*, 77, 130-142.
- Schabracq, M. J., & Cooper, C. L. (2000). The changing nature of work and stress. *Journal of Management Psychology*, 15, 227-241.
- Schaubroeck, J. (1999). Should the subjective be the objective? On studying mental processes, coping behaviour, and actual exposures in organisational stress research. *Journal of Organisational Behaviour*, 20, 753-760.
- Schaufeli, W. B., Enzmann, D., & Girault, N. (1993). Measurement of burnout: A review. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 199-215). Washington, DC: Taylor and Francis.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), 5-14.
- Singh, J. (1998). Striking a balance in boundary-spanning positions. An investigation of some unconventional influences of role stressors and job characteristics on job outcomes of sales people. *Journal of Marketing*, 62, 69-86.
- South Africa. Department of Labour (2005). *National Skills Development Strategy 1 April 2005 – 31 March 2010*. Retrieved June 13, 2011 from <http://www.teta.org.za/.../UsefulDocNationalSkillsDevStrategy20052010.p...>
- South African Economy Review. (2008). *Economic growth*. Retrieved February 17, 2008 from <http://www.southafricainfo.htm>.
- Soylu, A. (2007, October). *Do foreign workers experience more job-related stress than U.S. workers?* Paper presented at the 50th annual meeting of the Midwest Academy of Management, Kansas City.
- SPSS (2011). *SPSS 18.0 for Windows*. Chicago, IL: SPSS Incorporated.
- Steyn, H. S. (1999). *Praktiese betekenisvolheid: Die gebruik van effek groottes*. [Practical significance: The use of effect size.] Wetenskaplike bydraes-Reeks B:

Natuurwetenskappe Nr. 117. Potchefstroom Universiteit vir Christelike Hoër Onderwys. Potchefstroom.

Sverke, M., Hellgren, J., & Öhrming, J. (1999). Organizational restructuring and health care work: A quasi-experimental study. In P. M. le Blanc, M. C. W. Peters, A. Büssing, & W. B. Schaufeli (Eds.), *Organizational psychology and health care: European contributions* (pp. 15-32). München: Rainer Hampp Verlag.

Sverke, M., & Hellgren, J. (2002). The nature of job insecurity: Understanding employment uncertainty on the brink of a new millennium. *Applied Psychology: An International Review*, 51(1), 23-42.

Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, 7(3), 242-264.

Theorell, T. (2003). To be able to exert control over one's own situation: A necessary condition for coping with stressors. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of Occupational Health psychology* (pp. 201-220). Washington, DC: American Psychological Association.

Thiagarajan, P., Chakrabarty, S., & Taylor, R. D. (2006). A confirmatory factor analysis of Reilly's Role Overload Scale. *Educational Psychological Measurement*, 66(4), 657-666.

Totterdell, P., Wood, S., & Wall, T. (2006). An intra-individual test of the demands-control model. *Journal of Occupational and Organisational Psychology*, 79(12), 63-85.

Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology*, 86(2), 320-333.

Tunc, T., & Kutanis, R. O. (2009). Role conflict, role ambiguity, and burnout in nurses and physicians at a university hospital in Turkey. *Nursing and Health Sciences*, 11, 410-416.

Van Vuuren, T., Klandermans, B., Jacobson, D., & Hartley, J. (1991). Employees' reactions to job insecurity. In J. Hartley, D. Jacobson, B. Klandermans, & T. Van

- Vuuren (Eds.), *Job insecurity: Coping with jobs at risk* (pp. 79-103). London: Sage.
- Velting, D. M. (1999). Personality and negative expectancies: trait structure of the Beck hopelessness scale. *Personality and Individual Differences, 26*, 913-921.
- Voydanoff, P. (2002). Linkages between the work-family interface and work, family, and individual outcomes. *Journal of Family Issues, 23*, 138-164.
- Wells, A., & Matthews, G. (1994). *Attention and emotion*. Hove: Erlbaum.
- Wickramasinghe, V. (2010). Work-related dimensions and job stress: The moderating effect of coping strategies. *Stress and Health, 26*, 417-429.
- Youssef, C. M., & Luthans, F. (2005). Resiliency development of organizations, leaders and employees: Multi-level theory building for sustained performance. In W. Garner, B. Avolio, & F. Walumba (Eds.), *Authentic leadership theory and practice: Origins, effects and development* (pp. 303-343). Oxford: Elsevier.
- Youssef, C. M., & Luthans, F. (2007). Positive Organizational Behavior in the workplace. The impact of hope, optimism and resilience. *Journal of Management, 33*(5), 774-800.

CHAPTER 5

RESEARCH ARTICLE 4

A TEST TO ESTABLISH CAUSALITY BETWEEN ENGAGEMENT AND POSITIVE ORGANISATIONAL BEHAVIOUR (POB)

J. J. P. de Waal

ABSTRACT

The objective of this study was to investigate the relationship between Positive Organisational Behaviour (POB) and engagement, with the use of a longitudinal research design that tested the cross-lagged effects between two measurements of these variables. Given the positive relationship between POB and engagement and the potential positive organisational outcomes which could be yielded by high levels of these two variables, it is important to establish the temporal order in the relationship between these two variables. The measuring instruments that were used were the Utrecht Work Engagement Scale (UWES) and a newly developed measure of Positive Organisational Behaviour derived from the constructs hope, optimism, self-efficacy and resilience. A longitudinal study was conducted and data was gathered by means of a survey. All employees within a chemical factory (1003) were approached to provide data, with 163 employees participating at both times of data collection. Results of the study indicated acceptable reliability values for both the POB and engagement scales. The correlations between subscales of the different measures were significant at both Time 1 and 2. Results from this study also confirmed the positive relationship between the aggregate engagement and POB scores. Results also revealed that POB at Time 1 did not predict engagement at Time 2. Strong evidence, however, exists that initial levels of employee engagement predict subsequent POB.

OPSOMMING

Die doelstelling van hierdie studie is om die verhouding tussen Positiewe Organisasie Gedrag (POG) en werksbegeesterings te bepaal deur middel van 'n longitudinale navorsingsontwerp wat die kruissloeringseffek tussen die twee veranderlikes meet. Gegewe die positiewe verhouding tussen POG en werksbegeesterings en die potensiële positiewe organisatoriese uitkomst wat deur hoë vlakke van die twee veranderlikes voortgebring kan word, is dit belangrik om die temporale orde in die verwantskap tussen die twee veranderlikes te bepaal. Die meetinstrumente wat onder andere gebruik word, is die nuutontwikkelde POG skaal wat afgelei is uit die vier konstruksies, naamlik hoop, optimisme, selfvertroue en psigologiese veerkragtigheid waaruit POG bestaan, asook die Utrecht Werksbegeesteringskaal (UWES). Die studie is longitudinaal van aard en die data is met behulp van 'n opname ingesamel. Alle werknemers in die bepaalde besigheidseenheid (1003) is genader om die data te verskaf en 163 werknemers het deelgeneem aan albei data-insamelingstydperke. Resultate van die studie dui aan dat aanvaarbare betroubaarheids-waardes vir beide die POG en begeesterings skale verkry is. Die korrelasie tussen die subskale van die verskillende metings is betekenisvol vir beide Tyd 1 en 2. Resultate van die studie bevestig ook die positiewe verhouding tussen die gekombineerde POG en werksbegeesteringsstelling. Resultate toon verder aan dat POG by Tyd 1 nie werksbegeesterings by Tyd 2 voorspel nie. Resultate bevestig egter dat aanvanklike vlakke van werksbegeesterings gevolglike POG voorspel.

INTRODUCTION

Business environments are changing globally with subsequent changes in the psychological contract between employees and employers (Rothmann & Joubert, 2007). South Africa is not excluded from these challenges and South African organisations experience increasing pressure to improve their performance and sustain their competitiveness (Coetzee & De Villiers, 2010). Maslach, Schaufeli and Leiter (2001) and Luthans, Luthans and Luthans (2004) pointed out that more is expected of employees in terms of time, effort, knowledge, skill, innovation, flexibility and speed-to-market, while job security, career opportunities and lifetime employment are deteriorating.

Although work is an economic activity, most people regard it more than just an activity to provide in their daily livelihood. Recent studies (Fields, Wilder, Bunch, & Newbold, 2008) suggest that especially younger (*Generation X* and *Millennial*) employees seek more than just a pay check. In addition to work being an important source of people's economic livelihood, being employed can also be seen as a contributing significantly to people's identity (Ibarra, 2002). Although employees are therefore looking to do well and to thrive and want to be completely engaged in their work (Loehr & Schwartz, 2003), research however indicates that only 31% of employees worldwide are engaged and 17% are actually disengaged (Blessingwhite, 2011). Adding to this phenomenon, motivating employees to become engaged in their work environments is regarded as a classic challenge for organisations which is complicated by multiple roles, and attitudes, behaviours and emotions which are, *per se* difficult to manage (Edwards & Rothbard, 2000).

A key differentiator of competitive advantage and sustained organisational performance in the modern global economy is the organisation's employees or human capital (Minervini, Meyer, & Rourke, 2003; Luthans, Luthans et al., 2004). Given the relationship between employee engagement and business results (Harter, Schmidt, & Hayes, 2002), organisations are realising the importance of engagement of their employees as a contributor to the sustainment of its competitive edge in the global market (Schabracq & Cooper, 2000). The importance of engagement is further highlighted by overwhelming empirical evidence which proposes that engagement is positively linked to positive organisational outcomes (Bakker & Demerouti, 2008;

Bakker, Demerouti, & Schaufeli, 2003; Blizzard, 2002; May, Gilson, & Harter, 2004; Schaufeli & Bakker, 2004) and positive organisational behaviour such as personal initiative and learning (Bakker & Demerouti, 2008; Sonnentag, 2003), as well as well-being (Smit, 2008).

The South African as well as the international business environment currently demands much more from employees than during any previous time in history (Rothmann, 2003). Modern organisations expect their employees to take a proactive approach, show initiative, develop a sense of responsibility and committed to the execution of high performance standards (Bakker, Schaufeli, Leiter, & Taris, 2008). Organisations therefore require employees who feel energetic and are dedicated to and absorbed by their work, i.e. they are *engaged* with their work (Bakker & Schaufeli, 2008). To address the low levels of engagement in organisations today, personal resources such as optimism, self-efficacy and resilience could be employed, as research has found that these personal resources facilitate work engagement (Bakker & Demerouti, 2008).

The focus on Positive Organisational Behaviour (POB), with a specific positive way of handling employees that has an impact on human resource development and performance management, is also an important means to equip today's employees, because the investment in human capital seems to be vital to ensure organisational success (Luthans, Norman, Avolio, & Avey, 2008). POB is deemed open to development with highly focused training interventions (Luthans, 2002a; Luthans, Luthans et al., 2004; Youssef & Luthans, 2007). Engagement is closely linked to POB and is considered by Bakker and Demerouti (2008, p. 209) as “a positive, fulfilling, work-related state of mind” predicted by job and personal resources (e.g., optimism, self-efficacy and self-esteem) (Bakker et al., 2008). Work engagement as a positive state (Schaufeli, Bakker, & Salanova, 2006) is thus seen as aligned with “positively orientated human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace” (Luthans, 2002b, p. 698).

Work engagement is thus aligned with POB, as both engagement and the facets of POB are considered as state-like positive psychological capacities (Bakker et al., 2008; Youssef & Luthans, 2007). Engagement is however considered to be more stable and longer lasting (Hallberg & Schaufeli, 2006). Engaged employees use

resources such as optimism, self-efficacy, resilience and an active coping style to assist them to manage and influence their work environment with more success (Bakker & Demerouti, 2008; Luthans et al., 2008). Both POB and engagement are also known to have a relationship with and an impact on organisational behaviours and outcomes (Bakker & Demerouti, 2008; Stajkovic & Luthans, 1998). Moreover, research conducted by Bakker, Gierveld and Van Rijswijk (2006) concluded that employees who use their resources optimally scored the highest in engagement; and optimism, self-efficacy and resilience contributed specifically to engagement.

