PERCEIVED ORGANISATIONAL SUPPORT AND WELL-BEING: THE MEDIATING EFFECT OF PSYCHOLOGICAL CAPITAL

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PERCEIVED ORGANISATIONAL SUPPORT AND WELL-BEING:

THE MEDIATING EFFECT OF PSYCHOLOGICAL CAPITAL

By

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DECLARATION:

In accordance with Rule G5.6.3, I hereby declare that the above-mentioned treatise/ dissertation/ thesis is my own work and that it has not previously been submitted for assessment to another University or for another qualification.

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ABSTRACT

The field of Positive Psychology focuses on the strengths and positive capacities of human beings and investigates how mental well-being can be actively enhanced. Analysis of those factors influencing employee well-being constitutes a valuable approach for research purposes. Based on the Job Demands-Resources Theory and the Conservation of Resources Theory, it was assumed that Perceived Organisational Support (POS) and the higher-order construct of Psychological Capital (PsyCap), consisting of the facets of self-efficacy, hope, optimism, and resilience, are all resources that can contribute to a sense of greater well-being for employees. It was proposed that POS fuels the capacity of PsyCap, which can then result in an accumulation of resources leading to enhanced well-being. It was therefore hypothesised that the positive capacity of PsyCap would mediate the relationship between POS and well-being. A non-experimental, cross-sectional design using convenience and snowball sampling via personal contacts and social media was utilised. A research sample of 159 South African participants who completed an online survey was thus recruited. The respective constructs were assessed by means of the Survey of Perceived Organisational Support (SPOS), the Psychological Capital Questionnaire (PCQ-24), and the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). All measures revealed excellent reliability. The SPOS and the WEMWBS were found to be valid after minor construct modifications had been made. The four-factor structure of the PCQ-24 could not be validated due to high inter-correlations between the subscales. Each subscale, however, was shown to be valid. The results of the statistical analysis indicate that POS, PsyCap and well-being are positively correlated with each other. Hierarchical regression analyses, structural equation modelling, and bootstrapping revealed that PsyCap fully mediates the relationship between POS and well-being. This implies that organisations can contribute to a greater sense of well-being in their employees by systematically enhancing their PsyCap through the offer of support structures.

Keywords: Positive Psychology; Positive Organisational Behaviour; Perceived Organisational Support; Psychological Capital; Well-being.

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ACRONYMS AND ABBREVIATIONS

CFA - Confirmatory Factor Analysis

CFI - Comparative Fit Index

CMV - Common Method Variance

COR - Conservation of Resources

Df - Degrees of Freedom

EFA - Exploratory Factor Analysis

HR - Human Resource

ILO - International Labour Organization

JD-R - Job Demands-Resources

LMX - Leader-Member-Exchange

OCB - Organisational Citizenship Behaviour

PCQ - Psychological Capital Questionnaire

POB - Positive Organisational Behaviour

POS - Perceived Organisational Support

PsyCap - Psychological Capital

RMSEA - Root Mean Square of Error Approximation

SCT - Social Cognitive Theory

SEM - Structural Equation Modelling

SPOS - Survey of Perceived Organizational Support

SRMR - Standardised Root Mean Square Residual

WEMWBS - Warwick-Edinburgh Mental Well-Being Scale

CHAPTER ONE
INTRODUCTION

1.1.   INTRODUCTION

The discipline of Psychology has been driven by research on mental and behavioural dysfunctions for many decades, which has also influenced the study of organisational behaviour with a focus on the negative aspects of work, such as stress, burnout, and counterproductive behaviour (Youssef-Morgan & Luthans, 2015). Although the investigation and treatment of psychological illness and dysfunctional behaviour are of great importance, it does not provide a clear understanding of the circumstances that enable humans to function on an optimal level, so as to flourish and deliver excellent performances (Youssef-Morgan & Luthans, 2015). The field of Positive Psychology addresses this issue in a dialectical manner. For example, Positive Psychology does not only emphasise positivity and its impact on well-being but also investigates the complex interplay of positivity and negativity with regards to growth and development (Lomas & Ivtzan, 2016).

The International Labour Organization [ILO] (2016) declared work-related stress as a global health problem. To date, research has mainly focused on the negative aspects of work and how their reduction impacts the well-being of employees. The reduction of negativity is, however, not equal to the enhancement of positivity (Achor, 2011). A positive work environment and positivity at work extend the resources of employees and do not only prevent stress, but also actively promote well-being (Bono, Glomb, Shen, Kim, & Koch, 2013). The perspectives from Positive Psychology and Positive Organisational Behaviour (POB), especially the construct of Psychological Capital (PsyCap), offer a foundation to add capacities to employees' resource repertoires and to promote a mindset that enables them to flourish and excel in the workplace (Froman, 2010; Youssef-Morgan & Luthans, 2015). PsyCap, its promising relationship to well-being, how organisational support is related to it and why employee well-being is important for an organisation will now be discussed.

1.2.   POSITIVE PSYCHOLOGY

Research in Psychology has mainly focused on mental illness and interventions that treat these negative states (Youssef-Morgan & Luthans, 2015). The absence or reduction of negative psychological states, however, cannot be equated with being healthy (Achor, 2011). The field of Positive Psychology aims to promote positive mental states through approaches that emphasise strengths, a positive mindset, and a skill set that enables individuals to thrive and be healthy (Bolier et al., 2013). A common belief is that success will lead to happiness. However, the Positive Psychology notion has created a new paradigm holding that rather the reverse is true, namely that happiness will lead to success (Luthans & Youssef-Morgan, 2017). This insight is called the Copernican Effect, a reference to Copernicus finding that the earth revolves around the sun and not the other way around, which was a common assumption at that time (Luthans & Youssef-Morgan, 2017). Hence if the Copernican Effect holds to be true, it will be valuable for organisations to focus on positivity in order to be successful.

The concept of Positive Psychology is not a new one, and therefore it is important to outline how the field has developed. The roots of Positive Psychology go back to the early 20th century. William James raised in his presidential address, entitled "The Energies of Men" (James, 1907, p. 321-332) to the American Philosophical Association, the issue of why some people are more energised than others and what it is that helps them to perform at their optimal level. According to James (1907, p. 331), "the human individual thus lives usually far within his limits; he possesses powers of various sorts which he habitually fails to use. He energizes below his maximum and behaves below his optimum". Although this was a very modern perspective at the time, James followed a research approach that was lacking in objectivity and would not be considered properly scientific today (Rathunde, 2001). Abraham Maslow (1954, as cited in Froh, 2004) was the first person who coined the term Positive Psychology. He criticised the way in which psychological research has had tended to focus mainly on negative phenomena such as mental illness, but had

neglected to investigate how individuals reach their full potential (Froh, 2004).

A modern pioneer of Positive Psychology is Martin Seligman. According to Seligman and Csikszentmihalyi (2000, p. 5), "the aim of Positive Psychology is to begin to catalyze a change in the focus of psychology from preoccupation only with repairing the worst things in life to also building positive qualities". Although their idea is similar to the perspectives of James and Maslow, Seligman and Csikszentmihalyi clearly distance themselves from a humanistic psychology perspective because of its unscientific research methods (Froh, 2004).

The field of Positive Psychology today is committed to conducting research using scientific methods. Since Seligman's and Csikszentmihalyi's (2000) call encouraging scholars to investigate the positive side of the human psyche, interest and publications in Positive Psychology have grown rapidly (Donaldson, Dollwet, & Rao, 2015). Although Positive Psychology has been criticised for only emphasising positive qualities and states, it should be borne in mind that well-being and flourishing are of a dialectical nature and are rather the product of both positive and negative experiences. That is, they are not merely a sole accumulation of positive events (Lomas & Ivtzan, 2016).

When applied to the workplace and organisations, Positive Psychology aims to identify what it is that helps individuals to perform at an excellent level and highlights processes that enable people to show excellence in their work situations (Youssef-Morgan & Luthans, 2015). Positive Organisational Behaviour (POB) is thus a construct that encompasses strengths and positive psychological capacities, which are relevant to the workplace. POB is now subject to further elaboration.

1.3. POSITIVE ORGANISATIONAL BEHAVIOUR

POB is defined as "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace" (Luthans, 2002, p. 59).

The studies of POB were stimulated by Positive Psychology and therefore are aligned with Positive Psychology's aspirations to be based on sound theory and reliable research methodology (Luthans, Youssef-Morgan, & Avolio, 2015). A psychological capacity will only meet the POB inclusion criteria if it is backed by well-founded research, is measurable in a valid manner, is open to development and has a positive impact on work performance (Luthans et al., 2015).

The research on POB aims to investigate how strengths and positive psychological states influence well-being and performance and how concepts like self-efficacy, optimism, hope, resilience and other such positive resources facilitate coping in organisational environments (Bakker & Schaufeli, 2008). The emerging significance of both Positive Psychology and POB has inspired scholars to develop positive constructs that meet the POB inclusion criteria and that enhance well-being in employees, as well as improve performance and productivity. A positive construct that meets the POB's inclusion criteria of being research-based, measurable and has a capacity for being developed is the construct of PsyCap (Luthans et al., 2015). PsyCap's characteristics and the positive constructs of Perceived Organisational Support and well-being will be defined in the next section.

1.4. DEFINITION OF CONSTRUCTS

The definitions of the three positive constructs of PsyCap, Perceived Organisational Support, and well-being, which are the variables of interest in the present research, will be given in the following sections.

1.4.1. Psychological Capital

PsyCap is referred to as a person's positive psychological state of development. It consists of the facets of self-efficacy, hope, optimism and resilience (Luthans et al., 2015). Each of PsyCap's capabilities shows positive effects on health and work-related outcomes (Alarcon, Bowling, & Khazon, 2013; Fida, Paciello, Tramontano, Barbaranelli, & Farnese, 2015; Youssef & Luthans, 2007). It is seen as a higher-order construct which states that the facets of self-efficacy, hope, optimism and resilience together have strong synergistic effects as they then have greater impact with regards to task and goal accomplishment than when each of the constituent facets is on its own (Luthans, Avolio, Avey, & Norman, 2007). Moreover, PsyCap is a state-like construct, which implies that it is open to change, in opposition to trait-like constructs that are more stable (Luthans et al., 2015). Each of PsyCap's facets will be outlined below.

Self-efficacy refers to an individual's belief that he or she is able to execute tasks successfully (Bandura, 1982). Highly efficacious individuals strongly believe that they will be able to achieve their goals. This works like a self-fulfilling prophecy which allows people to behave in ways that are aligned with their expectations (Spector, 2012). According to Snyder (2002), hope is a positive state that makes use of pathways and self-directed thinking in order to accomplish goals. The use of pathways refers to the instrumental part of goal accomplishment, whereas agency relates to an individual's motivation or willpower to pursue a particular goal. Optimism is inherent in individuals who "expect that good things will happen to them" (Carver, Scheier & Segerstrom, 2010, p. 879). In addition, optimists have a positive attitude that enables them to see challenges as opportunities and as chances to pursue positive change (Schneider, 2001). Resilience is a widely discussed construct with many definitions. A common characteristic among these definitions is that a person must show growth or a successful adaptation in the face of adversity (Britt, Shen, Sinclair, Grossman, & Klieger, 2016) Resilience allows an employee to recover and bounce back from adversities, as well as to learn and grow from

challenging experiences (Luthans et al., 2015).

PsyCap can thus be a powerful resource that assists employees to deal with stressful events, have a positive outlook on life, and develop a mindset that facilitates task and goal accomplishment. Furthermore, PsyCap is a capacity which can be developed within the individual. It is a variable that deserves more attention by organisations who aim to care for their employees' well-being.

1.4.2. Perceived Organisational Support

Perceived organisational support (POS) refers to the perception of employees that their organisation is concerned about their well-being and values their work (Cullen, Edwards, Casper, & Gue, 2014; Eisenberger, Huntington, Hutchison, & Sowa, 1986). On the one hand, POS refers to aspects which include recognition and rewards in order to express appreciation for good employee performance. On the other hand, POS can also be seen as the organisation's effort to contribute to their employees' socio-emotional well-being. It often encompasses the employees' perception of the kinds of organisational policies and HR practices that facilitate family care or time off due to personal circumstances that place strain on employees (Worley, Fuqua, & Hellman, 2009).

Multiple entities of the organisation, such as supervisors, act as representatives of the organisation and their behaviour and expressed support contribute to the employees' perceptions of organisational support (Eisenberger et al., 2014; Stinglhamber, Caesens, Clark, & Eisenberger, 2016).

1.4.3. Well-being

Well-being has become the main research area of many Positive Psychology scholars (Linley, Maltby, Wood, Osborne, & Hurling, 2009). Researchers have carried out studies with different approaches in order to define well-being (Culbertson, Fullagar, & Mills, 2010; Waterman, Schwartz, & Conti, 2008). For example, it was proposed that well-being can be differentiated in terms of

hedonic and eudaimonic well-being. Hedonic well-being is considered to reflect feelings of happiness, which contain the experience of positive affect and pleasure (Culbertson et al., 2010). Eudaimonic well-being, on the other hand, refers to the factors that motivate individuals to strive towards their full potential (Waterman et al., 2008).

Although the conceptualisation of hedonic and eudaimonic well-being is popular among researchers, there remain concerns as to whether they are distinct and separate constructs because of high correlations between hedonia and eudaimonia (Gallagher, Lopez, & Preacher, 2009; Linley et al., 2009). Recent research indicates that hedonic and eudaimonic well-being may be regarded as one higher-order well-being factor (Disabato, Goodman, Kashdan, Short, & Jarden, 2016; Longo, Coyne, Joseph, & Gustavsson, 2016). An individual's well-being is evidently relevant to the workplace and should be in the interest of each organisation.

The positive capacity of PsyCap, the meaning of POS, and the construct of well-being have thus been outlined. In the following section, the relationships between these concepts will be discussed.

1.5. LINKING PERCEIVED ORGANISATIONAL SUPPORT, PSYCHOLOGICAL CAPITAL AND WELL-BEING

According to the JD-R Theory, there is an interaction between job demands, job resources and personal resources. Demands initiate health impairment processes and resources fuel motivational processes (Bakker & Demerouti, 2014). JD-R Theory suggests that demands and resources interact in the following two ways: resources can buffer the negative effects of demands by facilitating coping in stressful situations, while demands can reinforce the effects of resources on motivation (Bakker & Demerouti, 2014) and well-being (Bakker & Sanz-Vergel, 2013) by becoming salient in stressful situations. Organisational support and personal resources can be perceived as resources to deal with workplace stress. Moreover, it was shown that job resources help personal resources to flourish (Xanthopoulou, Bakker, Demerouti, & Schaufeli,

2007). For this reason, POS and the personal resource of PsyCap can contribute to employee well-being.

The JD-R Theory emphasises the buffering effect of job resources on job demands and the motivating effect of job demands through job and personal resources (Bakker & Demerouti, 2014). Hobfoll's (1989) model of the conservation of resources (COR) states that individuals are committed to protect, build, accumulate and evaluate resources, which adds a valuable cognitive component to resource theory. POS can be regarded as a job resource assisting the personal resource of PsyCap to flourish (Xanthopoulou et al., 2007). Moreover it leads to resource accumulation, which protects individuals from resource loss and facilitates further resource gain, resulting in the availability of more resources to deal with adversity and thereby leading to greater well-being (Chen, Westman, & Hobfoll, 2015). Avey, Luthans, Smith and Palmer (2010) suggest that PsyCap facilitates the evaluation of available resources, which can then be used as an indicator of one's overall well-being. This means that employees high in PsyCap evaluate and assess their resources in a favourable manner, which contributes to a greater sense of well-being.

This section explained the proposed relationship between POS, PsyCap, and well-being. The implications drawn from this discussion for the proposed study are outlined in the following sections.

1.6. PROBLEM STATEMENT

The ILO (2016) declared that work-related stress and ill-being, which could be observed on all continents, constituted a global health threat. In South Africa in particular, 40% of mental health impairments, such as burnout in employees, are caused by stress in the workplace (Schoeman, as cited by the University of Stellenbosch Business School, 2016). Poor employee health and well-being do affect organisations negatively, being linked to lower levels of organisational commitment (Matin, Kalali, & Anvari, 2012), more absenteeism (Olivares-Faúndez, Gil-Monte, Mena, Jélvez-Wilke, & Figueiredo-Ferraz, 2014),

decreased productivity (Dewa, Loong, Bonato, Thanh, & Jacobs, 2014), increased counterproductive work behaviour (Smoktunowicz et al., 2015), lower levels of job satisfaction and increased turnover intentions (Tziner, Rabenu, Radomski, & Belkin, 2015). According to Occupational Care South Africa (2017), South Africa's economy is suffering from annual costs estimated between 12 billion Rand and 16 billion Rand due to employee absenteeism.

The impact of low employee well-being does not only make organisations less competitive due to low productivity, high turnover and absenteeism, but it also causes huge financial costs. In addition to that, low levels of commitment and job satisfaction are likely to create a work atmosphere characterised by negativity, which does not promote a work environment where employees thrive and express creativity. In light of the Positive Psychology movement, which does not emphasise the treatment of illness, but rather focuses on its prevention and on the active promotion of well-being, it is vital to analyse factors that contribute to employee well-being. Currently, not much is known regarding the dynamics of positive constructs that help to improve employee well-being. This paucity of relevant research thus creates an urgent need for the present study, which is concerned with the constructs of POS and PsyCap and the way they operate together to target employee well-being.

1.7. JUSTIFICATION OF THE STUDY

The need for a positive approach regarding well-being in the workplace was outlined in the previous section. Recent research found that PsyCap mediates the impact of instructor support on well-being in students (Nielsen, Newman, Smyth, Hirst, & Heilemann, 2016) and that it also mediates the relationship between social support and well-being in Chinese employees (Li et al., 2014). These studies foster the assumption that PsyCap plays a role in the relationship between support and well-being. Although a study analysed the mediating effect of PsyCap between POS and depressive symptoms (Liu, Hu, Wang, Sui, & Ma, 2013), there is no study to date that has investigated the mediating role of PsyCap in the relationship between POS and positive well-being. The present study aims to target the gap in the existing body of research by

investigating whether PsyCap is a mediator in the POS-well-being relationship.

1.8. RESEARCH OBJECTIVES

The primary aim of the study is to investigate more closely the previously outlined relationship between POS, PsyCap, and well-being. Organisations are often committed to contributing to their employees' well-being by providing organisational support. An investigation is required into which underlying mechanisms foster the positive impact of POS on well-being in order to make support structures more efficient. Such an underlying mechanism might be comprised of the positive cognitive processes of PsyCap, which could possibly be triggered through support and which could thus enhance well-being. The value of PsyCap lies in its openness to development. If PsyCap plays a role in the relationship between POS and well-being, the positive effects on well-being of POS could be explained and maximised through the development of the positive capacity of PsyCap, using organisational support. Taking all aspects mentioned into account, the main research objectives are as follows:

- Does PsyCap act as a mediator in the relationship between POS and well-being?
- If a mediating effect is found, is it partial or full mediation?

The sub-objectives for this study include the following:

- An examination of the body of research that exists with regards to PsyCap, POS, and well-being and their assumed relationships. This includes the definitions of these constructs, factors that influence them, their outcomes and finally, criticism and limitations that exist around these constructs. References to recent literature, as well as to seminal work, will be made. It is acknowledged that it is important to refer to recent developments in the field, but because research is an iterative process, there will also be references to literature that is older than five years old.

- The construction of a composite questionnaire that assesses POS, PsyCap, and well-being and demographics in an ethical, reliable, and valid manner and its administration to a sample of South African employees.
- The statistical analysis of these measures in terms of psychometric properties.

1.9. VALUE OF THE STUDY

The anticipated value of the study lies in gaining a better understanding of the factors that contribute to employee well-being. It will be of great benefit to all concerned to investigate how organisational support can operate in order to promote the well-being of staff. This is important because organisations face huge costs due to employee absenteeism, lack of motivation, and weak work performance resulting from low levels of employee well-being or even ill-being. The present study aims to investigate how the positive capacity of PsyCap accounts for the relationship between POS and well-being. Knowledge about this mechanism will allow organisations to offer support structures that target the PsyCap of their employees in order to promote their well-being. If job resources like organisational support can fuel the personal resources of self-efficacy, hope, optimism, and resilience, employees will not only be accumulating resources that protect them from the negative effects of a demanding business environment and that assist them in dealing with challenges: the ensuing developed and positive mindset could also contribute to a greater sense of well-being. For this reason, the present study is regarded as offering a potentially valuable contribution to the existing body of research and will also, it is hoped, reveal practical implications and applications for organisations.

1.10. FRAMEWORK FOR THE PRESENT STUDY

Chapter One has provided a brief introduction to the field of Positive Psychology, the constructs of PsyCap, POS, and well-being, and the assumed underlying relationships between them. Furthermore, the current problem and

consequences of poor employee well-being was outlined and the aim and potential contribution of the present study explained. Chapter Two will discuss the constructs of PsyCap, POS, and well-being in depth and will present the proposed model and hypotheses that guide the present study. Chapter Three aims to explain the methodology used in the present study, introducing the different measures that were applied, and also outlining the respondent sample and the research procedures followed. Chapter Four will analyse the gathered data using various statistical methods. Chapter Five will discuss the findings and outline limitations of the present study. Finally, it will give recommendations for organisations, as well as for future research.

1.11. CHAPTER SUMMARY

The present chapter introduced to the field of Positive Psychology, the paradigm of POB, and the positive capacity of PsyCap. Moreover, the constructs of POS and well-being were briefly outlined and the relationship between POS, PsyCap and well-being was explained. Furthermore, the aim of the study was presented, which is to analyse whether PsyCap acts as a mediator in the relationship between POS and well-being. The analysis of this mechanism will provide a better understanding of how organisational support operates and will have valuable implications for organisations. The following chapter will discuss the constructs of PsyCap, POS, and well-being in detail and will present the proposed model and hypotheses of this study.

CHAPTER TWO

LITERATURE REVIEW

2.1.   INTRODUCTION

Chapter One outlined the rationale of Positive Psychology and gave an introduction to the constructs of PsyCap, well-being and POS. The aim of the present study is to investigate whether the positive personal resource of PsyCap reveals a mediating effect in the relationship between POS and well-being. If PsyCap mediates the effect of POS on well-being, companies will benefit from PsyCap's openness to development. In that case, the development of PsyCap through an employees' positive perception of organisational support will enhance it and contribute to employee well-being, and therewith positive organisational outcomes.

The present chapter will review the literature on PsyCap, well-being and POS. Firstly, each construct will be defined and the literature regarding its origin will be discussed. Moreover, the literature review will elaborate on the development and antecedents of each respective construct as well as on its impact in the workplace. In addition, the underlying theories that imply a relationship between these constructs will be outlined in the final section of this chapter, leading to the hypotheses that need to be tested.

2.2.   PSYCHOLOGICAL CAPITAL

A company's economic capital, which incorporates its financial and tangible resources, such as plants and machinery, was traditionally seen as the organisation's most important asset (Luthans, Luthans, & Luthans, 2004). A more modern perspective highlights the importance of an organisation's human and social capital. The term human capital refers to the company's employees, who provide knowledge, skills, and abilities. Social capital includes the employees' relationships and personal networks (Luthans et al., 2015; Luthans, Luthans, & Luthans, 2004). Organisational training and development

interventions for employees are regarded as investments to enrich their human and social capital (Luthans et al., 2015).

The mindshift towards the research of Positive Psychology and the criteria of POB contributed to the development of the positive psychological capacity of PsyCap, which consists of the positive facets of self-efficacy/confidence, hope, optimism, and resilience. PsyCap goes beyond human ("what they know") and social capital ("who they know") and is concerned rather more with "who you are" and "who you are capable of becoming" (Luthans, Luthans, & Luthans, 2004). PsyCap influences and includes the components of human and social capital, because one's skills, knowledge, abilities and social networks form part of "who you are" or of "what you are capable of becoming" (Luthans et al., 2015). Luthans et al. (2015) highlight, for instance, that an individual's knowledge, skills, and abilities and their relationships and social network are crucial parts for building and maintaining resilience. Human and social capital are integral parts of PsyCap, and for this reason, the dynamic interaction of these capital constructs as seen in PsyCap is considered to be more effective regarding desirable outcomes than human or social capital alone. Figure 2.1 illustrates the idea of expanding capital to gain a competitive advantage.

Traditional Economic Capital (What you have): Finances Tangible assets	→	**Human Capital (What you know):** Experience Education Skills Knowledge Ideas	→	**Social Capital (Who you know):** Relationships Network of contacts Friends	→	**Positive Psychological Capital (Who you are):** Confidence Hope Optimism Resilience
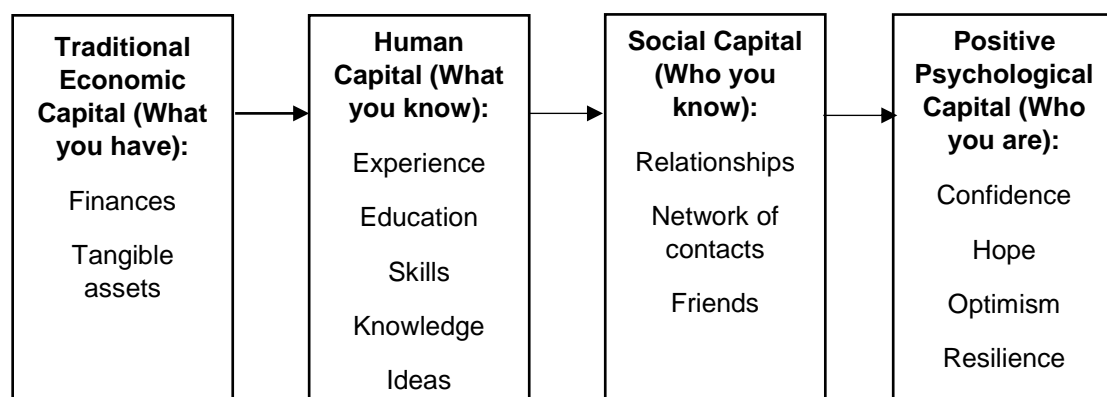
Figure 2.1: Expanding capital for competitive advantage adapted from Luthans, Luthans, & Luthans, 2004.

2.2.1. Defining Psychological Capital

Luthans et al. (2015) define PsyCap as a person's positive psychological state of development which displays confidence in successful task accomplishment (self-efficacy), positive interpretation of present and future successes (optimism), the ability to stick to goals and find alternative ways of goal accomplishment if it is necessary (hope), and the ability to bounce back and even grow when having faced adversity and negative setbacks (resilience).

Avey, Luthans, Smith and Palmer (2010) emphasise that PsyCap falls in the domain of Hobfoll's (1989; 2002) COR Theory. Human beings are motivated to obtain, protect and foster resources. Resources make it less likely that well-being and health are impaired in the face of adversity. In addition to that, they facilitate problem-solving (Hobfoll, 2002). Moreover, Hobfoll (2002) states that resources are connected to other resources, contributing to the continuous emergence of an individual's resources repertoire. This idea creates a link to PsyCap's factor structure. The four facets of self-efficacy, optimism, resilience and hope are driven by similar motivational and behavioural mechanisms. They show high inter-correlations, which tie them together to one higher-order factor, namely PsyCap (Luthans et al., 2007). Self-efficacy, optimism, resilience and hope show positive outcomes themselves, but due to their inter-correlation they have a strong synergistic power. The cumulative force of PsyCap's facets is assumed to be more impactful than any of these facets on their own. PsyCap's facets possess common as well as distinct attributes, which allow broader and deeper cognition (Luthans et al., 2007).

PsyCap is not a trait-like construct that cannot be influenced. In fact, PsyCap is state-like, which implies that it is malleable and open to change and development (Luthans et al., 2015). The malleability of a positive capacity aligns with the POB inclusion criteria. Furthermore, PsyCap is also based on sound research and is measurable in a scientific manner (Luthans et al., 2015). Luthans et al. (2007) developed a reliable and valid PsyCap measure, and PsyCap's openness to change was shown in face-to-face (Luthans, Avey, Avolio, & Peterson, 2010) and web-based interventions (Luthans, Avey, &

Patera, 2008). These findings are valuable for research and practice. On the one hand, researchers can investigate what effective PsyCap interventions should look like, and on the other hand, companies can use these findings to develop the PsyCap of their employees to broaden their resource repertoire. Should the present study reveal that PsyCap mediates the effect of POS on well-being, organisational support would also be a valuable tool to develop employee PsyCap to foster and enhance resources and therewith the well-being of employees.

In order to understand PsyCap's synergy and how PsyCap can be influenced, it is necessary to investigate the facets of PsyCap more closely. The following section will define each facet and outline its antecedents and its outcomes.

2.2.1.1.   Self-efficacy

Self-efficacy "is concerned with judgements of how well one can execute courses of action required to deal with prospective situations" (Bandura, 1982, p.122). Moreover, self-efficacy involves the mobilisation of cognitive resources, and the necessary acts that lead to the execution of a specific action in a given context (Stajkovic & Luthans, 1998).

Self-efficacy is a capacity that encourages and energises individuals to accomplish goals and motivates individuals to welcome challenges, and very often, enables people to excel in what they do (Luthans et al., 2015). Efficacious individuals do not wait for others to set challenges for them, which is referred to as discrepancy reduction, but rather challenge themselves by continuously setting high goals. (Luthans et al., 2015). Self-efficacy is domain specific, which means that an individual's self-efficacy usually refers to a domain and is not automatically transferred to another domain. Successfully accomplished tasks enhance one's self-efficacy in that specific domain of task accomplishment, but Luthans et al. (2015) point out that mastery experiences can also lead to a greater sense of generalised efficacy.

Self-efficacy is built on five cognitive processes from social cognitive theory (SCT). These cognitive processes have been identified as the capabilities of symbolising, forethought, vicarious learning, self-regulation and self-reflection (Stajkovic & Luthans, 1998). They allow people to create mental images of future scenarios, to foresee possible consequences and plan future actions accordingly, to learn from others, to recognise discrepancies between current and desired behaviour and address the issues, and enable individuals to learn from past experiences and mistakes (Stajkovic & Luthans, 1998). Most self-efficacy studies have focused on between-subjects designs in order to analyse what contributes to self-efficacy and which outcomes are produced by high or low levels of self-efficacy. It was recently argued that within-subjects analysis can deliver more insight into the underlying functions and processes of self-efficacy. Findings from within-subjects analysis suggest that performance is an indicator of success in the past and therefore contributes to self-efficacy (Sitzmann & Yeo, 2013). This assumption also aligns with the processes of SCT, suggesting that individuals can learn from the past and take advantage of their previous experiences by reflecting on them, as well as imagining and evaluating possible future events, planning actions and regulating behaviour accordingly in order to be successful.

Ability and knowledge are factors that predict self-efficacy (Ineson, Jung, Hains, & Kim, 2013; Phillips & Gully, 1997). Self-efficacy is only increased when positive outcomes are attributed to one's ability. If individuals attribute negative outcomes to their ability, self-efficacy is likely to decrease (Bandura, 1977). Furthermore, Phillips and Gully (1997) state that an individual's locus of control is another factor that is related to self-efficacy. The belief that one is in control of happenings is called internal locus of control, the belief that environmental factors are in control of events, is called external locus of control (Rotter, 1975). Consequently, individuals who have an internal locus of control also show higher levels of efficacy because they believe that they are in charge of what is happening. These cognitive processes allow more effective coping in stressful situations. For this reason, an internal locus of control and self-efficacy are regarded as resources that protect employees from job strain (Cascio et al., 2014).

Bandura (1977) created a famous framework with sources of self-efficacy expectations. These expectations derive from four major sources: performance accomplishment or enactive mastery, vicarious experience, verbal persuasion, and emotional arousal. Successful accomplishments enhance mastery expectations and make individuals more resilient to failure through accumulated good experiences (Bandura, 1977). Observing how other people successfully accomplish tasks, also known as vicarious experience, can also raise self-efficacy expectations, but not as efficiently as personal task accomplishments. Verbal persuasion acts as a motivational component and can also be considered to increase self-efficacy. This motivation acts as a driver to put more effort into tasks and increases the probability of successful mastery (Bandura, 1977). Bandura (1977) also emphasises the importance of emotional arousal. Aversive emotional arousal can reduce self-efficacy expectations because these intense emotions might be interpreted negatively. The reduction of aversive arousal through modelling or learning how to attribute emotions in a better way can work in favour of self-efficacy. The outlined framework is a few decades old, but it is seminal work that still has relevance today. More recently, Bandura (2009) highlighted that guided enactive mastery is a very effective way to raise self-efficacy expectations in the workplace. He states that the process of guided enactive mastery consists of three steps. Firstly, desired skills are modelled. Secondly, it is important to develop the modelled skills through practice with guidance. In the last step employees are encouraged to apply the learned content in the organisation in order to gain mastery experience.

An important external factor that contributes to the self-efficacy of employees are organisational resources, given the fact that employees do not suffer from role overload (Brown, Jones, & Leigh, 2005). An employee experiences work role overload when job demands and duties exceed the employee's resources to successfully meet them (Duxbury & Halinski, 2014). The overwhelming feeling that results from role overload inhibits self-regulating processes. In the absence of role overload, however, employees are able to make effective use of organisational resources in order to accomplish tasks (Brown et al., 2005). This finding highlights the effectiveness of mastery experiences and sufficient

resources. Resources assist in accomplishing tasks, and task accomplishment in turn, enhances self-efficacy beliefs.

Self-efficacy relates to various desirable outcomes regarding health, well-being and performance. It is positively associated with less negative emotions in a stressful work environment. The self-regulatory processes of highly efficacious individuals decrease the risk of feeling overwhelmed by negative emotions and allow them to drive their behaviour in the desired direction (Fida et al., 2015). A lower level of anxiety and stress due to effective self-regulation is crucial in terms of employee well-being. In addition to that, efficacious people can mobilise job resources in a more efficient manner than people who score low on self-efficacy (Consiglio, Borgogni, Alessandri, & Schaufeli, 2013; Tims, Bakker, & Derks, 2014). Many other studies also support the positive impact of self-efficacy in various domains on performance (Alessandri, Borgogni, Schaufeli, Caprara, & Consiglio, 2015; Blomquist, Dehghanpour, & Thomas, 2016; Honicke & Broadbent, 2016). A low level of self-efficacy on the other hand, is related to job burnout (Yu, Wang, Zhai, Dai, & Yang, 2015), which possibly arises from less effective use of personal and job resources, resulting in fewer successful experiences.

2.2.1.2.   Hope

Hope is defined as "a cognitive set that is based on a reciprocally derived sense of successful (a) agency (goal-directed determination) and (b) pathways (planning of ways to meet goals)" (Snyder et al., 1991, p. 571). Snyder, who was a leading researcher in hope theory, characterised hope as a cognitive state that drives the goal pursuit process (Luthans et al., 2015). The agency component of hope is a motivational driver and refers to the mental willpower to achieve a goal. Pathways refer to the routes individuals take in order to pursue a goal. Agency and pathways are both crucial for hopeful thinking (Snyder, 2002). They are additive as well iterative and strengthen each other. If individuals face adversity resulting in the aimed pathway being blocked, they will have to think of alternative routes to achieve a goal. This process of finding

alternative pathways nurtures the agency component leading to increased energy and sense of control (Snyder, 2002).

When employees are blocked from attaining their goals, or do not see a pathway, there is a risk that they will fall into a depressive state known as "learned helplessness" (Luthans et al., 2015). A famous experiment conducted with dogs that were exposed to electric shocks in a box with no opportunity to escape still showed no attempt to escape when they had the chance to do so. The dogs had learned that they were helpless and that there was no pathway out of the box (Seligman, Maier, & Geer, 1968). The same phenomenon is observed in humans when they do not see a pathway that leads to a way out of the current situation. Where low levels of hope promote a depressive state of mind, it will be beneficial to promote hope in employees in order to maintain and enhance health and well-being.

Hope is a cognitive state and for that reason, efficient cognitive processes are important for hope development. Self-regulatory and self-control mechanisms are crucial for effective agency and pathway thinking (Oettingen & Gollwitzer, 2002; Vohs & Schmeichel, 2002). Self-regulation is referred to as thoughts, feelings and behaviour that are shown in an attempt to pursue goals (Van Damme, Crombez, Goubert, & Eccleston, 2009). Self-control refers to the mental ability to override cognitions, affections, and behaviour that would interfere with the successful pursuit of goals (Inzlicht, Schmeichel, & Macrae, 2014). A certain degree of self-control is necessary to perform self-regulatory tasks (Vohs & Schmeichel, 2002).

Agency-related and pathway-related thoughts of hope have to be targeted in order to enhance overall hope. A self-regulatory strategy that drives goal pursuit is a cognitive process called mental contrasting, which compares desired future outcomes with the current reality (Oettingen & Gollwitzer, 2002). Any observed discrepancies between the present and the desired future activate agency-related hope thoughts, which will result in goal commitment and determination to achieve that goal (Oettingen & Gollwitzer, 2002). Commitment to a goal through agency is the first stage in the process of goal attainment. Pathway-

related hope thoughts are important in furthering the process of goal pursuit. As previously mentioned, the pathway component is necessary to maintain hope in case a route to goal attainment becomes blocked. According to Oettingen and Gollwitzer (2002), multiple pathway-related hope thoughts can be developed through a self-regulatory technique called implementation intentions. These are alternate plans that are made in the event of specific occurrences which offer paths to alternative routes for goal attainment. It is argued, however, that self-regulation requires resources which become depleted when demands consume more resources than are available (Vohs & Schmeichel, 2002). As a consequence, hopelessness may be an indicator of a lack of resources.

Hope is characterised by goal-directedness, agency and resourcefulness and the iterative interaction of agency and pathways nurture each other leading into an energetic upward spiral (Luthans et al., 2015). There is, however, the need to express a word of caution. Hopeful thinking only works in favour of performance and well-being when it is a realistic hope. Chasing after goals that are beyond one's reach despite effective agency and pathway-thinking, also called false hope, will lead to a waste of resources, disappointment and failure (Luthans et al., 2015). For this reason, it is important to continuously evaluate one's goals and and readjust goals when they turn out to be unrealistic (Luthans, van Wyk, & Walumbwa, 2004).

There are various other organisational factors besides resources that influence hopeful thinking. Employee involvement is a critical factor related to levels of hope (Luthans et al., 2015). Involvement is linked to positive work outcomes, it energises employees, and provides freedom and autonomy. Increased levels of energy and autonomy fuel agency, and freedom in decision-making nurtures pathway-related thinking (Luthans et al., 2015).

Hope, like all PsyCap facets, can be developed and be targeted in training interventions. When delivering training it is important to present content in a way which does not limit pathways-thinking. Luthans et al. (2015) recommend that training must flow in an interactive and participative manner that

encourages broader thinking to promote hope in trainees. Organisations are encouraged to help set goals clearly, break bigger goals down to sub-goals, think of several pathways and readjust goals when the previously set goal is out of reach (Luthans & Jensen, 2002; Luthans, van Wyk, & Walumbwa, 2004; Luthans, Youssef-Morgan et al., 2015).

Hope has not been as exhaustively researched as self-efficacy, but the constructs have similarities. Self-efficacy is the expectancy to be able to perform a specific task, which is similar to hope's agency component. In addition, self-efficacy's outcome expectancy, which refers to the belief that a specific behaviour will lead to a specific result, is similar to the pathway component of hope (Luthans & Jensen, 2002). There is, however, a significant difference between Bandura's self-efficacy and Snyder's hope construct. Luthans and Jensen (2002) say that Bandura argues that the efficacy belief to successfully complete a specific task is more important than the outcome expectancy. Snyder, on the other hand, emphasises that the agency and pathway component are equally important due to their additive and iterative interaction. Moreover, self-efficacy usually refers to a specific action or task, whereas hope is applied across various domains (Luthans & Jensen, 2002).

Hopeful thinking results in desirable performance outcomes and promotes health and well-being. High levels of hope act as a personal resource and is negatively related to depression and stress and positively related to well-being (Alarcon et al., 2013), satisfaction and work happiness (Youssef & Luthans, 2007). Hope also results in favourable organisational outcomes and positive behaviour in the workplace. Hopeful employees tend to show more work engagement because their hope agency energises them and they take advantage of challenges by pursuing alternative pathways that lead to their goals (Karatepe, 2014). These cognitive processes also result in higher organisational commitment (Youssef & Luthans, 2007) and better work performance (Reichard, Avey, Lopez, & Dollwet, 2013). Hope is a valuable characteristic in leaders, as hopeful leaders are more successful in retaining employees and improving unit productivity (Peterson & Luthans, 2003).

2.2.1.3.   Optimism

Optimists "generally believe that good rather than bad things will happen to them" (Scheier & Carver, 1985, p. 219). This definition is used in everyday language by non-professionals and is somewhat superficial. Although optimism may have this meaning on the surface, from a scientific and psychological perspective optimism is more than the simple belief in a positive future.

While some scholars see optimism through the lens of expectancy models and refer to it as global positive expectations regarding the future (Carver et al., 2010), others see optimism as a specific explanatory style, attributing setbacks to external and temporary circumstances (Seligman, 2002). Both views, however, provide important contributions to the mechanisms that characterise optimism as a positive resource. A positive attitude and outlook on life and positive expectations regarding life events do only manifest in optimism if events and expectations are interpreted with an optimistic explanatory style (Luthans et al., 2015). Optimists usually take credit for positive outcomes, attributing them to their own ability. Negative outcomes and bad events in contrast, are seen as being caused by temporary, unfavourable, external circumstances. Pessimists on the other hand, consistently attribute negative events to themselves and positive events are ascribed to temporary, external factors (Seligman, 2002). Optimists believe that they have control over the circumstances that result in favourable outcomes, whereas pessimists do not feel in control over variables that lead to positive events (Luthans et al., 2015). While factors such as task difficulty are not controllable, the extent of the efforts one puts in to complete a task is controllable (Harvey, Madison, Martinko, Crook, & Crook, 2014).

The adjustment of one's level of optimism is an important characteristic of PsyCap optimism. During the process of working towards a goal, optimists gather important information regarding their actions and feedback, which in turn allows individuals to adjust their degree of optimism when the circumstances require it (Luthans et al., 2015). Consistently attributing failure to external and non-personal factors may be dangerous and may distort perceptions of reality

(Luthans et al., 2015). Peterson (2000) highlights the importance of flexible optimism, which implies that an individual has to evaluate the situation before expressing optimism. Schneider (2001) outlines forms of optimism that do not deviate from reality, such as showing leniency for the past, being appreciative of the present, and seeking opportunities for the future. This so-called realistic form of optimism encourages one to focus on the favourable aspects of one's life by adopting an optimistic explanatory style when appropriate (Schneider, 2001). In addition to that, Luthans et al. (2015) mention that individuals high in PsyCap optimism are able to show gratitude and appreciation regarding external factors that have contributed to successful outcomes. In conclusion, it can be said that PsyCap optimism is supposed to be realistic and flexible in order to reap all the benefits that come with an optimistic attitude.

Although optimism can also be of a dispositional nature, PsyCap optimism emphasises its malleability and openness to development (Luthans et al., 2015). Optimism can be strongly influenced by various cognitive techniques (Fosnaugh, Geers, & Wellman, 2009; Meevissen, Peters, & Alberts, 2011). Imagining one's best possible self, where everything turns out the best way it could was found to be effective in enhancing optimism in an experimental study (Meevissen et al., 2011). Imagining a positive future as well as priming are also cognitive tools that have been shown to increase optimism (Fosnaugh et al., 2009). A possible priming technique would be to take record of positive experiences in order to make them easily accessible. The more records of positive experiences an individual has, the easier it is to access these mentally and activate therewith positive constructs in order to maintain an optimistic mindset (Riskind, Sarampote, & Mercier, 1996). Organisations can therefore implement cognitive techniques like these in their HR practice to enhance optimism in their employees.

Optimism and hope also seem to be very similar constructs on the surface, but they operate in different ways, which make them distinct. Optimism's positive outcome expectancies are similar to hope's agency component, which is characterised by a positive determination to strive towards a goal. While optimists expect good outcomes, hopeful individuals do not only expect them,

but they also create specific pathways that lead to the desired outcomes. For this reason, hopeful thinking is valuable in terms of goal attainment by adding an instrumental component to optimistic thinking (Youssef & Luthans, 2007). Optimism on the other hand, is unique regarding an individual's explanatory style by attributing positive outcomes to internal, controllable variables and by interpreting negative outcomes as unfortunate due to external circumstances (Seligman, 2002).

Research has shown that optimism may have desirable consequences. Optimism is associated with well-being and health (Alarcon et al., 2013; Desrumaux et al., 2015; Krok, 2015). Realistic and flexible optimism in particular seems to be important in terms of well-being and mental health. It was shown that flexible goal adjustment mediates the relationship between optimism and well-being (Hanssen et al., 2015). An optimistic mindset is also desirable in the workplace. Studies show that optimism is related to better performance and job satisfaction (Mishra, Patnaik, & Mishra, 2016). Martin Seligman was asked for help by a large insurance company because of their weak sales rates. He investigated the explanatory style of the company's employees and it turned out that salesmen with an optimistic explanatory style significantly outperformed salesmen with a pessimistic explanatory style (Seligman & Schulman, 1986). Luthans et al. (2015) highlight, however, that the effectiveness of an optimistic explanatory style is dependent on the industry. While sales and marketing usually benefit from optimism, more conservative industries like finance and security management might operate more effectively when a pessimistic explanatory style is applied.

2.2.1.4. Resilience

As noted by Britt et al. (2016), resilience is a widely-discussed construct with many definitions ranging from the maintenance of normal functioning when facing stressful or traumatic events to showing growth and positive development in the face of adversity, or even seeing it as a capacity inherent in an individual. Although some scholars see resilience as a trait, Luthans et al. (2015) emphasise that PsyCap resilience is a state-like, malleable construct

characterised by the presence of adversity and the ability to adapt to these trying circumstances, often resulting in growth and development.

Clinical psychology commonly sees two possible outcomes when individuals have been exposed to trauma and stress. Either the individual develops a post-traumatic stress disorder, or in fortunate cases, the individual returns back to normal (Achor, 2011). Very often, a third possible outcome is neglected, which Achor (2011) refers to as post-traumatic growth, which is not only about bouncing back, but rather about "bouncing forward". The presence of adversity, and what Luthans et al. (2015) call risk factors, is a crucial variable in the process of developing resilience. Experiences leading to dysfunctional behaviour, such as drug abuse, stress and burnout, as well as traumatic events like physical and psychological abuse, violence, disaster and terrorism are considered risk factors. The exposure to risk factors may result in negative outcomes and failure. If these risk factors are assessed and evaluated in order to overcome adversity, they can contribute to personal growth. For this reason, risk factors should not only be seen as a threat, but rather as an opportunity to develop skills that would have been undiscovered under normal circumstances (Luthans et al., 2015). Resilience is not about moving forward despite adversity, but rather because of these unfavourable circumstances (Achor, 2011).

Another important factor, which is a component of PsyCap resilience in addition to the presence of adversity, is an individual's values and beliefs, which motivate people to progress despite experiencing struggle (Luthans et al., 2015). A very prominent example in the South African context is the resiliency of Nelson Mandela and his fellow prisoners who were incarcerated on Robben Island when South Africa was ruled by its oppressive Apartheid government (Cascio & Luthans, 2014). Although Nelson Mandela experienced cruelty, abuse, humiliation and had to live in degrading conditions, he was fighting for a purpose that went beyond his personal needs. He strongly believed in a peaceful and united South Africa, of which he later became president. This does not imply that only great personalities have the ability to develop resilience. Cascio and Luthans (2014) agree with an author who investigated resilience in German concentration camp survivors: "…it is not a story of remarkable people.

It is a story of just how remarkable people can be" (p. 58). When transferred to the workplace, it can be assumed that employees who consistently hold on to their values and beliefs, even though and especially when difficulties arise, may be more resilient than employees who do not have inner motives that keep them going.

Resilience manifests itself as a result of adversity (Luthans et al., 2015). With regards to the enhancement of resilience in the workplace, employees benefit most when they are exposed to moderate levels of stress. People who reported moderate levels of stress showed more satisfaction with life and fewer symptoms of distress than people who experienced low levels or massive levels of stress (Seery, Holman, & Silver, 2010). Seery et al. (2010) also noted a positive effect that resulted from dealing with adversity. Individuals who faced difficulties in the past seemed to be less negatively affected by recent difficulties, indicating that struggles in the past helped to gather strength for the future. Successfully coping with challenges often results in the acquisition of new skills, which may assist with future challenges (Carver, 1998). It has been shown, however, that only challenge-related stressors, but not hindrance-related stressors enhance resilience (Crane & Searle, 2016). While challenge-related stressors are positively linked to desirable job outcomes and allow individuals to benefit from the challenge, hindrance-related stressors interfere with performance (Yao, Jamal, & Demerouti, 2015). For this reason, it is important that employees interpret difficulties as a challenge and opportunity to grow in order to become more resilient.

Several authors outline strategies that may help organisations to develop resilient employees (Luthans, Vogelgesang, & Lester, 2006; Luthans et al., 2015). Firstly, it is important to concentrate on the development of their employees' assets, which include their human capital of knowledge and skills, their social capital incorporating networks and social relationships, as well as other parts of their PsyCap with hope, optimism and self-efficacy (Luthans, Vogelgesang, & Lester, 2006). These assets are important for what Luthans et al. (2015) call being risk-focused. The avoidance of risks in the global market is impossible if one aims to remain competitive, nor does it work in favour of

resiliency development. For this reason, it is important to manage risks by working on the assets of employees (Luthans et al., 2015).

Today's economy is fast-paced and competitive, increasing the likelihood of exposing employees to stressful events and adversity. Resilience is an important capacity that allows employees to make the best of a difficult situation and even use it to their advantage. Ideally, this comes with mastery experiences, which contribute to self-efficacy and optimism, underlining nicely the mechanism and importance of overall PsyCap. Resilience adds value to the capacities of hope, optimism and self-efficacy. Although they share similarities in some aspects, resilience is a distinct construct (Luthans, Vogelgesang, & Lester, 2006). The flexibility component of hope to seek alternative pathways may be similar to the resiliency's characteristic of adaptive behaviour. However, hope is not triggered by disruptive events, which is the case with resilience. Optimism also does not take the importance of adversity into account, which is unique to resilience. Self-efficacy beliefs are important in terms of resilience development by being process-focused. The reactive component of resilience to adversity on the other hand, is unique and rebuilds efficacy beliefs that have been challenged (Luthans, Vogelgesang, & Lester, 2006).

Resilience is an important factor in the maintenance and enhancement of mental health and well-being (Lee, Sudom, & Zamoski, 2013; Moyle et al., 2010; Souri & Hasanirad, 2011). There is neurochemical evidence that resilience, understood as having control over adversity, might be related to well-being. The feeling of being in control in the face of adversity seems to lead to change in brain structures in charge of processing fear. These changes inhibit stress and emotional response reactions, even at a later point in time when being exposed to a different stressor (Maier & Watkins, 2010). Resilience is also positively linked to happiness, job satisfaction, job involvement and organisational commitment (Ju & Oh, 2016; Youssef & Luthans, 2007). Resilience is an important asset in order to thrive and succeed in the workplace. Employees who see challenges as opportunities and take advantage of them are not only likely to be healthier, but also to be more successful.

2.2.2. Developing Psychological Capital

In the previous section PsyCap was defined whereby, the four facets of PsyCap, namely self-efficacy, hope, optimism, and resilience, were outlined and their function explained. The higher-order construct of PsyCap is characterised by the synergistic power of the four facets. The previous section highlighted shared characteristics of self-efficacy, hope, optimism, and resilience, explaining their high inter-correlation, as well as their distinct attributes, which contribute to broader cognitive functioning. Due to their inter-correlation, these facets influence and reinforce each other while also adding unique value to an individual's cognitive skillset (Luthans et al., 2007).

A resilient employee is able to bounce back from setbacks, which is a desirable ability. A resilient employee on the other hand, who is also efficacious, optimistic and hopeful, adds value to his or her resilience by also having a strong belief in his or her ability and skills, making appropriate attributions of success and failure, and by being able to think of alternatives in case a path to goal attainment is blocked (Luthans et al., 2007). These cognitive mechanisms of overall PsyCap protect individuals from the negative consequences of stress and may therefore contribute to greater well-being. Due to PsyCap's mechanisms and its malleability, it makes sense to target all its facets in an intervention to develop overall PsyCap (Luthans et al., 2015).

Experimental studies have proved that PsyCap can be enhanced through short face-to-face and web-based interventions (Luthans et al., 2010; Luthans, Avey, & Patera, 2008). During the face-to-face intervention trainees are given tasks that target each PsyCap facet, encouraging the use of the respective facet without specifically introducing the participants to the construct itself. (Luthans et al., 2010). The intervention conducted by Luthans et al. (2010) targeted each PsyCap facet through specific exercises and then introduced the trainees to exercises that integrated several PsyCap facets so that one facet could reinforce another. Participants were for instance asked to set a personal goal and to think of alternative pathways to goal attainment in case the original idea did not work out. This was supposed to target hope. In order to reinforce and

foster hope thoughts, the participants were also asked to set realistic sub-goals that are easy to achieve, which worked in favour of self-efficacy. In the next step, the trainees had to share their goals and pathways with other participants who gave feedback. In doing so, efficacy was increased through vicarious learning and in addition, optimism was enhanced due to increased positive expectations. Resilience was also expected to increase through pathway development, which gave participants opportunities to bounce back from setbacks (Luthans et al., 2010). The web-based intervention makes use of very similar exercises, but explains each facet and the way it works and gives trainees tasks to think about when they can or could have used the respective facet at work (Luthans, Avey, & Patera, 2008).

The way PsyCap operates and how it can be developed has been discussed in this section. If PsyCap turns out to be a mediator in the relationship between POS and well-being in the present study, it will be beneficial for companies to target the PsyCap of their employees by specific support structures that assist employees in becoming efficacious, hopeful, optimistic, and resilient.

2.2.3. Psychological Capital Outcomes

As previously outlined, self-efficacy, hope, optimism, and resilience show positive outcomes as individual constructs. As a consequence, PsyCap is also associated with desirable outcomes. Much research has been dedicated to investigating the outcomes of PsyCap as an overarching construct.

Various studies indicate that PsyCap is positively related to health and well-being (Avey, Reichard, Luthans, & Mhatre, 2011; Avey, Luthans, Smith, & Palmer, 2010; Culbertson et al., 2010; Li et al., 2014; Luthans, Youssef, Sweetman, & Harms, 2013; Nielsen et al., 2016; Tripathi, 2011) and negatively related to anxiety, depression, stress, and burnout (Avey et al., 2011; Li et al., 2015; Liu et al., 2013; Rahimnia, Karimi Mazidi, & Mohammadzadeh, 2013; Roche, Haar, & Luthans, 2014). Within the framework of resource theory, PsyCap can be seen as a personal resource that allows employees to appraise situations and events in a favourable, adaptive and opportunistic manner, which

contributes to well-being (Avey, Luthans, Smith, & Palmer, 2010). If personal resources are lacking by contrast, meaning an employee faces adversity and obtains a low level of PsyCap, the individual in question will lack the ability to cope with the situation successfully, which in turn will lower well-being. For this reason, PsyCap can be considered a valuable personal resource that allows effective coping through positive cognitions, which promotes employee health.

PsyCap is also associated with other desirable workplace-related factors such as better performance (Abbas & Raja, 2015; Avey et al., 2011; Luthans et al., 2007), innovative work (Abbas & Raja, 2015; Wojtczuk-Turek & Turek, 2015) and creativity in the workplace (Gupta & Singh, 2014; Sweetman, Luthans, Avey, & Luthans, 2011). As pressure and competition are intense in many businesses and industries, having employees that perform well, and deliver innovative and creative outputs is of great value. This is also a strong argument for hiring employees high in PsyCap and for developing PsyCap in employees.