Based on the afore mentioned, the researcher is of the opinion that research to determine the relationship between POB and engagement is important for the organisation under investigation, as it could contribute to address the competitive and profit-generating challenges the organisation currently faces. From a POB perspective the investigation is important as Luthans (2002b, p. 698) argues that “in light of today’s turbulent environment characterised by economic uncertainty, heightened geo-political unrest and threats, globalised 24/7 competition and never-ending advanced technology the time has come to follow the lead of psychology and take a proactive positive organisational behaviour approach”. From an engagement perspective, Brim and Asplund (2009) pointed out that research has indicated that customers experience poor service when they are served by disengaged employees. Salanova, Agut and Peiro, (2005) pointed out that service workers indicated that work engagement forecast a service climate which in turn is indicative of performance by the employees and loyalty of customers. Engagement can therefore make a true difference to employers as it contributes to organisational effectiveness and may present a competitive advantage (Bakker et al., 2008; Erickson, 2005). However, a question that remains unanswered is how POB and engagement relate to each other. The question about causality is central too, as this has a direct implication for future human resource development efforts (i.e. should we train to enhance POB and facilitate engagement, or does engagement lead to POB in the long term?).

Work Engagement

Different conceptualisations and definitions of engagement exist in literature. Most researchers, however, agree that engaged employees reflect high levels of energy and a strong identification with their work (Bakker et al., 2008). Engagement is seen as an emerging trend developed from a perspective of positive psychology as it also focuses

on human strengths and optimal performance rather than on weaknesses and malfunctioning (Seligman & Csikszentmihalyi, 2000). It is also regarded as a positive organisational behaviour construct (Bakker & Demerouti, 2008) and the opposite of burnout (Schaufeli & Bakker, 2003; Schaufeli, Martínez, Marques Pinto, Salanova, & Bakker, 2002).

According to Hallberg and Schaufeli (2006) engagement stresses the notion of positive attachment and optimal performance in the work environment in terms of well-being, with high levels of energy, involvement and commitment invested in one's work. Engagement is thus a positive, work-related state of well-being or fulfilment; engaged employees have high levels of energy, are enthusiastic about and show strong identification with their work (Bakker et al., 2008; Maslach, Schaufeli, & Leiter, 2001). Engagement is thus a positive experience in itself (Schaufeli, Salanova, González-Romá, & Bakker, 2002) and able to facilitate job and personal resources (Bakker & Demerouti, 2007; Hakanen, Schaufeli, & Ahola, 2008). Furthermore, engagement as a state approach acknowledges that employees may be engaged at some instances and disengaged at others, resulting in affected employee performance accordingly (Dalal, Brummel, Wee, & Thomas, 2008).

Work engagement is defined by Schaufeli, Salanova et al. (2002, p. 74) as:

“a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption. Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective-cognitive state that is not focused on any particular object, event, individual or behaviour”.

Vigour is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and perseverance even when confronted with adversity. Dedication refers to strong involvement in one's work with subsequent experience of a sense of enthusiasm, significance, pride and inspiration. Absorption is characterised by focused attention whereby time passes quickly and one finds it difficult to separate oneself from work (Schaufeli & Bakker, 2003). Absorption is closely linked to “flow” - a state of optimal experience characterised by effortless and absolute concentration on complete, manageable yet challenging activities, loss of

self-consciousness, intrinsic motivation and enjoyment and time perception which is altered (Csikszentmihalyi, 1990).

As a positive work-related experience (Maslach et al., 2001), engaged individuals thus display energetic behaviour and identify strongly with their work (Bakker et al., 2008). It is further associated with employees who are strongly attached to their work roles, by being physically involved, cognitively vigilant and perform their tasks with total emotional involvement (Coetzee & De Villiers, 2010) and who are prepared to go above and beyond typical in-role performance (Macy & Schneider, 2008). Furthermore, engaged employees view themselves as capable to handle their job demands successfully (Schaufeli et al., 2006), contributing to higher levels of productivity and profitability, increased safety, greater attendance and retention (Fleming & Asplund, 2007).

Positive Organisational Behaviour

Drawing from the Positive Psychology literature, POB is intended to focus on a positive approach to develop and manage human resources in the modern work environment (Gardner & Schermerhorn, 2004; Luthans, Avolio, Avey, & Norman, 2007). According to Luthans and others (Luthans, 2002b; Luthans & Youssef, 2007) POB pertains to Positive Psychology used in the workplace. It focuses on positively-orientated human resource strong points and psychological capacities, it can objectively be measured, it lends itself to be developed with applicable interventions and can therefore be managed successfully to ensure a vast improvement in employees' performance (Luthans, 2002a).

POB is therefore reconcilable with Positive Psychology, because Positive Psychology emphasises the study of human strengths and virtues, with the aim of understanding and facilitating positive developmental outcomes (Seligman & Csikszentmihalyi, 2000). The principle contribution of POB furthermore lies in the fact that it is generative and contributes to optimal functioning (Luthans, Luthans et al., 2004), in the sense that the application of Positive Psychology in the workplace as POB emphasises the significance of a positive approach (Youssef & Luthans, 2007).

Luthans (2002a) makes it clear that POB is measurable, is based on sound theory and research and is clearly differentiable from populist positively orientated personal development approaches. Being developmental in nature requires the POB construct

to be potentially state-like and therefore rules out the fixed trait-like personality, attitudinal and motivational variables associated with traditional OB. This positive approach could therefore be applied to organisational behaviour as it supports a theory and research-driven point of view and methodology about old as well as new OB concepts such as confidence, hope, optimism, happiness and resiliency (Luthans, 2002a; 2002b). State-like concepts of POB can be developed by means of training and development activities (Gardner & Schermerhorn, 2004).

Growing evidence supports the notion that investment in human capital is crucial for organisational success in the competitive modern business environment (Luthans & Youssef, 2004). Both POB and engagement are constructs which in its aggregate form are made up of positive orientated state-like constructs which can be developed and could contribute to positive work outcomes. Furthermore POB, positive resources and engagement are positively related to each other and as developmental variables, it lends itself to intervention.

Based on the above-mentioned discussion the following research questions are formulated:

- Is there a causal relationship between POB at Time 1 and POB at Time 2?
- Is there a causal relationship between Engagement at Time 1 and Engagement at Time 2?
- What is the empirical relationship between POB and Engagement, and can causality between these constructs be established?

METHOD

Aims and hypothesis

The objective of this study is to investigate the causal relationship and temporal order in the relationship between POB and engagement with a longitudinal survey that tested the cross-lagged effects between two measurements in a sample of South African employees.

The research will investigate the following hypothesised model:

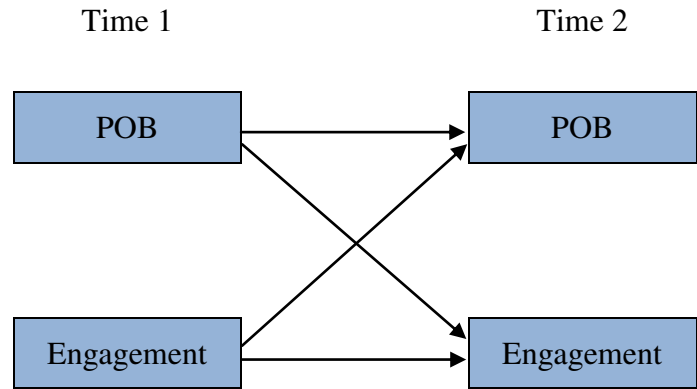


Figure 1. Hypothesised research model of the causal relationship between POB and engagement

Research design and execution

The researcher will make use of a longitudinal research design that tested the cross-lagged effects between two measurements. A cross-lagged analysis makes it possible to investigate the temporal precedence of the cause which is a necessary condition for causal inference (Cook & Campbell, 1979). Demonstrating the temporal order between POB and engagement is important from both a theoretical and practical perspective. Data was gathered by means of a survey.

Participants

During the first measurement surveys were distributed to all 1003 permanent employees working in all departments across all units of the particular business unit which forms part of a larger chemical factory. A total of 908 completed questionnaires were returned and only 892 of the questionnaires could be used representing a return rate of 88.9%. Due to practical requirements data gathering for the first measurement (Time 1) took place once a week over a period of 14 months (from August 2007 to September 2008). During the second measurement (Time 2) questionnaires were handed out to employees in their work environment; they were given only two weeks in April 2009 to complete the questionnaires. This means that the longest period from initial evaluation to re-evaluation was 21 months (from August 2007 to April 2009) and the shortest period seven months (from September 2008 to April 2009). During the second measurement (Time 2) 915 questionnaires were distributed to the same study population as in the first measurement. A total of 358 completed questionnaires were returned which represented a response rate of 39,1%. When matching participants from the pre- to the post measurement was done,

only 163 respondents could be matched, representing a return rate of 17,8% (compared to the original 915 potential respondents) with useable data for the longitudinal study.

The results presented below are based on longitudinal data for 163 respondents. The characteristics of these participants are reported in Table 1.

Table 1

Characteristics of the Participants (Longitudinal sample; n=163)

Item	Category	Frequency*	Percentage*
Gender	Female	50	30,67
	Male	113	69,33
Race	Black	53	32,52
	Indian	4	2,45
	White	105	64,42
Job level	Middle Management-Level 5	1	0,61
	Middle Management-Level 5 and 6	13	7,98
	Supervisors-Level 6	12	7,36
	Supervisors-Level 7	42	25,77
	Skilled Workers-Level 8	41	25,15
	Skilled Workers-Level 9	30	18,41
	Skilled Workers-Level 10	22	13,50
	Semi-Skilled Workers Level-11	1	0,61
	Semi-Skilled Workers Level-12	1	0,61

*Where totals are not equal to 100, this is due to missing values.

According to Table 1 the majority of participants represented in the study population were male, which reflects the demographics of the organisation very well given the fact that the technical, maintenance and operational areas of the organisation are still dominated by men. The race groups are also representative of the actual population of the organisation with the majority of the participants represented in the white race group. The average age of respondents was 40,4 years ($SD=11,16$ years) and with regards to the years service the average tenure was 13,4 years ($SD=10,35$ years). The majority of the participants (91,4%) were on supervisory and non-managerial levels.

Measuring battery

The following measuring instruments were used in the empirical study:

Utrecht Work Engagement Scale (UWES)

The *Utrecht Work Engagement Scale* (UWES) (Schaufeli, Martínez et al., 2002) was used to measure the levels of engagement of the participants. The UWES includes three dimensions, namely Vigour, Dedication and Absorption. The factorial validity, construct equivalence, internal consistency (reliability) and stability of the UWES has been confirmed in various international (Schaufeli & Bakker, 2003; Schaufeli, Salanova et al., 2002) and in South African studies (Coetzee & De Villiers, 2010; Jackson, 2004; Storm & Rothmann, 2003). Responses are on a five-point Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). A high score reflects high levels of engagement. The questionnaire consists of 17 questions in total. A typical question for the Vigour dimension, which has six questions, is: “*I am bursting with energy in my work*”. A typical question for the Dedication dimension, which has five questions, is: “*My job inspires me*”. The third dimension, Absorption, also has six questions and a typical question is: “*Time flies when I’m working*”. The alpha coefficients for the three subscales varied between 0,80 and 0,90 (Schaufeli & Bakker, 2003). Storm and Rothmann (2003) obtained the following alpha coefficients for the UWES in a sample of 2396 members of the South African Police Service: Vigour: 0,78, Dedication: 0,89 and Absorption: 0,78. Coetzee and de Villiers (2010) obtained alpha coefficients of 0,77, 0,88 and 0,83 for Vigour, Dedication and Absorption subscales respectively in a financial institution.

Positive Organisational Behaviour (POB)

A newly developed scale was used to measure POB (De Waal, in press), derived from the four constructs (hope, optimism, self-efficacy and resilience) which form the POB Scale (Luthans, 2002a). The three items which represented the respective individual scales best (as obtained in a South African sample) were taken to form the new scale. A reliability coefficient of 0,69 was obtained in the South African sample ($n=443$) and the factor structure was established with confirmatory factor analysis. Response options were also on a five-point Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). A high score is thus indicative of a person’s high level of POB.

A biographical questionnaire was developed to gather information about the demographic characteristics of the participants. Information gathered included age,

gender, race, job level and specific work function in the business under investigation, as well as years employed in the organisation.