Moreover, PsyCap is linked to positive attitudes and behaviour in the workplace, such as Organisational Citizenship Behaviour (OCB), commitment and job satisfaction (Avey, Luthans, & Youssef, 2010; Avey et al., 2011; Liao, Hu, Chung, & Chen, 2017; Youssef & Luthans, 2007). In addition to that, PsyCap is negatively related to cynicism, turnover intentions, stress, and counterproductive behaviour (Avey, Luthans, & Youssef, 2010; Avey et al., 2011; Yim, Seo, Cho, & Kim, 2017).

Furthermore, mathematical calculations show that the positive effect of PsyCap training can potentially result in a financial profit for the organisation, which suggests that PsyCap could be also valuable in terms of its return on investment (Luthans, Avey, Avolio, Norman, & Combs, 2006).

This section has outlined the beneficial outcomes of PsyCap, which highlights its power and importance in the workplace.

2.2.4. Criticism and Limitations Regarding the Construct of Psychological Capital

PsyCap is based on sound and thorough research per definition (Luthans et al., 2015). Nevertheless, PsyCap is still considered a relatively new and emerging construct and questions around this positive capacity still remain and should be acknowledged.

The current definition of PsyCap includes the facets of self-efficacy, hope, optimism, and resilience. Their synergy has been outlined in the previous section and the existing body of research supports this structure. There remains concern though whether other constructs from Positive Psychology may be added to this higher-order construct (Luthans et al., 2015). Luthans et al. (2015) discuss the potential of other capacities to meet the PsyCap inclusion criteria. They conclude that flow, gratitude, forgiveness, authenticity, and courage are very promising candidates to be included in the higher-order construct and that research concerned with these issues is strongly encouraged.

Although other constructs, such as mindfulness and creativity, have been considered as components of PsyCap, they fall short of meeting the relevant inclusion criteria (Luthans et al. 2015). Nevertheless, they might be important to help PsyCap to flourish. A recent study conducted by Roche et al. (2014) suggests that PsyCap mediates the relationship between mindfulness and well-being. It is argued that mindfulness, which is a state of heightened awareness of the present, assists individuals to have better access to their psychological resources such as PsyCap (Roche et al., 2014). This finding implies that it can be useful to target these capacities as well when aiming to develop PsyCap.

PsyCap's facets also contribute to criticism of the overall construct. The findings of a study on optimism revealed that people make selective use of optimism, that is to say only referring to optimism when they think that it may affect their performance. In addition to that, the study showed that individuals overestimate the effect of optimism on their performance (Tenney, Logg, & Moore, 2015). The findings imply that people are optimistic due to their belief in a causal

relationship between optimism and positive outcomes. While a lot of research supports the positive effects of this assumption, the aforementioned study shows that this is not always the case (Tenney et al., 2015). For this reason, it is important to apply realistic and flexible optimism in order to be a beneficial part of PsyCap. A similar injunction can be given with regards to hope. PsyCap hope can be confused with false hope and it is difficult to separate one from the other. In order to make PsyCap and its facet hope a beneficial capacity, more research should investigate methods that help people to recognise when PsyCap hope turns into false hope (Luthans et al., 2015).

Resilience also offers aspects that can be challenged, mainly with regards to its definition. The presence of adversity plays a huge role in developing PsyCap resilience. Does this assumption imply that individuals who never dealt with adversity are not resilient? In fact, the opposite might be the case, meaning that their resilience is the result of a balanced and stable life (Luthans et al., 2015). Furthermore, resilience shares similarities with other psychological constructs such as hardiness (Britt et al., 2016). The unique contributions of these constructs are still not absolutely clear and it is questionable why one construct forms part of PsyCap and the other does not. A similar confusion exists concerning the term self-efficacy, which is used by Luthans et al. (2015; 2004) synonymously with confidence.

While research vindicates the structure of PsyCap, the criticism and limitations regarding PsyCap should be acknowledged.

2.3.   PERCEIVED ORGANISATIONAL SUPPORT

POS is an important factor in the organisational environment which may work in favour of PsyCap and well-being and potentially contribute to desirable organisational outcomes. The following section will outline the concept of POS, the factors that influence POS, and the impact it has on employees and the organisation.

2.3.1. Defining Perceived Organisational Support

POS refers to the employees' perception regarding the organisation's commitment towards them. It includes the organisation's appreciation and concern in terms of their achievements and well-being as well as the organisation's effort to provide resources (Cullen et al., 2014; Eisenberger et al., 1986). Organisational support can be expressed as the offer of recognition and rewards, such as compensation and other benefits, but also, or in addition to, the organisation's concern regarding the employees' well-being, which is usually targeted by the organisation's practices regarding flexibility, work-family policies, and other HR practices (Worley et al., 2009). The way POS operates can be understood by investigating its underlying mechanisms, which lean on attribution theory, social exchange theory, and self-enhancement (Kurtessis et al., 2015).

POS heavily depends on an employee's attributions with regards to the organisation's intentions. If employees ascribe the organisation's favourable treatment to honest, voluntary concern and appreciation, then the organisation's support will be perceived as a good intention (Kurtessis et al., 2015; Stinglhamber et al., 2016). It could be argued that a good intention behind the offer of organisational support is linked to moral standards and values. Research indicates that morality does positively impact the attractiveness of an organisation, even more by far than "harder" attributes such as perceived competence (van Prooijen & Ellemers, 2015). This finding indicates that the perceived organisation's concern and appreciation towards their employees will make the organisation more attractive.

If the organisation's concern is attributed to its positive intentions, POS will be enhanced. POS in turn, will affect the employees as well as the organisation positively through the mechanisms of social exchange (Kurtessis et al., 2015; Stinglhamber et al., 2016). The principle of reciprocity in social exchange theory is the driving force here, which states that the receiver of a favour is likely to return a favour to the giver (Peng, Schaubroeck, & Li, 2014). If employees receive support, organisational support in this case, they are likely to feel

obligated to return a favour. This favour may be given back by showing increased performance. The reciprocity principle in turn, will create the employee's expectation to be rewarded or recognised by the organisation for the improved performance (Kurtessis et al., 2015). As a result, high POS is expected to lead to favourable organisational outcomes, which will be outlined at a later point. The principle of social exchange and reciprocity also works the other way around. Employees who perceive themselves to be treated badly are likely to show poor behaviour in return (Cohen-Charash & Mueller, 2007).

Moreover, POS triggers self-enhancement processes in employees by meeting their socioemotional needs (Kurtessis et al., 2015; Stinglhamber et al., 2016). Self-enhancement refers to an individual's positive self-evaluation due to the human tendency and preference to see oneself in a favourable light (Sedikides & Gregg, 2016). High POS meets the employees' needs for approval, esteem, emotional support, and affiliation, which in turn will foster an identification with the organisation, which is related to higher levels of affective commitment (Kurtessis et al., 2015; Stinglhamber et al., 2016).

Research suggests that employees do not only see the organisation as a supportive, human-like entity alone, but also identify other aspects within the organisation that are sources of support, such as supervisors and co-workers. They are perceived as representatives of the organisation and contribute to POS (Eisenberger et al., 2014; Stinglhamber et al., 2016).

Summarising all points mentioned, POS refers to the perception of employees regarding their organisation's sincere concern for them. This favourable perception is beneficial to the organisation as well as to the employees, triggering social exchange and self-enhancement processes. These processes promote organisational identification, commitment and performance and provide the organisation with a competitive advantage.

The employees' perception of organisational support can be influenced to a great extent. Factors that promote POS are discussed in the following section.

2.3.2. Factors Influencing Perceived Organisational Support

The behaviour of the organisation's members, the relationship between the employee and the organisation, and HR practices are good predictors of POS (Kurtessis et al., 2015). Each of these antecedents will be outlined in the following section with reference to recent research.

The role and behaviour of supervisors strongly influence POS, especially with regards to leader-member exchange (LMX). LMX theory is closely related to social exchange theory and states that supervisors treat good subordinates in a more favourable manner than subordinates who are not as good. The valued subordinate pays the favourable treatment back by working harder and showing more commitment. This reciprocity fosters strong relationships between supervisors and subordinates (Eisenberger et al., 2014). POS describes a similar relationship, but in terms of the relationship of subordinates and supervisors with the organisation, as outlined in the previous section. Eisenberger et al. (2014) demonstrate that the supervisor's perception regarding support by the organisation influences the quality of their LMX relationships with subordinates. Subordinates in turn, will attribute LMX of good quality to the organisation, in particular when subordinates identify their superiors with the organisation. As a result, the subordinate experiences high levels of POS. The importance of supervisors is also highlighted by a study which found that the interaction of LMX and POS leads to increased affective commitment (Casimir, Ngee Keith Ng, Yuan Wang, & Ooi, 2014). The leadership style of supervisors also plays a critical role with regards to POS. Transformational leadership was found to be more strongly related to POS than a transactional leadership style, indicating that transformational leaders are more strongly associated with POS due to their expression of concern and their inspirational behaviour (Kurtessis et al., 2015). Abusive supervision in contrast, is negatively related to POS, indicating that subordinates blame the organisation for maltreatment by supervisors (Shoss, Eisenberger, Restubog, & Zagenczyk, 2013). Teams and co-workers, seen as a social network at work, are also positively linked to POS (Hayton, Carnabuci, & Eisenberger, 2012), but not as strongly as supervisors. This is because supervisors are regarded to be

representatives of the organisation (Kurtessis et al., 2015).

The quality of the relationship between employees and the organisation also needs to be taken into account when aiming to create high levels of POS. The psychological contract between an organisation and an employee plays an important role when it comes to POS (Aselage & Eisenberger, 2003). The psychological contract refers to the perceptions of employees and organisations regarding what they owe each other, which is a form of social exchange (Robinson, 1996). Aselage and Eisenberger (2003) propose that the psychological contract is a moderator in the relationship between favourable or unfavourable treatment and POS. They state that when an employee perceives low organisational support due to unfavourable treatment, the negative effect of this treatment on POS would be even worse if the treatment violated the psychological contract. Favourable treatment in turn, would be appreciated and related to higher POS, if the treatment was not due to the obligations of the psychological contract. This relationship highlights the importance of a sincere and voluntary intention behind an organisation's actions (Aselage & Eisenberger, 2003).

Perceived fairness and justice in an organisation also affect POS. Research found that distributive and procedural justice are good predictors of POS (Loi, Hang-Yue, & Foley, 2006). Distributive justice refers to the perceived fairness with which benefits, rewards and other resources are distributed within the organisation. Procedural justice is concerned with the fairness of the procedure that is used to distribute resources (Spector, 2012). An additional form of justice that was also found to play a role in POS is interactional justice. Interactional justice is concerned with the treatment of employees by superiors and other agents that represent the organisation (Kurtessis et al., 2015). Interactional justice is related to higher levels of POS, especially in organic organisations, which have loose and decentralised power structures (Ambrose & Schminke, 2003). Procedural justice in contrast, is related to higher levels of POS in more hierarchical organisations, which have more centralised and tight power structures (Ambrose & Schminke, 2003). If employees experience organisational injustice on the other hand, they are more likely to suffer from

negative emotions and stress (Fox, Spector, & Miles, 2001). These findings suggest that perceived fairness and organisational justice are crucial factors that contribute to POS.

POS also refers to resources that are given to employees in order to facilitate their work (Kurtessis et al., 2015). These resources are expressed by providing supportive HR practices. A meta-analysis conducted by Kurtessis et al. (2015) highlights that factors related to employee security and benefits and work role characteristics are positively linked to POS. The most important identified employee benefit factors that relate to POS are developmental opportunities (ρ = .57), job security (ρ = .42), and perceptions of family supportive policies (ρ = .26). Work role characteristics that strongly correlate with POS are job enriching characteristics (ρ = .65), autonomy (ρ = .51), and participation in decision making (ρ = .56). Role stressors in contrast, were negatively related to POS, which include role ambiguity (ρ = -.36), role conflict (ρ = -.45), and role overload (ρ = -.29). Interestingly, work role characteristics revealed stronger correlations with POS than employee security and benefits. This might indicate that employees value attributes of their job that support them in being successful more than tangible benefits. It is also possible that the benefits of policies which promote work-family balance are only valued by employees who are really in need of them, which might have biased the data. Although these work-family friendly practices can be considered to be part of the support structure, it is likely that they will only be linked to POS when they are actually needed and used by employees. Previous research showed that such benefits are mostly appreciated by employees who are married, work full-time and have dependents (Lawton & Chernyshenko, 2008). This factor might have contributed to the relatively weaker relationship between work-family support and POS. Work role characteristics in contrast, are relevant to all working individuals (Kurtessis et al., 2015)

The antecedents of POS have been discussed in this section. Supervisor support, organisational justice and fairness and HR practices that support autonomy, decision-making, and job enrichment were identified as factors that influence the perception of employees regarding organisational support. If

these factors contribute to a positive perception of organisational support and if PsyCap mediates the relationship between POS and well-being, then it will be important to have a closer look at these factors because they may work in favour of PsyCap. The upcoming section aims to outline the outcomes of POS.

2.3.3. Perceived Organisational Support Outcomes

POS is related to various desirable work and health-related outcomes. A major effect of POS is the enhancement of affective commitment in employees, partially mediated by the identification with the organisation (Kurtessis et al., 2015; Marique, Stinglhamber, Desmette, Caesens, & De Zanet, 2013; Shen et al., 2014; Stinglhamber et al., 2016). Affective commitment in turn, is positively related to performance. Affective commitment was identified as a mediator between POS and in-role performance (Casimir et al., 2014). Another study found that affective commitment is also a mediator in the relationship between identification with the organisation and extra-role performance (Marique et al., 2013). These findings indicate that affective commitment, as a result of POS, is an important variable with a significant impact on performance. Furthermore, POS is related to employee engagement, which in turn is linked to higher levels of organisational commitment and job satisfaction (Biswas & Bhatnagar, 2013; Colakoglu, Culha, & Atay, 2010). In addition to that, affective commitment due to POS is negatively related to turnover (Rhoades, Eisenberger, & Armeli, 2001). Affective commitment caused by POS also plays an important role in terms of well-being (Panaccio & Vandenberghe, 2009). Furthermore, POS is negatively related to burnout (Walters & Raybould, 2007). A supportive organisational climate is also linked to higher positive PsyCap (Luthans, Norman, Avolio, & Avey, 2008).

Summarising all aspects mentioned, POS operates on an emotional level, promoting affective commitment, identification with the organisation, engagement, satisfaction, health, a positive mindset, and therewith good performance in employees.

2.3.4. Criticism and Limitations Regarding the Construct of Perceived Organisational Support

POS refers to the perception of employees regarding the support offered by their organisation. There is not much criticism of POS, but the perceptual component and the underlying mechanisms of POS have to be discussed critically.

It should be noted that if employees do not perceive their organisation to be supportive, it will not necessarily imply that the organisation does not offer support. POS depends on the employees' subjective impression regarding the amount of support that is offered. It was shown that an individual's perception of organisational support is not consistent but fluctuates, depending on environmental factors and incidents that occur from time to time in the organisation (Caesens, Stinglhamber, & Ohana, 2016). The organisation can influence the employee's perception of organisational support by means of sincerity or frequency of their offers of support (Haar, De Fluiter, & Brougham, 2016). This implies that if employees do not feel encouraged to use existing support structures, their perception of organisational support will likely be low. Moreover, an employee may perceive the organisation to be supportive, but that does not necessarily result in positive outcomes. An explanation for that can be found in the assumed underlying mechanisms of POS.

As discussed in the previous section, a major factor that influences POS is one's supervisor who acts as a representative of the organisation (Eisenberger et al., 2014). If an employee does not perceive to be getting sufficient support from his or her supervisor, he or she will blame the organisation, although the organisation might well have implemented support structures. In addition, an employee might not appreciate given support if he or she has the impression that it is not offered on a voluntary basis but coerced to fulfil obligations (Aselage & Eisenberger, 2003), which means that employees might express low levels of POS despite the fact that the organisation may well have support structures in place.

Furthermore, it is not guaranteed that POS leads to favourable outcomes such as affective commitment and good performance. POS resulting in affective commitment and performance requires the employee to feel the obligation to return a favour due to the principle of reciprocity. Experimental studies have found evidence that employees often return a favour to the organisation by enhancing productivity (Barr & Serneels, 2009; Bellemare & Shearer, 2009), but meanness and selfishness are undeniable facts of human nature. Humans evaluate and compare payoffs in order to decide whether reciprocal behaviour will be appropriate, and it was found that humans most frequently express selfishness by attaching greater importance to their own payoffs than those of others (Brandts, Fatás, Haruvy, & Lagos, 2015). This finding does not align with the notions of Positive Psychology and POB of believing in the best in people, but one has to be critical and realistic by acknowledging that positivity in the workplace will not in all cases lead to the desired consequences.

Considering all aspects mentioned, POS does indeed have a positive influence on employee well-being and the organisation, but only if employees perceive and interpret social support in a favourable manner. It will also only result in desirable organisational behaviour and attitudes if employees do not act selfishly but choose to return the favour.

2.4. WELL-BEING

The sections that elaborated on PsyCap and POS repeatedly emphasised the positive effects of PsyCap and an organisation's support for an individual's well-being. Well-being is a broad construct and each person has his or her own understanding and concept of it. Well-being has become the main research area for many Positive Psychology scholars and therefore many approaches exist to define and explain the construct (Linley et al., 2009). This section aims to give a definition of well-being based on recent research, to elaborate on the importance of well-being, and to outline how well-being can be promoted within the workplace.

2.4.1. Defining Well-being

The terms well-being and happiness are often used interchangeably in literature as well as in daily life (Deci & Ryan, 2008; Ryff & Boylan, 2016). There is the debate that well-being might consist of two different factors. On the one hand, there is hedonic or subjective well-being, and on the other hand, there is eudaimonic or psychological well-being, which have historical and philosophical roots (Deci & Ryan, 2008; Ryan & Deci, 2001). The different concepts of well-being can be traced back through history. From ancient Greek philosophers by way of the English philosopher Thomas Hobbes to the utilitarian philosopher Jeremy Bentham, they all understood well-being as hedonism and thought that one's main goal in life was the experience and maximisation of pleasure (Ryan & Deci, 2001). The Greek philosopher Aristotle on the other hand, devoted a great part of his life to the question on how an individual should live. He stated that life is more than about subjective feelings of happiness but is rather about striving towards one's full potential in an attempt to achieve self-actualisation, which is referred to as eudaimonia (Ryff & Singer, 2008). The concept of personal growth and self-actualisation was also considered by the humanist psychologist Abraham Maslow (Maslow, 1943), whose hierarchical needs theory is still taught and investigated by psychologists today. Based on these philosophical perspectives, researchers have developed more scientific frameworks of hedonic and eudaimonic well-being.

Hedonic well-being is concerned with pleasure and happiness. Happiness is seen to be the product of life satisfaction, the presence of positive feelings and the absence of negative feelings (Ryan & Deci, 2001). The assessment of subjective or hedonic well-being differs from study to study, as outlined below. While some researchers measure subjective well-being through the assessment of overall life satisfaction and mental health (Lee, Chung, & Park, 2016), others use life satisfaction only (Matysiak, Mencarini, & Vignoli, 2016; Stam, Sieben, Verbakel, & de Graaf, 2016), or positive and negative affect in combination with life satisfaction (Jamaludin, Sam, Sandal, & Adam, 2016).

It is argued, however, that happiness and pleasure are not equivalent to feeling psychologically well. For this reason, it is suggested that well-being does not only incorporate hedonia, but also eudaimonia (Deci & Ryan, 2008). Eudaimonic well-being is rather seen as a cognitive process where individuals prosper in terms of behaviour and motivation by striving towards their full potential (Culbertson et al., 2010; Waterman et al., 2008). Culbertson et al. (2010) outline a very prominent approach by Ryff (1989) in assessing eudaimonic well-being. In this approach, eudaimonic well-being is conceptualised through the factors self-acceptance, purpose in life, personal growth, positive relations with others, environmental mastery, and autonomy (Culbertson et al., 2010), which are widely-used measurements of psychological well-being to date (Berzonsky & Cieciuch, 2016; Friedman et al., 2017; Tomba, Tecuta, Schumann, & Ballardini, 2017).

A common way to conduct research on well-being is applying either the construct of hedonic or eudaimonic well-being, or both constructs together (Berrios, Totterdell, & Kellett, 2017; Culbertson et al., 2010; Nelson, Fuller, Choi, & Lyubomirsky, 2014; Newman, Tay, & Diener, 2014; Weiss, Westerhof, & Bohlmeijer, 2016). Although research has found that hedonic and eudaimonic well-being seem to be distinct constructs (Joshanloo, 2016; McMahan & Estes, 2011; Straume & Vittersø, 2012; Vittersø & Søholt, 2011), it is questionable whether these two different approaches, that are based on different philosophies, are significantly distinctive from a scientific and psychometric point of view. Recent research suggests that hedonic and eudaimonic well-being rather make up one unique factor and should be treated as one well-being construct (Disabato et al., 2016; Longo et al., 2016).

Questions may be raised about the discriminant validity of hedonic and eudaimonic well-being due to high correlations between these two constructs (Disabato et al., 2016). A cross tabulation of subjective and psychological well-being with the data of a large American sample (N = 3032) revealed a great overlap of these constructs with a correlation of r = .84 (Keyes, Shmotkin, & Ryff, 2002). Another study with two different samples (N = 4031 and N = 591) showed a correlation of hedonic and eudaimonic well-being of r = .78 and r =

.92 (Gallagher et al., 2009). Furthermore, Linley et al. (2009) found a correlation of $r = .76$ between hedonic and eudaimonic well-being ($N = 1632$). This suggests that hedonic and eudaimonc well-being lack discriminant validity.

Disabato et al. (2016) conducted a study that investigated the discriminant validity of hedonic and eudaimonic well-being by investigating latent correlations between these constructs and correlations between hedonia and eudaimonia with other known well-being constructs. Furthermore, they used a sample of $N = 7617$ participants from 109 countries to assess well-being in a global context. Hedonia was assessed through life satisfaction, happiness and depression. Eudaimonic measures were meaning in life and psychological well-being using Ryff's (1989) model. If hedonia and eudaimonia were indeed different constructs, they would have different correlates (Disabato et al., 2016). For this reason, it was necessary to calculate correlations with other well-being indicators. Well-being correlates included happiness orientations, hope, gratitude, curiosity, grit, search for meaning, rumination, and loneliness. The analysis revealed a very high correlation between hedonia and eudaimonia of $r = .96$, indicating that there is no evident discriminant validity and that they represent one overarching well-being construct (Disabato et al., 2016). The correlation of hedonic and eudaimoinc well-being with other well-being constructs showed no evidence of being distinct constructs neither because of small average differences in these correlations. According to Disabato et al. (2016), these results imply that the distinction between hedonia and eudaimonia is rather a philosophical than a scientific one. They recommend conceptualising hedonia and eudaimonia as one higher order factor with lower order constructs instead of treating them as two separate well-being constructs.

A study conducted by Longo et al. (2016) also provides support for a higher-order factor explaining hedonic and eudaimonic well-being. The researchers investigated a recent well-being measure that was said to have a two-factor structure representing hedonic and eudaimonic well-being. Longo et al. (2016) hypothesised that two different factors emerged because of differences in item scaling. The researchers used the same European data set ($N = 41\ 461$) that was used to validate the aforementioned well-being measure in order to

analyse whether the two-factor structure resulted from method effects. After controlling for these effects and testing whether the data fit a bifactor model which consists of one general factor that includes two specific factors, Longo et al. (2016) found that the data were best represented by the bifactor model. The items showed higher loadings on the general factor than on the specific factors, and the general factor showed higher reliability than the specific factors, which indicates that any systematic variance that is not explained by the general factor is a product of method effects. A two-factor solution was also tested, but the two factors were highly correlated with $r = .76$ and the shared variance of these two factors was bigger than their unique variance, which implies that the two factors possess poor discriminant validity. To further validate these findings, Longo et al. (2016) conducted another analyses with a new sample ($N = 560$) using the same rating scale for all items to control for method effects. A two-factor solution showed a very high correlation ($r = .97$) between the factors as well, indicating poor discriminant validity. A one-factor solution fitted the data well. It is therefore suggested that subjective and psychological well-being rather reflect one dimension than being distinct constructs (Longo et al., 2016), which also aligns with the findings of Disabato et al. (2016).

Concluding all aspects mentioned, it can be said that well-being consists of facets that are concerned with positive feelings as well as positive functioning, but in terms of measurement and assessment, well-being can be rather seen as one factor, as proposed by recent research. This section elaborated on the meaning of well-being by outlining philosophical ideas as well as scientific approaches. The following section will discuss how well-being can be influenced and promoted.

2.4.2. Factors Influencing Well-being

The fast pace and competition in global markets put a lot of pressure on organisations and businesses which in turn compromise the health and well-being of their employees. The economy cannot be changed, but what can be altered is how organisations create a work environment that contributes to the well-being of employees and how people deal with adversity and challenges. There are many ways to enhance well-being, such as a healthy lifestyle with a

balanced diet and physical exercise, but within the framework of this psychological research in organisational settings, organisational and psychological factors are discussed as the main contributors to employee well-being, which was previously defined as positive affect and positive psychological functioning.

A recent study with more than 30 000 participants investigated various factors related to employee well-being. The respective factors included workplace demands, social relationships and leadership, the meaning of work, opportunities for development and role conflict as well as work-life balance (Schütte et al., 2014).

High demands are associated with lower levels of well-being (Smith & Smith, 2017). Schütte et al. (2014) found that quantitative demands, investigated as a facet of workplace demands, were significantly related to low employee well-being. The researchers defined quantitative demands as having tight deadlines to meet or as having to work at a fast pace. Resources are important to successfully deal with demanding situations. If demands exceed an individual's resources, the individual will not be able to successfully cope with the situation, which will result in stress (Lazarus, 1990). It is proposed that resources do not only buffer demands, but that they also fuel motivational processes, which contribute to well-being (Bakker & Demerouti, 2014).

Social relationships and leadership at work are resourceful and supportive variables that positively impact well-being (Schütte et al., 2014). Support was identified as a strong predictor of well-being (Smith & Smith, 2017). Social relationships can be seen as a valuable resource that provide emotional and instrumental support, which help employees to deal with job demands and satisfy their need to belong (Sonnentag, 2013). Leadership in particular can have a great impact on how employees feel and function psychologically (Arnold, Turner, Barling, Kelloway, & McKee, 2007; Chughtai, Byrne, & Flood, 2015; Kelloway, Weigand, McKee, & Das, 2013). There are various forms of leadership, and some of them contribute significantly to a greater sense of well-being in employees.

Transformational leadership, for instance, was found to be positively related to well-being (Arnold et al., 2007). Transformational leaders show deep concern for their employees by expressing idealised influence, individual consideration, intellectual stimulation, and inspirational motivation (Antonakis, 2012). Seeing meaning in one's work acts as a mediator in the relationship between transformational leadership and well-being (Arnold et al., 2007). This finding aligns with the one of Schütte et al. (2014), who identified meaning of work as a predictor of well-being. Ethical leadership is also linked to employee well-being (Chughtai et al., 2015). What transformational and ethical leadership have in common is that their leaders express concern for their employees and that they act as ethical role models, but that they differ in the way in which ethical behaviour in employees is shaped. Ethical leaders explicitly communicate the importance of ethical conduct and reinforce it by means of rewards and punishment (Chughtai et al., 2015). The notions of Positive Psychology also resulted in their application to leadership. Positive leadership is characterised by focusing on the strengths of employees and the best of the human condition. Respective leaders show a strong orientation towards positivity and reinforce positive outcomes (Blanch, Gil, Antino, & Rodríguez-Muñoz, 2016). Positive leadership is seen to add incremental power to transformational leadership when predicting employee well-being (Kelloway et al., 2013). Another form of leadership which contributes to greater well-being is authentic leadership (Nelson, Boudrias, et al., 2014). Authentic leaders are characterised by high levels of PsyCap and self-awareness, the ability to motivate their followers and the capability of creating a working environment that encourages openness and sharing, which also contributes to PsyCap development in employees (Luthans et al., 2015).