Statistical analysis

The statistical analysis was carried out with the aid of the SPSS programme (SPSS, 2011) and the AMOS programme (Arbuckle, 2007). Descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) and inferential statistics (e.g. correlation analyses) were used to analyse the data. Cronbach alpha coefficients were employed to determine the internal consistency, homogeneity and unidimensionality of the measuring instruments (Clark & Watson, 1995). Coefficient alpha contains important information regarding the proportion of variance of the items of a scale in terms of the total variance explained by that particular scale. Pearson's product-moment correlation coefficients were used to specify the relationship between the variables. In terms of statistical significance, it was decided to set the value at a 99% confidence interval level ($p \leq 0, 01$). Effect sizes (Steyn, 1999) served to decide on the practical significance of the findings. A cut-off point of $d \geq 0, 30$ (medium effect, Cohen, 1998) was set for the practical significance of correlation coefficients.

A cross-lagged model was used to examine the temporal order in the relationship between POB and engagement. Cross-lagged models enable the researcher to examine the temporal order in the relationships between the variables (Cook & Campbell, 1979). The first model (M1) includes only effects between the variables measured at Time 1 and 2 to establish the extent to which variables at Time 1 are predictive of variables at Time 2. The second model (M2) analyses the effect of POB at Time 1 to engagement at Time 2. The third model (M3) analyses the effect of engagement at Time 1 to POB at Time 2. Lastly, the fourth model (M4) analyses both effects simultaneously.

A structural equation modelling (SEM) technique was applied as it allows for simultaneous estimation of causal relationships between variables (Zapf, Dormann, & Frese, 1996). The following indicators of fit were used to assess the hypothesised relationships in the model: the χ^2 -statistic, Root Mean Square Error of Approximation (RMSEA) and Bentler's Comparative Fit Index (CFI), as described by Byrne (2001). The χ^2 -statistic, as recommended by Jöreskog and Sörbom (1993), was used to compare the different competing models by determining the degree of correspondence

between the implied and observed covariance matrices. A value <2 for $\chi^2/\text{degrees of freedom ratio (CMIN}/df)$ (Wheaton, Muthén, Alwin, & Summers, 1977) indicates acceptable fit (Tabachnick & Fidell, 2001). Hu and Bentler (1998) suggest a cut-off point of 0,06 for the RMSEA and a value of 0,90 or greater for the CFI is indicative of a good fit (Hoyle, 1995).

RESULTS

Descriptive statistics and Cronbach's alpha coefficients of the Engagement (Vigour, Dedication, Absorption) and POB (Hope, Optimism, Self-Efficacy, Resilience) scales ($n=163$) obtained at both measurements (Time 1 and Time 2) of the longitudinal study are reported in Table 2. Data for all dimensions are reported, but the analysis will remain focused towards answering the main research question of this study (i.e. *total Engagement and POB*).

Table 2

Descriptive Statistics and Cronbach Alpha Coefficients of the Measuring Instruments for both Time 1 and 2

	Mean		SD		Skewness		Kurtosis		α	
	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
1. Vigour	3,49	3,34	0,58	0,62	-0,40	-0,34	1,60*	0,52	0,69	0,71
2. Dedication	3,78	3,62	0,55	0,55	-0,41	-0,35	0,73	0,14	0,65	0,53
3. Absorption	3,65	3,49	0,53	0,61	-0,42	-0,46	0,87	1,25*	0,74	0,78
4. Engagement	3,64	3,49	0,50	0,54	-0,46	-0,60	1,56*	1,04*	0,88	0,89
5. Hope	3,83	3,81	0,46	0,42	0,10	0,28	-0,04	0,47	0,68	0,62
6. Optimism	2,54	2,59	0,75	0,73	0,02	-0,01	-0,61	-0,14	0,53	0,57
7. Self-Efficacy	3,90	3,90	0,42	0,42	0,00	0,10	0,49	0,42	0,81	0,83
8. Resilience	3,82	3,74	0,39	0,40	0,18	0,11	-0,12	0,25	0,73	0,73
9. POB	3,83	3,78	0,40	0,34	0,34	0,55	0,13	1,00*	0,69	0,63

*High skewness and/or kurtosis

As indicated in Table 2 most of the measuring instruments have relatively normal distributions, with skewness and kurtosis within the +1 and -1 range. Vigour at Time 1, Absorption at Time 2 and Engagement at Time 1, however, show a peaked curve (leptokurtic). The internal consistencies of the constructs vary from 0,53 to 0,89. Although international (Salanova et al., 2010) and South African (Storm &

Rothmann, 2003) research reported acceptable reliability measures for the subscales of engagement the dedication subscale in this research reflected an internal consistency of 0,65 and 0,53 at Time 1 and Time 2 respectively. According to Nunnally and Bernstein (1994) the guideline for an acceptable internal consistency is $\alpha \geq 0,70$, but 0,55 is also acceptable in basic research. Due to the low reliability of the dedication and optimism subscales at Time 1 and Time 2 and the changes from Time 1 to Time 2 which is indicative of the inconsistency of these scales over time it has been decided not to use these subscales in the research model but rather the collapsed scales of POB and engagement. The low reliability may indicate problems with this sample at this time, but as the collapsed scales of Engagement and POB are more acceptable and the focus of the current investigation, this result does not have immediate limitations for the current analysis.

Table 3 (below) reports on the correlations between the variables. Time 1 data is reflected above the diagonal and Time 2 data is reflected below the diagonal.

Table 3

Product-Moment Correlation Coefficients between the Engagement (Vigour, Dedication, and Absorption) and POB (Hope, Optimism, Self-Efficacy, and Resilience) Scales for both Time 1 and Time 2

	1	2	3	4	5	6	7	8	9
1. Vigour	1	0,70 ^{***}	0,73 ^{***}	0,91 ^{***}	0,31 ^{*+}	0,19 [*]	0,37 ^{*+}	0,33 ^{*+}	0,30 ^{*+}
2. Dedication	0,71 ^{***}	1	0,69 ^{*+}	0,89 ^{*+}	0,40 ^{*+}	0,18 [*]	0,40 ^{*+}	0,46 ^{*+}	0,41 ^{*+}
3. Absorption	0,79 ^{***}	0,74 ^{***}	1	0,89 ^{***}	0,47 ^{*+}	0,23 [*]	0,46 ^{*+}	0,50 ^{***}	0,46 ^{*+}
4. Engagement	0,92 ^{***}	0,89 ^{***}	0,93 ^{***}	1	0,44 ^{*+}	0,22 [*]	0,45 ^{*+}	0,47 ^{*+}	0,43 ^{*+}
5. Hope	0,22 [*]	0,33 ^{*+}	0,30 ^{*+}	0,31 ^{*+}	1	0,31 ^{*+}	0,61 ^{*+}	0,70 ^{***}	0,82 ^{*+}
6. Optimism	0,34 ^{*+}	0,17 [*]	0,21 [*]	0,23 [*]	0,30 ^{*+}	1	0,45 ^{*+}	0,25 [*]	0,58 ^{***}
7. Self-efficacy	0,35 ^{*+}	0,30 ^{*+}	0,34 ^{*+}	0,36 ^{*+}	0,59 ^{***}	0,46 ^{*+}	1	0,54 ^{***}	0,77 ^{***}
8. Resilience	0,35 ^{*+}	0,37 ^{*+}	0,38 ^{*+}	0,40 ^{*+}	0,70 ^{***}	0,22 [*]	0,59 ^{***}	1	0,69 ^{***}
9. POB	0,26 [*]	0,33 ^{*+}	0,35 ^{*+}	0,34 ^{*+}	0,76 ^{***}	0,23 [*]	0,68 ^{***}	0,71 ^{***}	1

Note: ^{*} $p \leq 0,01$ (statistically significant)

⁺ $r \geq 0,30$ (practically significant) (medium effect)

⁺⁺ $r \geq 0,50$ (practically significant) (large effect)

The statistically and practically significant correlations between the different variables at Time 1 and 2 are presented in Table 3. Both the Time 1 and 2 data indicate that all

the variables are directly related. Variables are furthermore statistically and practically significantly related, with some medium to large effects. At Time 1 the Optimism scale correlates positively with Vigour, Dedication, Absorption, Total Engagement and Resilience, however it does not reach the minimum criteria to be regarded as practically significant. Time 1 data further indicates a positive correlation which is practically significant with a medium effect between POB and Engagement.

Time 2 data indicates that, with the exception of the correlation between hope and vigour, the correlation between Optimism and Dedication, Absorption, Engagement, Resilience and POB, all the other variables are practically significantly related with medium to large effect. Although POB at Time 2 correlates positively with Vigour at Time 2 it also did not reach the minimum criteria to be regarded as practically significant. Time 2 data also indicates a positive practically significant correlation of medium effect between POB and Engagement.

Generally, it is also seen that sub-dimensions within a particular measure (the three sub-dimensions of Engagement and the four sub-dimensions of POB) relate stronger to each other than to the other sub-dimensions of the other scale.

Table 4 below shows an overview of the various models investigated.

Table 4

Model Comparisons for the stability model, POB and Engagement at both Time 1 and 2 and both effects

Model	χ^2	Df	Comparison	$\Delta\chi^2$	ΔDf
1. Stability	49,07	4			
2. POB (T1) – > Engagement (T2)	48,68	3	M1 vs M2	0,39	1
3. Engagement (T1) – POB (T2)	39,44	3	M1 vs M3	9,63*	1
4. Both Effects	39,05	2	M1 vs M4	10,02**	2
			M2 vs M4	9,63*	1
			M3 vs M4	0,39	1

Note:*p≤0,05 **p≤0,10

Table 4 gives an overview of the competing models. First the stability model (M1) and the model with effects from POB at Time 1 to engagement at Time 2 (M2) were compared. No significant effects were found between the two models. The stability model (M1) was secondly compared to a model with effects from engagement at Time

1 (M1) to POB at Time 2 (M3). The χ^2 difference test revealed that the difference between the models was significant ($\Delta\chi^2(1) = 9,63, p \leq 0,05$). This implies that the model with effects from engagement from Time 1 to POB Time 2 provides a better account of the data than the model with only stabilities. Thirdly the model with both effects simultaneously included (M4) was tested. Results indicated a significant improvement compared to the stability model ($\Delta\chi^2(2) = 10,02, p \leq 0,10$). Fourthly, a significant difference in the model fit between the model effects from engagement at Time 1 (M2) to engagement at Time 2 (M4) was found ($\Delta\chi^2(1) = 9,63, p \leq 0,05$). Lastly, no significant difference in the model fit between the model effects from POB at Time 1 (M3) to POB at Time 2 (M4) was found. The forward causation model fit statistics were as follows: $\chi^2=39,05, Df=2, \chi^2/Df =19,53, CFI=0,75$ and $RMSEA=0,44$.

Figure 2 below exhibits the significant standardised coefficients of the final model.

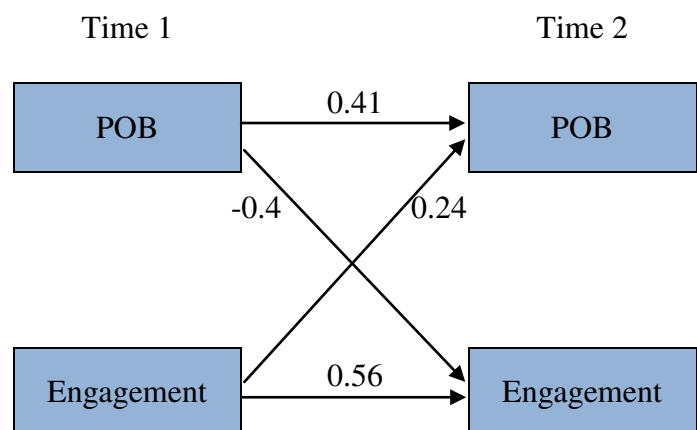


Figure 2. Final model with standardised coefficients

DISCUSSION

The objective of this study was to conceptualise and investigate the causal relationship and temporal order in the relationship between POB and engagement with a longitudinal survey and cross-lagged research design in a sample of South African employees.

Except for the dedication subscale at both Time 1 and 2, the reliability coefficients of the other two subscales of the engagement questionnaire yielded acceptable reliability values. Given the fact that previous South African (Coetzee & De Villiers, 2010; Storm & Rothmann, 2003) and international (Hallberg & Schaufeli, 2006; Schaufeli

& Bakker, 2004) research obtained acceptable reliability values, the results derived from the current study mostly support previous research in indicating that the UWES presents with reliable subscales. The low reliability coefficients of the dedication dimension may be attributed to poor understanding of the questions as the specific study population in this research use English predominantly as a second language, while the survey was only available in English. As also evident in other research (Salanova, Llorens, & Schaufeli, 2010) the total engagement score, however, yielded very good reliability coefficients at both Time1 and 2.

The hope and optimism facets of POB did not reach adequate reliability at either measurement, when compared to conventional standards. This is also counter to other research which found acceptable levels of internal consistency for this scale (Avolio, Avey, & Norman, 2007; Botha, 2010).

Once again cognisance should be taken of the sample specific characteristics, specifically about the language proficiency of some of the participants in this study. 32.5 % of the respondents were black which uses English as a second language. 64% of the participants were from the white population group and a large part of this group also uses English as a second language. The participants in this study population could therefore have experienced problems in the understanding of the questions. The total POB score, however, yielded acceptable reliability coefficients at both Time 1 and 2.

Given the positive nature of all the constructs measured, the inter-correlations were significantly at both Time 1 and 2. This finding is in line with other research evaluating the underlying dimensions of engagement (Salanova et al., 2010) and the individual facets of POB (Youssef & Luthans, 2007), as well as total POB and engagement (Simbula, Guglielmi, & Schaufeli, 2011). Results from this study also confirmed the positive relationship between the aggregate engagement and POB scores as well as the positive relationship between the total POB and engagement score.

The use of a longitudinal research design that tested the cross-lagged effects between the two measurements yielded an important new finding in the understanding of the relationship between POB and engagement in this specific study population. Results revealed that POB at Time 1 did not predict engagement at Time 2. Strong evidence

was found, however, that engagement at Time 1 predicted POB at Time 2. This finding is in line with research which suggests that engagement can facilitate the mobilisation of job and personal resources (Bakker & Demerouti, 2007; Hakanen et al., 2008) as the four facets of POB (hope, optimism, self-efficacy and resilience) are regarded as personal resources. Engagement however also seems to be related to organisational resources (Bakker, van Emmerik, & Euwema, 2006). Conversely, Bakker, Gierveld and Van Rijswijk (2006) found that optimism, self-efficacy and resilience contributed particularly to engagement. Furthermore Cordery (2007) also found engagement as a strong predictor of hope, optimism and self-efficacy. Although, POB is associated with personal resources and engagement is associated with work related phenomena, engagement predicted POB which could be attributed to the crossover phenomenon (Bakker, Van Emmerik et al., 2006). This means that because individuals are not working in isolation work related engagement resources affect the individual to such an extent that it has an impact on personal resources (POB facets). This finding further highlighted the importance of investigating possible ways to promote engagement in the work environment.

RECOMMENDATIONS AND LIMITATIONS

The present study has been limited to participants employed in a specific division (services division) of a large chemical plant and the findings can therefore not be readily generalised to other occupational groupings in the particular manufacturing facility, or other organisational contexts. Similar investigations would therefore have to be conducted in other organisations to verify these findings and to make broader conclusions about the relationship between constructs measured in this study.

Due to practical constraints, the first data gathering took place once a week over a period of fourteen months. During the second measurement (Time 2) questionnaires were handed out to employees in their work environment and they were given only two weeks to complete the questionnaires. This means that the longest period from the first measurement to re-evaluation was 21 months and the shortest period seven months. The extended period in which the data was collected and the differences in time lag could have influenced the results. Although the longitudinal design is also a strong point of this study, the influence of the variance from initial to reassessment has not been accounted for. Despite the fact that a member of the senior management

team together with the researcher opened the training sessions and explained the value of the research for the organisation to the employees and the fact that a unique code was designed to ensure confidentiality to match questionnaires to reflect the same individual's responses from Time 1 to Time 2, the response rate of the participants at Time 2 was significantly lower than the response rate at Time 1. A better response rate could have contributed to better results with regards to the reliability of the individual scales, better conclusions from research results could have been made with a greater amount of certainty which would enable the researcher to give feedback to the management of the organisation of a greater amount of certainty.

Against the background of previous South African research which presented good reliability measures, the low reliability of the dedication subscale obtained in this study could be seen as a limitation, specifically when feedback is given to management on where and how to address levels of employee engagement. It is recommended that further research be undertaken to explore how items can be improved to ensure better understanding in the specific South African context. Future studies could also use structural equation modeling to test the construct equivalence of the UWES.

The final sample size was relatively small and inhibited the researcher from testing a more complex model with, for example, cross-lagged effects at the sub-dimensional level of engagement and POB. The reliability of these scales was a further limitation in this regard, although the number of respondents could have again played a role.

As mentioned earlier the economic survival of this particular service organisation depends on the performance of the business which is directly related to the performance of its employees, as they have a direct impact on the quality and quantity of services rendered to internal customers and in many instances also to external customers. As work engagement has been shown to affect service climate (Salanova et al., 2005), which in turn predicted employee performance and customer loyalty, the management of employee engagement is again highlighted here. Job resources such as social support from colleagues and supervisors, performance feedback, opportunities to apply a wide variety of skills and tasks, autonomy, learning and development opportunities, coaching and positive work experiences are all positive related to engagement (Bakker & Demerouti, 2008; Koyuncu et al., 2006; Schaufeli & Bakker,

2003) and is strongly recommended to improve the levels of engagement in this organisation.

Other areas for management to focus on is the proper defining of work roles as the attitudes, behaviours and emotions associate with one role spill over to another (Rothbard, 2001), ensuring that employees keep themselves busy with meaningful work (Nelson & Simmons, 2003) and that employees experience adequate job and personal resources as research indicates that it plays a key role in explaining work engagement (Simbula et al., 2011). Percieved sources of job stress should be minimise as these sources are negatively related to engagement. Management in this organisation needs therefore to investigate and develop interventions to address those factors which is most appropriate and could contribute to higher levels of engagement. Interventions should focus on individuals and the organisation at large in the specific context of the organisation (Kompier, 2003).

Job security which is related to psychological safety also leads to engagement (Oliver & Rothmann, 2007) as it reflects the belief that one can apply oneself without the fear of negative consequences. Given the fact that the organisation under investigation has gone through a cultural transformational and organisational and structural restructuring process resulting in a huge amount of uncertainty supportive supervisory and management relationships is particularly important to ensure the psychological safety of employees with could result in higher levels of engagement.

REFERENCES

- Arbuckle, J. L. (2007). *AMOS 7.0. Update to the Amos user's guide version*. Chicago, IL: Smallwaters Cooperation.
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, 22, 309-328.
- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209-223.
- Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2003). Dual processes at work in a call centre: An application of the job demands-resources model. *European Journal of Work and Organizational Psychology*, 12, 393-417.
- Bakker, A. B., Gierveld, J. H., & Van Rijswijk, K. (2006). *Succesfactoren bij vrouwelijke schoolleiders in het primair onderwijs: Een onderzoek naar burnout, bevlogenheid en prestaties* [Success factors among female school principals in primary teaching: A study on burnout, work engagement, and performance]. The Netherlands: Right Management Consultants, Diemen.
- Bakker, A. B., Van Emmerik, H., & Euwema, M. C. (2006). Crossover of burnout and engagement in workteams. *Work and Occupations*, 33(4), 464-480.
- Bakker, A. B., & Schaufeli, W. B. (2008). Positive Organisational Behavior: engaged employees in flourishing organizations. *Journal of Organizational Behavior*, 29, 147-154.
- Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work and Stress*, 22(3), 187-200.
- Blessingwhite Research, (2011). *Global employee engagement report. Beyond the numbers: A practical approach for individuals, managers and executives*. (Research report). Princeton, NJ: Author.
- Blizzard, D. B. A. (2002). Nurses may be satisfied, but are they engaged? Retrieved March 19, 2003 from, <http://www.gallup.com/poll/tb/healthcare/20020514.95p?Version=pp>

- Botha, E. (2010). *Job Insecurity and Wellness of employees in a Co-operation*. Unpublished doctoral thesis, North-West University, Vanderbijlpark.
- Brim, B., & Asplund, J. (2009). Driving engagement by focusing on strengths. Too many managers focus on fixing people's weaknesses-or worse, they simply ignore employees altogether. This doesn't boost performance. Retrieved November 16, 2009 from, <http://www.gmj.gallup.com/content/124214/Driving-Engagement-Focusing-Strengths.aspx>
- Byrne, B. M. (2001). *Structural equation modelling with AMOS: Basic concepts, applications and programming*. Mahwah, NJ: Erlbaum.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7(3), 309-319.
- Coetzee, M., & de Villiers, M. (2010). Sources of job stress, work engagement and career orientations of employees in a South African financial institution. *Southern African Business Review*, 14(1), 27-57.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimentation: Design and analysis issues for field setting*. Chicago, IL: Rand McNally.
- Cordery, J. (2007). *Accentuating the positive. Building hope, optimism, confidence and resilience in organisations* (Survey results). Wembley, Western Australia: Australian Institute of Management.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper.
- Dalal, R. S., Brummel, B. J., Wee, S., & Thomas, L. L. (2008). Defining employee engagement for productive research and practice. *Industrial and Organisational Psychology*, 1, 52-55.
- De Waal, J. J. P. (2011). *The role of Positive Organisational Behaviour in employee self-development and organisational outcomes*. Unpublished doctoral thesis, North-West University, Potchefstroom.

- Edwards, J. R., & Rothbard, N. P. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review*, 25, 178-199.
- Erickson, T. J. (2005). Testimony submitted before the U.S. Senate Committee on Health, Education, Labour and Pensions, May 26.
- Fields, B., Wilder, S., Bunch J., & Newbold, R. (2008). *Millennial Leaders: Success stories from today's most brilliant Generation Y Leaders*. Morgan James Publishing.
- Fleming, J. H., & Asplund, J. (2007). *Human Sigma. Managing the employee-customer encounter*. New York. Gallup Press.
- Gardner, W. L., & Schermerhorn, Jr. J. R. (2004). Unleashing individual potential: Performance gains through positive organizational behavior and authentic leadership. *Organizational Dynamics*, 33(3), 270-281.
- Hakanen, J. J., Schaufeli, W. B., & Ahola, K. (2008). The job demands-resources model: A three-year cross-lagged study of burnout, depression, commitment and work engagement. *Work and Stress*, 22, 224-241.
- Hallberg, U. E., & Schaufeli, W. B. (2006). "Same Same" but different? Can work engagement be discriminated from job involvement and organisational commitment? *European Psychologist*, 11(2), 119-127.
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit level relationship between employee satisfaction, employee engagement and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87, 268-279.
- Hoyle, R. H. (1995). *Structural equation modelling: Concepts, issues and applications*. Thousand Oaks, CA: Sage.
- Hu, L. T., & Bentler, P. M. (1998). Fit indices in covariance structure modelling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3(4), 424-453.
- Ibarra, H. (2002). *Working Identity*. Cambridge: Harvard Business School Press.
- Jackson, L. T. B. (2004). *Burnout and work engagement of teachers in the North West Province*. Unpublished doctoral thesis, North-West University, Potchefstroom.

- Kompier, M. (2003). Job design and well-being. In M. J. Schabracq, J. A. M. Winnubst, & C. L. Cooper (Eds.), *The Handbook of Work and Health Psychology* (2nd ed.). (pp. 429-425). Wiley Chichester.
- Jöreskog, K. G., & Sörborn, D. (1993). *LISREL 8: Structural equation modelling with the SIMPLIS command language*. Hillsdale, NJ: Erlbaum.
- Koyuncu, M., Burke, R. J., & Fiksenbaum, L. (2006). Work engagement among women managers and professionals in a Turkish bank. Potential antecedents and consequences. *Equal Opportunities International*, 25(4), 299-310.
- Loehr, J., & Schwartz, T. T. (2003). *The power of full engagement*. New York: Free Press.
- Luthans, F. (2002a). Positive organizational behavior: Developing and managing psychological strengths. *Academy of Management Executive*, 16(1), 57-72.
- Luthans, F. (2002b). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior*, 23, 695-706.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60, 541-572.
- Luthans, F., Luthans, K. W., & Luthans, B. C. (2004). Positive psychological capital: Beyond human and social capital. *Business Horizons*, 47(1), 45-50.
- Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008). The mediating role of psychological capital in the supportive organizational climate-employee performance relationship. *Journal of Organizational Behavior*, 29, 219-238.
- Luthans, F., & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of Management*, 33(3), 321-349.
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organisational Psychology*, 1, 3-30.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422.