Opportunities for development can also be considered as resources which contribute to employee well-being (Schütte et al., 2014). Various other studies also revealed similar findings, linking HR practices regarding development (Herb, 2015; Kooji et al., 2013) and occupational planning (Zhao, Liu, & Chen, 2015) to well-being. Herb (2015) provides an explanation why opportunities for development contribute to greater well-being. It is argued that employee development and the resulting benefits satisfy the individual's need for

autonomy, relatedness, and competence, which in turn enhance psychological and subjective well-being.

Work-life balance is another important factor which influences well-being in employees (Schütte et al., 2014). Work-life balance refers to the individual's perceived balance of his or her different roles in life (Haar, Russo, Suñe, & Ollier-Malaterre, 2014). A role conflict of clashing life roles, also called extra-role conflict (Spector, 2012), causes work-life imbalance, which is related to a poor sense of well-being (Lunau, Bambra, Eikemo, Van Der Wel, & Dragano, 2014). Balanced individuals in turn experience more job and life satisfaction and less anxiety (Haar et al., 2014). Another form of role conflict is the intra-role conflict, which arises due to multiple, incompatible demands within one's job (Spector, 2012). Organisational and personal resources may assist employees in dealing with conflicting demands, either due to conflicting life or work roles.

For the outlined reasons, it is important to provide employees with resources and support in order to help them to succeed in the fast-paced business environment and maintain good health. Supportive leadership and opportunities for development for instance, were proposed as means to provide organisational support. POS and PsyCap may act as organisational and personal resources that promote well-being. Their relationship to each other and their impact on well-being will be discussed at a later stage.

2.4.3. Well-being Outcomes

Various studies have investigated the positive effects of well-being in the workplace. It should be noted, however, that well-being is a very broad construct, and as outlined earlier, scholars seek many different ways to measure well-being. The measures might differ among these studies, but what they have in common is that well-being is seen as either positive affect and feeling, positive psychological functioning, or a combination of the two. Well-being is linked to increased productivity (Oswald, Proto, & Sgroi, 2015), less sick-leave (Straume & Vittersø, 2015), more positive work attitudes such as job satisfaction and positive affect and fewer negative work-related attitudes (Shany & Kaplan, 2014). According to the broaden-and-build theory, positive

emotions do broaden an individual's cognitive capacity and by doing so, build personal resources. The accumulation of personal resources do in turn contribute to the enhancement of positive emotions, leading to a positive upward spiral. Negative emotions by contrast, limit and narrow the thought and action repertoire, resulting in a downward spiral (Fredrickson & Joiner, 2002). Broadened cognition due to positive affect enhances creativity (Conner & Silvia, 2015) and innovative work behaviour (Madrid, Patterson, Birdi, Leiva, & Kausel, 2014), which are desired attributes in competitive businesses and contribute to outstanding performance.

As a consequence, organisations should have an interest in investing in their employees' well-being. Employees that experience positivity and show optimal psychological functioning are an asset to every organisation. Therefore, it is essential to provide organisational resources and develop personal resources in order to build a workforce that is able to perform at a high level despite the challenges and demands they have to face in the business environment.

2.4.4. Criticism and Limitations Regarding the Construct of Well-being

Although the definition of well-being has been discussed in detail, this remains the most critical aspect of this construct. Well-being is a broad construct and it is manifested in everyday language in many different ways. Scholars attempt to define well-being in a scientific manner and aim to quantify it in terms of measurement. Many researchers support the assumption that well-being should be defined with regards to hedonic as well as to eudaimonic well-being and use either one of these constructs or both in order to assess well-being (Berrios et al., 2017; Culbertson et al., 2010; Nelson, Fuller, et al., 2014; Newman et al., 2014; Weiss et al., 2016), and yet others use measurements of mental health (Roche et al., 2014) to capture well-being.

Recent research (Disabato et al., 2016; Longo et al., 2016) provided evidence that well-being, when seen from a hedonic and eudaimonic perspective, is rather one overarching factor that consists of lower-order factors. These two studies were outlined and their findings justify the use of the measure that is

used in the present study, which is a unidimensional scale containing hedonic as well as eudaimonic items. It is important, however, to acknowledge that another recent study found support for hedonia and eudaimonia being distinguishable constructs (Joshanloo, Bobowik, & Basabe, 2016). Joshanloo et al. (2016) used exploratory structural equation modeling to investigate the factor structure of well-being, whereas Disabato et al. (2016) and Longo et al. (2016) applied confirmatory factor analysis. As a consequence, the different findings can be attributed to the use of different statistical models. Joshanloo et al. (2016) argue that confirmatory factor analysis overestimates factor correlations and for this reason exploratory structural equation modeling might be more appropriate for this purpose. These findings are interesting, but the application of exploratory structural equation modeling as a substitute for confirmatory factor analysis with regards to the factor structure of well-being needs to be further investigated and validated in future research.

In concluding from all the points mentioned, it can be said that it is valid to see and assess well-being as a unidimensional construct, as hedonic or eudaimonic well-being, or it can even be investigated by the assessment of mental health or other constructs that are regarded as being related to well-being. Whatever a researcher decides to use, it is important to acknowledge that the respective findings and results are only interpretable within the frame of reference and definition the researcher has provided.

2.5. RELATIONSHIP BETWEEN PERCEIVED ORGANISATIONAL SUPPORT, PSYCHOLOGICAL CAPITAL AND WELL-BEING

The constructs of POS, PsyCap and well-being have been outlined and investigated. The present study aims to investigate more closely how these constructs work together and relate to each other. The following sections will firstly outline the theories that underpin the proposed relationship of these three constructs, and then research findings regarding the links between these constructs will be discussed.

2.5.1. Theories linking Perceived Organisational Support, Psychological Capital and Well-being

This section will outline the assumptions of JD-R Theory and COR Theory in order to give a theoretical framework explaining how POS, PsyCap and well-being relate to each other.

2.5.1.1.   Job Demands-Resources Theory

Bakker and Demerouti (2007) presented the JD-R model, which explained the function and interaction of job demands and job resources. After years of research, Bakker and Demerouti (2014) expanded the assumptions of the model to an entire theory that also takes personal resources into account, calling it JD-R Theory. Within the frame of JD-R Theory, predictions about well-being and performance in the workplace can be made.

Bakker and Demerouti (2007) define job resources as "physical, psychological, social, or organizational aspects of the job that are either/or (1) functional in achieving work goals, (2) reduce job demands and the associated physiological and psychological costs, (3) stimulate personal growth, learning, and development" (p. 312). Job demands are referred to as "those physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs" (Bakker & Demerouti, 2007, p.312).

The main assumption states that job demands and job resources trigger different processes. Job demands predict health impairment, such as exhaustion and psychosomatic issues, whereas job resources are good predictors of motivational processes, which predict desirable work behavior (Bakker & Demerouti, 2014). In addition to that, Bakker and Demerouti (2014) outline the two-way interaction of job demands and job resources. On the one hand, job resources can buffer the negative effects of job demands, and on the other hand, job demands can reinforce the motivational effects of job resources. The underlying mechanism here is that challenging demands make resources

more salient and fuel motivation to accomplish the task (Bakker & Demerouti, 2014).

The inclusion of personal resources and the acknowledgement of the importance of a person in JD-R Theory is a valuable addition to the JD-R model from 2007 (Bakker & Demerouti, 2014). Bakker and Demerouti (2014) note that interventions and training are efficient ways to enhance the personal resources of employees, referring to Luthans et al.'s (2010) PsyCap intervention in particular. Earlier research has found that the personal resources of self-efficacy and optimism partially mediate the relationship between job resources and engagement (Xanthopoulou et al., 2007). These findings imply that job resources assist personal resources to flourish.

JD-R Theory provides a framework that explains why POS and PsyCap may contribute to well-being. Employees who perceive that they have organisational support are more likely to make full use of their PsyCap, which in turn buffers job demands and fuels motivation and positive psychological functioning. The following section will introduce another theory that fosters this relationship.

2.5.1.2.   Conservation of Resources Theory

The COR Theory was proposed by Hobfoll (1989) and aligns very well with the assumptions of JD-R Theory. Hobfoll (1989) defines psychological stress "as a reaction to the environment in which there is (a) the threat of a net loss of resources, (b) the net loss of resources, or (c) a lack of resource gain following the investment of resources" (p. 516). Resources are referred to as objects, personal characteristics, or conditions which are important to the individual and they also facilitate the attainment of other resources. As a consequence, it is suggested that individuals aim to protect their resources in order to prevent resource loss when facing stress and adversity (Hobfoll, 1989).

COR Theory is based on three principles (Chen et al., 2015). The first principle states that resource losses have a higher weight than resource gains. By implication individuals aim to protect resources to prevent resource loss, which is the second principle. The accumulation of resources protects individuals from

resource loss, and that is why individuals are interested in resource investment. The third principle states that individuals who have experienced chronic loss of resources will perceive a resource gain as more salient than people who did not experience a resource loss (Chen et al., 2015).

Moreover, Chen et al. (2015) highlight that resources seldom occur separately, but that they rather accumulate and reinforce each other. With that being said, resources are accumulated in caravan passageways, which "are the environmental conditions that support, foster, enrich, and protect the resources of individuals, families, and organizations, or that detract, undermine, obstruct, or impoverish people's resource reservoirs" (Chen et al., 2015, p.98).

The principle of resource accumulation and the way they are sustained explain why POS and PsyCap are positively related to well-being. If employees perceive their organisation to be supportive, this will create a resourceful environment, which protects them from resource loss and contributes to resource gain. In this case, a resourceful environment will help to protect and build personal resources like PsyCap. In addition, PsyCap's higher-order structure and the synergy of self-efficacy, hope, optimism, and resilience reinforces the accumulation of resources. Avey, Luthans, Smith and Palmer (2010) indicate that PsyCap's facets and their cognitive processes facilitate the appraisal of available resources, which serves as an indicator of one's overall well-being. The accumulation of job and personal resources results in greater well-being due to an enhanced capability to deal with demands, and a mindset that works in favour of motivation and of a positive evaluation of one's well-being.

The theories which support the assumption that POS and PsyCap are positive resources contributing to well-being have been explained. The next section will outline research findings that support the suggested relationships between POS, PsyCap, and well-being.

2.5.2. Research linking Perceived Organisational Support, Psychological Capital and Well-being

The present section will outline research that links POS, PsyCap, and well-being. The given definition of well-being in this research is that of a state characterised by positive feelings and positive functioning. PsyCap and POS are both concerned with positive affect and functioning, which is the reason why they serve as excellent resources in promoting well-being. The dynamics of these constructs are outlined in the following.

2.5.2.1.   Linking Perceived Organisational Support and Well-being

The perception of organisational support is a valuable resource that might contribute to well-being, which is characterised by positive affect and positive psychological functioning in this research. Organisational support may be conveyed through supervisor support, opportunities for development, or HR practices that promote autonomy and flexibility (Kurtessis et al., 2015) and trigger self-enhancement processes by meeting socio-emotional needs (Kurtessis et al., 2015; Stinglhamber et al., 2016), which contribute to positive affect. Opportunities for development and other beneficial HR practices might contribute to positive psychological functioning. Recent studies indicate that POS is indeed related to positive affect (Caesens, Stinglhamber, Demoulin, & De Wilde, 2017; Caesens et al., 2016) and positive psychological functioning (Ni & Wang, 2015), which shows that POS is positively related to well-being.

2.5.2.2.   Linking Perceived Organisational Support and Psychological Capital

Job resources contribute to development and flourishing of personal resources (Xanthopoulou et al., 2007). If POS is seen as a job resource and PsyCap as a personal resource, it can be argued that organisational support works in favour of the employees' self-efficacy, hope, optimism, and resilience. It was shown that a supportive climate is related to PsyCap (Luthans, Norman et al., 2008). Several recent other studies also revealed that POS is significantly linked to

PsyCap (Azim & Dora, 2016; Hui, Cao, Le, & He, 2014; Liu et al., 2013; Sihag & Sarikwal, 2015), which supports the outlined assumption that POS helps the psychological resource of PsyCap to flourish.

2.5.2.3. Linking Psychological Capital and Well-being

The higher-order construct of PsyCap can be seen as a psychological resource that assists employees in dealing with demanding and challenging situations (Luthans et al., 2015). Optimism, hope, self-efficacy, and resilience do all contribute to positive feelings and positive functioning in employees. PsyCap is a significant predictor of well-being due to its positive cognitive and behavioural processes, which was also shown in research (Avey, Luthans, Smith, & Palmer, 2010, Malinowski & Lim, 2015).

Summarising all aspects mentioned linking POS, PsyCap, and well-being, it is evident that POS is related to well-being in employees and that enhanced PsyCap through POS may account for this effect. The following section will outline the research question that is implied by the JD-R and COR Theory and will present the proposed research model.

2.6. RESEARCH QUESTION AND PROPOSED MODEL

The assumptions of JD-R Theory and COR Theory imply that POS and PsyCap are resources that buffer the negative effect of stress and demands and fuel motivational processes. Moreover, the accumulation of resources protect employees from resource loss due to adversity and contribute to a positive evaluation of one's well-being.

Organisations usually offer support because they want to promote well-being in their employees and enhance performance together with other desirable work outcomes. The absence of well-being or even the presence of ill-being is a critical factor with a huge negative financial impact. It is vital for a business to avoid costs due to employee illness, lack of motivation, absenteeism, and weak performance. In order to make sure that the offered support results in employee

well-being, it is crucial to investigate the underlying mechanism of support structures that impact well-being. From a Positive Psychology perspective, it is assumed that job resources contribute to a positive mindset which is characterised by cognitive processes that energise, motivate and protect individuals from adversity, resulting in a greater sense of well-being. It is therefore interesting to investigate whether the personal resource of PsyCap acts as a mediator in the relationship between POS and well-being. If this is the case, then organisations will be able to enhance the effectiveness of the support offered by providing support structures that target the self-efficacy, hope, optimism, and resilience of employees.

Recent research suggests that PsyCap acts as a mediator in the relationship between instructor support and well-being (Nielsen et al., 2016) and in the relationship between social support and well-being (Li et al., 2014). These studies provide evidence that PsyCap mediates the relationship between support structures and well-being. The present study aims to analyse whether similar findings can be found in the workplace regarding the mediating role of PsyCap in the relationship between POS and employee well-being.

As highlighted, within the frame of JD-R Theory, job resources should contribute to overall well-being by buffering the negative effects of job demands (Bakker & Demerouti, 2014). This assertion lays the foundation for the first hypothesis.

H1:   POS is positively related to well-being.

Job resources have been shown to help personal resources to develop and flourish (Xanthopoulou et al., 2007). For this reason, it can be presumed that POS is positively related to PsyCap.

H2:   POS is positively related to PsyCap.

PsyCap can be considered as a personal resource that helps individuals to cope with job demands and as a cognitive capacity that facilitates and fosters

the evaluation of available resources being used as an indicator of well-being as proposed by Avey, Luthans, Smith and Palmer (2010) according to COR Theory. Seeing PsyCap as a positive state of mind, PsyCap is positively linked to well-being.

H3: PsyCap is positively related to well-being.

It was proposed that POS would be positively related to well-being. The mechanism of this relationship is a subject of interest and based on the aforementioned hypotheses, it is assumed that PsyCap may mediate the relationship between POS and well-being. POS assists the personal resource of PsyCap to flourish, which results in an accumulation of resources. According to COR Theory, this resource accumulation helps employees to deal with demands in the workplace and act as an indicator of one's well-being.

H4: PsyCap mediates the relationship between POS and well-being.

Where mediation is found, it also has to be analysed to establish whether it is full or partial mediation.

The four hypotheses that need to be tested to gain a deeper insight into the relationship between POS, PsyCap, and well-being are illustrated in Figure 2.2.
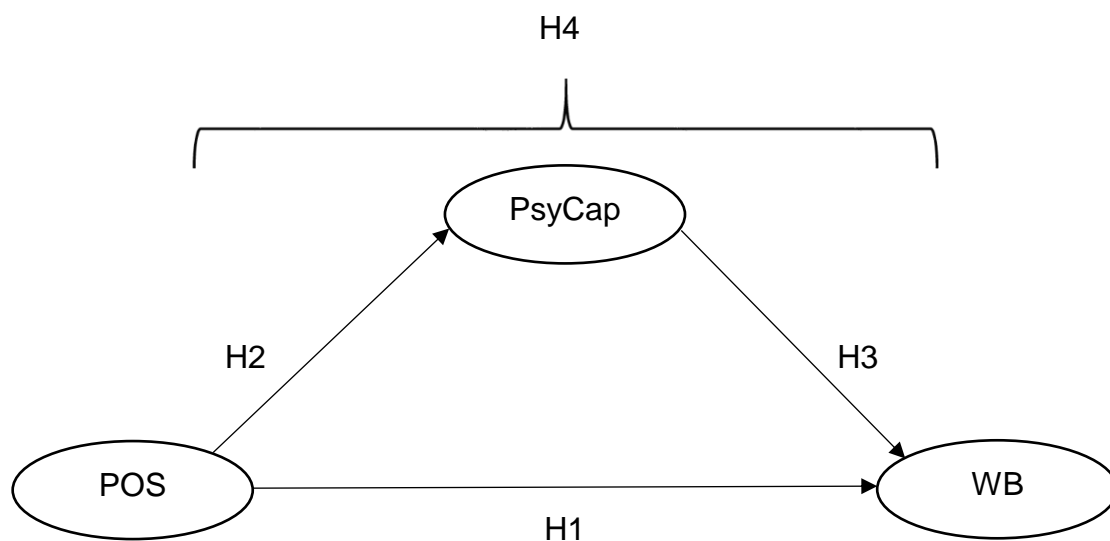
Figure 2.2: Proposed relationship between POS, PsyCap, and well-being.

2.7. CHAPTER SUMMARY

This chapter outlined the constructs of PsyCap, POS, and well-being, explained how these constructs can be influenced, and highlighted their positive outcomes. It became evident that these constructs were related to each other and that organisations could contribute to their employees' well-being to a great extent by providing support that promoted a positive mindset characterised by cognitive processes that would facilitate dealing with the demands in a stressful work environment. The upcoming chapter will outline the methodology of the present study.

CHAPTER THREE
METHODOLOGY

3.1. INTRODUCTION

The second chapter elaborated on the constructs of PsyCap, POS, and well-being and outlined their proposed relationship to each other. The present chapter will focus on the methodology that was used to analyse the hypothesised relationship of PsyCap, POS, and well-being. The methodology chapter refers to the research design, the selected sample, the measuring instruments and the procedures followed for the present study.

3.2. RESEARCH DESIGN

Putting thought into the research design is a crucial part of the research process. This is an important factor that contributes to the success of a research project. A non-experimental, cross-sectional design, using an online survey was chosen to conduct the present study. A non-experimental design has the advantage of quick and inexpensive data collection. A cross-sectional design indicates that all the necessary data from the survey were collected at one point in time (Spector, 2012).

There are, however, also disadvantages of using a non-experimental design. Surveys usually rely on the participants' self-appraisals, which are not always an accurate source of information due to biases. Moreover, non-experimental designs and cross-sectional designs, such as surveys, do not allow a causal interpretation of findings. This makes it difficult to determine how one variable affects the others. This short-coming can be countered by conducting longitudinal surveys, where causal conclusions can more easily be arrived at (Spector, 2012).

3.3.   POPULATION AND SAMPLE

The target population for the present study was comprised of South African employees. The key criterion for participating in the survey was being an adult South African who is employed, but not self-employed. Considering that POS was one of the assessed variables, it was decided that self-employed people were not eligible to participate in the study as they would not have been able to identify with POS. A specific company was not utilised for this study because POS is a variable that may be subject to social desirability (Boateng, 2014). If employees knew that their entire company was included in the study, they might have hesitated to give completely accurate answers because this might then reflect a negative organisational image. In addition to that, a questionnaire that is distributed by superiors might increase pressure to participate in the study even though participation is voluntary and anonymous. An anonymous survey, which targets employees all over the country, in contrast, gives employees the assurance that their responses will not affect their organisation or themselves in any negative way.

A non-probability convenience and snowball sampling technique was used for the present study, which is therefore unlikely to be representative of the entire South African employee population. Since it was not aimed to draw inferential conclusions regarding the population, this sampling method was considered suitable. The demographic variables were solely assessed in order to describe the sample. The anticipated statistical method, which is outlined later in the chapter, required a minimum sample size of 148 participants.

One hundred and seventy-two respondents participated in the survey. Thirteen responses had to be removed from the data set because they did not meet the criteria for participation. The final sample was thus comprised of 159 respondents. Table 3.1 outlines the descriptive statistics of the sample.

Table 3.1: Descriptive statistics of the sample's (N = 159) demographic variables, including frequency, percentage, and cumulated percentage.

Variable		Frequency	Percentage	Cumulated Percentage
Age				
	< 30	56	35.2	35.2
	30 – 39	36	22.6	57.9
	40 – 49	26	16.4	74.2
	50 – 59	23	14.5	88.7
	60 +	18	11.3	100.0
Gender				
	Male	63	39.6	39.6
	Female	96	60.4	100.0
First Language				
	English	63	39.6	39.6
	Afrikaans	74	46.5	86.2
	Xhosa	21	13.2	99.4
	Zulu	1	.6	100.0
Relationship Status	Single	34	21.4	21.4
	Married	75	47.2	68.6
	Relationship	33	20.8	89.3
	Divorced	13	8.2	97.5
	Widowed	1	.6	98.1
	Other	3	1.9	100.0
Highest Qualification	Matric	28	17.6	17.6
	Diploma	43	27.0	44.7
	Certificate	16	10.1	54.7
	Bachelor's	23	14.5	69.2
	Honour's	26	16.4	85.5
	Master's	11	6.9	92.5
	Doctorate	9	5.7	98.1
	Other	3	1.9	100.0
Occupation				
	Education	39	24.5	24.5
	Health	19	11.9	36.5
	Engineering / Construction	13	8.2	44.7
	Sales / Marketing	17	10.7	55.3
	Administration	32	20.1	75.5
	Finance/ Accounting	11	6.9	82.4
	Human Resources	6	3.8	86.2
	Other	22	13.8	100.0

More than one third (35.2%) of the respondents were younger than 30 years old; 53.5% were between 30 and 59 years old, while 11.3% were 60 years or older. More women (60.4%) than men (39.6%) participated in the survey. Most

respondents were either Afrikaans (46.5%) or English (39.6%) speaking and almost half (47.2%) of the respondents indicated that they were married. In terms of educational qualifications more than half (54.7%) indicated that they had obtained matric, a diploma or a certificate as their highest qualification, while 43.5% possess a University degree. Many respondents were working in the field of education (24.5%) or in administrative jobs (20.1%). The rest of the sample are employed in the following fields: health (11.9%); engineering/construction (8.2%); sales/marketing (10.7%); finance/accounting (6.9%); human resources (3.8%), or a different field of occupation (13.8%).

3.4. MEASURING INSTRUMENTS

A composite questionnaire comprising three measures was utilised to gather data in the present study. The measuring instruments used were the Survey of Perceived Organisational Support (SPOS), the Psychological Capital Questionnaire (PCQ-24), and the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). The composite questionnaire (excluding the PCQ-24) can be found in Appendix A. A section on demographic variables was also included at the end of the questionnaire. The measures that were used in the present study are outlined below.

3.4.1. Survey of Perceived Organizational Support (SPOS)

The SPOS developed by Eisenberger, Huntington, Hutchinson and Sowa (1986) is a unidimensional construct consisting of 36 items measuring POS. The original measure shows strong internal consistency with a Cronbach's alpha of .97, which supports the one-factor structure of the scale and its construct validity, consisting of one factor (Eisenberger et al., 1986). The SPOS was also applied in the African context and revealed the same one-factor structure, indicating that the scale can be applied across cultures (Tumwesigye, 2010). Rhoades and Eisenberger (2002) emphasise that researchers can also consider using a shortened version of the SPOS, by taking the eight items of the original measure (1986) with the highest factor loadings into account. The shortened version of the SPOS (utilised by the present study) is still a popular

measure today (Caesens et al., 2017, 2016; Gillet, Huart, Colombat, & Fouquereau, 2013; Shen et al., 2014; Shoss et al., 2013). The shortened version revealed acceptable reliability in a study using three samples with a Cronbach's alpha of .80, .69 and .74 (Shoss et al., 2013). Other studies using this shortened scale also found it to be reliable with Cronbach's alphas of .89 (Caesens et al., 2017; Gillet et al., 2013), .83 (Caesens et al., 2016) and .91 (Shen et al., 2014).

Items consist of statements like "*The organization shows very little concern for me (R)*" or "*The organization really cares about my well-being*" and can be rated on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Prof Eisenberger gave permission in writing to use the shortened SPOS for the purpose of this research (see Appendix B).

3.4.2. Psychological Capital Questionnaire (PCQ-24)

The PCQ-24 (Luthans et al., 2007) was used to assess PsyCap. It captures the four dimensions of PsyCap by means of statements regarding self-efficacy, optimism, hope and resilience on a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree). The PsyCap subscales of self-efficacy, optimism, hope, and resilience consist of six items each, making up a questionnaire of 24 items. Each of the subscales consists of scales that were found to be reliable and valid in previous research (Parker, 1998; Scheier & Carver, 1985; Snyder et al., 1996; Wagnild & Young, 1993). The self-efficacy scale used was developed by Parker (1998) and is focused on the work domain. The optimism scale was adopted from Scheier and Carver (1985), while the hope scale was taken from Snyder et al. (1996), and the resiliency measure adopted from Wagnild and Young (1993).

The PCQ-24 is considered to be a reliable measure: for example, each of the subscales in a study done by Luthans et al. (2007) showed via four different samples good reliability, revealing satisfactory Cronbach's alphas for hope (.72, .75, .80, .76); resilience (.71, .71, .66, .72); self-efficacy (.75, .84, .85, .75); optimism (.74, .69, .76, .79); and overall PsyCap (.88, .89, .89, .89). The

measure shows construct validity in terms of its four dimensions, confirming that PsyCap is a higher-order construct consisting of four facets. The measure also shows criterion validity with regards to job satisfaction (Luthans et al., 2007).

The PCQ-24 is suitable for PsyCap measurement in the South African context (Görgens-Ekermans & Herbert, 2013). The subscales of self-efficacy and hope were both found to be reliable (self-efficacy: α = .81; hope: α = .83). The subscales of resilience and optimism showed a lower level of reliability (resilience: α = .69; optimism: α = .67). The PCQ-24 also showed construct validity in the South African sample by demonstrating a four-dimensional construct consisting of self-efficacy, hope, optimism and resilience. The higher-order factor structure of PsyCap on the other hand, could only be partially supported. An attempt to show that six items load on four dimensions and that these four dimensions load on one higher factor, failed. An exploratory factor analysis in contrast, showed that one factor could be extracted which explained 69.33% of the variance (Görgens-Ekermans & Herbert, 2013). The PCQ-24 also revealed acceptable discriminant validity, showing that all four factors are distinct constructs, despite their being related to each other. Görgens-Ekermans and Herbert (2013) also found support for PsyCap's external validity in the South African sample. PsyCap was negatively related to perceived stress and work-related burnout. In addition to that, PsyCap operated as a moderator in the relationship between work-related stress and burnout, indicating that higher levels of PsyCap protect individuals from burnout in the face of stress.