- May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety, and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, 77, 11-37.
- Minervini, R., Meyer, M., & Rourke, L. (2003). *Human capital management: A handbook for SA Managers*. Johannesburg: WriteStuff Publishing.
- Nelson, D. L., & Simmons, B. L. (2003). Health psychology and work stress: A more positive approach. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of occupational health psychology* (pp. 97-119). Washington, DC: American Psychological Association.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Oliver, A. L., & Rothmann, S. (2007). Antecedents of work engagement in a multinational oil company. *South African Journal of Industrial Psychology*, 33(3), 49-56.
- Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly*, 46, 655-684.
- Rothmann, S. (2003). Job satisfaction, occupational stress, burnout and work engagement as components of work-related wellbeing. *South African Journal of Industrial Psychology*, 34(3), 11-16.
- Rothmann, S., & Joubert, J. H. M. (2007). Job demands, job resources, burnout and work engagement of managers at a platinum mine in the North-West Province. *South African Journal for Business Management*, 38(3), 49-61.
- Salanova, M., Agut, S., & Peiro, J. M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: The mediation of service climate. *Journal of Applied Psychology*, 96, 1217-1227.
- Salanova, M., Llorens, S., & Schaufeli, W. B. (2010). "Yes, I can feel good, and I just do it!" On gain cycles and spirals of efficacy beliefs, affect and engagement. *Journal of Applied Psychology*, 60(2), 255-285.
- Schabracq, M. J., & Cooper, C. L. (2000). The changing nature of work and stress. *Journal of Management Psychology*, 15, 227-241.

- Schaufeli, W. B., & Bakker, A. B. (2003). *Utrecht Work Engagement Scale: Preliminary manual. Version 1*. Occupational Health Psychology Unit. Utrecht University.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organisational Behaviour, 25*, 293-315.
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of Work Engagement with a short questionnaire: A Cross-National Study. *Education and Psychological Measurement, 66*(4), 701-716.
- Schaufeli, W. B., Martínez, I. M., Marques Pinto, A., Salanova, M., & Bakker, A. B. (2002). Burnout and engagement in university students: A cross-national study. *Journal of Cross-cultural Psychology, 33*(5), 464-481.
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two-sample confirmatory factor analytic approach. *Journal of Happiness Studies, 3*, 71-93.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*(1), 5-14.
- Simbula, S., Guglielmi, D., & Schaufeli, W. B. (2011). A three-wave study of job resources, self-efficacy and work engagement among Italian school teachers. *European Journal of Work and Organizational Psychology, 20*(3), 285-304.
- Smit, S. (2008). *Work wellness in the chemical industry*. Unpublished doctoral thesis, North-West University, Potchefstroom.
- Sonnentag, S. (2003). Recovery, work engagement, and proactive behaviour: A new look at the interface between non-work and work. *Journal of Applied Psychology, 88*, 518-528.
- Stajkovic, A., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin, 124*, 240-261.
- Storm, K., & Rothmann, S. (2003). A psychometric analysis of the Utrecht Work Engagement Scale in the South African Police Service. *South African Journal of Industrial Psychology, 29*(4), 62-70.

- SPSS (2011). *SPSS 18.0 for Windows*. Chicago, IL: SPSS Inc.
- Steyn, H. S. (1999). *Praktiese betekenisvolheid: Die gebruik van effek groottes*. [Practical significance: The use of effect size.] Wetenskaplike bydraes-Reeks B: Natuurwetenskappe Nr. 117. Potchefstroom Universiteit vir Christelike Hoër Onderwys. Potchefstroom.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston, MA: Allyn and Bacon.
- Wheaton, B., Muthén, B., Alwin, D. F., & Summers, G. F. (1977). Assessing reliability and stability in panel models. In D. R. Heise (Ed.), *Sociological methodology* (pp. 84-136). San Francisco: Sage.
- Youssef, C. M., & Luthans, F. (2007). Positive organisational behaviour in the workplace. The impact of hope, optimism and resilience. *Journal of Management*, 33(5), 774-800.
- Zapf, D., Dormann C., & Frese, M. (1996). Longitudinal studies in organizational stress research: A review of the literature with reference to methodological issues. *Journal of Occupational Health Psychology*, 1(2), 145-169.

CHAPTER 6

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The purpose of this chapter is to provide conclusions from the results of the literature reviews and empirical investigations that formed part of this study. Conclusions are drawn in accordance with the research objectives. Limitations of this study are discussed and recommendations to the organisation are made. Finally, future research opportunities that emanate from this research are presented.

6.1 CONCLUSIONS

The general objective of this research was to conceptualise the components of Positive Organisational Behaviour (POB) (hope, optimism, self-efficacy and resilience) from the literature and establish their reliability in a South African sample. In addition the relationship between POB and other organisational outcomes such as job satisfaction and turnover intention, work stress, health and engagement are of interest.

The **first objective** of this research was to conceptualise the components of POB from the research literature and to investigate the psychometric properties in a South African multicultural context. Constructs which were measured were Hope, Optimism, Self-efficacy and Resilience.

Positive Organisational Behaviour (POB) is defined as “the study and application of positively-orientated human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement in today’s workplace” (Luthans, 2002a, p. 59). As the application of Positive Psychology in the workplace, POB is supported by theory and research and encompasses the four constructs of hope, optimism, self-efficacy (confidence) and resilience (Luthans, 2002a; 2002b) which have a significant positive impact on individuals.

Hope is a positive motivational state consisting of the sum of self-directed (a) agency (goal-orientated energy) and (b) pathways (planning to meet goals) components. It is interrelated, reciprocal, additive - but not synonymous - and operates in a combined and iterative manner (Carr, 2004; Snyder, 2002; Snyder, Irving, & Anderson, 1991; Snyder et al., 1991).

Optimism has a cognitive, emotional and motivational component and is a process which involves positive expectancies and causal attributions that are external, temporary and situation-specific in interpreting bad or negative events and internal, permanent and pervasive for good or positive events (Peterson, 2000; Seligman, 1998).

Self-efficacy is one's belief or judgement about personal capabilities to mobilise motivation, cognitive resources and courses of action needed to successfully execute a specific task, or to produce the desired effects within a given situation (Carr, 2004; Stajkovic & Luthans, 1998).

Resiliency is the skill and capacity to bounce back from adversity, uncertainty, failure or even positive - but seemingly overwhelming changes - without developing stress-related problems (Carr, 2004; Luthans & Youssef, 2004).

All four scales constituting POB were individually subjected to a principle component analysis to confirm their factor structures. The analysis for the Hope Scale revealed that two distinct but strongly related factors were present and that a 7-item version of this scale proved to be reliable in the current sample, which is in line with other international (Snyder et al., 1991) as well as South African research (Botha, 2010). With regards to the Optimism Scale only three items drawing from both the "pessimism" (negative) and "optimism" (positive) dimensions reliably represented this construct. Given the acceptable reliability obtained in this sample, this newly developed scale for the optimism construct proved to be usable in the South African context. However, future analysis may wish to validate a more extensive version. Analysis of the Self-efficacy Scale indicated that two items did not relate strongly to the rest of the items and that only one factor underlies the self-efficacy items. Analysis of the Resiliency Scale indicated that three items did not strongly relate to the rest of the items and that only one factor underlies the items. The results further suggest a promising 12-item version of a new POB scale for use in the South African context. It was also shown that only one factor explains the variance in the data and that the constructs of hope, optimism, resiliency and self-efficacy constitute the construct of POB. As in the case with other international research (Luthans, Avolio, Avey, & Norman, 2007), significant positive relationships between these scales were also obtained.

Confirmatory factor analysis revealed an overall good fit with the hypothesised model, again confirming that the four constructs of hope, optimism, resiliency and self-efficacy describe a second-order factor which may be termed POB. A much shortened 12-item version of the POB scale was used in this analysis, made up of the three best items from each of the individual scales. Confirmatory factor analysis conducted by Luthans, Avolio, Walumba and Li (2005) also demonstrated a higher order construct. The current research extends these previous findings in showing support for a four-factor POB model. The study provides support for the core POB construct in a heterogeneous South African sample and provides a new instrument for its measurement. This is an important contribution by the current study, as research on POB outside of a Western context is still very limited (Luthans et al., 2005).

The **second objective** of the study was, firstly, to investigate the relationship between job satisfaction, turnover intention and POB over time. Further objectives included the investigation of the effect a training programme aimed at self-development had on job satisfaction, turnover intention and POB. The moderating effect of job satisfaction between POB and turnover intention was also investigated. This objective was met with both literature and empirical conclusions, reported on below.

Job satisfaction can be viewed as an important aspect impacting on both the individual and the organisation. It is seen as an important motivator for employee performance (Mak & Sockel, 1999) and research indicated that satisfied employees will deliver service of a better quality which leads to satisfied customers (Hartline & Ferrell, 1996; Rust, Stewart, Miller, & Pielack, 1996; Zeithaml & Bitner, 2000). Job satisfaction is also important for retaining employees and is regarded as an important indicator of organisational effectiveness, as the optimal functioning of organisations partly depends on the level of job satisfaction of employees (Rothmann & Coetzer, 2002).

Previous research shows a strong negative relationship between job satisfaction and intention to leave (Decker, Harris-Kojetin, & Bercovitz, 2009; Moore, 2001; Tett & Meyer; 1993; Van Dick et al., 2004; Zimmerman & Darnold, 2009). It is also important that organisations understand employees' turnover intentions, as they are strong indicators of actual quitting behaviour (Bigliardi, Petroni, & Dormio, 2005; Firth, Mellor, Moore, & Loquet, 2004; Trimble, 2006).

Results show that the data obtained with the job satisfaction and turnover intention measuring instruments used in this study was suitable for analysis. The newly developed POB construct also yielded acceptable reliability, although it could be improved. Considering the small number of items used in most scales, this result is encouraging. Most of the scales were taken from the international literature and are accompanied by a long research history and multiple validations.

As in the case with other national (Pienaar, Sieberhagen, & Mostert, 2007) and international studies (Zimmerman & Darnold, 2009), this research also confirms the significant negative relationship between job satisfaction and turnover intention, implying that as job satisfaction increases, turnover intention should decrease. The relationship was evidenced at both measurements of the longitudinal investigation.

Although a significantly positive relationship between job satisfaction and the four psychological capacities of hope, optimism, resilience and self-efficacy (Luthans et al., 2007; Youssef & Luthans, 2007) and a significant negative relationship between intention to leave and these four psychological capacities (Avey, Luthans, & Jensen, 2009) were found in other studies, it is seen that POB only at Time 2 showed a practical significant (medium effect) relationship to Job Satisfaction.

Results regarding the predictive ability of job satisfaction and POB in terms of turnover intention over time showed that job satisfaction at both T1 and T2 and turnover intention at T1 were significant in predicting subsequent turnover intention. It was further evident from the empirical results that the training programme aimed at self-development had no significant effect on POB, job satisfaction, or turnover intention.

The **third objective** of this research was to conceptualise and investigate the longitudinal relationship between individual job stressors (lack of role clarity, role conflict, quantitative and qualitative role overload and quantitative and qualitative job insecurity) and its subsequent contribution to general health. The study also investigated the possible mediating effect that Positive Organisational Behaviour (POB) might have on the relationship between the job stressors and general health, while also controlling for negative affect. This objective was met by both literature and empirical conclusions.

Individuals and organisations are affected in various ways by work stress. As a complex phenomenon (Di Martino, 1992), job stress is the impact of job demands and organisational conditions on the individual, resulting in strains which can damage the health and quality of life of employees; it may even result in psychological, physical and behavioural stress reactions (Houkes, Jansen, de Jonge, & Nijhuis, 2001). Stress experienced at work can have adverse outcomes for the health and safety, well-being and morale of employees (Antoniou, Davidson, & Cooper, 2003; Cooper & Cartwright, 1994; Wickramasinghe, 2010). It further contributes to compensation claims, healthcare costs, disability, absenteeism, turnover and productivity losses (Cooper, 2002; Cooper, Luikkonen, & Cartwright, 1996; Levi, 2002; Lu, 1995; Murphy, 1995).

As a primary contributing factor to work stress, the lack of role clarity - also termed role ambiguity - intensifies the effect of daily work stress on the individual's mood, contributing to psychological strain such as depression, tension, and burnout (Jex, 1998; Lang, Thomas, Bliese, & Adler, 2007; Wickramasinghe, 2010). Role clarity is the extent to which an employee's work goals and responsibilities are clearly communicated and whether the individual understands the processes required to achieve these goals (Sawyer, 1992). Role clarity can also be the extent to which the employee experiences unclear work objectives, expectations from co-workers and the scope and responsibilities of the job (Wickramasinghe, 2010).