Sample items of the PCQ-24 include "*I feel confident analyzing a long-term problem to find a solution*" (self-efficacy), "*If I should find myself in a jam at work, I could think of many ways to get out of it*" (hope), or "*When things are uncertain for me at work, I usually expect the best*" (optimism). Only three sample items are allowed to be published, as required by the developers as a condition for using the instrument. This means that the composite questionnaire in Appendix A does not contain the PCQ-24. Permission to use the PCQ-24 for the present research was acquired online via Mind Garden (see Appendix C).

3.4.3. Warwick-Edinburgh Mental Well-being Scale (WEMWBS)

The WEMWBS (Tennant et al., 2007) is a unidimensional measure to assess overall well-being. It includes aspects of hedonic as well as eudaimonic well-being, making up a single factor. Based on the discussion on hedonic and eudaimonic well-being and its measurement in the second chapter, it was decided to use a measure that sees well-being as one factor made up of hedonic and eudaimonic items, instead of assessing hedonia and eudaimonia separately. Fourteen items are given in the WEMWBS and include statements that refer to the participants' feelings and thoughts over the previous two weeks.

The measure shows satisfactory content validity and good construct validity in terms of the one-factor scale structure, as shown by Tennant et al. (2007). The measure positively correlates with other widely used well-being measures, thereby supporting its criterion validity (Tennant et al., 2007). With regards to internal consistency, the WEMWBS is shown to be a reliable measure, revealing a Cronbach's alpha of .89 and a test-retest reliability of .83 ($p < 0.01$) (Tennant et al., 2007). The scale was shown to be robust across different cultures (Taggart et al., 2013), which is a valuable characteristic when assessing participants' responses from a culturally diverse country like South Africa.

Sample statements include "*I've had energy to spare*" or "*I've been interested in new things*", which are rated on a 5-point Likert scale (1 = never, 5 = every day). Permission to use the WEMWBS for this research was given online through the Warwick Medical School (see Appendix D).

3.5. PROCEDURE

This section will outline aspects of the research procedures. At first, all ethical considerations regarding the data collection procedure will be presented. Afterwards the actual data gathering process will be explained, followed by a description of the various methods that have been chosen for data analysis.

3.5.1. Ethical considerations

Spector's (2012) recommendations for ethical research in Industrial and Organisational Psychology were taken into account regarding the research design. Researchers who conduct non-experimental studies such as surveys, have the responsibility of protecting the identities of participants. Respondents have to be sure that their responses will not negatively affect them personally. For this reason, the present study was conducted anonymously. In addition to that, participants should be informed as to the nature of the study, and also told that their participation is voluntary and that they have the right to withdraw from the study at any stage (Spector, 2012). Respondents were informed regarding these aspects before consenting to participate.

An ethics application was submitted to the Nelson Mandela University's Ethics Committee in the Faculty of Business and Economic Sciences. After having obtained permission to conduct the anticipated research (see Appendix E), the collecting of data could commence. Complete anonymity was assured and no compensation for participation was offered, nor was non-participation punished. Participants were electronically invited to participate in the online survey. The invitation message informed the participants about the nature of the survey and included the link to the survey. The online survey tool of the Nelson Mandela University guaranteed anonymous online data collection. Anonymous online surveys decrease inhibitions of participants in terms of withdrawing from the survey, which might not be the case in face-to-face research settings (Nosek, Benaji, & Greenwald, 2002). Therefore it was ensured that participants could easily withdraw in the event of feeling they wished to opt out.

3.5.2. Data Collection

A composite questionnaire consisting of the previously outlined measures was designed, using the Nelson Mandela University's online survey tool. The link to the survey tool was sent to three individuals who checked that the survey was operational. They also indicated the approximate time it took to complete the questionnaire and reviewed it for errors. The data set was then cleared before

the survey link was distributed and the data collection was then officially underway.

Convenience and snowball sampling via social media and private contacts were used for data collection. This is a popular research tool in social sciences (Kosinski, Matz, & Gosling, 2015), as well as in business sciences (Peake, Davis, & Cox, 2015; Yoshida, Gotoh, Tomizawa, & Ikeda, 2013). Snowball sampling using social media networks facilitates the reaching of participants, regardless of their geographical location and it allows researchers to recruit participants who would be hard to reach without use of the internet. This may result in increased sample sizes. This sampling method is suitable for non-probabilistic samples (Baltar & Brunet, 2012), such as the anticipated sample for this study.

The use of an online survey has several advantages and disadvantages. For example, an online survey is an inexpensive tool when conducting research. Paired with the convenience and snowball sampling techniques, an online survey allows for efficient and geographically broad sampling. An anonymous online survey is also a user-friendly tool that allows participants to fill in the survey whenever it is convenient for them. In addition to that, it facilitates ethical data collection because participants can easily drop out by quitting the survey in the event that they wish to do so. If compared to a paper survey, an online survey has the advantage that participants cannot see which questionnaire is coming next, which reduces response bias caused by assumptions regarding the research hypotheses. However, a disadvantage when using online surveys is that one excludes potential participants who do not have access to the internet. Another disadvantage of the utilised survey tool in particular is that it is impossible to see whether one individual has participated multiple times. A control item was used in the present survey as a control for individuals who participated more than once. It turned out that several people had indeed participated more than once for unknown reasons. Respondents who indicated that it was not the first time they participated were therefore removed from the data set.

The researcher asked South African contacts via personal WhatsApp, Facebook and email messages to participate in the survey by sending a message outlining the nature of the study, together with the survey link. The message indicated that they should feel free to forward the survey to their personal contacts. An example of such a message can be found in Appendix F. By clicking on the link, participants were directed to the survey. Before participants were shown the first questionnaire they first had to answer items that were controlling requirements for their eligibility to participate in this survey. They were asked if they were adult South Africans who are employed, but not self-employed. The study was restricted to South African employees and did not include other nationalities in order to avoid bias caused by different cultures.

In addition to that, the researcher shared the research project information with the survey link on her personal Facebook page and posted it to various Facebook and Linkedin groups with members of the target population, such as South African business networks. The survey was online for three weeks and was extended by one week because the target sample size of at least 148 participants was not initially achieved. The researcher sent a reminder to contacts, highlighting the importance of the ongoing survey, which boosted the number of responses and resulted in a satisfactory sample size by the closing date.

3.5.3. Data Analysis

Once the online survey was closed, the data were exported to Excel. The obtained data were analysed in a quantitative manner by applying various statistical methods. For this purpose, the researcher imported the Excel sheet to SPSS 20 and conducted the required statistical analyses outlined below.

Reliability was assessed by means of Cronbach's alpha, which is a measure of internal consistency. In addition to that, the item statistics and item-total statistics were examined. The factor structure and validity of the measures were analysed in AMOS by means of confirmatory factor analyses (CFA). CFAs are theory-driven, in contrast to exploratory factor analyses (EFA) which are data-

driven (Brown, 2006). A CFA allows one to specify a priori relationships of a construct's factors, which means that assumptions are made regarding the unique variance explained by each factor. An EFA does not allow one to make these assumptions. It simply aims to discover the factor structure of the data, which is usually used in the early stage of the development of a measure (Brown, 2006). Another valuable argument for the use of a CFA, as opposed to an EFA, is the possibility of being able to specify covariation of errors due to method effects. Similarly worded items, for instance, may be covaried because they do not reflect items that are distinct from another (Brown, 2006). AMOS proposes modification indices by suggesting how the covariation of error terms would improve model fit. That being said, error terms of items should only be covaried if there is a theoretical rationale that these items express covariation (Schreiber, Nora, Stage, Barlow, & King, 2006). Only when items were very similar content-wise and part of the same factor were their error terms covaried in the present research.

For the outlined reasons, a CFA is the more appropriate factor analysis technique for measures that have a solid theoretical background (Brown, 2006). A CFA, which is a special case of structural equation modelling (SEM) (Brown, 2006), provides several goodness-of-fit indices that indicate the model fit of the measure. Lei and Wu (2007) recommend use of the comparative fit index (CFI), the root mean square of error approximation (RMSEA), the standardised root mean square residual (SRMR), along with the Chi-square value (χ^2), with its degrees of freedom (df) to evaluate model fit.

Following the analytic procedure of Malinowski and Lim (2015) and the recommendations given by Matsunaga (2010), a CFI value greater than .90 or .95 was considered an acceptable or good fit, while RMSEA values smaller than .10 or smaller than .06 were regarded as acceptable or good, and SRMR values below .10 or .08 were seen as acceptable or good. The χ^2-statistic is very sensitive to sample size. For this reason, the ratio of the χ^2 - statistic and its df were used to evaluate model fit, where a value below five indicates an acceptable fit and values close or below two indicate a good fit. All CFAs and SEMs were computed using the Maximum-Likelihood technique, which

estimates the model parameters in such a way that it maximises the chances of getting the observed data if they were retrieved from the same population (Brown, 2006).

The proposed relationship of the variables was investigated through the application of various statistical methods. In order to determine relationships between the constructs, Pearson correlation coefficients were calculated. Mediation analysis was conducted by means of hierarchical regression, SEM, and bootstrapping.

Baron and Kenny's (1986) recommendations regarding mediation analysis using hierarchical regression were followed. In order to have a mediating effect, the independent variable (POS) needs to be related to the dependent variable (well-being). Furthermore, the independent variable needs to be related to the mediating variable (PsyCap), and the mediating variable must also be related to the dependent variable. Full mediation is observed when the impact of the independent variable is not significant anymore when controlling for the mediating variable. Partial mediation is observed when the impact of the independent variable is significantly weaker, when controlling for the mediator, than it was without the mediator (Baron & Kenny, 1986).

Baron and Kenny's (1986) causal step approach is a widely used method for mediation analysis, but has been criticised in recent years (Fritz & MacKinnon, 2007; Hayes, 2009, Zhao, Lynch, & Chen, 2010). Firstly, it is said to have low statistical power, and secondly, this approach does not test for significance of the mediating or indirect effect (Fritz & MacKinnon, 2007). A procedure that tests for significance and which is often used as a supplement to the causal step approach, is the Sobel test, but that has been subject to criticism as well (Hayes, 2009; Zhao et al., 2010). A more recent and statistically sound procedure to test the indirect effect is the one of bootstrapping, which is based on probabilistic resampling of the data (Fritz & MacKinnon, 2007; Hayes, 2009). If statistical power, i.e. the chance to detect an effect if an effect really exists, is regarded as important, Hayes and Scharkow (2013) recommend the use of bias-corrected bootstrapping because of its trustworthiness in this regard. An

option to test the fit of the mediation model is the use of SEM, which has been done more often by researchers recently (Malinowski & Lim, 2015; Roche et al., 2014). SEM is a combination of factor and path analysis (Lei & Wu, 2007). Following the approach of Baron and Kenny (1986) was anticipated in the present study and also to further investigate or validate the finding by the application of SEM and bootstrapping of the effects. Detecting a mediating effect using bias-corrected bootstrapping requires a minimum sample size of 148 if it is aimed to achieve a statistical power of .80 while expecting medium-sized paths (Fritz & MacKinnon, 2007). This expectation is based on the literature review implications, which suggest that considerable relationships between these constructs exist.

A concern regarding cross-sectional, self-reported data is bias due to Common Method Variance (CMV), which implies that correlations are inflated due to the assessment of different constructs at the same time (Lindell & Whitney, 2001). Although statistical simulations and approaches could show that it is unlikely CMV would bias the results of linear regression models (Siemsen, Roth, & Oliveira, 2010), Harman's one-factor test was conducted in order to test for bias. This test requires one to enter all items in an EFA. The unrotated factor solution is analysed regarding a single factor that explains the majority of the variance in the data. If one single factor emerges, this finding might be attributed to the method (Podsakoff & Organ, 1986).

3.6. CHAPTER SUMMARY

The present chapter introduced the methodological approaches used in the study. The descriptive statistics of the sample were outlined. Moreover, the measuring instruments with their psychometric properties were discussed and the procedure of data collection and the rationale for data analysis were explained. Furthermore, the importance and principles of research ethics procedures were highlighted, together with a discussion of how they were implemented in the present study. The following chapter will reveal the results of the data analysis.

CHAPTER FOUR
RESULTS

4.1.   INTRODUCTION

The previous chapter explained the methodology that was used to acquire the data for this study. The present chapter will analyse the obtained data and present the results. The overall aim is to address the research questions and hypotheses presented in the second chapter. First, the reliability of the measures will be investigated. Second, the validity of the measures will be analysed. Third, the relationship between these constructs will be investigated by analysing correlations and conducting mediation analysis. Fourth, whether the data are biased due to common method variance will be considered.

4.2.   RELIABILITY OF MEASURES

This section investigates the item properties and reliability of the measures used. Each measure is analysed by considering Cronbach's alpha as indicator of internal consistency, item statistics, and item-total statistics. Many researchers use the rule of thumb of Cronbach's alpha being .70 and higher in order to consider a scale reliable (Taber, 2017). Corrected item-total correlations should exceed the generally accepted cut-off score of .30 in order to be regarded as part of the scale (Squires, Estabrooks, Newburn-Cook, & Gierl, 2011). The overall internal consistency scores expressed as Cronbach's alpha of all measures are presented in Table 4.1 below.

Table 4.1: Cronbach's alpha and the corrected Cronbach's alpha after item removal for the measures and subscales.

Scale	Cronbach's alpha (α)	Corrected Cronbach's alpha (α)
SPOS	.89	
Self-efficacy	.79	
Hope	.84	
Resilience	.64	.70
Optimism	.67	.72
Total PCQ-24	.90	.91
WEMWBS	.93	

The first measure that is analysed in terms of item statistics and reliability is the SPOS.

Table 4.2: Item statistics for the SPOS, including the mean, standard deviation, and the number of cases (*N*).

Item	Mean	Standard Deviation	N
SPOS 1	4.95	1.55	159
SPOS 2	4.40	1.97	159
SPOS 3	4.91	1.87	159
SPOS 4	4.79	1.77	159
SPOS 5	4.49	1.95	159
SPOS 6	4.58	1.79	159
SPOS 7	4.80	1.78	159
SPOS 8	4.91	1.70	159
Overall	4.73	1.36	159

The eight item version of the SPOS reveals very high reliability in the present sample (α = .89), suggesting good internal consistency (see Table 4.1). The item statistics (see Table 4.2) show that no item seems to be problematic since no means and standard deviations are observed that differ to any great extent from the others. In order to facilitate the interpretation of a score, the scale was divided into thirds to indicate whether a score lies in the lower, middle, or upper range (1.00 - 2.99 = low; 3.00 – 5.00 = medium, 5.01 – 7.00 = high). Respondents generally show a tendency to regard their organisation as supportive rather than unsupportive (*M* = 4.73, *SD* = 1.36), as the SPOS mean score lies in the upper middle range. The mean score suggests that respondents receive some support from the organisation for which they are working.

Table 4.3: Item-total statistics for the SPOS.

Item	Scale Mean If Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha If Item Deleted
SPOS 1	32.87	95.42	.69	.88
SPOS 2	33.43	87.99	.73	.87
SPOS 3	32.92	92.02	.65	.88
SPOS 4	33.04	89.19	.79	.87
SPOS 5	33.35	94.30	.55	.89
SPOS 6	33.26	93.53	.64	.88
SPOS 7	33.04	93.78	.63	.88
SPOS 8	32.92	92.64	.71	.88

The total-item statistics reveal that Cronbach's alpha cannot be enhanced by removing items. In addition to that, all items correlate at a considerably high level with the rest of the scale (see Table 4.3).

The next measure that is analysed in terms of item statistics, as well as reliability is the PCQ-24.

Table 4.4: Item statistics for the PCQ-24 subscales, including the mean, standard deviation, and the number of cases (*N*).

Subscale	Item	Mean	Standard Deviation	N
Self-efficacy				
	PCQ 1	4.97	.98	159
	PCQ 2	4.81	1.16	159
	PCQ 3	4.65	1.12	159
	PCQ 4	4.97	1.08	159
	PCQ 5	4.73	1.38	159
	PCQ 6	5.14	.95	159
Hope				
	PCQ 7	4.68	1.10	159
	PCQ 8	4.66	1.22	159
	PCQ 9	4.99	.93	159
	PCQ 10	4.69	1.08	159
	PCQ 11	4.74	1.09	159
	PCQ 12	4.67	1.18	159
Resilience				
	PCQ 13	3.75	1.49	159
	PCQ 14	4.89	.96	159
	PCQ 15	5.11	1.05	159
	PCQ 16	4.42	1.24	159
	PCQ 17	5.14	.90	159
	PCQ 18	4.90	.92	159
Optimism				
	PCQ 19	4.06	1.24	159
	PCQ 20	3.90	1.38	159
	PCQ 21	4.75	1.12	159
	PCQ 22	4.63	1.33	159
	PCQ 23	4.33	1.28	159
	PCQ 24	4.63	1.13	159
Overall PsyCap		4.68	.63	159

The PCQ-24 shows a very high overall reliability ($\alpha = .90$) in the present study (see Table 4.1). The item statistics for the subscales of the PCQ-24 are presented in Table 4.4 above. The reverse-coded items 13 and 20 showed after recoding lower mean scores and higher standard deviations (*M* = 3.75, *SD* =

1.49; *M* = 3.90, *SD* = 1.38) than all the other items. This indicates that these items might be problematic items. The respondents' levels of PsyCap - with all items included - is generally fairly high (*M* = 4.68, *SD* = .63) as the mean score falls into the upper third of the scale (1.00 – 2.67 = low; 2.68 – 4.33 = medium; 4.34 – 6.00 = high). This average score implies that the respondents are efficacious, hopeful, resilient, and optimistic.

Table 4.5: Item-total statistics for the PCQ-24 subscales.

Subscale	Item	Scale Mean If Item Deleted	Scale Variance If Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha If Item Deleted
Self-efficacy					.
	PCQ 1	24.31	16.71	.55	.76
	PCQ 2	24.47	14.87	.65	.73
	PCQ 3	24.62	15.35	.62	.74
	PCQ 4	24.30	16.31	.52	.76
	PCQ 5	24.55	15.45	.43	.80
	PCQ 6	24.13	16.98	.53	.76
Hope					
	PCQ 7	23.76	19.55	.38	.86
	PCQ 8	23.77	15.57	.77	.78
	PCQ 9	23.45	19.88	.45	.84
	PCQ 10	23.74	17.14	.69	.80
	PCQ 11	23.69	16.54	.76	.79
	PCQ 12	23.76	16.54	.68	.80
Resilience					
	PCQ 13	24.45	11.82	.18	.70
	PCQ 14	23.32	11.65	.50	.55
	PCQ 15	23.10	11.81	.40	.58
	PCQ 16	23.79	11.28	.36	.60
	PCQ 17	23.07	12.72	.36	.60
	PCQ 18	23.31	11.49	.57	.53
Optimism					
	PCQ 19	22.23	15.94	.37	.63
	PCQ 20	22.39	17.70	.13	.72
	PCQ 21	21.54	14.81	.58	.56
	PCQ 22	21.66	13.72	.57	.55
	PCQ 23	21.96	16.06	.33	.65
	PCQ 24	21.66	15.71	.46	.60

A reliability analysis of the subscales of self-efficacy, hope, resilience, and optimism reveals a similar pattern to that shown by Görgens-Ekermans and Herbert (2013). As was seen in Table 4.1, the subscales of self-efficacy and hope are very reliable (self-efficacy: *α* = .79; hope: *α* = .84). Resilience and optimism on the other hand, are shown to be less reliable (resilience: *α* = .64;

optimism: $α$ = .67). Items 13 and 20, which are reverse-coded items, are regarded as problematic. The correlation of these items with their respective subscale is reasonably low as they fall below the cut-off of .30 (see Table 4.5). Cronbach's alpha of the respective subscale can be substantially increased (resilience: $Δα$ = .06; optimism: $Δα$ = .05) by removing items 13 and 20. This then increases the reliability of the entire subscales to $α$ = .70 for resilience and to $α$ = .72 for optimism, as can be seen in Table 4.5. These increased internal consistency scores are high enough for the respective subscales to be considered as reliable scales. For this reason, items 13 and 20 are removed for further analysis, thereby increasing the reliability of the overall PCQ-24 to $α$ = .91. This finding is also consistent with an observation of Malinowski and Lim (2015), who point out that the reverse-coded items of the PsyCap measure are regarded as problematic. The only reverse-coded item that does not cause problems in the present study is item 23 of the optimism scale, which is therefore retained.

The last measure that is investigated in terms of item statistics and reliability is the WEMBWS.

Table 4.6: Item statistics for the WEMWBS, including the mean, standard deviation, and the number of cases (*N*).

Item	Mean	Standard Deviation	N
WEMWBS 1	3.88	.94	159
WEMWBS 2	3.87	.91	159
WEMWBS 3	3.20	1.03	159
WEMWBS 4	3.97	.95	159
WEMWBS 5	3.37	1.07	159
WEMWBS 6	3.75	.95	159
WEMWBS 7	3.96	.90	159
WEMWBS 8	3.81	1.05	159
WEMWBS 9	3.70	1.00	159
WEMWBS 10	3.89	.95	159
WEMWBS 11	4.22	.86	159
WEMWBS 12	3.92	1.03	159
WEMWBS 13	4.08	.93	159
WEMWBS 14	3.85	.94	159
Overall	3.82	.70	159

The WEMWBS revealed excellent reliability ($α$ = .93) in the present study (see Table 4.1). No item seems to be problematic, because no means or standard

deviations seem to be considerably different from the others (see Table 4.6). The respondents' level of positive affect and positive psychological functioning is fairly high ($M = 3.82$, $SD = .70$), as the mean score lies in the upper third of the scale (1.00 – 2.33 = low; 2.34 – 3.66 = medium; 3.67 – 5.00 = high). This mean score suggests that the sample expresses a high level of well-being.

Table 4.7: Item-total statistics for the WEMWBS.

Item	Scale Mean If Item Deleted	Scale Variance If Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha If Item Deleted
WEMWBS 1	49.58	84.87	.61	.93
WEMWBS 2	49.49	84.66	.64	.93
WEMWBS 3	50.26	82.18	.66	.93
WEMWBS 4	49.50	85.44	.56	.93
WEMWBS 5	50.09	81.79	.69	.92
WEMWBS 6	49.71	83.57	.68	.92
WEMWBS 7	49.50	83.30	.74	.92
WEMWBS 8	49.65	80.30	.79	.92
WEMWBS 9	49.76	82.61	.70	.92
WEMWBS 10	49.57	81.09	.83	.92
WEMWBS 11	49.24	86.50	.56	.93
WEMWBS 12	49.53	85.52	.50	.93
WEMWBS 13	49.38	84.09	.66	.92
WEMWBS 14	49.61	81.97	.79	.92

Due to very high reliability, Cronbach's alpha could not be enhanced by deleting items. For this reason, all items were retained. The correlations of the items with the entire scale also do not reveal problematic properties and are reasonably high (see Table 4.7).

4.3.   VALIDITY OF MEASURES

In order to test the measures for validity, CFAs using the Maximum-Likelihood technique were run in AMOS. All factors were modelled on the original structures. If the fit was not considered acceptable, the modification indices of AMOS were considered and the model was then modified. This was done in cases where it was theoretically justifiable, such as when items were worded in a similar way - or were found to be similar in terms of content. All the goodness-of-fit indices can be found in Table 4.8.

Table 4.8: Results of confirmatory factor analysis for all measures.

Model	Measure		χ^2	df	$\dfrac{\chi^2}{df}$	CFI	RMSEA	SRMR
1	SPOS		115.02***	20	5.75	.87	.17	.09
2	SPOS		52.66***	18	2.93	.95	.11	.08
	PsyCap							
1		Self-efficacy	69.95***	9	7.78	.79	.21	.08
2		Self-efficacy	17.32*	7	2.47	.97	.10	.04
1		Hope	52.44***	9	5.83	.90	.18	.08
2		Hope	29.15***	8	3.64	.95	.13	.05
1		Resilience	17.54*	9	1.95	.94	.08	.05
2		Resilience	11.15*	5	2.23	.95	.09	.04
1		Optimism	51.35***	9	5.71	.81	.17	.10
2		Optimism	18.30***	5	3.66	.93	.13	.06
		Four-factor	679.59***	202	3.36	.73	.12	.10
		One-factor	711.831***	170	4.19	.67	.14	.10
1	WEMWBS		267.66***	77	3.48	.86	.13	.07
2	WEMWBS		191.30***	74	2.59	.91	.10	.06

Note. Model 1 refers to CFA without modifications. Model 2 refers to CFA with modifications. CFA of the entire four-factor PsyCap measure refers to the measure with modified subscales due to better fit.
*p <.05, ***p < .001

The SPOS with its one-factor structure did not reveal a good model fit, χ^2/df = 5.75, CFI = .87, RMSEA = .17, SRMR = .09. Model fit could be brought to a good level, χ^2/df = 2.93, CFI = .95, RMSEA = .11, SMRMR = .08, by covarying the errors of items 2 and 5, as well as items 3 and 7. All these items were negatively worded. Items 2 and 5 similarly expressed a lack of appreciation by the organisation, while items 3 and 7 expressed the organisation's ignorance regarding employee satisfaction. For this reason, this modification was regarded as justifiable owing to the similar nature of the items.

With regards to the fit of the PCQ-24, all subscales were tested for validity first before the entire measure was tested for model fit. The self-efficacy scale did not reveal a good fit, χ^2/df = 7.78, CFI = .79, RMSEA = .21, SRMR = .08. Covariation of the error terms of items 3 and 4 and items 2 and 5 brought the

fit of the self-efficacy scale to a good level, χ²/df = 2.47, CFI = .97, RMSEA = .10, SRMR = .04. The modification was regarded as acceptable due to the very similar nature of items 3 and 4, which are concerned with contributions to the strategy and targets of the organisation. Items 2 and 5 are also very similar, stating that one feels confident dealing with internal and external stakeholders.

A similar pattern was observed with the hope scale, which did not show a good fit either, χ²/df = 5.83, CFI = .90, RMSEA = .18, SRMR = .08. The model fit was improved by covarying the errors of items 7 and 9, χ²/df = .3.64, CFI = .95, RMSEA = .13, SRMR = .05. Since items 7 and 9 are actually equivalent content-wise, by knowing of many ways to solve a problem, this modification was considered as justifiable.

The resilience scale showed a good fit, χ²/df = 1.95, CFI = .94, RMSEA = .08, SRMR = .05. Keeping in mind that the reliability analysis showed that overall reliability could be improved by removing item 13, a CFA was run without item 13 as well, which resulted in a slightly different fit, χ²/df = .2.23, CFI = .95, RMSEA = .09, SRMR = .04. This modification was regarded as more suitable because it does align with the reliability analysis.

The optimism scale did not show satisfactory fit neither, χ²/df = 5.71, CFI = .81, RMSEA = .17, SRMR = .10. Considering the reliability analysis results, model fit was improved and regarded as acceptable by removing item 20, χ²/df = 3.66, CFI = .93, RMSEA = 13, SRMR = .06.

All modified subscales were used to assess the overall PsyCap measure owing to a better fit. Despite use of the modified subscales, the PCQ-24 did not show a good model fit, χ²/df = 3.36, CFI = .73, RMSEA = .12, SRMR = .10. In order to further investigate this issue, subscale inter-correlations were examined (see Table 4.9). It is therefore clear that the subscales are strongly correlated with each other, ranging from r = .50 to r = .69. Construct correlations of .60 and less indicate discriminant validity (Kline, 1998). Correlations higher than .60 imply that constructs are not distinct enough. All subscale correlations except two (i.e. optimism & self-efficacy and optimism & resilience) are higher than

.60., which explains why a four-factor model does not fit very well. The correlations of the subscales are too high to be considered four distinct factors. In addition to that, a one-factor model was tested with all items loading on a single PsyCap factor. This was done due to the high inter-correlations of the subscales, but the fit of this model was even worse than the four-factor model, $\chi^2/df = 4.19$, CFI = .67, RMSEA = .14, SRMR = .10. Suggested modifications could not be theoretically justified and were therefore not implemented in order to improve the fit of the one-factor model.

The WEMBWS did not show a good model fit, $\chi^2/df = 3.48$, CFI = .86, RMSEA = .13, SRMR = .07. A covariation of the error terms of items 2 and 12, 6 and 7, and 13 and 14 contributed to a better and acceptable model fit, $\chi^2/df = 2.59$, CFI = .91, RMSEA = .10, SRMR = .06. These modifications were regarded as acceptable due to the similar nature of these items, e.g. items 2 and 12 expressing feeling useful and loved; items 6 and 7 being concerned with clear thinking and problem solving, and items 13 and 14 expressing cheerfulness and interest. The AMOS figures of the modified models can be found in Appendix G.

In summary, it can be said that all measures are regarded as valid after having made minor and justifiable adjustments. The unidimensional factor structure of the SPOS and WEMWBS showed an acceptable fit. The poor fit of the overall PsyCap measure can be attributed to high correlations between the different subscales. The PsyCap subscales themselves, however, do exhibit acceptable to good validity.

4.4. RELATIONSHIP BETWEEN CONSTRUCTS

This section aims to address the hypotheses regarding the assumed relationships between the constructs of POS, PsyCap, and well-being. First, correlations were calculated and secondly, mediation analysis was conducted in order to test the proposed model.

4.4.1. Correlations between Constructs

Table 4.9: Means (*M*), standard deviations (*SD*), and correlations for constructs for the sample (*N* = 159).

Variables	M	SD	1	2	3	4	5	6	7
1. POS	4.73	1.36	(.89)						
2. PsyCap	4.75	.66	.53**	(.91)					
3. Self-efficacy	4.88	.78	.39**	-	(.79)				
4. Hope	4.74	.82	.50**	-	.67**	(.84)			
5. Resilience	4.89	.69	.29**	-	.62**	.64**	(.70)		
6. Optimism	4.78	.84	.59**	-	.52**	.69**	.50**	(.72)	
7. Well-being	3.82	.70	.42**	.65**	.36**	.59**	.56**	.69**	(.93)

Note. Reliabilities (Cronbach's *α*) on the diagonal in parentheses. PsyCap was not correlated with its subscales.
***p* < .01

Pearson product-moment correlation coefficients were calculated to investigate the strength of the relationship between the constructs (see Table 4.9). Correlations between .10 and .30 are considered small, between .30 and .50 medium, and correlations above .50 are considered strong (Cohen, 1992). POS is positively correlated to PsyCap r (157) = .53, p < .01 and to well-being r (157) = .42, p < .01. PsyCap also shows a positive, strong correlation to well-being r (157) = .65, p < .01.

Furthermore, it can be seen that all the facets of PsyCap are significantly and positively related to POS and well-being. POS is positively related to self-efficacy r (157) = .39, p < .01, hope r (157) = .50, p < .01, resilience r (157) = .29, p < .01, and optimism r (157) = .59, p < .01. Well-being is positively correlated with self-efficacy r (157) = .36, p < .01, hope r (157) = .59, p < .01, resilience r (157) = .56, p < .01, and optimism r (157) = .69, p < .01. It becomes evident that optimism in particular has a strong relationship to POS and to well-being. The relationship between resilience and POS is much weaker than the resilience and well-being relationship. In addition to that, the inter-correlations of PsyCap's facets reveal strong (.50 < r > .69) relationships. The correlations are mostly in the upper range (r >.60) which is likely to contribute to the poor fit of PsyCap as a four-factor model.

4.4.2. Mediation Analysis

Different statistical techniques were used to analyse the mediating effect of PsyCap. First, a hierarchical regression analysis was conducted. Second, SEM with bootstrapping was used to investigate mediation.

4.4.2.1. Hierarchical Regression

Following Baron and Kenny's (1986) approach to detect mediation, hierarchical regression was conducted. In hierarchical regression, several predictors are added to the regression equation in multiple steps. By adding predictors step-wise, it is possible to analyse how much additional variance is explained by added predictors. This procedure allows to determine how impactful certain predictors are regarding their ability to predict the dependent variable, while controlling for other predictors.

In order to meet Baron and Kenny's (1986) condition that the independent variable needs to be related to the mediating variable, a hierarchical regression was conducted, with POS as the predictor and PsyCap as the dependent variable at first (see Table 4.10).

Table 4.10: Hierarchical regression analysis for PsyCap in the sample ($N =$ 159), with POS as the predictor variable.

Variables	Step 1	Step 2
Controls		
Age	.17	.23*
Gender	-.04	-.08
First Language	.10	.04
Relationship Status	-.05	.01
Highest Qualification	-.08	-.04
Occupation	.02	-.04
Predictor		
POS		.56***
R² Change	.06	.30***
Total R²	.06	.36
Total Adjusted R²	.02	.33
F Statistic	1.511	11.938***

*$p < .05$, ***$p < .001$. Standardised regression coefficients.

In the first step, all demographic factors were entered into the regression equation as control variables. In the second step, POS as a predictor of PsyCap was added to the regression equation. The demographic variables explain 6% of the variance in PsyCap. When controlling for the demographic variables, the regression shows that POS is a significant predictor of PsyCap (β = .56, *p* < .001), as shown in Table 4.10. POS explains an additional 30% of the variance in PsyCap. These results show that POS is related to PsyCap and Baron and Kenny's (1986) conditions regarding the independent and the mediating variable being related are thus satisfied.

In order to test whether the independent and the mediating variables are related to the dependent variable, a hierarchical regression was conducted with the demographics as controls, and with POS and PsyCap being predictors of well-being (see Table 4.11).

Table 4.11: Hierarchical regression analysis for well-being in the sample (*N* = 159), with POS as the predictor and PsyCap as the mediator.

Variables	Step 1	Step 2	Step 3
Controls			
Age	.07	.12	-.01
Gender	-.12	-.15*	-.11
First Language	.16*	.12	.01
Relationship Status	-.08	-.06	-.05
Highest Qualification	-.18*	-.15*	-.13*
Occupation	-.04	-.08	-0.6
Predictor			
POS		.43***	.11
Mediator			
PsyCap			.56***
R² Change	.11***	.17***	.19***
Total R²	.11	.28	.47
Total Adjusted R²	.07	.24	.45
F Statistic	2.962***	8.175***	16.835***

*p < .05, ****p* < .001. Standardised regression coefficients.

In the first step, all demographic factors were entered into the regression equation as control variables. In the second step, POS as a predictor of well-being was added to the regression equation. In the third step, PsyCap was

entered into the regression equation. Step one indicates that the demographic variables account for 11% of the variance in well-being. When POS is added to the regression equation in step two, it becomes evident that POS significantly predicts well-being ($\beta = .43$, $p < .001$), which fulfils the condition for mediation analysis of the independent variable being related to the dependent variable (Baron & Kenny, 1986). POS accounts for additional variance of 17% towards well-being. When PsyCap is added in the third regression block (see Table 4.11), it is revealed that PsyCap is positively related to well-being ($\beta = .56$, $p < .001$), thereby explaining an additional 19% of variance in well-being, and thus meeting the condition of the mediator being related to the dependent variable. The proposed model explains in total 47% of variance in well-being. Moreover, POS experiences a large decrease in beta weight when adding PsyCap: i.e. it drops from $\beta = .43$, $p < .001$ to $\beta = .11$, $p = .13$, which implies that it is no longer significant. The insignificance of POS as a predictor of well-being when adding PsyCap is an indicator of full mediation.

The only demographic variable that acts as a significant, negative predictor of well-being in all steps is the individual's highest qualification. In order to identify which qualification category accounts for the significant, negative regression weight, dummy variables for the variable highest qualification were created and entered into the regression equation with the subcategory "other" as point of reference. The hierarchical regression with the standardised regression coefficients of the dummy-coded variables can be found in Table 4.12.

Table 4.12: Hierarchical regression analysis for well-being in the sample (*N* = 159), with POS as the predictor and PsyCap as the mediator and highest qualification coded with dummy variables.

Variables	Step 1	Step 2	Step 3
Controls			
Age	.08	.12	-.18
Gender	-.11	-.14	-.10
First Language	.15	.12	.09
Relationship Status	-.11	-.08	-.07
Matrics	-.19	-.13	-.16
Diploma	-.34	-.22	-.30
Certificate	-.21	-.13	-.11
Bachelor's	-.15	-.12	-.18
Honour's	-.41	-.27	-.30
Master's	-.32*	-.25	-.21
Doctorate	-.34*	-.28*	-.31**
Occupation	-.04	-.09	-.07
Predictor			
POS		.39***	.07
Mediator			
PsyCap			.57***
R² Change	.18**	.13***	.20***
Total R²	.18	.31	.51
Total Adjusted R²	.11	.25	.47
F Statistic	2.622**	5.099***	10.934***

*$p < .05$, **$p < .01$, ***$p < .001$. Standardised regression coefficients.

In step one, a Master's and a doctoral degree are a significant, negative predictor of well-being, $\beta = -.32$, $p < .05$; $\beta = -.34$, $p < .05$. When POS and PsyCap are added to the regression equation, only a doctorate degree is a significant, negative predictor of well-being, $\beta = -.28$, $p = <.05$; $\beta = -.31$, $p < .01$. The implications of these findings will be discussed in the next chapter.

In addition to that, the residuals of the regressions were analysed in order to determine whether a linear regression was appropriate for the given data. First, a linear regression is based on the assumption that the independent and dependent variables have a linear relationship. Second, errors should be normally distributed. Third, the variance of the errors follows the principle of homoscedasticity, which means that variances should be homogenous. Fourth, errors should be independent of each other (Ernst & Albers, 2017).

The first and the third assumption can be checked with a scatterplot of the standardised residuals against the predicted values of the dependent variable. Values should be randomly distributed without showing a specific pattern (Ernst & Albers, 2017). The normality assumption of the errors can be checked with an histogram and a P-P-plot. The residuals should follow a normal distribution in the histogram and the cumulated probability distribution of the residuals should follow a linear pattern in the P-P-plot (Baltes-Götz, 2016). The independence of errors can be checked by inspecting the autocorrelation of residuals (Ernst & Albers, 2017), which can be tested with the Durbin-Watsin test, which in turn should lie between 1.5 and 2.5 in order to be certain that there is no autocorrelation (Karadimitriou & Marshall, 2017).

The relevant graphs and diagrams can be found in Appendix H. The scatterplot plots of the residuals and the predicted values of the dependent variable show a random pattern, thereby meeting the linearity and homoscedasticity condition. The histograms show that the residuals are normally distributed and the P-P-plots outline an acceptable linear pattern of the cumulated probability distribution of the residuals, which confirms that errors are normally distributed. The Durbin-Watsin test revealed a value of 1.67 for the regression that predicts well-being, and a value of 1.80 for the regression that predicts PsyCap. These statistics lie within the acceptable range of between 1.5 and 2.5, which confirms that errors are independent of one another. It can therefore be concluded that a linear regression was appropriate for the obtained data. Based on the above, all assumptions were met for both regression models.

4.4.2.2. Structural Equation Modelling and Bootstrapping

Hierarchical regression showed that PsyCap fully mediates the relationship between POS and well-being. The proposed mediation model was also tested using SEM and bootstrapping in AMOS to further validate this finding. Owing to the fact that it was aimed to test and validate the mediation model only, none of the demographic variables was included in the SEM model, which was tested using the modified scales previously outlined. The model fit indices can be found in Table 4.13 and the effects of the variables with their 95% bias-

corrected bootstrap confidence intervals are presented in Table 4.14. Bootstrapping in AMOS was used to confirm a mediation effect. A bias-corrected bootstrap with 1000 repetitions (Nielsen et al., 2016) was conducted for the indirect, as well as the direct effects. Mediation is given if the bootstrap interval of the indirect effect (a x b) does not include zero (Fritz & MacKinnon, 2007).

Table 4.13: Model fit for the mediation model in the sample ($N = 159$).

Model	χ^2	df	$\dfrac{\chi^2}{df}$	CFI	RMSEA	SRMR
Mediation Model	2179.463***	887	2.48	.72	.10	.09

***$p < .001$

Table 4.14: Effects with bias-corrected bootstrap confidence intervals showing the lower level (LL) bound and the upper level (UL) bound.

Path	Effect	95% bias-corrected bootstrap confidence interval	
		LL	UL
POS→WB (c)	.49***	.370	.605
POS→WB (c')	-.10	-.316	.104
POS→PsyCap (a)	.68***	.557	.785
PsyCap→WB (b)	.86***	.633	1.046
POS→PsyCap→WB (a x b)	.58***	.426	.798

***$p < .001$.

For the purpose of analysing a mediating effect, a figure only showing the paths with the standardised regression weights (effects) (Figure 4.1) is presented in this section. The full AMOS figure, which also includes the factor loadings of the measures, can be found in Appendix I.
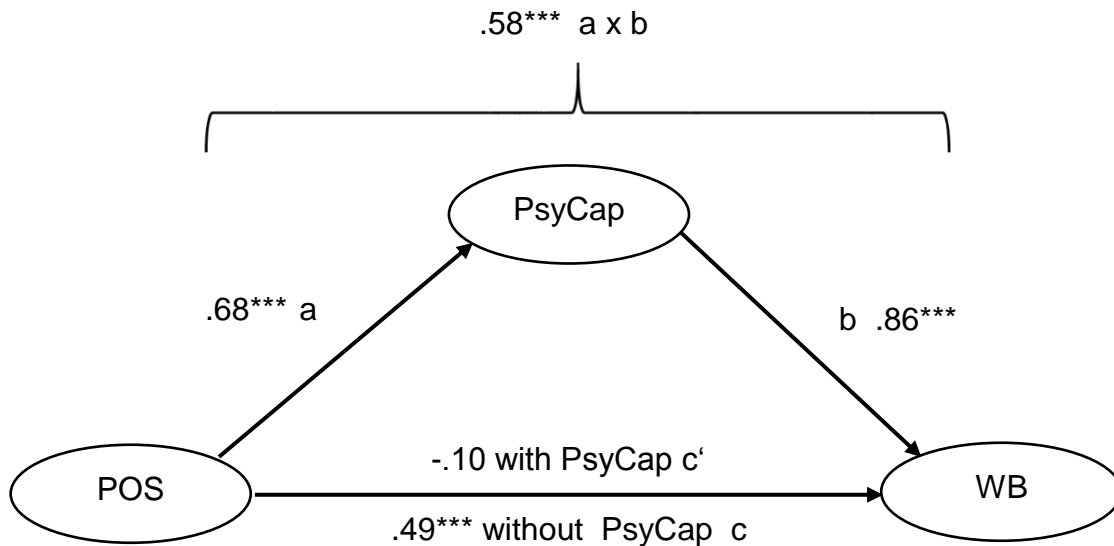
Figure 4.1: SEM paths of the mediation model with the standardised regression weights.

***p < .001

The overall mediation model (see Table 4.13) does not show a good model fit, χ^2/df = 2.48, CFI = .72, RMSEA = .10, SRMR = .09, which can be probably attributed to the poor four-factor model fit of PsyCap. The standardised regression weights of the SEM paths, however, confirm that PsyCap fully mediates the relationship between POS and well-being (see Table 4.14 and Figure 4.1). This is indicated by strong, significant paths from POS to PsyCap (a = .68, p < .001, LL = .557, UL = .785) and from PsyCap to well-being (b = .86, p < .001, LL = .633, UL = 1.046). According to Fritz and MacKinnon (2007), the path sizes of a and b are considered large (> .59), thus highlighting the strength of these relationships. The direct effect of POS on well-being is significant (c = .49, p < .001, LL = .370, UL = .605), but the path from POS to well-being does not play a significant role anymore when PsyCap is taken into account (c' = -.10, p = .31, LL = -.316, UL = .104). The indirect effect of POS on well-being through PsyCap is significant and the bootstrap CI does not include zero, which confirms mediation (a x b = .58, p < .001, LL = .426, UL = .798).

Hierarchical regression and SEM indicates that PsyCap acts as a full mediator between POS and well-being. The bootstrap interval of the indirect effect confirms that PsyCap mediates the relationship between POS and well-being.

4.5. SUMMARY OF HYPOTHESES TESTING

After having conducted all statistical analyses with regards to the proposed relationships between the constructs, it is necessary to draw conclusions regarding the hypotheses testing.

H1: POS is positively related to well-being.
It was shown that POS and well-being are positively correlated (see Table 4.9). In addition to that, hierarchical regression (see Table 4.11) and SEM (see Table 4.14) revealed that POS is a predictor of well-being. These results support H1.

H2: POS is positively related to PsyCap.
POS and PsyCap showed a positive correlation (see Table 4.9). Furthermore, POS was shown to be a significant predictor of PsyCap through hierarchical regression (see Table 4.10) and SEM (see Table 4.14). H2 is therefore supported.

H3: PsyCap is positively related to well-being.
PsyCap is positively correlated with well-being (see Table 4.9). Moreover, hierarchical regression (see Table 4.11) and SEM (see Table 4.14) revealed that PsyCap acts as a predictor of well-being. These findings support H3.

H4: PsyCap mediates the relationship between POS and well-being.
Hierarchical regression analysis (see Table 4.11), SEM, and bootstrapping (see Table 4.14) indicated that PsyCap fully mediates the relationship between POS and well-being. H4 is therefore supported.

4.6. COMMON METHOD VARIANCE

A cross-sectional design assessing self-reported data increases the risk that correlations between constructs are inflated due to the method used (Lindell & Whitney, 2001). For this reason, Harman's one-factor test was performed using EFA (Podsakoff & Organ, 1986). All items were entered in order to conduct an unrotated EFA. Ten factors were extracted, with one single factor explaining

32.4 % of the variance. The majority of variance could not be explained by one factor, indicating that common method variance was not a problem in the present study.

4.7. CHAPTER SUMMARY

This chapter dealt with the results of the present study. After minor adjustments all measures were found to be valid, except for PCQ-24. This may be attributed to the high inter-correlations of the PCQ-24's subscales. Nevertheless, all subscales are shown to be valid when investigated separately. All constructs were moderately to strongly positively correlated with each other. It was hypothesised that PsyCap would mediate the relationship between POS and well-being. Hierarchical regression, SEM, and bootstrapping confirmed that PsyCap acts as a full mediator in the relationship between POS and well-being. In addition to that, a bias in the data due to the cross-sectional and self-reported design is not regarded as problematic. The upcoming chapter will discuss these findings.

CHAPTER FIVE
DISCUSSION

5.1. INTRODUCTION

The previous chapter presented the results of the study. The present chapter will discuss the significance of the obtained results in detail. First, the discussion is concerned with the reliability and the validity of the measures. Second, the results regarding the relationship between the constructs, with reference to the literature outlined in the second chapter, are discussed. In addition to that, implications of the research findings will be outlined. Moreover, limitations and weaknesses of the study will be outlined and recommendations for future research will be given.

5.2. RESULTS

The following section will discuss the findings in terms of the reliability and validity analyses and will elaborate on the results of the relationships between the constructs.

5.2.1. Reliability and Validity of Measures

All measures revealed excellent reliability, ranging from $α = .89$ to $α = .93$ (see Table 4.1). These high internal consistency scores demonstrate that the questionnaires were measuring with consistency and precision.

Despite an overall high internal consistency score, the PCQ-24 showed weaknesses regarding the resilience and optimism subscales. Cronbach's alpha for resilience was improved to a great extent ($Δα = .06$) by removing item 13. The reliability of the optimism scale was also greatly improved ($Δα = .05$) by removing item 20. These findings can be aligned with observations made by other researchers (Dawkins, Martin, Scott, & Sanderson, 2013; Görgens-Ekermans & Herbert, 2013; Luthans et al., 2007; Malinowski & Lim, 2015). The reverse-coded items in particular seem to be problematic. Dawkins et al.

(2013), Görgens-Ekermans and Herbert (2013), as well as Malinowski and Lim (15), noted that a higher reliability can be achieved by removing reverse-coded items. Item 23 is also a reverse-coded item on the optimism scale, but did not show problematic properties in the current study and was therefore retained. The SPOS also contained reverse-coded items. However, these items did not affect reliability in a negative way. These observations might be interpreted as evidence that participants did not struggle with reverse-coded items in general, but that the poor performance of items 13 and 20 of the PCQ-24 can rather be attributed to the specific wording of these particular items.

A commonly acceptable rule of thumb of Cronbach's alpha being .70 or above indicates acceptable reliability, but it is argued that a very high level of Cronbach's alpha indicates redundancy (Taber, 2017). The measures in the present study revealed very high internal consistency scores, which implies that some items may be redundant. This finding is supported by the poor model fits of the measures that increased when error terms of similar items were covaried (see Table 4.8).

All measures except the PCQ-24 showed acceptable validity after minor adjustments had been made. These modifications were either implemented by removing unreliable items or by covarying error terms of similar items in cases where it was logically justified: covarying items that do not relate to another theoretically is not advised (Schreiber et al., 2006). The unidimensional SPOS revealed good model fit after covarying the errors of two pairs of negatively worded items that were very similar content-wise. This indicates that the data fit the one-factor structure of the measure well. The unidimensional WEMWBS also showed good validity after having covaried the errors of three pairs of similar items. These results indicate that the respective items are not distinct enough from each other and do not add additional information regarding the measured construct. For this reason it was seen as adequate to covary their errors in favour of a better model fit. A good model fit of the WEMWBS one-factor structure also indicates that hedonic and eudaimonic well-being are rather part of one well-being factor than two distinct constructs, which would have been shown by a poorer model fit.

The PCQ-24 is supposed to be a higher-order construct consisting of four factors, which has also been repeatedly shown in previous studies (Görgens-Ekermans & Herbert, 2013; Luthans et al., 2007; Malinowski & Lim, 2015). The factors of self-efficacy, hope, resilience, and optimism are supposed to be positively correlated, but are distinct constructs. The data of the present study did not fit a four-factor model very well. This finding is attributed to the high inter-correlations between the subscales. A one-factor model was run in AMOS as well to see whether a better model fit could be achieved. The model fit was worse than the fit of the four-factor model, which indicates that the items and subscales possess a certain level of distinction, but clearly not to the extent of having four related but distinct factors.

All measures were found highly reliable and the SPOS and WEMWBS shown to be valid for this sample after minor modifications to the model had been made. The subscales of the PCQ-24 were also revealed to be valid after small adjustments had been made. However, the validity of the entire PCQ-24 though was constrained due to relatively high correlations between the subscales. On the one hand, this finding highlights the synergy of PsyCap's facets, but on the other hand it raises the question as to whether these facets are distinct constructs.

5.2.2. Relationships of Constructs

This section will deal with the relationships between the constructs by aiming to present the findings with reference to the literature review outlined in the second chapter. Each hypothesised relationship and the respective findings will be outlined, but implications and recommendations will be discussed in a separate section. The reason for this is that the implications refer to the overall mechanism of the proposed relationships. Implications cannot be discussed with a focus only on the separate relationships.

It was hypothesised with reference to the JD-R Theory and the COR Theory that PsyCap would mediate the relationship of POS and well-being. Within the frame of the mediation model it was proposed that POS would be positively

related to well-being and PsyCap - and that PsyCap would be positively related to well-being. The mean scores of the measures show that the sample indicated fairly high levels of PsyCap and well-being and they perceived to be supported rather than unsupported by their organisation.

5.2.2.1. Perceived Organisational Support and Well-being

It was hypothesised that POS would be positively related to well-being. It was argued with reference to the JD-R Theory (Bakker & Demerouti, 2014) that job resources would buffer the negative effects of job demands. Previous research already showed that POS is linked to positive affect (Caesens, Stinglhamber, Demoulin, & De Wilde, 2017; Caesens et al., 2016) and positive psychological functioning (Ni & Wang, 2015). The present study, which assessed well-being with both hedonic and eudaimonic items, validates these previous research findings and supports the set hypothesis. POS and well-being were positively correlated with each other, indicating that there is a relationship between POS and well-being (see Table 4.9). A hierarchical regression showed that POS acts as a significant predictor of well-being (see Table 4.11). In addition, path analysis in SEM also indicated that POS significantly predicts well-being (see Table 4.14). Interestingly, POS had no significant influence on well-being when PsyCap was added to the model in both the regression and the SEM models.

5.2.2.2. Perceived Organisational Support and Psychological Capital

It was argued that job resources work in favour of personal resources (Xanthopoulou et al., 2007). With POS regarded as a job resource and PsyCap as a personal resource, it was assumed that organisational support would contribute to the development of PsyCap, as was also shown by previous research (Azim & Dora, 2016; Hui et al., 2014; Liu et al., 2013; Sihag & Sarikwal, 2015). The present findings align with previous research and show that POS and PsyCap are positively correlated to each other (see Table 4.9). In addition hierarchical regression indicated that POS is a significant predictor of PsyCap (see Table 4.10). Moreover, SEM's path analysis also revealed that POS is of predictive value with regards to PsyCap. These results indicate that

POS indeed works in favour of PsyCap (see Table 4.14).

5.2.2.3. Psychological Capital and Well-being

It was argued that PsyCap would represent a positive mindset that facilitates dealing with challenging demands. According to the COR Theory, as argued by Avey, Luthans, Smith, and Palmer (2010), PsyCap assists with the evaluation of available resources and is being used as an indicator of overall well-being. Previous research findings indicate that there is a link between PsyCap and well-being (Avey, Luthans, Smith, & Palmer, 2010, Malinowski & Lim, 2015; Roche et al., 2014). The present study also supports this relationship showing that PsyCap and well-being are strongly correlated (see Table 4.9). Hierarchical regression (Table 4.11) and path analysis in SEM (see Table 4.14) also showed that PsyCap is a positive, significant predictor of well-being. Mediation analysis showed that PsyCap fully mediates the relationship between POS and well-being (see Table 4.14). When PsyCap was added to the respective model, POS was no longer a significant predictor of well-being. This finding indicates that PsyCap is a major contributor to one's well-being. PsyCap's role as a mediator will be discussed in the following section.

5.2.2.4. Psychological Capital as a Mediator

It was hypothesised that PsyCap would mediate the relationship of POS and well-being. A partial mediation would have implied that POS still plays a significant role regarding well-being, with PsyCap also considered as an influencing variable, but the impact would have been lower in magnitude than without PsyCap. The present study reveals that PsyCap does fully mediate the effect of POS on well-being. POS did not play a significant role when PsyCap was added as an additional predictor of well-being. These results show that the positive effects of POS on well-being can be attributed to the development of a positive mindset characterised by self-efficacy, hope, optimism, and resilience. This finding is interesting because it highlights the power of the human psyche, which aligns very well with the notions of Positive Psychology.

In the second chapter it was argued that POS would fuel the positive capacity of PsyCap, which results in an accumulation of resources and leads to a greater sense of well-being. This rationale is supported by the findings of the present study. PsyCap's role as a full mediator emphasises the importance of a positive mindset and shows that organisational support can contribute to the development of more efficacious, hopeful, optimistic, and resilient employees. These findings also imply that POS is not as impactful in terms of well-being when support structures fail to target and enhance the employees' PsyCap. For this reason it is important that organisational support structures are implemented in such a way that they can fuel a positive mindset in employees in order to contribute to an improved sense of well-being. This then will result in a greater return on investment than will support structures that fail to contribute to a positive mindset.

5.2.2.5. Role of Qualifications

It was initially not intended to analyse the demographic variables because the recruited sample is not representative of the South African population and hence inferential conclusions regarding the population would not be valid. Nevertheless, one demographic variable turned out to be a significant, negative predictor of well-being in all steps of the hierarchical regression. Under these circumstances it was regarded as appropriate to further analyse the role of the individual's level of qualification in terms of well-being. A hierarchical regression with the respondent's qualification as a dummy-coded variable was run in order to analyse which level of qualification significantly accounts for the observed variance in well-being. Interestingly the results show that higher levels of education are stronger negative predictors of well-being than are lower levels of education (see Table 4.12). This might indicate that people with a higher level of education have more stressful jobs. This implies that individuals with doctoral degrees experience significantly less well-being than those with lower or no degrees.