Role conflict is also recognised to evoke increased work stress (Cooper & Dewe, 2004; Lambert & Lambert, 2001), as it is associated with emotional turmoil (Cooper & Dewe, 2004). Role conflict is the result of incompatible role expectations of the individual (Thiagarajan, Chakrabarty, & Taylor, 2006), or the presence of two or more role requirements that work against each other (Tunc & Kutanis, 2009).

Role overload is distinguished as having both a quantitative and qualitative dimension. Quantitative role overload is the feeling of having too much to do, given the time available (Beehr, Walsh, & Taber, 1976). Qualitative role overload, on the other hand, is the sense that the work is too difficult or demanding in that the required skills, abilities or knowledge are beyond that which the individual possesses (Sverke, Hellgren, & Öhrming, 1999).

Job insecurity (Sverke & Hellgren, 2002) relates to people in their work context who fear they might lose their jobs and become unemployed (De Witte, 1999, 2005). Quantitative job insecurity refers to the future existence or continuity (or loss) of the job itself. Qualitative job insecurity refers to perceived threats of impaired quality or continued existence of valued aspects of the job, such as the employment relationship, pay, working conditions, job content and the lack of career opportunities (De Witte, 2005; Hellgren, Sverke, & Isaksson, 1999).

Negative affect (neuroticism) reflects emotional instability and neurotic individuals display high levels of negative, distressing emotions such as depression, anger, emotionality, insecurity, nervousness, fearfulness and hopelessness (Mount & Barrick, 1995; Velting, 1999), higher levels of negative life events (Magnus, Diener, Fujita, & Pavot, 1993) and interpersonal conflicts and hostile reactions (Gunthert, Cohen, & Armeli, 1999).

The importance of deteriorating general health as a consequence of the work conditions in modern organisations has also been investigated in this research. Health is furthermore regarded an organisational outcome in this study and is also perceived as a state of well-being rather than ill-being, and not merely the absence of disease or infirmity (Ryff & Singer, 1998). Coetzer and Rothmann (2006) have also found deteriorating physical and psychological health as major outcomes of perceived stress which can potentially affect both workers and organisations in negative ways (Dana & Griffin, 1999; Soylu, 2007).

Results of this study indicated that the reliability measure of lack of role clarity at Time 1 and 2, role conflict at Time 1, quantitative and qualitative role overload at both Time 1 and 2 and qualitative job insecurity at Time 1 did not reach adequate levels when compared to conventional standards. The measuring instruments were, however, still suitable for analysis. Future studies in the South African context may add value by focusing on the improvement of the reliability of those measures which contribute to job stress (lack of role clarity, role conflict quantitative and qualitative role overload and quantitative and qualitative job insecurity) as identified in this study. Future studies should also focus on the improvement of the reliability measure of POB as it yielded a measurement of 0,69 at Time 1 and 0,63 at Time 2.

Empirical results indicated that at both Time 1 and 2 a positive relationship was found between lack of role clarity and role conflict, quantitative and qualitative role overload and quantitative and qualitative job insecurity. These results support those of international research (Jaskyte, 2005; Maslach, Schaufeli, & Leiter, 2001; Tunc & Kutanis, 2009) in showing that different dimensions of work stress are positively related. The qualitative and quantitative dimensions of both role overload and job insecurity were also strongly related, as previously indicated (Chirumbolo & Areni, 2010; Pienaar et al., 2007).

This study also confirms the strong relationship between neuroticism (negative affect) and general health (measured as ill-health in this study). Findings by Little, Simmons and Nelson (2007) confirm a strong positive relationship between negative affect and ill health. Results also indicated that POB had a strong negative relationship with negative affect and ill health. The negative impact of decreased physical and psychological health as major outcomes of perceived stressors is again highlighted in this study as results from research confirmed a positive correlation between the stress factors and negative affect (see Bolino & Turnley, 2005; Coetzer & Rothmann, 2006; Näswall, Sverke, & Hellgren, 2005; Soylu, 2007) and negative affect and ill-health (Smit, 2008). Only the job stressors of quantitative and qualitative role overload and quantitative job insecurity had a significant negative relationship with POB as Time 1. At Time 2 it was only role clarity and quantitative job insecurity which had a significant negative relationship with POB. Results further indicated that only the job stressors, quantitative and qualitative job insecurity and lack of role clarity hold predictive value with regard to POB (T1) and general health.

Further analysis established that POB (T1) only acted as a partial mediator between job stressors and general health. The negative effect of job stressors will therefore be minimised, but will not disappear totally in the presence of POB.

The **fourth objective** of this study was to conceptualise and investigate the causal relationship and temporal order in the relationship between POB and engagement with a longitudinal survey and cross-lagged research design that tested the cross-lagged effects between two measurements of these constructs.

Although many conceptualisations of engagement exist in the literature, engagement in this study is reflected by vigour, dedication and absorption. It is regarded as an

emerging trend developed from a perspective of positive psychology and reflects a positive, work-related state of well-being or fulfilment where individuals display high levels of energy and strong identification with their work (Bakker, Schaufeli, Leiter, & Taris, 2008; Schaufeli, Salanova, González-Romá, & Bakker, 2002; Seligman & Csikszentmihalyi, 2000).

Results from the research indicated that the vigour subscale at Time 1 and the dedication subscale at both Time 1 and 2 of the engagement construct did not yield acceptable reliability values. Given the fact that previous South African (Coetzee & De Villiers, 2010; Storm & Rothmann, 2003) and international (Hallberg & Schaufeli, 2006; Schaufeli & Bakker, 2004) research obtained acceptable reliability values, the results derived from the current study may be attributed to sample specific characteristics, such as a poor understanding of the questions and the administration of the survey in English, which is not the first language of most participants. As also evident in other research (Salanova, Llorens, & Schaufeli, 2010), the total engagement score, however, yielded very good reliability coefficients at both Time 1 and Time 2, which confirms the usefulness of the Engagement Scale in the South African context.

The hope and optimism facets of POB also did not reach adequate reliability at both Time 1 and 2 when compared to conventional standards. This is also counter to other research which found acceptable levels of internal consistency for the different subscales (Avolio, Avey, & Norman, 2007). The total POB score, however, yielded acceptable reliability coefficients at both Time 1 and Time 2. This result is especially encouraging, because it was obtained in a heterogeneous and diverse South African sample.

The low reliability for both the POB and Engagement Scales may indicate problems with this sample at the current time, but as the collapsed scales of POB and engagement are more acceptable and, this result does not have immediate limitations for the current analysis. More research within the specific organisational context is necessary to improve the understanding of the content and effectiveness of these measurements.

Given the positive nature of the constructs measured, the inter correlations between engagement and dimensions thereof, and POB and dimensions thereof, were significantly positively related at both Time 1 and 2. This finding is in line with other

research evaluating the underlying dimensions of engagement (Salanova et al., 2010) and the individual facets of POB (Youssef & Luthans, 2007), as well as total POB and engagement (Simbula, Guglielmi, & Schaufeli, 2011). Results from this study also confirmed the positive relationship between the aggregate engagement and POB scores.

Results revealed that POB at Time 1 did not predict engagement at Time 2. Strong evidence was found that engagement at Time 1 predicted POB at Time 2. This finding is in line with research which suggests that engagement can facilitate the mobilisation of job and personal resources (Bakker & Demerouti, 2007; Hakanen, Schaufeli, & Ahola, 2008), as the four facets of POB (hope, optimism, self-efficacy and resilience) are regarded as personal resources. Cordery (2007) also found engagement to be a strong predictor of hope, optimism and self-efficacy.

At a time where higher-than-average performance has become a necessity for organisational survival (Avolio & Luthans, 2006) a more balanced approach that take both the positive and negative in consideration and building on strengths and trying to correct weaknesses is needed (Luthans & Youssef, 2007). Human capital is now making an important contribution to ensure a competitive advantage (Luthans, Luthans et al., 2004). The focus therefore on the development and implementation of POB training interventions designed to enhance the overall level of POB could result in performance improvement (Luthans et al., 2010).

6.2 LIMITATIONS

The study was only conducted amongst employees in the services department of a large organisation. The possibility of a sub-culture within the department exists which could have influence the respondents' responses and the findings can therefore not be generalised to other occupational groupings in the particular manufacturing facility. When the total organisation (i.e. all functions) is included, it could enable the researcher to extrapolate the results to the total organisation with a greater amount of certainty. Future research should be extended to other organisations to generalise the results. The results should also be replicated in different organisations and sectors of the South African economy.

It could also be beneficial to determine what the perceived stress outcomes of the different educational levels, race, gender and age groups would look like in the

organisation under investigation if one takes into account the multicultural and diverse society in South Africa. Further analysis is also needed to determine the potential moderating effects of these socio-economic variables on the individual role stressors in the particular organisation and in the South African context at large.

The POB scale's reliability coefficients for Time 1 and 2 were 0,69 and 0,63 respectively and highlight the need for future research. Results reflecting the psychometric properties of the POB construct should be seen as preliminary as they currently reflect a very robust measurement of the construct in the South African context, but much more explorative research could be done. Future research should make provision for contextual circumstances which may moderate the relationships among the study variables which may include language and the socio-economic background.

Although other South African research - which used similar scales - obtained adequate reliability, some of the scales mentioned reflected poor reliability in this research. The majority of respondents use English as a second language. This might have influenced the data due to a lack of understanding of some concepts and words used in the measuring instruments. Further research is necessary to validate the questionnaires for multilingual South African populations in the work place by including more items, or by rewriting the items to improve understanding and in doing so increase the reliability of the scales.

Future studies could also focus on evaluating the data as reflected by specific cultural groups and job levels to test the understanding of the questionnaires as reflected by these groups.

Against the background of previous international and South African research which presented good reliability measures, the low reliability of the subscales of POB and engagement obtained in this study could be seen as a limitation, specifically when feedback is given to management on where and how to address the levels of employees' POB and engagement. It is recommended that further research be undertaken to explore how items can be improved to ensure better understanding in the specific South African context.

Due to the low reliability of the subscales of both the UWES and POB scale, the subscales were not used in the cross-lagged analysis to test the causal relationship and

temporal order in the relationship between POB and engagement. This is recognised as a limitation for the current study and future research could investigate the possibility to extend the model to include all four subscales of both POB and engagement.

The results were exclusively obtained by means of self-report measures which may lead to a problem referred to as “method variance”. Although an appropriate source of data, the exclusive use of self-report measures in validation studies increases the likelihood that at least part of the shared variance between measures can be attributed to method variance (Schaufeli, Enzmann, & Gerault, 1993). Future research may benefit by supplementing the data with more objective measurements from third parties (e.g. 360 degree feedback from peers, supervisors and line managers) to evaluate the impact of the different components of POB more objectively.

Although the causality between some of the variables was tested with a longitudinal study, an important limitation in terms of the effects of the self-development programme is the fact that no control group was used to verify specific findings. Implementing control group(s) would enable the researcher to compare study population parameters and other baseline comparisons over time.

Another limitation is the period over which the gathering of data took place. Due to organisational realities (availability of employees due to various reasons) the time laps for data from Time 1 to Time 2 was 21 months. This means that the longest period from undergoing training to re-evaluation was 21 months (from August 2007 to April 2009) and the shortest period seven months (from September 2008 to April 2009). The period during which the data was collected as well as the differences in time lag could have influenced the employees’ responses, and in doing so the results as well.

Despite the fact that a member of the senior management team together with the researcher opened the training sessions and explained the value of the research for the organisation to the employees and the fact that a unique code was designed to ensure confidentiality and to match questionnaires to reflect the same individual’s responses from Time 1 to Time 2, the response rate of the participants at Time 2 was significantly lower than the response rate at Time 1. A better response rate could have contributed to better results with regards to the reliability of the individual scales, better conclusions from research results could have been made with a greater amount

of certainty which would enable the researcher to give feedback to the management of the organisation of a greater amount of certainty.

Although a negative relation between job satisfaction and turnover intention was again highlighted in this research, the research did not focus on the reasons for the reported levels of turnover intention. Future research could benefit by determining the exact reasons, as intention to leave is a good predictor of actual behaviour.