The data sheet showed that all individuals who had obtained a doctoral degree were working in the field of education. Despite the unrepresentative sample and

the low number of people with a doctoral degree, this finding is considered to be of concern. It indicates that the South African education sector requires a closer investigation regarding the well-being of their employees. These observations align with findings of Barkhuizen and Rothmann (2008) who investigated the well-being of academic staff at institutions of higher education in South Africa. It was shown that academics in South Africa experienced significantly more stress than a normative sample. It was also revealed that academics with higher degrees suffered from more stress. This finding aligns with the results from the present study, which indicate that a higher level of education is a stronger negative predictor of well-being. Job overload and poor work-life balance in particular, contribute to high levels of stress in South African academics (Barkhuizen & Rothmann, 2008).

These findings show that it would be beneficial for educational institutions to invest in support structures that assist their staff's PsyCap in order to deal with the demanding work environment and to enhance staff well-being. This recommendation does not only refer to instrumental support, but also to emotional support. It is also possible that academics do not receive the appreciation from students and colleagues they deserve, which might result in frustration.

5.3. IMPLICATIONS AND RECOMMENDATIONS FOR ORGANISATIONS

This study was conducted within the framework of Positive Psychology, which emphasises strengths, the promotion of positive mental states and a skillset that enables individuals to thrive (Bolier et al., 2013). The Copernican Effect states that positivity and happiness will result in success and not that success results in happiness (Luthans & Youssef-Morgan, 2017). For this reason, a positive approach regarding employee well-being might be valuable for organisations to ensure that they have more positive - and therewith successful - employees. Focusing on the positive constructs of POS and PsyCap is one possibility in order to target well-being in employees. The results from the present study indicate that it might be beneficial to have a closer look at POS and PsyCap. The findings of the study revealed that POS, PsyCap, and well-

being are positively related to each other and that PsyCap fully mediates the relationship of POS and well-being. For this reason it makes sense to discuss the implications of this research with reference to PsyCap as a mediator in the relationship between POS and well-being. This means that it is important to discuss how perceptions of organisational support can be influenced and in what way POS contributes to PsyCap development, as this implies that it will also positively affect well-being.

5.3.1. Organisational Implications regarding POS and PsyCap

The findings show that PsyCap can act as a full mediator between POS and well-being. This finding implies that organisations can contribute to more well-being in their employees by promoting and developing a positive mindset, which is characterised by self-efficacy, optimism, hope, and resilience. It is therefore imperative to outline organisational support approaches that work in favour of PsyCap development.

Chapter Two has described various means by which organisational support may be conveyed. These factors are antecedents of POS and therefore may work in favour of PsyCap. Supervisor behaviour was outlined as one possible factor that influences perceptions of organisational support (Eisenberger et al., 2014). Transformational leaders, who are characterised by their expression of idealised influence, individual consideration, intellectual stimulation, and inspirational motivation (Antonakis, 2012) contribute to higher levels of POS in their employees (Kurtessis et al., 2015). Luthans and Youssef-Morgan (2017) also highlight the importance of leadership regarding PsyCap development. In order to be able to model PsyCap in subordinates, leaders themselves also need to have high levels of PsyCap. It was shown that the PsyCap of leaders positively relates to followers' PsyCap and work engagement (Haar, Roche, & Luthans, 2014). In addition, according to Haar et al. (2014), followers' PsyCap also has an impact on the PsyCap of leaders. These findings emphasise the dynamics of positivity in the workplace, where all organisational members can contribute to a climate that promotes a positive mindset. Supervisors can contribute to PsyCap development in their employees in various ways. For

example, a supervisor who supports his or her subordinate contributes to the employee's self-efficacy through vicarious learning, constructive feedback and mastery experiences (Gupta & Singh, 2014). Moreover, assisting the employee via goal-setting increases hope. Enhanced efficacy and hope also contribute to an optimistic attitude and resilience (Gupta & Singh, 2014). Ethical leadership, which can be regarded as a form of supervisor support, was also shown to be positively related to PsyCap (Bouckenooghe & Zafar, 2015).

If organisations and supervisors offer sincere support, employees will still feel supported when facing challenges or when having failed (Luthans, Norman et al., 2008). Under these circumstances employees will rather attribute failure and mistakes to external and unstable conditions, which promotes an optimistic explanatory style (Luthans, Norman et al., 2008). In cases where the mistake can definitely be attributed to the employee, a supportive climate will rather encourage the employee to see it as an opportunity to learn and grow, which also contributes to an optimistic mindset. This also works in favour of resilience by encouraging employees to bounce back from setbacks (Luthans, Norman et al., 2008).

Another factor influencing POS that was outlined in the second chapter is organisational justice (Kurtessis et al., 2015). Organisational justice was also found to be related to PsyCap according to Nandan et al. (2015) who argue that the perception of organisational justice is related to positive emotions and that therefore it also has an impact on the PsyCap of employees. Fairness and organisational justice are therefore antecedents of POS and positively relate to PsyCap and therewith also to well-being.

Opportunities for development are strongly related to perceptions of organisational support (Kurtessis et al., 2015). It could be argued that opportunities to enhance one's skillset promote PsyCap by helping employees to gain more self-efficacy and by providing them with tools that enhance hope: in this way the finding of alternative ways towards goal achievement in the event of problems occurring can be facilitated. This will also work in favour of resilience and optimism due to PsyCap's synergy. Job enriching characteristics,

autonomy, and participation in decision-making are work-role characteristics that are linked to POS (Kurtessis et al., 2015). According to Luthans et al. (2015), opportunities for participation and autonomy contribute to the development of hope in employees. Autonomy and participation in decision-making gives them the flexibility to seek alternative ways to ensure goal attainment. Although it was shown that supportive work-family practices are not perceived to be as important as opportunities for development or role characteristics (Kurtessis et al., 2015), it is nevertheless a factor that can enhance PsyCap in employees who have to deal with interfering life roles. Offering employees opportunities to work from their home office and allowing flexible working hours may increase their sense of autonomy, which is related to PsyCap hope in particular. However, due to PsyCap's synergy, autonomy may contribute to optimism, efficacy, and resiliency as well.

It was argued that an organisation's effort to provide support would be perceived in a more favourable manner, if such support was offered on a voluntary and sincere basis and not seen as being due to obligation via a psychological contract (Aselage & Eisenberger, 2003). It was also stressed that levels of POS will be rather low if employees do not feel encouraged to make use of support structures. The employees' perceptions of organisational support can be influenced by the sincerity and frequency of the organisation's statements regarding support (Haar et al., 2016). It is therefore recommended that organisations frequently and sincerely express their commitment and concern regarding their employees' well-being. For instance, this can be done by providing frequent feedback, which emphasises that opportunities for training and development can and should be used, and by encouraging employees to make use of HR policies such as flexi-time if this is needed.

Another approach to enhance PsyCap and therewith well-being, would be to conduct PsyCap interventions. There are already existing face-to-face and online interventions (Luthans et al., 2010; Luthans, Avey, & Patera, 2008). An intervention like this can be regarded as an opportunity for development and falls therefore within the domain of organisational support as well. When promoted in a supportive and appreciative work environment, a PsyCap

intervention will more likely result in desirable outcomes and might even spill over to other life domains (Luthans & Youssef-Morgan, 2017). These interventions target all four facets of PsyCap, which reinforce each other due to their synergy. PsyCap training usually includes tasks that require goal-setting, pathway generation, and mental rehearsals. Face-to-face interventions in groups also include opportunities to share experiences and new perspectives, and provide social support: these are all supposed to foster the development of self-efficacy, hope, optimism, and resilience (Luthans & Youssef-Morgan, 2017).

5.3.2. Additional Recommendations to foster PsyCap and Well-being in Organisations

In addition, Luthans and Youssef-Morgan (2017) recommend implementation of organisational practices that make PsyCap development a sustainable investment. These procedures include periodical coaching, inspirational and motivational talks, and encouragement of the use of mobile phone applications to foster PsyCap. Although there is no PsyCap application to date, there are other applications and web-based programmes that lean on constructs of Positive Psychology and that may help to ensure better use of one's PsyCap.

Luthans et al. (2015) also suggest that there might be other constructs that form part of PsyCap or that might help one's PsyCap to flourish, such as mindfulness or gratitude. There has to date been little research regarding mobile applications that are supposed to enhance well-being and to develop a positive frame of mind. On the other hand, applications that have been tested in research are Smiling Mind (Mani, 2016) and Headspace (Howells, Ivtzan, & Eiroa-Orosa, 2016). Both these applications can train the user's mindfulness through short, guided meditation sessions and both have been shown to have a positive effect on well-being (Howells et al., 2016; Mani, 2016). It is argued that mindfulness helps to make more efficient use of one's PsyCap (Roche et al., 2014). A recent South African study also found that mindfulness is positively related to PsyCap, which can partially mediate the relationships of mindfulness, vigour and dedication (Kotzé, 2017). Organisations may therefore benefit if they

encourage their employees to take short breaks for mindfulness practices in order to be able to think more clearly and to experience higher levels of well-being.

Luthans et al. (2015) discuss gratitude as a construct that may form part of PsyCap or may influence it. Showing gratitude is linked to an improved ability to cope with stress, the reduction of negative emotions, the improvement of self-esteem, the generation of social resources and the facilitation of goal attainment (Emmons & Mishra, 2011). If organisations create a supportive environment that encourages the expression of gratitude, either in a written manner, orally, or via online tools such as an appropriate website (e.g. the Gratitude Bucket where expressions of gratitude towards a person are collected), this will foster a positive organisational climate that may assist in PsyCap enhancement. However, the links between mindfulness and gratitude in terms of PsyCap are still only at a theoretical or correlational stage of development. Experimental studies are needed to make these recommendations more practical.

This section has focused on the implications of PsyCap's role as a mediator in the relationship between POS and well-being. By working on means to convey organisational support, organisations can enhance their employees' PsyCap, which operates as a full mediator in the relationship between POS and well-being. It is, however, important to take the limitations of the present study into account when referring to these implications.

5.4. LIMITATIONS OF THE PRESENT RESEARCH AND RECOMMENDATIONS FOR FUTURE RESEARCH

This study has some limitations and weaknesses, which have to be mentioned and taken into account when interpreting the findings.

Firstly, a non-experimental, cross-sectional design using convenience and snowball sampling was used in the present study. Private contacts were asked to participate and forward the study link. People within one network tend to

share certain characteristics and are likely to be similar to each other. This might have contributed to the recruitment of a homogenous sample. Considering the demographics, it is clear that the sample is not representative for the entire South African employee population, hence the findings are not generalisable. Although the sample size in the present study is considered sufficient for employment of the analysis method used, a larger and more representative sample would be desirable. The present study used a sample of South African employees from various fields of occupations. It might be beneficial for institutions to investigate the impact of POS on PsyCap and well-being in professions that are usually exposed to a great amount of stress, such as nursing or teaching. The present study revealed that a doctoral degree was a significant, negative predictor of well-being. Considering the fact that all participants in possession of a doctoral degree were working in the field of education, the findings can be regarded as an indicator that these individuals are exposed to factors in their environment that negatively influence their well-being. It is therefore imperative to further investigate the well-being of academics in the South African higher education sector. In addition to that, it would be interesting to analyse whether the present findings can be replicated in other countries. The influence of POS on PsyCap and of PsyCap on well-being might differ from culture to culture.

Secondly, the present findings are correlational and not causal in nature. Although researchers often feel tempted to interpret SEM models in a causal manner, SEM or regression models do not establish causality (Iacobucci, 2009). A SEM model has to be built on a strong theory that links the observed variables in order to apply causality in SEM. Iacobucci (2009) argues that it is more adequate to say that "X helps Y" from a statistician's point of view. Considering that the theories supporting the assumed relationship between POS, PsyCap, and well-being were carefully outlined in the literature review, it can be said that POS is related to well-being by helping PsyCap. Nevertheless, true causality can only be implied by longitudinal research designs or interventions where it is possible to manipulate variables and assess the targeted variables at several points in time.

It is recommended that future research addresses the issue of correlational results by conducting a longitudinal or experimental study. This can be done for instance, by replicating the present study, but assessing the respective constructs at two or more points in time. Changes in the levels of POS, PsyCap, and well-being would allow a causal interpretation. Interventions would be another, more practical option to analyse causal factors that affect well-being. The debate around PsyCap's facets in particular, offers many further research opportunities. Luthans et al. (2015) discuss various other positive constructs that may form part of PsyCap. Although some of these constructs do not meet PsyCap's inclusion criteria, they might affect PsyCap and therewith well-being. Roche et al. (2014) for instance, found that PsyCap is a mediator in the relationship between mindfulness and well-being. The researchers argue that being mindful allows individuals to make more efficient use of their PsyCap. Organisations might extend their support structures by offering their employees mindfulness training, which works in favour of their PsyCap. Conducting an experimental study which uses PsyCap as well as mindfulness interventions - and that also investigates their combined impact on positive affect and positive psychological functioning - would contribute to the body of knowledge regarding factors that help PsyCap to flourish and that can enhance well-being.

Thirdly, self-reported data are usually subject to inaccuracy or bias. The study aimed to minimise social desirability bias by recruiting participants via snowball sampling. It was decided that the study would not be conducted with a specific company due to possible pressure and social desirability bias in the measures. Since cross-sectional and self-reported data might be biased due to CMV, this issue was investigated by conducting Harman's one-factor test. However, CMV did not seem to be an issue in the present study. Despite these precautions for avoiding biased data, it cannot be guaranteed that participants necessarily answered the questions with sincerity, honesty, and accuracy. Moreover, all measures used different Likert scales, ranging from five to seven possible answers. It might have been difficult for participants to adapt to a new scale with each new measure.

In order to target the issue regarding self-reported data, it might be valuable to

use physical measures in addition to self-reported data. In order to further assess well-being, blood pressure could be taken or salivary cortisol levels could be analysed in longitudinal studies or studies that include interventions. These approaches would also require to assessment of more individual data such as weight, smoking and alcohol consumption habits, and also recordings of disruptive events in order to control whether changes in biological data could be attributed to other causes. Although PsyCap cannot be assessed with biological data, bias can be minimised by using the Implicit Psychological Capital Questionnaire (I-PCQ) (Luthans & Youssef-Morgan, 2017). Moreover, it would be important to analyse whether interventions that target positive psychological capacities enhance well-being, or rather reduce ill-being. For this purpose it would be valuable to use measures that assess positive affect and positive psychological functioning, as well as measures that assess mental and behavioural dysfunctions.

Fourthly, the study was conducted in English. Acknowledging that South Africa is a multicultural country with eleven official languages, it is possible that some instructions or items were not understood or were misinterpreted. Sixty percent of the respondents indicated that they had Afrikaans, Xhosa, or Zulu as their first language. The poor performances with items 13 and 20 of the PCQ-24 imply that the wording of these items caused confusion. Although the other items did not reveal problematic properties, one has to take into account that the majority of the respondents did not answer the questionnaire in their first language. Translating the existing measures into African languages and validating them might be valuable and culturally fairer, but this would be very challenging.

The above discussion has highlighted the need for further research in the field of Positive Psychology and employee well-being. Although Positive Psychology has received an increasing amount of attention over the last decade, the field is still in its infancy and not much is known in terms of the underlying mechanisms and dynamics of interrelated constructs.

5.5.   CONCLUSION

This research project has shown that PsyCap acts as a full mediator between POS and well-being for South African employees. To the best of the researcher's knowledge, there is no other study that has investigated this relationship so far. The findings from this study can therefore provide a valuable contribution to the existing body of research.

It was revealed that PsyCap fully mediates the effect of POS on well-being, which offers an important insight into the mechanism of organisational support and its influence on well-being. It is therefore important for organisations to make sure that they create an environment which assists employees in developing their levels of self-efficacy, hope, optimism, and resilience, and which encourages them to make full use of their assets and the given support structures. The various implications of the research findings were outlined and the limitations of the study were also discussed. The limitations of the study have also helped to generate recommendations for future research in order to further investigate how PsyCap and well-being in employees can be further enhanced. It is important that researchers further investigate processes and constructs that contribute to employee well-being, because not much is known in terms of the underlying dynamics of these constructs. It is also crucial that organisations make use of the implications of research findings. Employees that experience well-being are more likely to show better performance, to be more productive, to be more satisfied and to be less prone to absenteeism from work. This will provide organisations with a competitive advantage and reduce costs generated by employee absenteeism due to work-related stress.

The field of Positive Psychology is still in its early stages and experimental studies in particular are needed to draw causal and more practical conclusions in terms of the impact of positive constructs in the workplace. A closer look at constructs that might form part of PsyCap or assist PsyCap to operate can be regarded as opening up the way towards very promising future research areas. A deeper knowledge of the dynamics of these constructs in terms of the facets of PsyCap will be beneficial for organisations, thereby allowing them to create

and implement support structures and HR policies that promote well-being in their employees.

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APPENDIX A

Composite Questionnaire

NELSON MANDELA UNIVERSITY

Web Survey

Organisational Behaviour Survey

Page: 1 2 3 4 5

INFORMED CONSENT: Dear participant, thank you for your willingness to participate in this survey. This survey is conducted within the framework of a Masters Thesis in Industrial and Organisational Psychology. Your participation is completely voluntary and anonymous. You have the right to withdraw from the survey at any stage before submission. Your responses are treated with confidentiality and will be used for research purposes only. The survey consists of three questionnaires and demographic variables. The completion of the survey takes approximately 10 minutes. By completing this survey you are indicating your consent to participate in this research and to keep and use the obtained data for research purposes.

1. Eligibility

Only if you answer all three questions with `yes`, you are eligible to participate. You have to be an adult South African who is currently employed, but not self-employed.

1.1 *   Are you a South African citizen?   ○ Yes   ○ No

1.2 *   Are you currently employed? (Self-employed individuals are not eligible to participate)   ○ Yes   ○ No

1.3 *   Are you 18 years or older?   ○ Yes   ○ No

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NELSON MANDELA UNIVERSITY

Organisational Behaviour Survey

Page: 1   2   3   4   5

2. Survey of Perceived Organizational Support

Listed below are a series of statements that represent possible feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now working, please indicate the degree of your agreement or disagreement with each statement by checking one of the seven alternatives next to each statement (1 = strongly disagree, 2 = moderately disagree, 3 = slightly disagree, 4 = neither disagree nor agree, 5 = slightly agree, 6 = moderately agree, 7 = strongly agree).

2.1 * The organization values my contribution to its well-being.
Strongly disagree ◯1 ◯2 ◯3 ◯4 ◯5 ◯6 ◯7 Strongly agree

2.2 * The organization fails to appreciate any extra effort from me.
Strongly disagree ◯1 ◯2 ◯3 ◯4 ◯5 ◯6 ◯7 Strongly agree

2.3 * The organization would ignore any complaint from me.
Strongly disagree ◯1 ◯2 ◯3 ◯4 ◯5 ◯6 ◯7 Strongly agree

2.4 * The organization really cares about my well-being.
Strongly disagree ◯1 ◯2 ◯3 ◯4 ◯5 ◯6 ◯7 Strongly agree

2.5 * Even if I did the best job possible, the organization would fail to notice.
Strongly disagree ◯1 ◯2 ◯3 ◯4 ◯5 ◯6 ◯7 Strongly agree

2.6 * The organization cares about my general satisfaction at work.
Strongly disagree ◯1 ◯2 ◯3 ◯4 ◯5 ◯6 ◯7 Strongly agree

2.7 * The organization shows very little concern for me.
Strongly disagree ◯1 ◯2 ◯3 ◯4 ◯5 ◯6 ◯7 Strongly agree

2.8 * The organization takes pride in my accomplishments at work.
Strongly disagree ◯1 ◯2 ◯3 ◯4 ◯5 ◯6 ◯7 Strongly agree

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NELSON MANDELA UNIVERSITY

Organisational Behaviour Survey

Page: **1** **2** 3 **4** **5**

3. Psychological Capital Questionnaire

Below are statements that describe how you may think about yourself right now. Use the following scale to indicate your level of agreement or disagreement with each statement (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree).

3.1 *

strongly disagree ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 strongly agree

3.2 *

strongly disagree ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 strongly agree

3.3 *

strongly disagree ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 strongly agree

3.4 *

strongly disagree ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 strongly agree

3.5 *

strongly disagree ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 strongly agree

3.6 *   Removed due to copyright

strongly disagree ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 strongly agree

3.7 *

strongly disagree ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 strongly agree

3.8 *

strongly disagree ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 strongly agree

3.9 *

strongly disagree ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 strongly agree

3.10 *

strongly disagree ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 strongly agree

3.11 *

strongly disagree ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 strongly agree

3.12 *

strongly disagree ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 strongly agree

3.13 *****   strongly disagree ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 strongly agree

3.14 *****   strongly disagree ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 strongly agree

3.15 *****   strongly disagree ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 strongly agree

3.16 *****   strongly disagree ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 strongly agree

3.17 *****   strongly disagree ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 strongly agree

3.18 *****   strongly disagree ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 strongly agree

3.19 *****   strongly disagree ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 strongly agree

Removed due to copyright

3.20 *****   strongly disagree ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 strongly agree

3.21 *****   strongly disagree ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 strongly agree

3.22 *****   strongly disagree ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 strongly agree

3.23 *****   strongly disagree ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 strongly agree

3.24 *****   strongly disagree ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 strongly agree

NELSON MANDELA UNIVERSITY

Web Survey

Organisational Behaviour Survey

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4. The Warwick-Edinburgh Mental Well-being Scale

Below are some statements about feelings and thoughts. Please tick the box that best describes your experience of each over the last 2 weeks (1 = never, 2 = rarely, 3 =some of the time, 4 = often, 5 = every day).

4.1 *   I've been feeling optimistic about the future.   Never ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Every day

4.2 *   I've been feeling useful.   Never ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Every day

4.3 *   I've been feeling relaxed.   Never ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Every day

4.4 *   I've been feeling interested in other people.   Never ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Every day

4.5 *   I've had energy to spare.   Never ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Every day

4.6 *   I've been dealing with problems well.   Never ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Every day

4.7 *   I've been thinking clearly.   Never ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Every day

4.8 *   I've been feeling good about myself.   Never ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Every day

4.9 *   I've been feeling close to other people.   Never ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Every day

4.10 *   I've been feeling confident.   Never ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Every day

4.11 *   I've been able to make up my own mind about things.   Never ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Every day

4.12 *   I've been feeling loved.   Never ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Every day

4.13 *   I've been interested in new things.   Never ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Every day

4.14 *   I've been feeling cheerful.   Never ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Every day

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NELSON MANDELA UNIVERSITY

**Web
Survey**

Organisational Behaviour Survey

Page: 1   2   3   4   5

5. Demographic Variables

Please answer the following questions regarding your demographics using the drop-down list.

5.1 *   What is your age?   (please select) ▼

5.2 *   What is your gender?   (please select) ▼

5.3 *   What is your first language?   (please select) ▼

5.4 *   What is your relationship   (please select) ▼
        status?

5.5 *   What is your highest   (please select)   ▼
        qualification?

5.6 *   What is your field of   (please select)   ▼
        occupation?

5.7 *   Is this the first time you   ○ Yes ○ No
        participated in this survey?

[<< Previous Page]   [Submit Questionnaire]

APPENDIX B

Permission to use the Survey of Perceived Organizational Support

Dear Prof Dr Eisenberger,

I kindly ask for permission to use a shortened scale of the Survey of Perceived Organizational Support with the eight highest factor loadings of the original measure (1986). I aim to investigate the mediating effect of Psychological Capital in the relationship between Perceived Organizational Support and well-being in my master thesis.

Kind regards

Anja Roemer

Hi Anja,

I am happy to give you permission to use the POS scale.

Cordially,

Bob

Robert Eisenberger

Professor of Psychology

College of Liberal Arts & Soc. Sciences

Professor of Management

C. T. Bauer College of Business

University of Houston

reisenberger2@uh.edu

(302)353-8151

APPENDIX C

Permission to use the Psychological Capital Questionnaire

To whom it may concern,

This letter is to grant permission for Anja Roemer to use the following copyright material:

Instrument: Psychological Capital (PsyCap) Questionnaire (PCQ)

Authors: Fred Luthans, Bruce J. Avolio & James B. Avey.

Copyright: "Copyright © 2007 Psychological Capital (PsyCap) Questionnaire (PCQ) Fred L. Luthans, Bruce J. Avolio & James B. Avey. All rights reserved in all medium."

for his/her thesis/dissertation research. Three sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation. The entire instrument may not be included or reproduced at any time in any other published material.

Sincerely,

Mind Garden,
Inc. www.mindgarden.com

APPENDIX D

Permission to use the Warwick-Edinburgh Mental Well-being Scale

Thank you for completing this registration. You now have permission to use WEMWBS in the manner detailed in your submission.

Question: Name:

Answer: Anja Roemer

Question: Email address:

Answer: anja1roemer@yahoo.de

Question: Institution/Organisation

Answer: Nelson Mandela Metropolitan University

Question: Type of Study

Answer: Survey (WEMWBS completed once only)

Question: Description of proposed project:

Answer: I aim to investigate the mediating effect of Psychological Capital in the relationship between Perceived Organisational Support and Well-being in my Master's thesis in an online survey. In order to assess well-being I kindly ask for permission to use the WEMWBS.

Question: Description of participants

Answer: Working employees in South Africa

Question: Location

Answer: South Africa

Question: Gender

Answer: male and female

Question: Ages

Answer: +18

Question: Approximate Start Date

Answer: 01/05/2017

Question: WEMWBS version

Answer: 14 items

APPENDIX E

Ethics Approval

Nelson Mandela
Metropolitan
University

for tomorrow

Ref: H-17-BES-IOP-003 [Approved]

Chairperson: Faculty RTI Committee
Faculty of Business and Economics Sciences
Tel. +27 (0)41 504 2906

10 April 2017

Dr C Harris
NMMU
Department of Industrial and Organisational Psychology
South Campus

Dear Dr Harris,

PROJECT PROPOSAL: PERCEIVED ORGANISATIONAL SUPPORT AND WELL-BEING: THE MEDIATING EFFECT OF PSYCHOLOGICAL CAPITAL (MASTERS)

PRP: Dr C Harris
PI: Ms A Roemer

Your above-entitled application for ethics approval served at Fac RTI.

We take pleasure in informing you that the application was approved by the Committee. However, please note that the approval is on condition that permission to conduct the study is also obtained from the other relevant individuals, parties, organisations and/or role players to which the study pertains.

The ethics clearance reference number is **H-17-BES-IOP-003**, and is valid for three years. Please inform the Faculty RTI Committee, via the faculty representative, if any changes (particularly in the methodology) occur during this time.

Please inform your co-investigators of the outcome.

Yours sincerely

Dr M van Eyk
Faculty of Business and Economic Sciences

APPENDIX F

Example of Message sent to Private Contacts

Dear participant,

My name is Anja Roemer and I am currently doing my Masters in Industrial and Organisational Psychology. I would like to invite you to participate in my short and anonymous survey on Organisational Behaviour in South African employees (who are not self-employed).

Participation is voluntary, but your help would be greatly appreciated. If you wish to support my research, please click on the link below (you might have to turn your phone sideways in case the questions are too small)

------------ Link to survey -----------------

Please feel free to forward this message with the link to your contacts so that it reaches as many people as possible. Thank you so much and have a wonderful day.