No evidence could be found that the training programme had a significant contribution to increase job satisfaction and POB with the subsequent lower levels of turnover intention. Some of the training content could have contributed therefore to the higher levels of job satisfaction and POB but no research has been done to verify this. This is recognised as a limitation for this study and more research is needed to develop and deliver a training programme which is specifically aimed at enhancing POB in the organisation. The researcher also recognises the fact that many other variables which have not been accounted for in this research could have had an influence on the results and more research is therefore necessary to verify the results.

Research evidence suggests that higher levels of POB could contribute to higher levels of job performance (Luthans, Avey, Avolio, & Peterson, 2010). Job performance was however not measured in this study and no conclusion with regards to the relationship between job performance and POB could therefore be made. Future research could make a valuable contribution in determining this relationship.

The final sample size of longitudinal participants was relatively small and inhibited the researcher from testing a more complex model with, for example, cross-lagged effects at the sub-dimensional level of engagement and POB. The reliability of these scales was a further limitation in this regard, although the number of respondents could have also played a role.

6.3 RECOMMENDATIONS

6.3.1 Recommendations to the organisation

The strong negative association between job satisfaction and turnover intention found in this study again confirms the importance of managers and leaders who must ensure high levels of job satisfaction whereby turnover intention could be managed. Management should therefore focus on how dissatisfaction mitigates employee

turnover. A typical intervention could be to focus on training and suitable career development practices, as recommended by Chen, Chang and Yeh (2004).

As previously mentioned, no evidence could be found that the training programme had a significant contribution to increase job satisfaction and POB with subsequent lower levels of turnover intention. To address the training programme's shortcoming, specific training and development interventions, based on the individual facets of POB (hope, optimism, self-efficacy and resilience), should be focused on. Individual needs should be investigated and implemented in the organisation, as empirical evidence indicates that the POB capacities can be developed in relatively short, but highly focused training interventions (Luthans, Avey, Avolio, Norman, & Combs, 2006; Luthans, Avey, & Patera, 2008). Employees who receive effective and adequate training develop positive feelings toward their employers (Choo & Bowley, 2007).

Social support by the supervisor is a significant factor that needs to be focused on by the management of the organisation as it is regarded as a valuable job resource (Luthans et al., 2008) to enhance job satisfaction. The positive effect of a coaching approach as a form of supervisor support to enhance job satisfaction might also be explored further and introduced in the organisation under investigation. Coaching would also address the specific individual requirements to enhance the components of POB, in line with empirical evidence that the POB capacities can be developed in relative short, but highly focused training interventions (Avey et al., 2009; Luthans, Avey, Avolio, Norman, & Combs, 2006).

Although results pointed out that POB was only a partial mediator between the job stressors and general health, the organisation can still benefit by implementing specific training interventions to enhance POB, as the enhancement of employees' overall level of POB is theoretically and practically possible and should result in performance improvement (Luthans, Avey, Avolio, & Peterson, 2010) and improved well-being (Avey, Wernsing, & Mhatre, 2011). Management should also focus on increasing POB to buffer the impact of job stressors on health, as the health of the workforce is also related to job performance (Musich, 2009). It is important, however, to analyse how specific training interventions may affect both the individual's appraisal of the event and the actual work stress experienced by participants (Avey et al., 2009).

Management should focus on the development and implementation of stress management initiatives aimed at enhancing the components of POB, as research evidence has shown that the enhancement of the positive resources in its aggregate form (POB) may reduce employees' perception of the symptoms of stress and improve well-being (Avey et al., 2009; Avey, Wernsing, & Mhatre, 2011). One such area to focus on is the development of specific coping strategies aligned to the specific business context to improve the fit between the employee and the workplace, or to deal more effectively with experienced stress (Kompier & Kristensen, 2001). The availability of job resources also protect against the depleting effects of stress (Hobfoll (1989) and management should therefore also focus on having sufficient job resources available to employees to alleviate the negative effects of the perceived sources of job stress.

Although engagement is an important indicator of well-being for both employees and organisations, many facets of engagement remain unanswered and predictors and outcomes of work engagement needs to further explored (Bakker & Demerouti, 2008). The objective measurement and implementation of initiatives to facilitate high levels of engagement is thus important as it has proved to be a predictor of POB.

As pointed out by Luthans et al. (2011) research has indicated a positive relationship between POB and desired employee behaviour and performance and is now regarded as a competitive edge in which organisation can invest and develop. POB can however not function in isolation and needs the support of management. A supportive organisational climate is essential (Luthans, 2008) to ensure sustainable growth and performance and management should therefore investigate and implement applicable training interventions and support systems (such as mentorship and coaching) in the specific organisational context to ensure a supportive climate.

6.3.2 Recommendations for future research

Future research should replicate the findings reported here and combine all four constructs (hope, optimism, self-efficacy and resiliency) to determine if one single higher order construct in the South African multicultural context could be developed, as is also the case with Psychological Capital (Luthans et al., 2007). Follow-up research in the light of the optimism construct (Revised Life Orientation Test) which yielded two factors in this sample, as opposed to other research which reported a one-

factor structure (Harju & Bolen, 1998; Scheier, Carver, & Bridges, 1994), should be undertaken to evaluate the factorial validity of this scale in South Africa. Future research could also investigate other similar positive constructs and its effects on personal and organisational performance and outcomes.

A major task remains in establishing the equivalence of the individual scales and a composite scale of POB for South African employees. The POB scale did not reach satisfactory reliability and more research is necessary to increase the reliability of the measuring instrument in the South African context as it currently reflects a very robust measurement of the construct. More items could be used in future research. The rewriting of the items to ensure better understanding of the questions could also be investigated as a method to achieve better reliability of the measuring instrument.

Youssef and Luthans (2007) indicate that the positive psychological capacities in POB namely, hope, optimism and resiliency contributed to higher levels of job satisfaction. More research is necessary to determine the contribution of the four POB facets with regards to job satisfaction and subsequent turnover intention in the South African context.

No research could be found which substantiates the moderating effect of POB in the relationship between turnover intention and job satisfaction. Future research focusing on this would add value to the field of organisational behaviour.

Job satisfaction is regarded as a highly contextualized construct (Youssef & Luthans, 2007). Although it was not the intention of this study to measure the levels of job satisfaction and turnover intention per job level and job category future research reflecting the levels of job satisfaction and turnover intention could supply valuable information in terms of where to focus organisational interventions to address job satisfaction and intention to leave.

Future research could utilise a stratified random sampling technique to make provision for the diversity of the South African organisational context in terms of race, gender, job levels, education levels and language proficiency which could improve the representivity of the South African working population in the research data.

Although longitudinal research was used in this study, data was collected at two time points only. It is recommended that data be collected over multiple time points to

evaluate the sustained impact any intervention (e.g. training, team building and organisational restructuring) could have. Future research could also include an experimental control group to assist in comparisons over time.

All data in this research was collected by means of paper-and-pencil questionnaires. Only quantitative data was therefore obtained and the collection of qualitative information in future research would certainly add value to the understanding of the effects of the variables in the organisation evaluated in this research. The personalised meaning of phenomena such as hope, optimism, resilience and self-esteem across the diverse South African populace could specifically prove interesting.

In the light of growing research evidence which suggests that higher levels of POB could contribute to higher levels of job performance (Luthans, Avey, Avolio, & Peterson, 2010) future research will add value by determining the relationship between job performance and POB. In addition future research could also focus on how each component of POB and combination of components will impact on job performance in both the short and over time. The significance of the relationship between job performance and POB could also be tested per job level and function.

REFERENCES

- Antoniou, A. S. G., Davidson, M. J., & Cooper, C. L. (2003). Occupational stress, job satisfaction and health state in male and female junior hospital doctors in Greece. *Journal of Managerial Psychology, 18*(6), 592-621.
- Avolio, B. J., & Luthans, F. (2006). *The high impact leader: Moments matter in accelerating authentic leadership development*. New York: McGraw-Hill.
- Avey, J. B., Wernsing, T. S., & Mhatre, K. H. (2011). A longitudinal analysis of positive psychological constructs and emotions on stress, anxiety and well-being. *Journal of Leadership and Organisational Studies, 20*(10), 1-13.
- Avey, J. B., Luthans, F., & Jensen, S. M. (2009). Psychological capital: A positive resource for combating employee stress and turnover. *Human Resource Management, 48*(5), 677-693.
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology, 22*, 309-328.
- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International, 13*(3), 209-223.
- Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2003). Dual processes at work in a call centre: An application of the job demands-resources model. *European Journal of Work and Organizational Psychology, 12*, 393-417.
- Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work and Stress, 22*(3), 187-200.
- Beehr, T. (2002). An organizational psychology meta-model of occupational stress. In J. Barling & C. L. Cooper (Eds.). *The SAGE Handbook of Organizational Behavior. Vol.1. Micro Approaches* (pp. 498-518). London: Sage.
- Beehr, T. A., Walsh, T., & Taber, T. D. (1976). Relationship of stress to individually and organizationally valued states: Higher order needs as a moderator. *Journal of Applied Psychology, 61*(1), 41-47.

- Bigliardi, B., Petroni, A., & Dormio, A. I. (2005). Organizational, socialization, career aspirations and turnover intentions among design engineers. *Leadership and Organization Development Journal*, 26, 424-441.
- Bolino, M. C., & Turnley, W. H. (2005). The personal costs of citizenship behavior: The relationship between individual initiative and role overload, job stress and work-family conflict. *Journal of Applied Psychology*, 90(4), 740-748.
- Botha, E. (2010). *Job Insecurity and Wellness of employees in a Co-operation*. Unpublished doctoral thesis, North-West University, Vanderbijlpark.
- Carr, A. (2004). *Positive psychology. The science of happiness and human strengths*. New York: Brunner-Routledge.
- Chen, T., Chang, P., & Yeh, C. (2004). A study of career needs, career development programmes, job satisfaction and the turnover intentions of R&D personnel. *Career Development International*, 9(4), 424-437.
- Chirumbolo, A., & Areni, A. (2010). Job insecurity influence on job performance and mental health: Testing the moderating effect of the need for closure. *Economic and Industrial Democracy*, 31(2), 195-214.
- Choo, S., & Bowley, C. (2007). Using training and development to affect job satisfaction within franchising. *Journal of Small Business and Enterprise Development*, 14(2), 339-352.
- Coetzee, M., & de Villiers, M. (2010). Sources of job stress, work engagement and career orientations of employees in a South African financial institution. *Southern African Business Review*, 14(1), 27-57.
- Coetzer, W. J., & Rothmann, S. (2006). Occupational stress of employees in an insurance company. *South African Journal of Business Management*, 37(3), 29-39.
- Cooper, C. L. (2002). *Theories of Organizational Stress*. Oxford: Oxford University Press.
- Cooper, C. L., & Cartwright, S. (1994). Healthy mind healthy organisation: A proactive approach to occupational stress. *Human Relations*, 47, 455-471.

- Cooper, C. L., Luikkonen, P., & Cartwright, S. (1996). *Stress prevention in the workplace*. Dublin: European Foundation for the Improvement of Living and Work Conditions.
- Cooper, C. L., & Dewe, P. (2004). *Stress: A brief history*. Oxford: Wiley-Blackwell.
- Cordery, J. (2007). *Accentuating the positive. Building hope, optimism, confidence and resilience in organisations* (Survey results). Wembley, Western Australia: Australian Institute of Management.
- Dana, K., & Griffin, R. W. (1999). Health and well-being in the workplace: A review and synthesis of the literature. *Journal of Management*, 25, 357-384.
- Decker, F. H., Harris-Kojetin, L. D., & Bercovitz, A. (2009). Intrinsic job satisfaction, overall satisfaction, and intention to leave the job among nursing assistants in nursing homes. *Gerontologist*, 49(5), 596-610.
- De Witte, H. (1999). Job insecurity and psychological well-being: Review of the literature and exploration of some unresolved issues. *European Journal of Work and Organisational Psychology*, 8(2), 155-177.
- De Witte, H. (2005). Job insecurity: Review of the international literature on definitions, prevalence, antecedents and consequences. *SA Journal of Industrial Psychology*, 31 (4), 1-6.
- Di Martino, V. (1992). Occupational Stress: A preventive approach. *ILO Conditions of Work Digest*, 11/2, (pp. 3-21) Geneva: ILO.
- Firth, L., Mellor, D. J., Moore, K. A., & Loquet, C. (2004). How can managers reduce employee intention to quit? *Journal of Managerial Psychology*, 19(2), 170-187.
- Gunthert, K. C., Cohen, L. H., & Armeli, S. (1999). The role of neuroticism in daily stress and coping. *Journal of Personality and Social Psychology*, 77, 1087-1100.
- Hakanen, J. J., Schaufeli, W. B., & Ahola, K. (2008). The job demands-resources model: A three-year cross-lagged study of burnout, depression, commitment and work engagement. *Work and Stress*, 22, 224-241.
- Hallberg, U. E., & Schaufeli, W. B. (2006). "Same Same" but different? Can work engagement be discriminated from job involvement and organisational commitment? *European Psychologist*, 11(2), 119-127.

- Harju, B., & Bolen, L. M. (1998). The effects of optimism on coping and perceived quality of life of college students. *Journal of Social Behavior and Personality*, *13*, 185-200.
- Hartline, M. D., & Ferrell, O. C. (1996). The management of customer-contact service employees: An empirical investigation. *Journal of Marketing*, *60*(4), 52-69.
- Hellgren, J., Sverke, M., & Isaksson, K. (1999). A two-dimensional approach to job insecurity: consequences for employee attitudes and well-being. *European Journal of Work and Organisational Psychology*, *8*(2), 179-195.
- Houkes, I., Janssen, P. P. M., De Jonge, J., & Nijhuis, F. J. N. (2001). Specific relationships between work characteristics and intrinsic work motivation, burnout and turnover intention: a multi-sample analysis. *European Journal of Work and Organizational Psychology*, *10*, 1-23.
- Jaskyte, A. (2005). The impact of organizational socialization tactics on role ambiguity and role conflict of newly hired social workers. *Administration in Social Work*, *29*(4), 69-87.
- Jex, S. M. (1998). *Stress and job performance: Theory, research, and implications for managerial practice*. London: Sage.
- Kompier, A. J., & Kristensen, T. S. (2001). Organisational work stress interventions in a theoretical, methodological and practical context. In J. Dunham (Ed.), *Stress in the workplace: Past, present and future* (pp. 119-133). London: Whurr.
- Lambert, V. A., & Lambert, C. E. (2001). Literature review of role stress/strain on nurses: an international perspective. *Nursing and Health Sciences*, *3*, 161-172.
- Lang, J., Thomas, J. L., Bliese P. D., & Adler, A. B. (2007). Job demands and job performance: The mediating effect of psychological and physical strain and the moderating effect of role clarity. *Journal of Occupational Health Psychology*, *12*(2), 116-124.
- Levi, L. (2002). Preface: Stress in organisations - Theoretical and empirical approaches. In C. L. Cooper (Ed.), *Theories of Organizational Stress* (pp. v-xii). Oxford: Oxford University Press.

- Little, L. M., Simmons, B. L., & Nelson, D. L. (2007). Health among leaders: Positive and negative affect, engagement and burnout, forgiveness and revenge. *Journal of Management Studies*, 44, 243-260.
- Lu, L. (1999). Work motivation, job stress and employee's well-being. *Journal of Applied Management Studies*, 8, 61-72.
- Luthans, F. (2002a). Positive organizational behavior: Developing and managing psychological strengths. *Academy of Management Executive*, 16(1), 57-72.
- Luthans, F. (2002b). The need for and meaning of positive organizational behavior. *Journal of Organisational Behavior*, 23, 695-706.
- Luthans, F., Avey, J. B., Avolio, B. J., Norman, S. M., & Combs, G. J. (2006). Psychological capital development: Toward a micro-intervention. *Journal of Organizational Behavior*, 27, 387-393.
- Luthans, F., Avey, J. B., Avolio, B. J., & Peterson, S. J. (2010). The development and resulting performance impact of positive psychological capital. *Human Resource Development Quarterly*, 21(1), 41-67.
- Luthans, F., Avey, J. B., Clapp-Smith, R., & Li, W. (2008). More evidence on the value of Chinese workers' psychological capital: A potentially unlimited competitive resource? *The International Journal of Human Resource Management*, 19(5), 818-827.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60, 541-572.
- Luthans, F., Avey, J. B., & Patera, J. L. (2008). Experimental analysis of a web-based training intervention to develop positive psychological capital. *Academy of Management Learning and Education*, 7, 209-221.
- Luthans, F., Avolio, B. J., Walumba, F. O., & Li, W. (2005). The psychological capital of Chinese workers: Exploring the relationship with performance. *Management and Organization Review*, 1(2), 249-271.
- Luthans, F., & Jensen, S. M. (2002). Hope: A new positive strength for human resource development. *Human Resource Development Review*, 1(3), 304-322.

- Luthans, F., Luthans, K. W., & Luthans, B. C. (2004). Positive psychological capital: Beyond human and social capital. *Business Horizons*, 47(1), 45-50.
- Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008). The mediating role of psychological capital in the supportive organizational climate-employee performance relationship. *Journal of Organizational Behavior*, 29, 219-238.
- Luthans, F., Van Wyk, R., & Walumba, F. O. (2004). Recognition and development of hope for South African organisational leaders. *The Leadership and Organizational Development Journal*, 25(6), 512-527.
- Luthans, F., & Youssef, C. M. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage. *Organizational Dynamics*, 33(2), 143-160.
- Luthans, F., & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of Management*, 33(3), 321-349.
- Magnus, K., Diener, E., Fujita, F., & Pavot, W. (1993). Extraversion and neuroticism as predictors of objective life events: a longitudinal analysis. *Journal of Personality and Social Psychology*, 65, 1046-1053.
- Mak, B., & Sockel, H. (1999). A confirmatory factor analysis of employee motivation and retention. *Information and Management*, 38, 265-276.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422.
- Moore, K. A. (2001). Hospital restructuring: impact on nurses mediated by social support and a perception of challenge. *Journal of Health and Human Services Administration*, 23(4), 490-517.
- Mount, M. K., & Barrick, M. R. (1995). The Big Five personality dimensions: Implications for research and practice in human resource management. In G. R. Ferris (Ed.), *Research in personel and human resource management* (pp. 153-200). Greenwich, CT: JAI Press.
- Murphy, L. R. (1995). Managing job stress-An employee assistance/human resource management partnership. *Personnel Review*, 24(1), 41-50.

- Näswall, K., Sverke, M., & Hellgren, J. (2005). The moderating role of personality characteristics on the relationship between job insecurity and strain. *Work and Stress, 19*(1), 37-49.
- Peterson, C. (2000). The future of optimism. *American Psychologist, 55*(1), 44-55.
- Pienaar, J., Sieberhagen, C. F., & Mostert, K. (2007). Investigating turnover intentions by role overload, job satisfaction and social support moderation. *SA Journal of Industrial Psychology, 33*(2), 62-67.
- Rothmann, S., & Coetzer, E. P. (2002). The relationship between personality dimensions and job satisfaction. *Business Dynamics, 11*(1), 29-42.
- Rust, R., Stewart, G. L., Miller, H., & Pielack, D. (1996). The satisfaction and retention of frontline employees: a customer satisfaction measurement approach. *International Journal of Service Industry Management, 7*(50), 62-80.
- Ryff, C. D., & Singer, B. (2000). Interpersonal Flourishing: A positive health agenda for the new millennium. *Personality and Social Psychology Review, 4*(1), 30-44.
- Salanova, M., Llorens, S., & Schaufeli, W. B. (2010). “Yes, I can feel good, and I just do it!” On gain cycles and spirals of efficacy beliefs, affect and engagement. *Journal of Applied Psychology, 60*(2), 255-285.
- Sawyer, J. (1992). Goal process clarity: Specification of multiple constructs of role ambiguity and structural equation model of their antecedents and consequences. *Journal of Applied Psychology, 77*, 130-142.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organizational Behaviour, 25*, 293-315.
- Schaufeli, W. B., Enzmann, D., & Girault, N. (1993). Measurement of burnout: A review. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 199-215). Washington, DC: Taylor and Francis.
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two-sample confirmatory factor analytic approach. *Journal of Happiness Studies, 3*, 71-93.

- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A re-evaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, *67*, 1063-1078.
- Seligman, M. E. P. (1998). *Learned Optimism*. New York: Free Press.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *55*(1), 5-14.
- Simbula, S., Guglielmi, D., & Schaufeli, W. B. (2011). A three-wave study of job resources, self-efficacy and work engagement among Italian school teachers. *European Journal of work and Organizational Psychology*, *20*(3), 285-304.
- Snyder, C. R. (2000). *Handbook of Hope: Theory, measures, and implications*. San Diego, CA: Academic Press.
- Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry*, *13*, 249-275.
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, *60*(4), 570-585.
- Snyder, C. R., Irving, L. M., & Anderson, J. R. (1991). Hope and Health: Measuring the will and the ways. In C. R. Snyder & D. R. Forsyth (Eds.), *The handbook of social and clinical psychology: The health perspective* (pp. 285-307). Elmsford, NY: Pergamon Press.
- Snyder, C. R., Sympson, S. C., Ybasco, F. C., Borders, T. F., Babyak, M. A., & Higgins, R. L. (1996). Development and validation of the State Hope Scale. *Journal of Personality and Social Psychology*, *70*(2), 321-335.
- Snyder, C. R., Rand, K. L., & Sigmon, D. R. (2002). Hope theory. A member of the positive psychology family. In C. R. Snyder & S. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 257-276). Oxford: Oxford University Press.
- Smit, S. (2008). *Work wellness in the chemical industry*. Unpublished doctoral thesis, North-West University, Potchefstroom.

- Soylu, A. (2007, October). *Do foreign workers experience more job-related stress than U.S. workers?* Paper presented at the 50th annual meeting of the Midwest Academy of Management, Kansas City.
- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: a meta-analysis. *Psychological Bulletin*, *124*, 240-261.
- Sverke, M., Hellgren, J., & Öhrming, J. (1999). Organizational restructuring and health care work: A quasi-experimental study. In P. M. le Blanc, M. C. W. Peters, A. Büssing, & W. B. Schaufeli (Eds.), *Organizational psychology and health care: European contributions* (pp. 15-32). München: Rainer Hampp Verlag.
- Sverke, M., & Hellgren, J. (2002). The nature of job insecurity: Understanding employment uncertainty on the brink of a new millennium. *Applied Psychology: An International Review*, *51*(1), 23-42.
- Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organisational commitment, turnover intention, and turnover: Path analyses based on meta-analytical findings. *Personnel Psychology*, *46*, 259-293.
- Thiagarajan, P., Chakrabarty, S., & Taylor, R. D. (2006). A confirmatory factor analysis of Reilly's Role Overload Scale. *Educational Psychological Measurement*, *66*(4), 657-666.
- Trimble, D. E. (2006). Organisational commitment, job satisfaction, and turnover intention of missionaries. *Journal of Psychology and Theology*, *34*(4), 349-360.
- Storm, K., & Rothmann, S. (2003). A psychometric analysis of the Utrecht Work Engagement Scale in the South African Police Service. *South African Journal of Industrial Psychology*, *29*(4), 62-70.
- Tunc, T., & Kutanis, R. O. (2009). Role conflict, role ambiguity, and burnout in nurses and physicians at a university hospital in Turkey. *Nursing and Health Sciences*, *11*, 410-416.
- Van Dick, R., Christ, O., Stellmacher, J., Waner, U., Ahlswede, O., Grubba, C., Hauptmeier, M., Höhfeld, C., Moltzen, K., & Tissington, P. A. (2004). Should I stay or should I go? Explaining turnover intentions with organisational identification and job satisfaction. *British Journal of Management*, *15*, 351-360.

- Velting, D. M. (1999). Personality and negative expectancies: trait structure of the Beck hopelessness scale. *Personality and Individual Differences, 26*, 913-921.
- Wickramasinghe, V. (2010). Work-related dimensions and Job Stress: The moderating effect of coping strategies. *Stress and Health, 26*, 417-429.
- Youssef, C. M., & Luthans, F. (2007). Positive organisational behavior in the workplace. The impact of hope, optimism and resilience. *Journal of Management, 33*(5), 774-800.
- Zeithaml, V. A., & Bitner, M. J. (2000). *Services Marketing Integrating Customer across the firm*, (2nd ed.). London: McGraw-Hill.
- Zimmerman, R. D., & Darnold, T. C. (2009). The impact of job performance on employee turnover intentions and the voluntary turnover process; a meta-analysis and path model. *Personnel Review, 38*(2), 142-158.