Yours respectfully,

Anja Roemer

Queries can be sent to s213519909@mandela.ac.za

APPENDIX G

CFA of Measures

These figures serve the purpose to show the model adjustments made in AMOS.
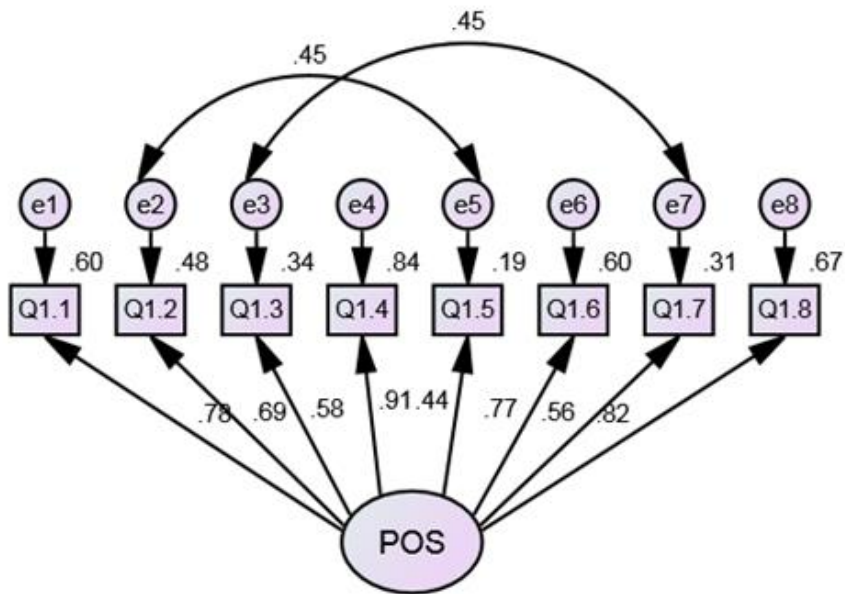
Figure G1: CFA of the SPOS
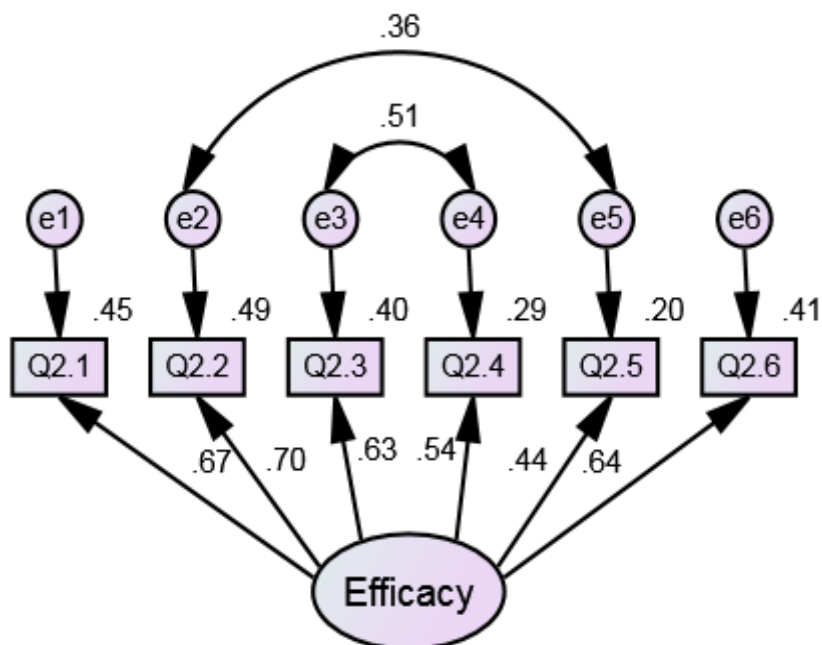
Figure G2: CFA of the self-efficacy subscale of PCQ-24
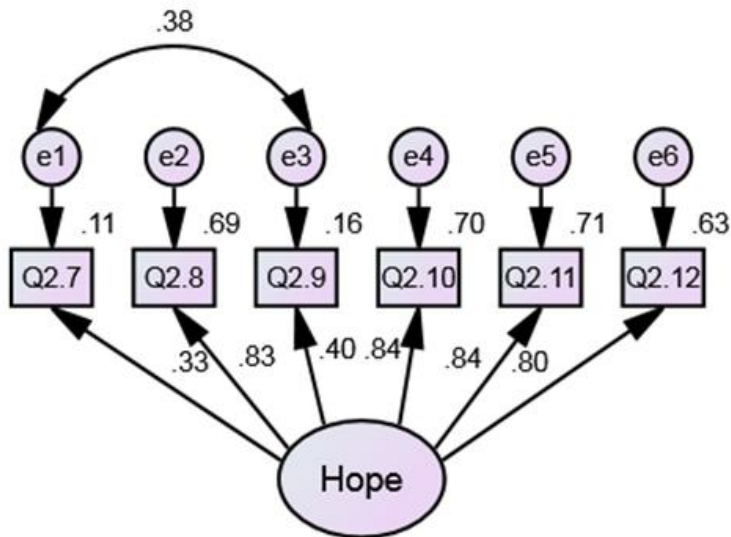
Figure G3: CFA of the hope subscale of the PCQ-24
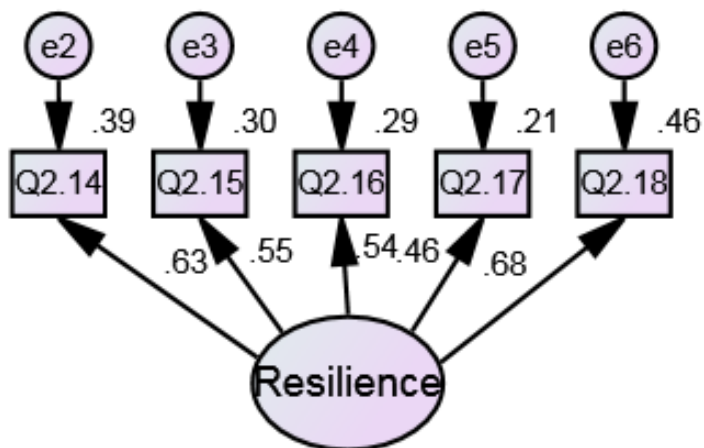
Figure G4: CFA of the resilience subscale of the PCQ-24
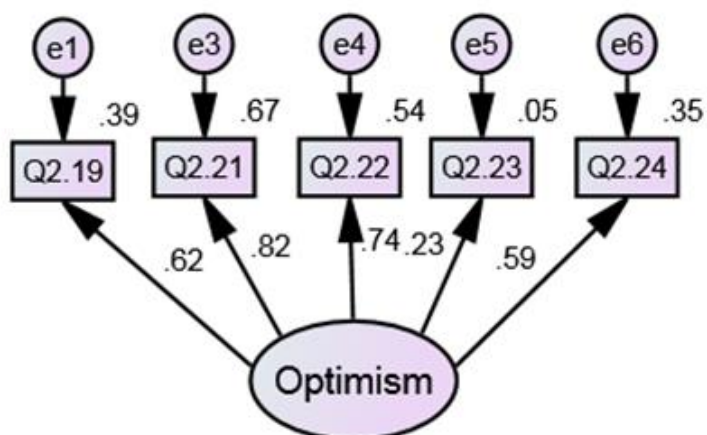
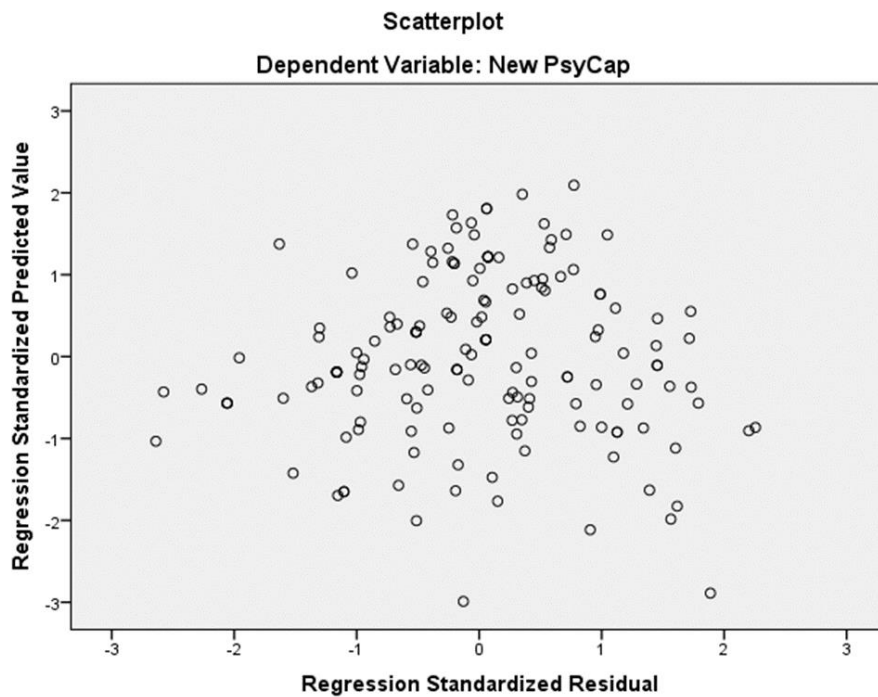**Figure G5**: CFA of the optimism subscale of the PCQ-24
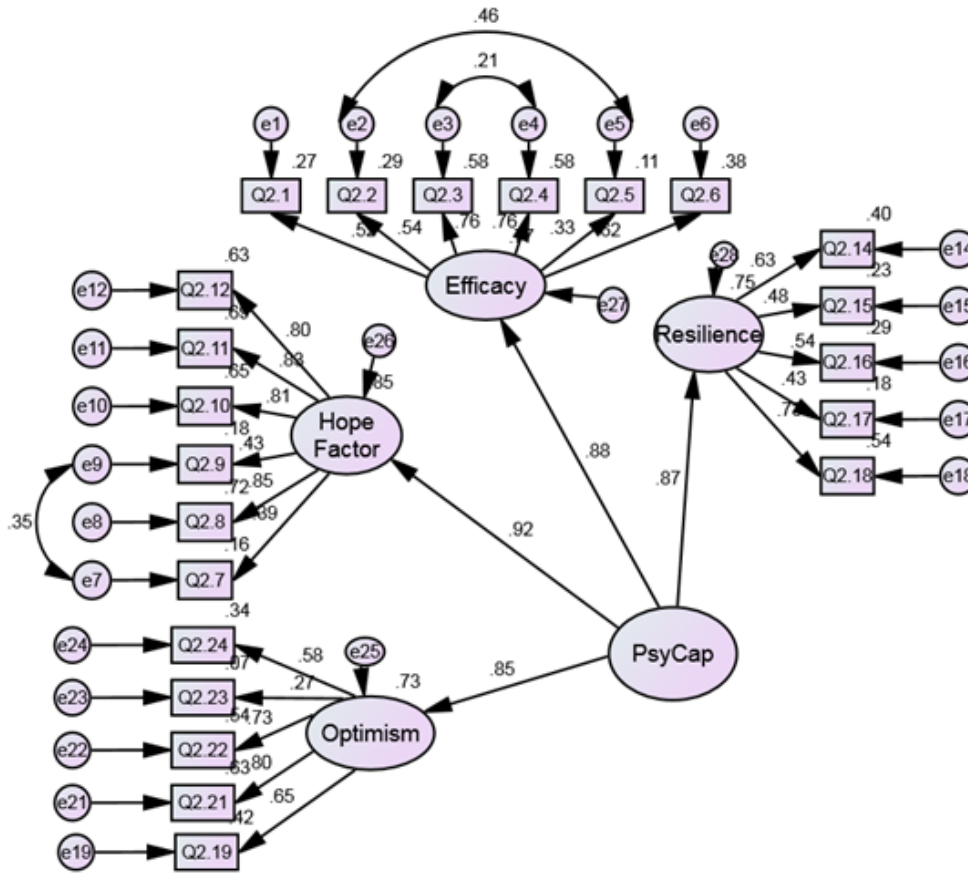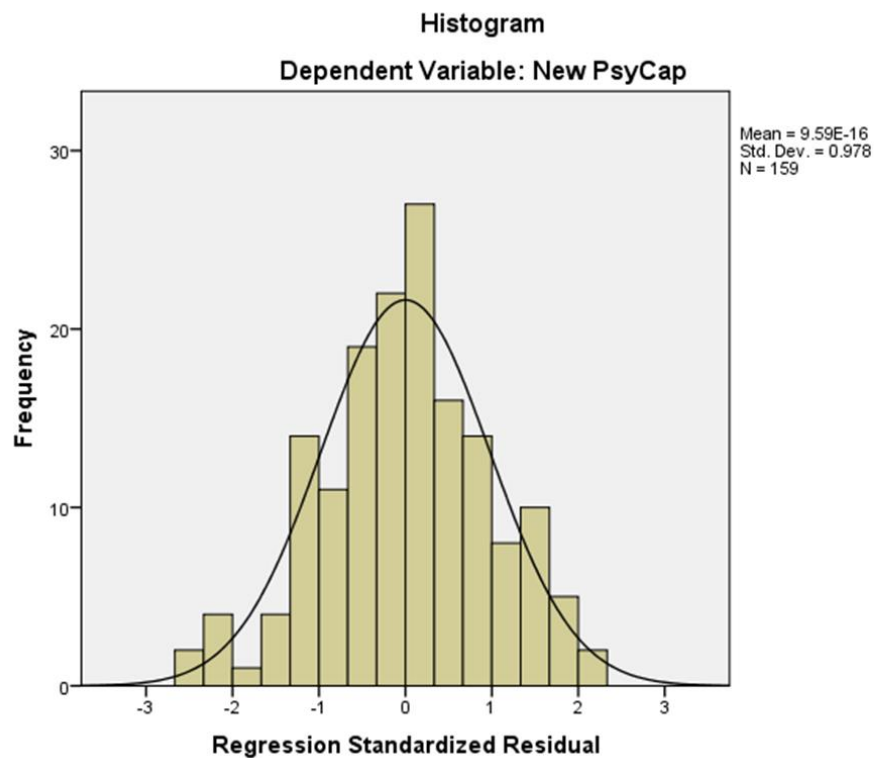
Figure G6: CFA of the PCQ-24
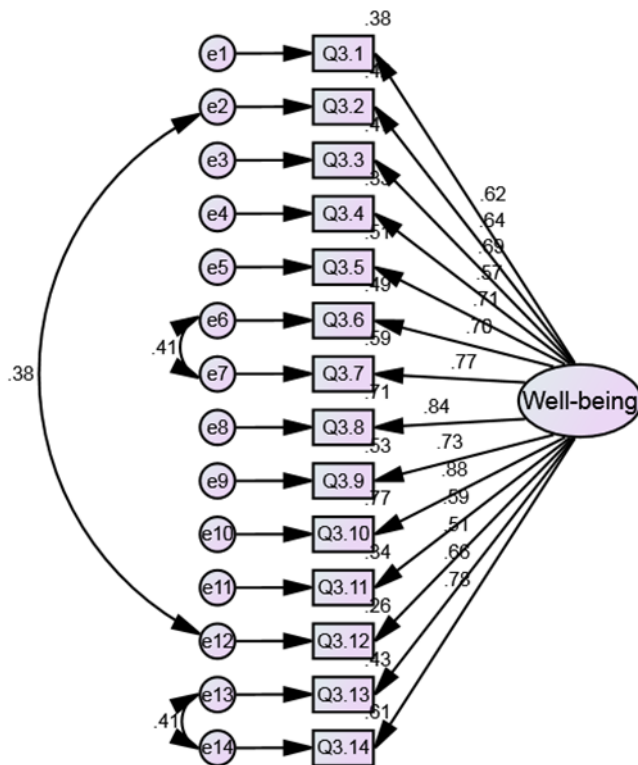
Figure G7: CFA of the WEMWBS

APPENDIX H

Analysis of Linear Regression Assumptions

Figure H1: Scatterplot of the standardised residuals and standardised predicted values for regression on PsyCap
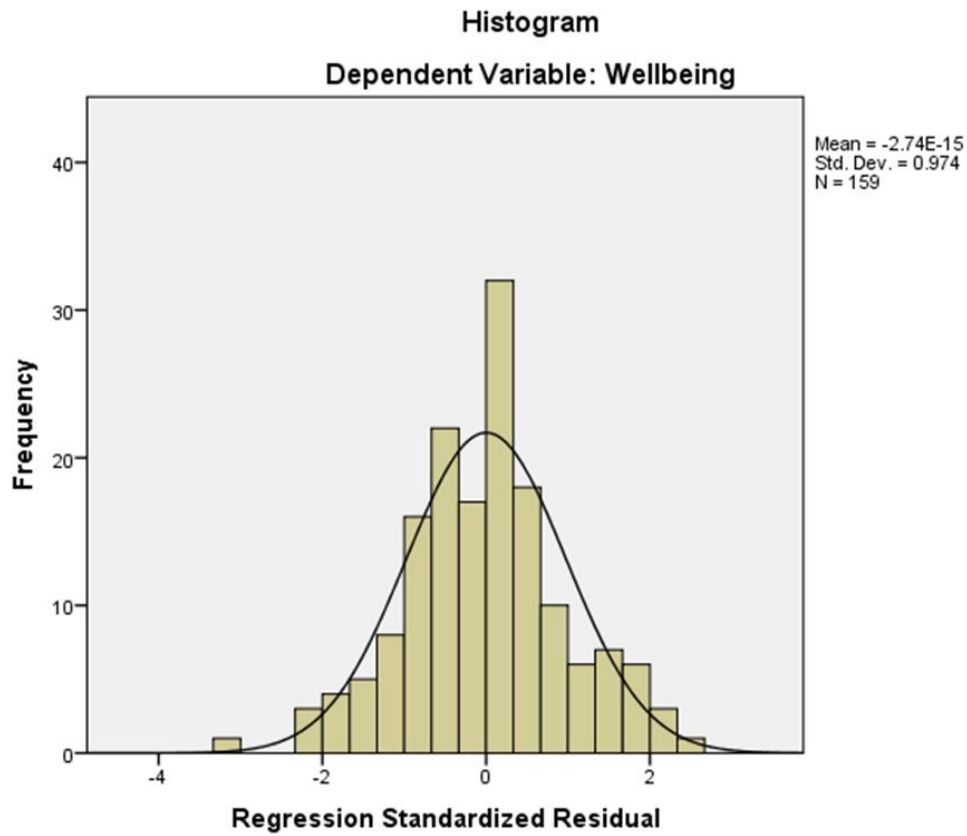

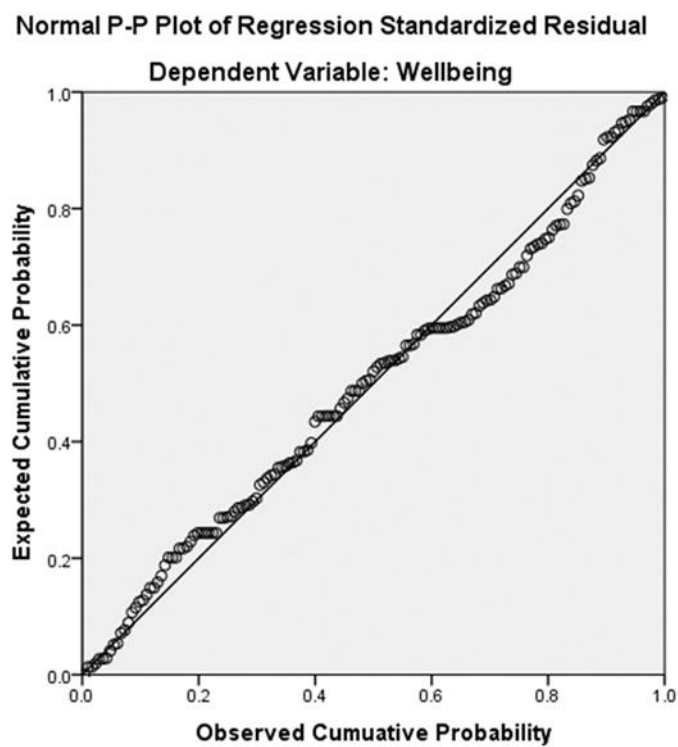**Figure H2**: Histogram of the standardised residuals for regression on PsyCap
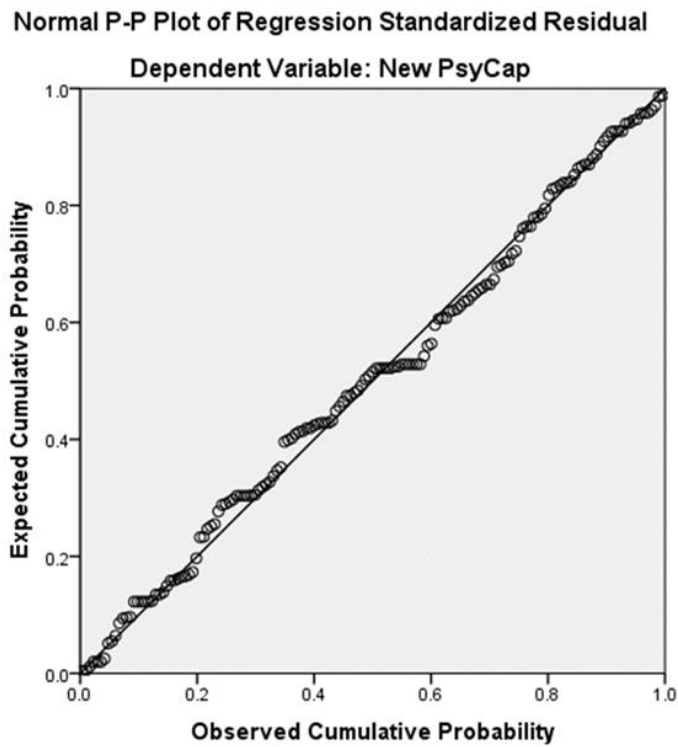
Figure H3: P-P plot of standardised residuals for regression on PsyCap
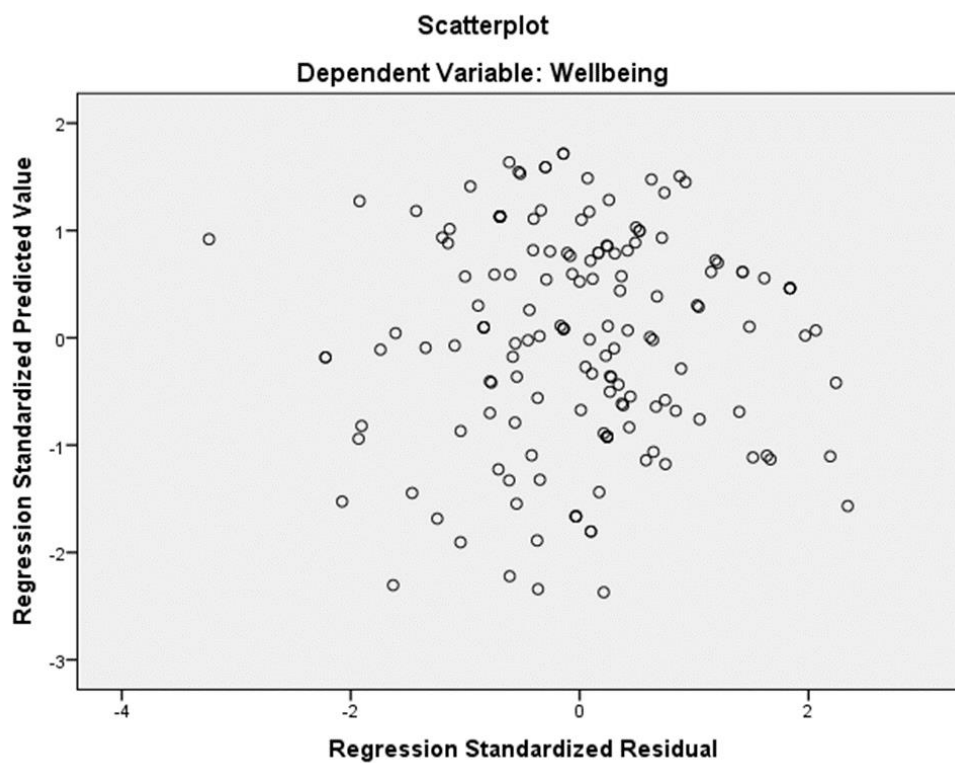
Figure H4: Scatterplot of the standardised residuals and the standardised predicted values for regression on well-being

Figure H5: Histogram of the standardised residuals for regression on well-being

Figure H6: P-P plot of the standardised residuals for regression on well-being

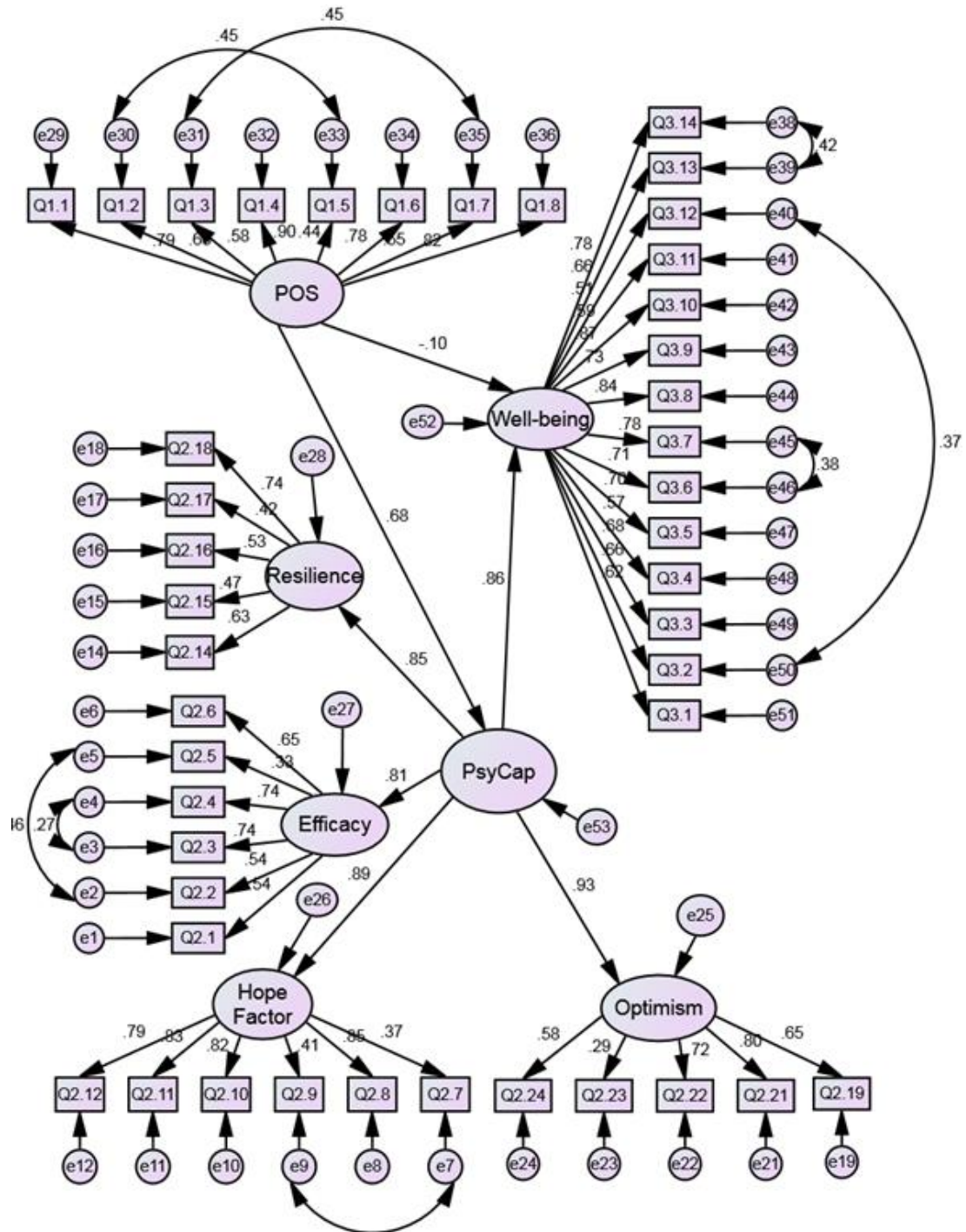# APPENDIX I

Structural Equation Modelling of Mediation Model

Figure I1: SEM of mediation model

APPENDIX J
Proof of Editing

<u>TO WHOM IT MAY CONCERN</u>

This is to certify that I have edited and proofread the manuscript received from

ANJA RÖMER .

The Thesis is entitled: "Perceived Organisational Support and Well-being: The Mediating Effect of Psychological Capital"

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